THE RAM

THE MAGAZINE BY & FOR SERVING & EX-RAAF PEOPLE & OTHERS

ABN 187 477 110 847

Vol 55 www.radschool.org.au Sept 2016

Sadly in the few months since our last issue, we have once again lost some very good mates. What's the best Cloud supplier?

See Page 2

Our lovely Page 3 girl this issue is Mary Thompson and we have lots of old-time pics.

See Page 3

What's the difference between FAT32, exFAT and NTFS and what are file permissions?

See Page 4

We have lots of pics of old courses and some pics of Butterworth.

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At last, an investigation into DVA and what happened to the Wankel rotary engine?

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Nick Ford was the first to belly land a Mirage and walk away. He tells us when, where and why.

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The Red Hat ladies get together in Caloundra. Is Australia ready for a hi-tech war?

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One of our Spartans crash lands and we have the “Harry de Wheels” story.

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50 years ago, 6RAR fought a remarkable battle at Long Tan. The AWM held a wonderful ceremony to remember it.

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What to do about mozzie bites and are fitness trackers worthwhile?

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More of Geoff’s book *Wallaby Airlines* and more on the F-35.

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The report into the fatal Mirage accident at Butterworth and Caribou A4-228’s last sortie.

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2 Squadron Assoc members gathered at Caloundra to dedicate a Plaque to commemorate the Sqn's Vietnam service.

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3 Squadron Association members got together at the Currumbin RSL.

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John remembers the time he was declared not suitable for fighter aircraft and he has a look at Convair's YB-60 and the P-47 Thunderbolt.

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A couple of our mates have been crook. We wish them a speedy recovery.

See Page 17

We're looking for a few people, perhaps you can help??

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This is where you have your say. We look forward to hearing from you.

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Here's the news, all the news, the whole news and nothing but the news.

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Index.

The Index is now finished - all references have been linked so if you're looking for a topic or a photo of someone, click on the Index link on the top of each page and just follow the links.

Alan Jones - Dan Tehan. TPI.

We had the following in Vol 54

"Alan Jones interviewed Dan Tehan, the Minister for Veterans' Affairs on his breakfast program on the 2nd June. He brought up the subject of inequality of TPI's compensation payments and how TPIs have been losing buying power and asked the Minister why TPI payments have not been resorted to 100% of the tax adjusted minimum wage. The Minister was put on the spot but has promised to come back to Alan Jones with an answer.

You can hear an edited version of that interview HERE."

We've wrote to Dan Tehan some time ago asking him what his intentions are, to date he hasn't bothered to reply.....what does that tell you??

Membership.

The response to our membership questionnaire was outstanding, we received hundreds of replies and suggestions and we've decided to go with the following.

- 1 year's full membership for $12.00
- Life (5 year's) full membership for $50.00

Annual Membership will run from July one year to June the next, with this year's annual membership expiring in June 2017. As we've said, full membership is not compulsory, you can still receive the RAM which will remain open, free and available on the net and we've decided to limit life membership to 5 years because as we've recently discovered, we're all mortal and 5 years could very well be a lifetime.

So, if you'd like to contribute and help us with the ever increasing costs, please join as a full member.

If you are already a member (ie: if your name is on this LIST), please fill in the form below and send it to us, if you haven't already joined (if you're not on the list), please use the form HERE.

First Name: Surname:

Your email address:

Membership type:

Please transfer your joining contribution to:

BSB: 124-021 **Account number:** 1048 7401 **Title:** RAAF Radschool Association.
Bank: Bank of Queensland.
and include your name in the "Remarks" window on the deposit.

You can of course pay more if you wish!!

AND!! If you work for a firm that would be kind and generous enough to sponsor the Radschool Association, please get in touch.

RAM thought for the day.

Be who you are and say what you feel, because those that matter don't mind, and those that mind, don't matter!

Oh Dear!

OK, so we haven't mentioned the F-35 for a while, purely out of the goodness of our hearts, but we can't ignore the latest bad news. In recent months, Lockheed, the US government and various F-35 boosters have been trying to play up the success of the grossly over-cost, decade-late aircraft that Australia is wasting billions on. Alas, the Pentagon, which is the chief purchaser of the aircraft, isn't buying it. In a shocking memo obtained by Bloomberg, the Defence Department's chief weapons tester has damned the project, declaring "the program is actually not on a path toward success but instead on a path toward failing to deliver". And there is a "substantial risk" that full combat capability will not be obtained. This is despite the Air Force awarding the aircraft "initial combat capability" recently. The whole project "is running out of time and money to complete the planned flight testing and implement the required fixes and modifications".

Worse, problems "continue to be discovered at a substantial rate". There's also a minor ongoing problem of not having "a functioning and accurate gun". Further details HERE.

So, all's going well then?

Errors

Our aim is to have this site error free – but that's probably impossible. But with your help I reckon we can get pretty close. If you see any errors, be they punctuation, spelling, links that don't work, facts wrong etc, (no matter how small) please let us know so we can fix them.

IN MEMORY OF

Bill Brown.

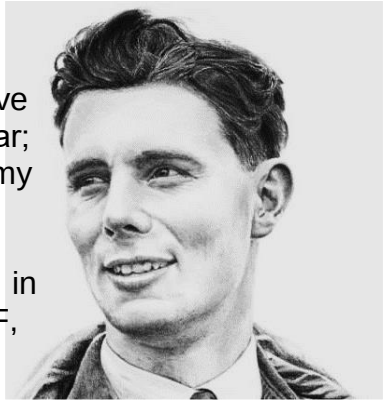
Ray “RG” Thompson advises “I have just been advised that Bill Brown ex RAAF Dental Mechanic passed away on Friday 17th May 2016. I first met Bill in Ballarat in 1955 and then served with him in Butterworth 1958-1960 and Darwin 1962-1965. He did another tour to Butterworth in later years.”

Doug Rigby-Meth.

Stix Chambers advises, “I noticed in Wednesday’s (13 July) Cairns Post funeral notices, the passing of Doug Rigby aka Doug Rigby-Meth late of Cairns. Doug was a 10 Radio Appy and had been in poor health for a number of years. He was 75 years old.

Best regards on a fine mag. Stix Chambers - 14 course”.

Squadron Leader Bob Cowper.
Australian fighter ‘ace’.



Bob Cowper, born June 24 1922, died June 21 2016

Squadron Leader Bob Cowper, who has died aged 93, is thought to have been the last surviving Australian fighter “ace” of the Second World War; flying night fighters, he was credited with destroying at least six enemy aircraft.

During the air operations to support the Allied landings in Normandy in June 1944, Cowper and his colleagues of No 456 Squadron RAAF, mounted standing patrols over the beachhead and in a few days accounted for 35 enemy aircraft. On the night of June 9/10 Cowper and his navigator, Flying Officer William Watson, were on patrol near Cherbourg when they attacked a Heinkel 177 bomber and damaged it so severely it was forced to crash land. Later in the sortie, they intercepted a Dornier Do 217 bomber and destroyed it near Beaumont.

A few days later Watson picked up a contact on his radar and homed their Mosquito on to a Junkers 88 bomber. He opened fire and hit the port engine, which soon caught fire, forcing the crew to bale out. The Cowper/Watson team achieved their fourth success on the night of July 4/5. They identified a Heinkel 177 attacking enemy shipping south of Selsey Bill and shot it down into the sea.

Later in July the squadron was tasked to attack incoming V-1 flying bombs launched from the Pas de Calais region and claimed the destruction of 24 of them. Cowper claimed one but it was later credited to an anti-aircraft battery. In February 1945 he was awarded a Bar to an earlier DFC and Watson was awarded the DFC.

Robert Barson Cowper was born on June 24 1922 at Broken Hill, NSW, before his family moved to South Australia. He attended Queen's College in Adelaide before working as an engineering draughtsman. In 1940, on his 18th birthday, he joined the RAAF. He completed his training in Canada and arrived in Scotland in September 1941. He trained as a night fighter pilot and in November joined No 153 Squadron in Northern Ireland. The squadron was replacing its old Defiant aircraft with the powerful Beaufighter when he teamed up with Watson.

After almost a year flying patrols over the Irish Sea, Cowper and Watson were posted to the Middle East. They ferried a new Beaufighter to Gibraltar but on the onward flight to Malta became lost. Running out of fuel Cowper crash landed behind enemy lines in the desert at night. Arab nomads sheltered them until they were picked up by a British armoured patrol. Their adventures entitled them to join the "Late Arrival's Club".

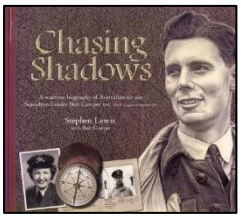
They joined No 89 Squadron based in Malta and flew interdiction raids over northern Sicily and attacked trains with bombs. In March 1943, they transferred to No 108 Squadron and a month later had their first combat in the region. They were engaged in a long duel with a German night fighter off the west coast of Sicily. Cowper's fire damaged the Messerschmitt 210 and it disappeared into cloud. The invasion of Sicily, Operation Husky, was mounted on the night of July 9/10 and two nights later the crew engaged a Junkers 88 that was attacking Allied shipping. Cowper opened fire and the enemy bomber exploded, showering the Beaufighter with debris.

The night fighter was badly damaged and the navigator (a stand in for Watson) baled out never to be seen again. Cowper had great difficulty leaving the stricken Beaufighter. He lost consciousness but came to as he fell and pulled the ripcord of his parachute landing in the sea moments later. With deep cuts, a broken nose and bruising he waited until dawn to fire his distress flare when he was spotted and picked up by a naval vessel. His experiences entitled him to join the Caterpillar Club and the Goldfish Club giving him the rare distinction of membership of the trio of survival clubs.

Despite his wounds he was flying again a few weeks later and he and Watson destroyed a Junkers 88 off Sicily. By mid-August his tour was over and he was awarded the DFC for his "great courage and determination".

After a period as a night-fighter instructor, during which he met and married an Australian WAAF, he joined No 456 Squadron in March 1944 when Watson, who had also been on a rest tour, rejoined him. In March 1945 the squadron re-equipped with a more powerful Mosquito and from an airfield in Essex provided support for bombing raids over southern German. By the end of the war, Cowper was the acting squadron commander of No 456, the only Australian night fighter squadron.

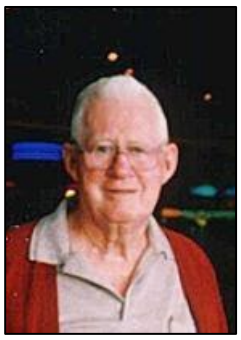
After the war, he and his young family returned to Australia where he worked for Dunlop before owning a service station. He later became a farmer and racehorse owner.



He worked tirelessly to achieve recognition of No 456 Squadron's war record and was instrumental in having the squadron's logo adopted as the official badge. In September 2008 this was laid in a slate tile in the floor of the RAF's church of St Clement Danes in the Strand UK. In 2004 he was appointed to the Légion d'Honneur for services during the Liberation of France and in 2010 received the Medal of the Order of Australia. In 2007 he published his autobiography, Chasing Shadows.

Bob Cowper married Katherine McCall in December 1943; she died in 2014 and their four daughters survive him.

Alex "Blue" Taylor.



John Cridland advised the passing of "Blue" Taylor on the 29th July. His funeral was held on Monday 8th August 2016 at the Pinegrove Memorial Park Western Chapel in Minchinbury, NSW. John says there would not be anyone who served at Opcom in the 50s, 60s or 70s who does not remember that stare from the pedestal. Blue will be sadly missed by all who knew him over his many dedicated years of RAAF service, mostly spent in the HQOC theatre of operations.

Bob Reece.

Peter Edwards advises: "It is my sad duty to inform you of the passing of Bob Reece (Rad Tech). Irreverent, inimitable Bob terrorised Ballarat from 1958 to 1960 and managed to get a lot of innocents (including me) into strife. Puffing in defiance to the end Bob (79) succumbed to lung cancer, having previously survived a stroke. "Herc" Ivan Hoggard and I fortuitously visited the ancient larrikin last month but stoic to the end, Bob did not disclose his dire circumstance.

His funeral was held on the 15th august in Busselton WA."

Maxwell George "Max" Turner.

John Sambrooks advises: "It is with deep regret that I advise the passing of Max Turner on the 28th August 2016, aged 82 years. Max's Celebration of Life was held on Friday, 2nd September, 2016, at 10 a.m. in the Chapel of Great Northern Garden of Remembrance, in Deception Bay, Qld. Max recently resided in Caboolture (Qld) and was formerly of Bribie Island.

Max served in Vietnam with RTFV/35 Sqn as a metal basher from May 1966 to May 1967."

John Douglas Mackellar.

Ron Glew advises: "I have been advised that acting Squadron Leader John Douglas Mackellar of 458 Squadron RAAF has embarked on his last sortie – aged 96 years.

A very brief resume of his career follows:

7th of November 1941.
P/O Moore and John bombed Boulogne.
This was John's first operation, it was also his 22nd birthday..

28th of January 1942
John and P/O Sharpe bombed Boulogne.

16th of February 1942.

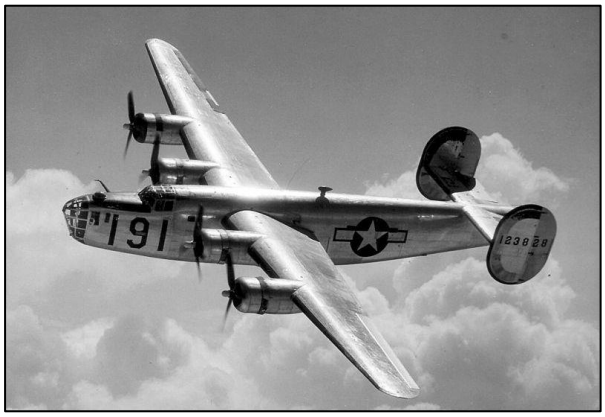
John flew across an enemy hot spot in France on route to Malta in a group consisted of 4 Wellington Bombers with 2 of these aircraft never reaching their destination as they fell prey to severe German Ack-ack fire. A Squadron Leader was also lost in this action.

21st of January 1943.
John had completed his Middle East tour and was returned to England where he was involved with training of young aircrew. This included the yet to occur 1000 bomber raids. On this date John conducted a Nickel raid with a trainee crew over Sorbonne in the South of France.

26th of January 1943.
John and Sgt Hogbin conducted what is known as a flight into hostile territory where the training officer observes the actions and behaviour of the trainee to enemy action. Sgt Hogbin was the trainee. This was also a Nickel raid dropping propaganda with this flight flying over Rouen in Northern France.

John logged 1540 hours on active service in WW2.

In very recent times he has agreed to tell some of his interesting story and this has resulted in his family being able to collect enough information complete with photographs from his war time album in preparation for his proposed book “2200 HOURS OF FLIGHT”. This includes his wartime service and then his commercial flights in Australia when he started as a rookie pilot with TAA and completed his career as one of the airline’s check captains. He flew under 4 different flags during WW2 being the Canadian, British, American, and Australian flags.



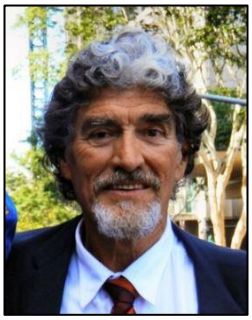
John flew10 missions in Europe, 40 missions in the Middle East and 70 odd in the Pacific conflict during WW2. His main military aircraft were Vickers Wellingtons, then American B-24s and at war’s end he commanded a squadron of 20 B-24 Liberator’s out of Leyburn in The Northern Territory.

He was awarded a DFC at Tobruk and the Legion of Honour in 2015 for his part in the liberation of France. John was also the Captain of the aircraft involved in the Petrov incident.

John’s funeral was held on Monday the 5th September at The RSL Anzac Village, Collaroy in the War Veterans Chapel.

Bob Meyer.

Sadly we have to inform that Bob Meyer, ex Instrument Fitter, passed away on Saturday 3rd September. Bob spent most of his time in the RAAF working on Caribous first with 38 Sqn at Richmond and then 35 Sqn in Vung Tau (June 1969 - March 1970). After he left the RAAF, he started work with Comalco in Bell Bay (northern Tasmania) and stayed with them until retirement when he moved to Huonville, south west of Hobart and built himself a house "up on the hill".



Bob was found by a friend of his laying on the floor of his house where he had been for about 35 hours after suffering what was thought to be a stroke. He was rushed to hospital, and although conscious at the time, died shortly afterwards.

Bob's funeral (he was known as Robbie when he lived Hobart) was held at the Cornelian Bay Cemetery in Hobart on the 9th September.

A wonderful eulogy was delivered by Fiona Jarvis and she and Bob's family have made it available for you to read, you can read an/or download it HERE.

Bob was a helluva good bloke, friends with everyone he ever met and he will be sorely missed.

He was only 69.

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Page 3 Girl.

Our lovely Page 3 girl this edition is Mary Thompson.

Mary Elisabeth Lubbers, as she was known in the WRAAF, was born in Indonesia. Her father Johann Lubbers, worked in the coal mines in Limburg Province, Netherlands before enlisting in the Koninklijk Nederlands Indisch Leger (Royal Netherlands East Indies Army) in January 1937. He married Otillie Krautscheid of Heerlen, Limburg by proxy on 26th August 1937 and Maria was born on 3rd January 1939 in Batavia (Djakarta), Netherlands East Indies (Indonesia).

In 1942, during World War II, she and her mother, along with other women and children, were transferred to Malang, Java from Ambon due to the approach of the Japanese forces. (Other women and children were repatriated to Australia). When the Japanese occupied Java they were held in Malang and other places before being interned in Camp 6, Ambarawa, Java (then Bewoners Ambarawa 6) where they remained for the duration of the war.

Her father was captured at Ambon and transferred by ship to Hainan Island where he remained for the duration of the war. On the 6th April 1945 he, along with two fellow Dutchmen, escaped into the mountains. They were looked after by the Chinese inhabitants. On the 6th June 1945 they met up with 6 Australian soldiers, Major McRae, Ron Leech, Ferd Perrin, Miles Higgins,

Tom Lockwood & Stewart Campbell, When they were rescued at the end of the war they were repatriated to Hong Kong.

Thinking their husband/father had not survived, Maria and her mother were repatriated by ship to Holland via the Suez Canal. During the journey they were provided with new clothing in Aden. The family was reunited in Holland. The family returned to the East Indies in 1947 and her brother, Johann Robert, was born on 31st March 1948, in Tjimahi, Java. On 19th August 1949 her twin sisters, Evelien Matilde and Magdalena Augustus, were born in Padang, Sumatra.

When the Dutch were forced out of Indonesia in 1950 the family returned to Holland aboard the M.V. "Cheshire". Tragically, Evelien became ill and passed away near Gibraltar on 7th June 1950 and her body was committed to the sea as the ship passed through the Bay of Biscay.

On arriving in Holland her father gained employment with Philips Industries in Eindhoven, Brabant, Netherlands. Sadly, Maria's brother Karel died soon after birth on 27th February 1951 in Eindhoven. In 1953 her father was offered the opportunity to become a share-farmer in Australia with Tom Lockwood, one of the Australian soldiers he had survived with on Hainan Island. He accepted the offer and the family arrived in Melbourne on 3rd November 1953 (Melbourne Cup Day) aboard the Dutch ship M.V. "Johan van Oldenbarnevelt". They settled on the share-farm in Pearcedale near Frankston, Victoria. Her father's previous experience as a miner and soldier did not help to provide him with any farming skills so they left the farm and moved to Mount Evelyn where he obtained employment with a steel fabrication firm in Lilydale.

Maria had always been called "Mia" (mee ah) by her family and friends but decided to take the name of "Mary" now that she was in Australia. She attended school for a short period but family circumstances forced her to seek employment with Hickory, makers of female underwear, in Frankston. She then went to work for Victorian Railways at Lilydale when the family moved to Mt Evelyn.

Mary became a Naturalized Australian Citizen at Lilydale, Victoria on 21st August 1958.

She enlisted in the Womens' Royal Australian Air Force on 15th October 1958, given the Service Number W314747 and commenced her Air Force career on Recruit Training Course 92

at RAAF Point Cook, Victoria before she was posted to RAAF School of Radio, Ballarat, Victoria to undergo training as a Teleprinter Operator. She commenced training with No 2 Teleprinter Operator Course (16 Dec 58 – 7 Mar 59) but her training was suspended on 19th January 1959 due to her hospitalisation in 6 RAAF Hospital, Laverton. She went on to complete her training with No 3 Teleprinter Operator Course (2 Mar 59 – 4 Jun 59).

3 TPRINOP COURSE - Ballarat 3 March-15 May 1959
REAR: Heather Gray, Bobbie Atkinson, Joan Coles, Lyn Jones, Maureen Hickey, Barbara Frazer, Beth Lucas
FRONT: Phyl Hart, Joan Webb, Barbara Willis, Shirley RUSSELL, Jeanette Badrick, Mary Lubbers

On completion of training she was in turn posted to RAAF Melbourne Telecommunications Unit, "Frognall" situated at 54 Mont Albert Road, Canterbury. Shortly afterwards her family returned to Holland leaving her alone in Australia.

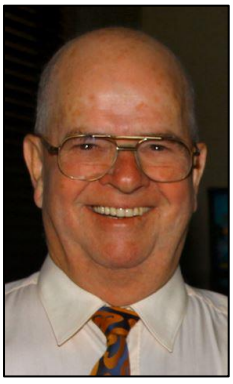
In August 1960 she met Ray "RG" Thompson when he was posted to "Frognall" from Butterworth, Malaya. They became engaged in September 1961 and Mary was discharged from the WRAAF on 24th January 1962. They were married in Saint Mark's Church of

England, Burke Road, Camberwell on Saturday, 27th January 1962 with her friend and fellow Teleprinter Operator Maureen “Darcy” Duggan being her Bridesmaid.

In September 1962, Ray was posted to Darwin and Mary went to live with his parents in Silkwood, North Queensland until suitable accommodation could be found in Darwin. Shortly after the birth of their daughter Jeanette Frances at the Innisfail Hospital on 26th October 1962 she travelled with Ray and daughter to Darwin. Whilst in Darwin she worked for some time at Millars & Sandovers in Smith Street.

They left Darwin on 15th August 1965 travelling by car to Sydney, where they boarded the Shaw Saville ship “Northern Star” for Southampton via New Zealand, Cook Islands, Tahiti, Acapulco, Panama City, Panama Canal, Curacao, Trinidad and Lisbon. They were met there by Mary’s parents and travelled to Harwick via London and caught the Channel Ferry to Hook of Holland.

Ray returned to Australia by air in November 1965 on posting to “Frognall”. Mary & Jeanette returned to Australia in early 1966 aboard the P&O ship “Himalaya”. On 21st April 1966 their son Robert Johan was born in Saint George’s Hospital, Kew. The family remained in Melbourne until Ray was discharged from the RAAF on 29th May 1967.



Ray gained employment with the Commonwealth Department of Civil Aviation in Townsville and their second daughter Raylene Mary was born in the Mater Hospital on 15th August 1968. The family remained there until being transferred to Madang, in Papua New Guinea (the Jewel of the Pacific) in September 1969.

Whilst in Madang Mary worked in the office of Steamships Trading Company. Just after Christmas 1971 they flew to Port Moresby and boarded a ship to sail to Singapore via Djakarta from where they travelled by air to Holland via England. Ray had been transferred to Sydney and he returned there in April 1972 with Mary and the children returning in July.

In October 1973 Ray was transferred back to Townsville where Mary worked for Carfoots in Flinders Street and then Gordon Lee Holden on Charters Towers Road before starting an overnight transport business operating between Townsville and Cairns. The business was sold in 1981 and Ray was transferred to Brisbane in October 1982 where they bought their first home in the suburb of Mansfield.

Ray accepted a Redundancy Package from Air Services Australia in January 1992 and they sold their Mansfield home and purchased another in Cleveland, a Bayside suburb of Brisbane. Their daughter Raylene gave birth to their only grandchild, Eilish Brooke ALEXANDER, on 20th September 1997.

In November 2002 they sold their Cleveland home and moved into a 3 bedroom Independent unit at the Prins Willem Alexander Retirement Village in Birkdale, another Bayside suburb. The residents of the village being mostly Dutch, Mary decided that she would prefer to be called “Mia” again. Mary accompanied Ray to some earlier Djinnang Reunions but has not done so for many years due to her poor health.

Now that food has replaced sex in my life, I can't even get into my own pants.

OTS 1988.

Back Row L-R: Barry White, Fred Kennedy, Bruce Olsen, Floyd Wilson, Bob Holsken, Mike McCracken, Col Giles, Dave Edwards.
Middle Row L-R: Dave Spicer, Bill Best, Nev "Noddy" Clarke, Chris Hou, Laurie Lindsay, Ken Jones, Tom Kerry, Lochlon Woodgate.
Front Row L-R: Stan rogers, Alan Williams, Noel Martin, Sam Dean, Dave Prowse, Paul Dickie, Robert Seiffert, Zenon Cickszo.

Warning!

There's an email going around offering processed pork, gelatine and salt in a can. If you get this email DO NOT OPEN IT!! It's SPAM.

Radschool Course 1977.

Karen Jessup, about 1978.

G

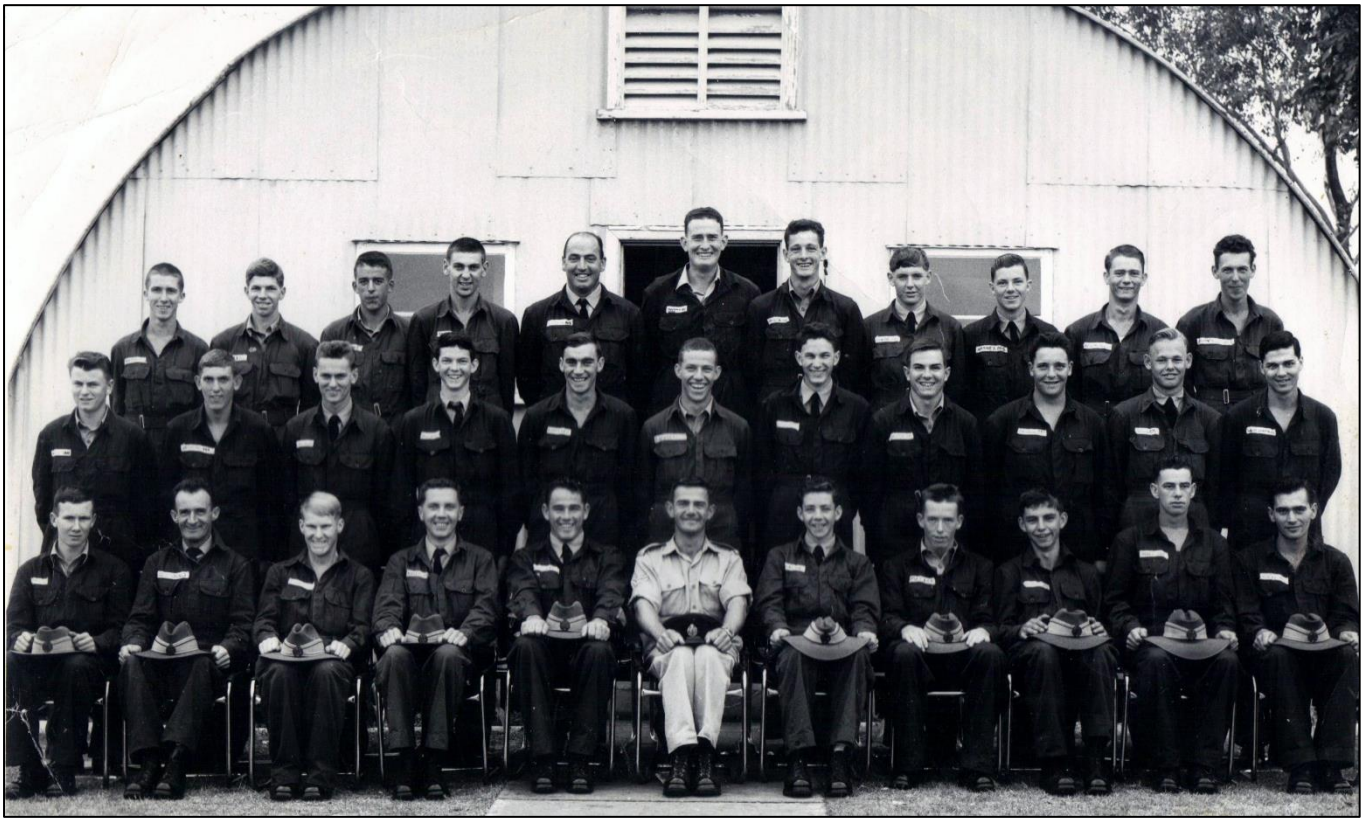
Instrument Course, Wagga 1978.

(We're short two names, can anyone help??)

Back Row L-R: Don't know, Gary Lennon, Noel Aikin, Don't know.
Middle Row: Garry Bridge, John Reid, Steve Jordan, Darren Wolfe.
Front Row: David Hicks, David Kirkman, Allan Davidson, Richard Eden, Jack Child.

664 Rookies Course.

Edinburgh. 1964



Rookies Laverton, 1979.

Sue Bennett sent in these 3 pics, can anyone help with the names??

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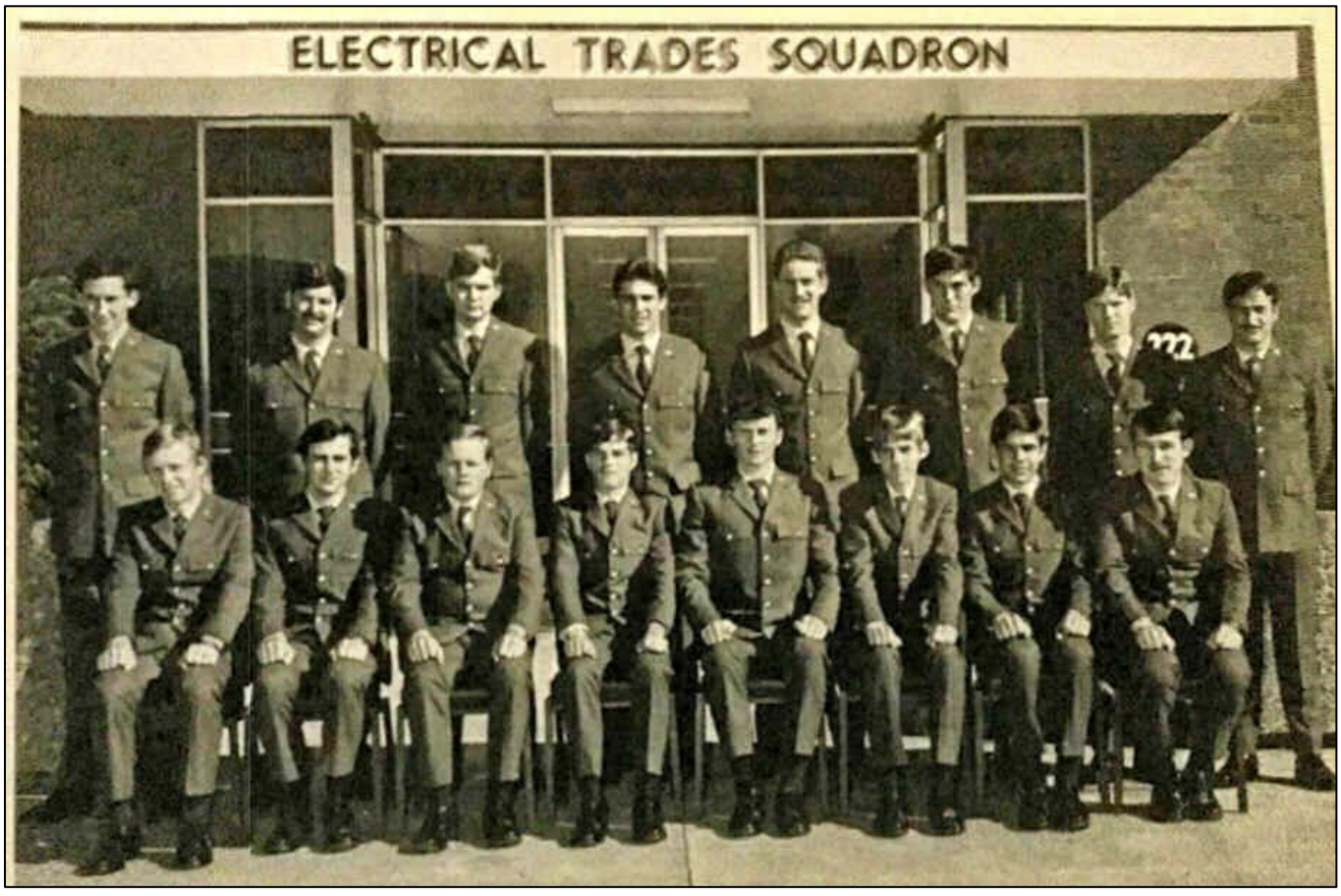
14 Elect Course.

Wagga. 1978.



Ross Gam.

Radschool Ballarat 1959.

Paddy & Mick stagger out of the zoo with blood pouring from them..
"Bollocks to that" said Paddy "That's the last time I go lion dancing"

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Computers and Stuff.

Sam Houliston.

Report scams to the ACCC via www.scamwatch.gov.au or by calling 1300 795 995.

Run the Command Prompt as Administrator.

A lot of commands you want to perform on your PC computer will only work if you tell the computer you are the administrator. You can open a Command Prompt (used to be called the Dos Prompt and it looks like this: **C:\>**) both as a normal user and as the Administrator (which is also called the Elevated Command Prompt) quite easily under Windows 10 machines, all you do is ***right*** click the old start button down the bottom left (Now which looks like this) and up will pop the window at right, you just then select the one you want. Simple!!

Windows XP, 7 and Vista is a little bit different, though just as easy. First up, click on the Start button (bottom left) click **All Programs**, then **Accessories**, right click **Command Prompt** then left click **Run as Adminstrator.**

Windows 8 is different again but just as easy. Hold down the Win Key and press **X**. This will open a window from which you can select either Command Prompt or Command Prompt (Admin).

Take my advice — I'm not using it.

What's the difference between FAT32, exFAT, and NTFS?

How-To Geek

If you're a PC user and you're formatting an

internal drive, external drive, USB flash drive, or SD card, Windows will give you the choice of using either NTFS, FAT32, or exFAT.

What does all that mean?

FAT32 is an older file system that's largely relegated to USB flash drives and other external drives. Windows now uses NTFS for its system drive and it's also ideal for other internal drives. exFAT is a modern replacement for FAT32, and more devices support it than do NTFS, although it's not as widespread as FAT32.

(FAT stands for File Allocation Table, exFAT stands for Extended File Allocation Table while NTFS stands for New Technology File System.)

FAT32

FAT32 is the oldest file system of the three. It was introduced all the way back in Windows 95 to replace the older FAT16 file system. This file system's age has advantages and disadvantages. Because it's so old, it's the de-facto standard. Flash drives you purchase will often come formatted with FAT32 for maximum compatibility. FAT works with all versions of Windows, Mac, Linux, game consoles and practically anything with a USB port.

Limitations come with that age, however. Individual files on a FAT32 drive can't be over 4 GB in size — that's the maximum. A FAT32 partition must also be less than 8 TB, which, although is less of a limitation, it is still a noticeable one if you have a new, high-capacity mechanical drive. While this file system is okay for USB flash drives and other external media, you won't want to use it for an internal drive. It lacks the permissions and other security features built into the more modern NTFS file system. Modern versions of Windows can no longer be installed to FAT32, and must be installed onto drives formatted with NTFS.

ExFat

exFAT is a file system optimized for large flash memory such as USB flash drives and SD cards. exFAT can be used where the NTFS file system is not a feasible solution yet the file size limit of the standard FAT32 file system is unacceptable. exFAT has been adopted by the SD Card Association as the default file system for SDXC cards larger than 32 GB.

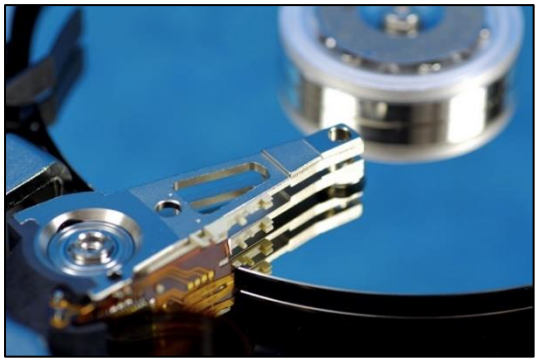
It was introduced in 2006 as part of Windows CE 6.0, an embedded Windows operating system targeted to operate specific tools such as industrial controllers and consumer electronics devices like digital cameras, modern flat panel TVs, media centres, and portable media players.

The entire File Allocation Table (FAT) family, exFAT included, is used for embedded systems because it is lightweight and is better suited for solutions that have low memory and low power requirements. As exFAT allows individual files larger than 4 GB, it allows long continuous recording of HD video which can exceed the 4 GB limit in less than an hour. Current digital cameras using FAT32 break the video files into multiple segments of approximately 2 or 4 GB. With the increase of capacity and the increase of data being transferred, the write operation needs to be made more efficient.

NTFS

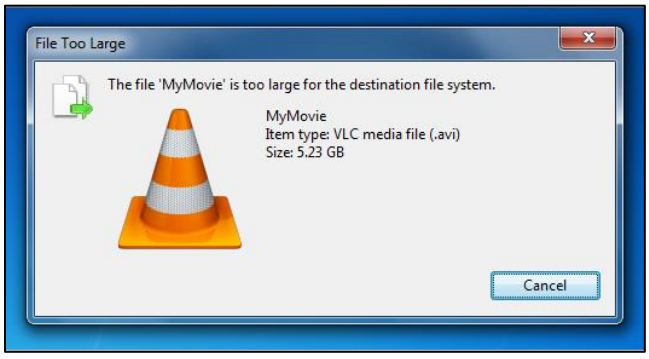
NTFS is the modern file system Windows likes to use and first appeared in consumer versions of Windows with Windows XP. Today when you install Windows, it formats your system drive with the NTFS file system which has file size and partition size limits that are so theoretically huge you won't run up against them.

Aside from these limitations, NTFS is packed with other modern features. It supports file permissions for security, a change journal that can help quickly recover errors if your computer crashes, shadow copies for backups, encryption, disk quota limits, hard links, and other various features. Many of these are crucial for an operating system drive, especially file permissions. Your Windows system partition must be NTFS. If you have a secondary drive alongside Windows and you plan on installing programs to it, you should probably go ahead and make it NTFS, too.



However, NTFS just isn't as compatible with other operating systems. It'll work with all recent versions of Windows, all the way back to Windows XP, but it has limited compatibility with other operating systems. By default, Mac OS X can only read NTFS drives, not write to them. Some Linux distributions may enable NTFS writing support, but some may be read-only. None of Sony's PlayStation consoles support NTFS. Even Microsoft's own Xbox 360 can't read NTFS drives, although the new Xbox One can. Other devices are even less likely to support NTFS.

Microsoft created NTFS to improve on FAT32 in a variety of different ways. To understand why Windows uses NTFS, we have to look at the problems with FAT32 and how NTFS fixed them:



FAT32 only supported individual files up to 4GB in size and volumes up to 2TB in size. For

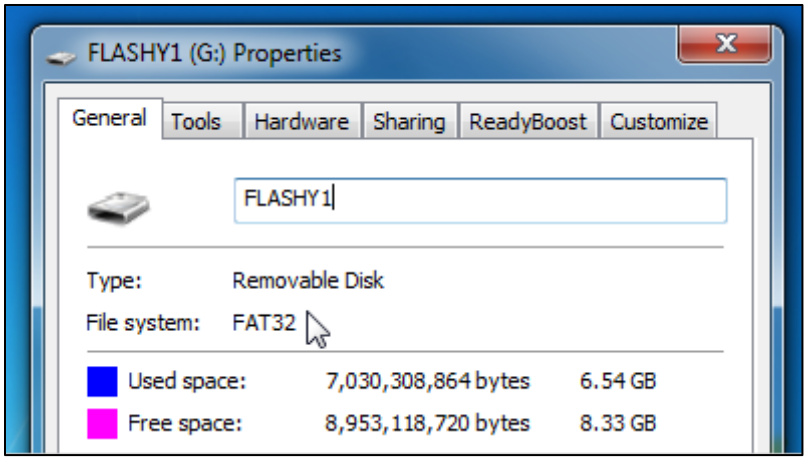
example, if you had a large video file over 4GB in size, you just couldn't save it on the FAT32 file system. If you try, you'll get an error like this.

If you had a 3TB drive and they are becoming common these days, there is no way you can format it as a single FAT32 partition. And another thing! FAT32 isn't a journaling file system, which means that file system corruption can happen much more easily. NTFS changes, on the other hand, are logged to a "journal" on the drive before they're actually made. If the computer loses power in the middle of a file being written, the system won't need a long scandisk operation to recover – and that's a big improvement.

So, if Microsoft's Windows XP started using the NTFS file system by default for its internal drives back in 2001, why now 15 years later, are USB sticks, and SD cards, and other removable drives still using FAT32? While you can format these drives with a different file system like NTFS, you'll probably want to leave them formatted with FAT32.

Here's why!

- Your USB stick or SD card will definitely be under 2TB in size, so you don't need to worry about the upper limit. You may occasionally want to copy a file over 4GB in size to the drive — that's the one situation where you might want to format the drive as NTFS.
- Your removable drive doesn't need journaling like a system drive does. In fact, journaling could just result in additional writes that could reduce the life of the drive's flash memory.
- The device doesn't need file permissions either. In fact, these can cause problems when moving removable devices between different machines. For example, the files might be set to only be accessible by a specific user ID number. This would work fine if the drive stayed inside your computer, however, if this was a removable hard drive that you moved to another computer, anyone with that user ID on the other computer could then access the files. In this case, file permissions don't really add security — just additional complexity.

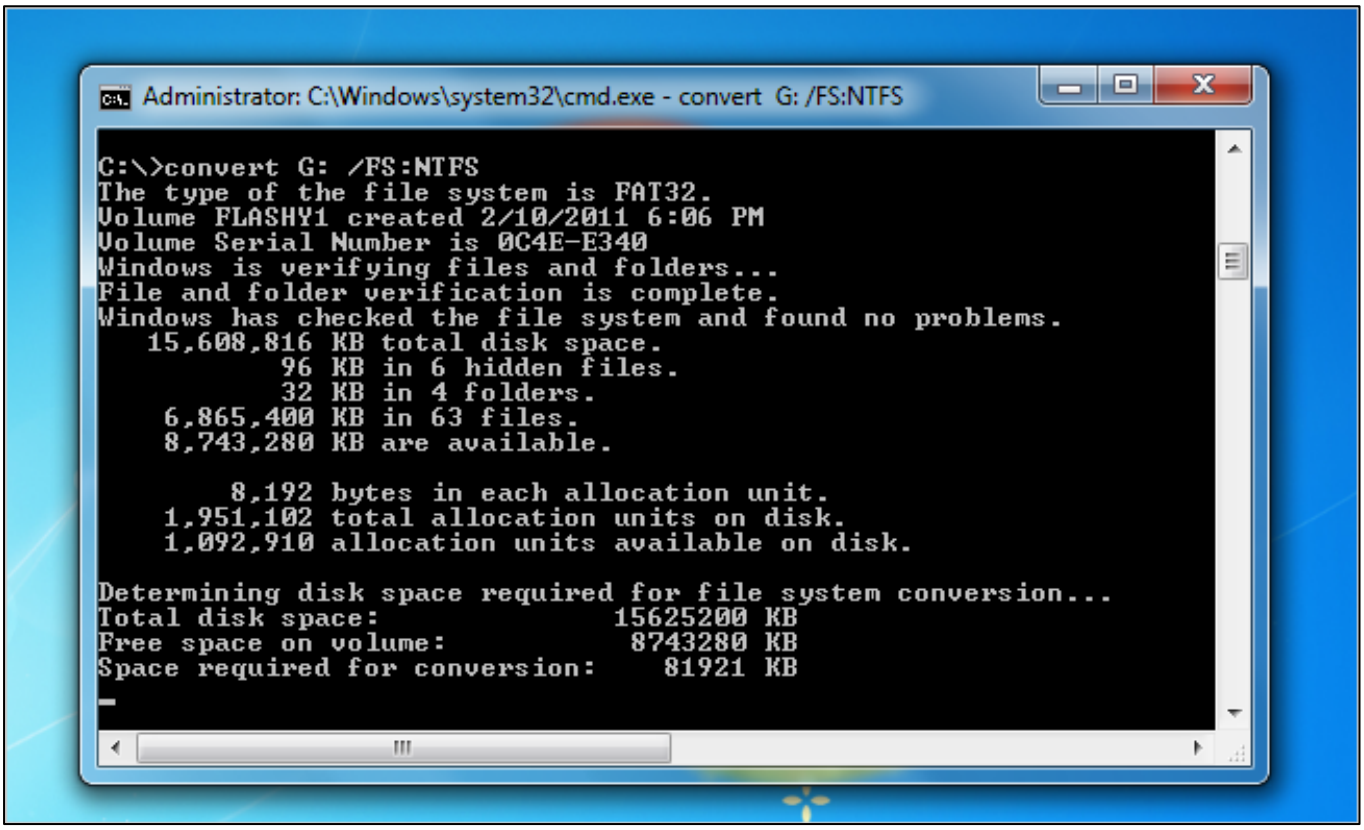


How to Convert a Hard Drive or Flash Drive from FAT32 to NTFS Format

If you've got an older computer which is still running FAT32 file system and which you've updated to the Windows 7 operating system (if it's too old you won't get 10 to run on it) you really should upgrade the file system from FAT32 to NTFS. It's

relatively easy to do and quite safe – here's how.

If you've already got a ton of files on the drive and don't have the free space to move them around, you can convert the file system directly from FAT32 to NTFS. Just open up an Administrator mode command prompt (see above) and then type **Convert G: /FS:NTFS** (in our example, the drive letter is G):



The conversion process might take a while, especially if you've got a really large drive.

I hate it when people use big words just to make themselves sound perspicacious.

File Permissions.

Up until Windows 7, Microsoft had a system of protecting its files which it called "Attributes". From Windows 95, all Windows files were either catalogued as below:

- **Archive:** When set, it indicates that the hosting file has changed since the last backup operation. Windows' file system sets this attribute on any file that has changed. Backup software then has the duty of clearing it upon a successful backup.
- **Hidden:** When set, indicates that the hosting file is hidden. MS-DOS commands like DIR and Windows apps like File Explorer do not show hidden files by default, unless asked to do so.
- **System:** When set, indicates that the hosting file is a critical system file that is necessary for the computer to operate properly. MS-DOS and Microsoft Windows use it to mark important system files. MS-DOS commands like DIR and Windows apps like File Explorer do not show system files by default even when hidden files are shown, unless asked to do so.

- **Read-only:** When set, indicates that a file should not be altered. Upon opening the file, the file system application programming interface (API) usually does not grant write permission to the requesting application, unless the application explicitly requests it. Read-only attributes on folders are usually ignored.

As new versions of Windows came out, Microsoft has added to the inventory of available attributes on the NTFS file system, including but not limited to:

- **Compressed:** When set, Windows compresses the hosting file upon storage. For more information, see NTFS § File compression.
- **Encrypted:** When set, Windows encrypts the hosting file upon storage to prevent unauthorized access. For more information, see NTFS § Encryption.
- **Indexed:** When set, Indexing Service or Windows Search do not include the hosting file in their indexing operation.

In the old system, used by DOS, Windows 95, Windows 98, Windows 98 SE, and Windows Me there was a read-only attribute (R), but it could be set or unset on a file by any user or program, and therefore did not prevent him/her/it from changing/deleting the file. There was no permission in these systems which would prevent a user from reading a file.

With NTFS, Windows introduced use access control lists (ACLs) to administer a more complex and varied set of permissions. There are four categories (System, Owner, Group, and World) and four types of access permissions (Read, Write, Execute and Delete).

Hospitality is the art of making guests feel like they're at home when you wish they were.

To set, view, change, or remove permissions on files and folders.

- Right-click the file or folder for which you want to set permissions, click Properties, and then click the Security tab.
- Click Edit to open the Permissions for <Object> dialog box.

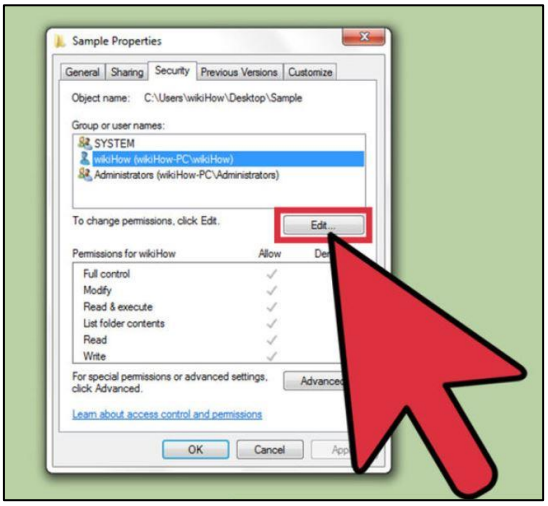
Do one of the following:

- To set permissions for a group or user that does not appear in the Group or user names box, click Add. Type the name of the group or user you want to set permissions for, and then click OK.
- To change or remove permissions from an existing group or user, click the name of the group or user.

Do one of the following:

- To allow or deny a permission, in the Permissions for <User or Group> box, select the Allow or Deny check box.
- To remove the group or user from the Group or user names box, click Remove.

Additional considerations



- For a description of all permissions, see HERE.
- Performing this procedure might require you to elevate permissions through User Account Control.
- To open Windows (File) Explorer, click Start, point to All Programs, click Accessories, and then click Windows (File) Explorer.
- You can set file and folder permissions only on drives formatted to use NTFS.
- To change permissions, you must be the owner or have been granted permission to do so by the owner.
- Groups or users that are granted Full Control permission for a folder can delete files and subfolders within that folder, regardless of the permissions that protect the files and subfolders.
- If the check boxes under Permissions for <User or Group> are shaded or if the Remove button is unavailable, the file or folder has inherited permissions from the parent folder.
- When adding a new user or group, by default, this user or group will have Read & Execute, List Folder Contents, and Read permissions.

OneDrive, Dropbox, Google Drive and Box: Which cloud storage service is right for you?

Storing your files in the cloud has many advantages. You can view your files from any phone, tablet or computer that's connected to the Internet and the cloud can also provide backup for files so they'll never disappear if your phone gets lost or your computer crashes. Using the cloud is a no-brainer, but picking which service to use is a bit more difficult.

Following is a guide to the most popular cloud storage services, covering how they work and their strengths and weaknesses. There are also some lesser-known options if you want to get away from the mainstream.

Cloud storage comparison.

	OneDrive	Dropbox	Google Drive	Amazon Cloud Drive
File size restrictions?	10GB	10GB with website, none with Dropbox apps	5TB	2GB*
Free storage?	5GB**	2GB	15GB	No***
Can I earn extra free storage?	No**	Yes	No	No
Paid plans	$2/month for 50GB**	$10/month for 1TB	$2/month 100GB, $10/month for 1TB	$12/year for unlimited photos, $60/year for unlimited files
OS's supported	Windows, Mac, Android, iOS, Windows Phone	Windows, Mac, Linux, Android, iOS, Windows Phone, BlackBerry, Kindle Fire	Windows, Mac, Android, iOS	Windows, Mac, Android, iOS, Kindle Fire

* There is no file size limit with desktop apps.

** Microsoft will change its free storage from 15GB to 5GB and offer a $2 per month for 50GB paid plan instead of its earlier offerings. It will also no longer let you earn free storage.

*** Amazon Cloud Drive offers limited free storage with an Amazon Prime subscription.

Apple's iCloud Drive is not included as the service is not available for Android and it's really meant to be used within the Apple ecosystem, meaning if you use Mac computers and iOS devices together. If you do use mostly Apple products, it's a solid choice for cloud storage. For a full run-down of its features, pricing and availability, click HERE.

OneDrive.

First up is OneDrive, Microsoft's storage option. Those who use Windows 8 and 10 have OneDrive built into their operating system, where it shows up in the file explorer next to all of the files on your computer's hard drive. However, anyone can use it on the Web, by downloading a desktop app for Mac and earlier versions of Windows, or the OneDrive Android, iOS, Windows Phone and Xbox apps.

You can store any kind of file in the service, including photos, video and documents, and then access them from any of your Windows PCs or mobile devices. The service organizes your files by type for you, so it's easy to find what you need.

The Android, iOS and Windows Phone apps all have automatic photo uploads, meaning that when you shoot a photo with your phone, it's automatically saved to your account. OneDrive's biggest strength is that it works closely with Microsoft Office apps, such as Word or PowerPoint, so when you launch one of those applications you'll see a list of recent documents saved to OneDrive. If you have an Office 365 subscription and open a document saved in OneDrive, you can collaborate on it in real time with other people. You'll even be able to see the changes they make as they make them.

Microsoft is hoping that OneDrive will be the place where you store your photos, and the company is working on technology that will eventually sort all of the photos you take based on how important and meaningful they are. For instance, if you take a photo of your kids, a picture of a special meal and a shot of your parking space so you can find your car later, OneDrive would be able to understand the importance of each picture, save the ones it thinks are the most useful, and trash the rest. That's still big-picture stuff for OneDrive, but it gives you an idea of the direction Microsoft is moving in.

In late 2015, Microsoft made an announcement that it would no longer offer unlimited cloud storage to Office 365 subscribers. Instead, they are limited to 1TB. Additionally, beginning in early 2016, the 100GB and 200GB paid storage plans will be discontinued, replaced with a 50GB for $1.99 per month plan. You will no longer get extra space if you allow the OneDrive apps to automatically backup photos on your phone. Finally, anyone with a Microsoft account will only get 5GB of free storage, instead of 15GB.

Where it excels:

- Works seamlessly with Windows devices because it's built in to the Windows operating system.
- It's easy to open and edit files from OneDrive in Microsoft's other applications, such as Word or Excel.

Signing up for OneDrive gets you a Microsoft account, which gives you access to Outlook, Xbox Live, and other Microsoft services.

Where it falls flat.

- OneDrive's automatic file organization doesn't always put files in the correct folders.

Best for:

- If you have a Windows PC, tablet and phone, and need to get to your files from any device with little effort.

Never tell your problems to anyone, because 20 percent don't care
and the other 80 percent are glad you have them.

Dropbox.

Dropbox is a favourite in the cloud storage world because it's reliable, easy to use, and a breeze to set up. Your files live in the cloud and you can get to them at any time from Dropbox's website, desktop applications for Mac, Windows and Linux (Ubuntu, Debian, Fedora or compile your own), or the iOS, Android, BlackBerry and Kindle Fire mobile apps.

You can store any kind of file in Dropbox, by either uploading to the website or adding it with the desktop apps. Those apps live in your file system so that you can easily move files from your computer to the cloud and vice versa by dragging and dropping them into your Dropbox folder. The service automatically and quickly syncs your files across all of your devices, so you can access everything, everywhere. There is no size limit on files you upload to Dropbox with the desktop or mobile apps, but larger files can take several hours to upload, depending on your connection speed.

Dropbox gets a lot of praise for its clean design, and rightfully so though its website is very basic and it doesn't give you many options to view and organize your files, its mobile apps and desktop apps are beautiful and easy to navigate.

Dropbox gives its users plenty of opportunities to get extra storage to beef up the paltry 2GB you get when you sign up. If you participate in the quick Getting Started tutorial, you get 250MB. Turn on the automatic photo upload feature on any of the mobile apps to get 3GB of extra space (you can get only 3GB total, not per device). You can earn 500MB for each friend you refer to Dropbox who actually signs up for the service, up to 16GB total, or 32 referrals.

Where it excels.

- Dropbox works equally well on PCs and Macs, Android and iOS.
- The service is so simple and elegantly designed, that it's easy for anyone to master.
- Its desktop applications seamlessly blend with your computer's file system.

Where it falls flat

- Dropbox's website doesn't let you control how your files are displayed.

Best for:
Simple sharing when you use tons of different kinds of devices.

Google Drive.

Google combines a complete set of office tools with cloud storage in Drive. You get a little bit of everything with this service, including a word processor, spreadsheet application, and presentation builder, plus 15GB of free storage space.

If you already have a Google account, you can already access Google Drive. You just have to head to drive.google.com and enable the service. You get 15GB of storage for anything you upload to Drive, including photos, videos, documents, Photoshop files and more. However, you have to share that 15GB with your Gmail account, photos you upload to Google+, and any documents you create in Google Drive.

While you can access any of your files from the Drive Web site, you can also download the Drive desktop app for Mac and PC to manage your files from your computer. You can organize all of your files in the desktop app, and they'll sync with the cloud so you can get to them anywhere. Drive is built into Google's Web-based operating system Chromium, so if you have a Chromebook, Google Drive is your best cloud storage option. Like other cloud storage services, Drive has apps for iOS and Android for viewing and managing your files from your phone.

Google Drive has the benefit of a built-in office suite, where you can edit documents, spreadsheets, and presentations, even if you created the document in another program. The service also has a large collection of extras, such as third-party apps that can send faxes or sign documents.

Google also recently introduced Google Photos, an online photo locker, where you can organize photos into albums. Google Photos is built into Drive in a separate tab, but you're really better off going straight to googlephotos.com to see and organize photos. However, you don't need to download the Google Photos app on your phone or tablet to backup pictures you take there. The Google Drive app can take care of that.

One excellent feature of Google Drive is that you can drag and drop files into the Drive Web site and they'll be uploaded automatically. You can also preview attachments from Gmail in Google Drive, and save those files to your cloud.

Where it excels:

- Google Drive requires very little setup if you already have a Google account.
- If you use Gmail, it's easy to save attachments from your e-mail directly to Drive with just a few clicks.
- The app can automatically back up your photos on its own, without the need for the separate Google Photos app.

Where it falls flat:

- If you use Google Drive's tools to create documents, spreadsheets or presentations, you must export those files to edit them in another program.
- You have to share your storage space with Gmail, so if you're inbox is overflowing, you'll get less cloud storage space.

Best for:

- Google diehards, or anyone who wants a few office tools with their cloud storage.

I'll bet you $4,567 you can't guess how much I owe my bookie.

Amazon Cloud Drive

Amazon already sells you nearly anything under the sun, and it wants to be the place you store all of your music, photos, videos and other files too. Amazon Cloud Drive has been around for a few years, but the company introduced new storage plans in March 2015; one just for photos

and one for all other kinds of files. Neither plan is free, but both have three-month trials. Unlimited Photos is available for free for all Amazon Prime members or anyone with a Fire device. If you don't have a Prime subscription or a Fire phone or tablet, you'll need to pay $12 per month for the storage.

True to its name, Unlimited Photos gets you unlimited storage for your photos (GIF, JPEG, BMP, TIFF and so on) and 5GB of free storage for other file types, including videos, PDFs and documents. Unlimited Everything gets you storage for an unlimited number of files of any type, for $60 per year. There is no limit for how many files you can upload, but each file needs to be under 2GB unless you use the Cloud Drive desktop apps. The Cloud Drive desktop apps are available for PC and Mac, and let you upload or download files. However, unlike other cloud storage services, the Amazon Cloud Drive app doesn't let you view your files from a folder on your computer. You can upload individual files and download your entire library, but if you want to view them or make changes, you'll need to go to Amazon's website.

Amazon Cloud Drive has apps for iOS and Android with automatic upload so videos and photos you take with your phone get saved to the cloud right after you shoot them. The service is also baked into Amazon's Fire tablets and phone.

Where it excels:

- If you already have an Amazon account, you don't need to sign up for a new service, you can simply sign into Cloud Drive.

Where it falls flat:

- The desktop app doesn't work with your file system, you can only use it upload or download files.
- You can only view and manage files from the Cloud Drive website, but you cannot upload files larger than 2GB there.

Best for:

- Anyone with an Amazon Fire tablet or Fire phone, because it's part of the operating system.
- Unlimited Photos is good for Amazon Prime members, because you get it for free as part of that subscription.

Extra cloud options:

Of course, OneDrive, Dropbox, Google Drive and Amazon aren't your only options for cloud storage. Another is SugarSync, a Dropbox-like alternative with apps for every mobile platform. The catch is that after your 90-day free trial, where you can play around with 5GB of storage, you need to pay at $7.50 per month for 60GB to keep using the service (you can upgrade to more storage for extra money).

There's also Space Monkey , which has an entirely different take on cloud storage. For $200, you buy a 2-terabyte (TB) hard drive from the company. You get to use 1TB of the drive's space to store any and all of your files as a local backup. Your files also get encrypted and broken into bits that are sent to other Space Monkey users' hard drives, so that you can access your files from another computer or mobile device. That's where that extra 1TB of space on your drive comes in -- it's used to store bits of other people's files. The service is free for the first year, then costs $49 per year to keep storing your files in the cloud.

Nokia.

Did you know that after the second world war, the Finnish navy was prohibited from having submarines because of Russian concerns, that hasn't changed, but now Finland owns 12 submarines, and it's something to do with Microsoft.

People often think that Nokia, a Finnish company, was bought out by Microsoft, but that's not true. What happened was that Nokia sold its mobile handset business to Microsoft for a lot of money. But there's more to mobile phones than handsets, and Nokia is still a very big player in supporting the mobile phone networks with hardware and software (this blog mentions 5G development and ongoing efforts to improve 3G for example: see HERE). Subsequently, after getting all this money from Microsoft, Nokia took over Alcatel-Lucent who operate in the same sort of area. But Alcatel-Lucent were also into submarine communication cables and had 12 submarines for work in this area. Hence, via Nokia, Finland now has 12 submarines.

Hope the Russians aren't too cross!

Apple releases update to secure iOS: Alert Priority High.

Apple has released a security update to protect users against a range of vulnerabilities in its iOS mobile operating system.

The update is available for iPhone 4s and later, iPad 2 and later, and iPod Touch 5th generation and later. You are advised to review the relevant Apple security page HERE and apply the update.

Updates close vulnerabilities in computer systems that remote attackers can otherwise use to gain access to systems or information (such as online banking details). A vulnerability is a weakness that can leave a computer and its systems open to attack. Attacks can be carried out a number of ways, including through malicious software (malware) such as viruses and spyware that can monitor a users' activity on a computer and stop systems operating properly.

Behind every great man is a woman rolling her eyes.

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44 Engine Fitters Course.

Wagga.

July – November 1960

Back row L-R: Sam Russell, Bob Crichton, Owen Murrell, Graham Brown, George Milne, Ken Dedman, Barry Langton.
Middle row L-R: Kenny Pullen, Ron Cheeseman, Don Payne, Brian Read, Dennis Olsen, Ian Bruce, Vince Baker.
Front row L-R: Doug Johnson, Eddy Boden, Tony Ryan, Ralph Leembruggen, Bill Stevenson, Don Kennedy.

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62 Engine Mechanics Course.

Wagga.

October 1958 – February 1959

Back row L-R: Glen Penifold, Bob Faldon, Brian Read, Alan “Squizzy” Taylor, Glen Sanders, Don Payne, Nev Rogers, Tony Ryan, Tassie Deacon, Tim McNiven.
Front row L-R: Ron Edwards, Eddy Boden, Alan Christenson, Dennis Olsen, ? Bolton, Don Kennedy.

If you keep your feet firmly on the ground, you'll have trouble putting on your pants.

Islamabad, Pakistan, (Unmogip) March 1976

Working on the Caribou are F/Sgt Don Payne and Cpl Garry Johnson. (The Radtech, keeping an eye on them, is not in the pic.)

UNMOGIP Background

In August 1947, India and Pakistan became independent. Under the scheme of partition provided by the Indian Independence Act of 1947, Kashmir was free to accede to India or Pakistan. Its accession to India became a matter of dispute between the two countries and fighting broke out later that year.

In January 1948, the Security Council adopted resolution 39 establishing the United Nations Commission for India and Pakistan (UNCIP) to investigate and mediate the dispute. In April 1948, by its resolution 47 the Council decided to enlarge the membership of UNCIP and to recommend various measures including the use of observers to stop the fighting. At the recommendation of UNCIP, the Secretary-General appointed the Military Adviser to support the Commission on military aspects and provided for a group of military observers to assist him. The first team of unarmed military observers, which eventually formed the nucleus of the United Nations Military Observer Group in India and Pakistan (UNMOGIP), arrived in the mission area in January 1949 to supervise, in the State of Jammu and Kashmir, the ceasefire between India and Pakistan and to assist the Military Adviser to UNCIP.

The tasks of the observers, as defined by the Military Adviser, were to accompany the local authorities in their investigations, gather as much information as possible, and report as completely, accurately and impartially as possible. Any direct intervention by the observers between the opposing parties or any interference in the armies' orders was to be avoided. These arrangements remained in effect until the conclusion of the Karachi Agreement on 27 July 1949 establishing a ceasefire line to be supervised by UN military observers.

The Karachi Agreement specified that UNCIP would station observers where it deemed necessary, and that the ceasefire line would be verified mutually on the ground by local commanders on each side with the assistance of UN military observers. Disagreements were to be referred to the UNCIP Military Adviser, whose decision would be final.

On 30 March 1951, following the termination of UNCIP, the Security Council, by its resolution 91 decided that UNMOGIP should continue to supervise the ceasefire in Jammu and Kashmir. UNMOGIP's functions were to observe and report, investigate complaints of ceasefire violations and submit its finding to each party and to the Secretary-General.

At the end of 1971, hostilities broke out again between India and Pakistan. They started along the borders of East Pakistan and were related to the movement for independence which had developed in that region and which ultimately led to the creation of Bangladesh.

When a ceasefire came into effect on 17 December 1971, a number of positions on both sides of the 1949 ceasefire line had changed hands. The Security Council met on 12 December, and on 21 December adopted resolution 307 by which it demanded that a durable ceasefire in all areas of conflict remain in effect until all armed forces had withdrawn to their respective territories and to positions which fully respected the ceasefire line in Jammu and Kashmir supervised by UNMOGIP.

In July 1972, India and Pakistan signed an agreement defining a Line of Control in Kashmir which, with minor deviations, followed the same course as the ceasefire line established by the Karachi Agreement in 1949. India took the position that the mandate of UNMOGIP had lapsed, since it related specifically to the ceasefire line under the Karachi Agreement. Pakistan, however, did not accept this position.

Given the disagreement between the two parties over UNMOGIP's mandate and functions, the Secretary-General's position has been that UNMOGIP could be terminated only by a decision of the Security Council. In the absence of such an agreement, UNMOGIP has been maintained with the same arrangements as established following December 1971 ceasefire. The tasks of UNMOGIP have been to observe, to the extent possible, developments pertaining to the strict observance of the ceasefire of 17 December 1971 and to report thereon to the Secretary-General.

The military authorities of Pakistan have continued to lodge complaints with UNMOGIP about ceasefire violations. The military authorities of India have lodged no complaints since January 1972 and have restricted the activities of the UN observers on the Indian side of the Line of Control. They have, however, continued to provide accommodation, transport and other facilities to UNMOGIP.

In February 1975, the Australian Government announced that it had agreed to take over the role of providing air support to the United Nations Military Observer Group in India and Pakistan (UNMOGIP). On this day, a single DHC-4 Caribou (A4-199) from No 38 Squadron departed Richmond, NSW, bound for Rawalpindi in Pakistan. After flying its first sortie on 1 April, the aircraft's role was to resupply observation posts and changeover UN personnel along the ceasefire line separating Indian and Pakistani forces in Kashmir. The 12-man crew's base alternated between Rawalpindi and Srinigar (on the Indian side of the line), with six months spent in each location. The Caribou was rotated every four months to enable servicing back in Australia, so that eventually three different aircraft had each served three tours before the commitment ended in late 1978. The last personnel and aircraft returned to Richmond in January 1979.

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1st Crew to go to Pakistan.

Standing L-R: Bruce Warring (Radio), Maurice Pearson (Elec), Bob Costello (Radio), Peter Coleman (Equip), Peter Rothwell (Inst), Wally Little (Sumpie/Loadie).
Kneeling L-R: Sqn Ldr Bailey McKenny (OIC), Kev O'Brien (Sumpie/Loadie), Dickie Jones (Framie), F/P Dick Folvig (Pilot).
Missing: F/O Ken Stone (Pilot), F/Sgt Kev "Spider" Bessell (Sumpie and NCO I/C Det B)

A computer once beat me at chess, but it was no match for me at kick boxing.

Gus Comer sent us this:

I spent much of the 50's at 1 AD. There were some interesting characters there in those years. Two Sqn Ldrs I remember, the kindly Vic Smith, and the somewhat more abrasive Roy Prowse. I remember F/Sgt Jack Cummins, ensconced in the office doing the bookwork and his replacement, Don Burkitt, a heavy smoker who died of lung cancer in 6 RAAF during my time at 1 AD. Other names come flooding back – W. Off Bernie (Fergie) Ferguson, who was involved in a stoush one day. Fergie, head of the ground installation party that shared the Radio Section at 1 AD, had three erks working feverishly to pack up some equipment which I think was headed for Darwin, a Dakota standing by. While Bernie was absent from the section, our very brand new Plt. Off., one Rodney Harris, came into the section, spotted the three, and said, "Right, I want you three to come with me, I have a job for you". Protesting that Fergie had told them to get the job packing job done quickly, which Harris ignored, saying "I'm not interested in what W . Off. Ferguson said, come with me!" , they went.

When Fergie returned thirty minutes later, and discovered his men missing, he erupted. When Harris and his men returned, Fergie hit him with both barrels, telling him, in no uncertain terms, that he was an idiot and had done an idiotic thing. Fergie was called down to the CO's office shortly after, no doubt firmly told off for insulting an officer. Then, it was Rodney's turn to go. He was away quite some time, and when he came back he was very, very quiet, for quite a long period of time.

Others there included Flt. Lt. 'Shorty' McDonald, Flg. Off Alf Tye (star of the section volleyball team), Max Wheatley, Les Day, a mournful-looking character, who, though a good tech never got his Corporal's stripes, Cletus (Ike) Eichler, also a newly graduated Appy, named Tony

sander, deeply involved in Scientology. He told me of the immense power I could have, if I went into that stuff.

But Tony was able to make a real contribution, showing me how to solve a problem with the Signaller Flying Training aircraft we were fitting out. A mammoth job, it was to have six trainee positions and an instructor position. The Instructor had to be able to talk to all six trainees together, or to any one individually. Stringing six HF antennae on a Dak was hard enough, but I was bothered how to arrange the circuit to allow the Instructor to call just one, or all six trainees, together, without a very complicated switch. Solid state diodes were very new in those days, they didn't exist in Y Group yet. But Tony Sander pointed out how six diodes would solve my problem, which they did when we were able to get some. I didn't accept his Scientology, but was grateful for his new technology.

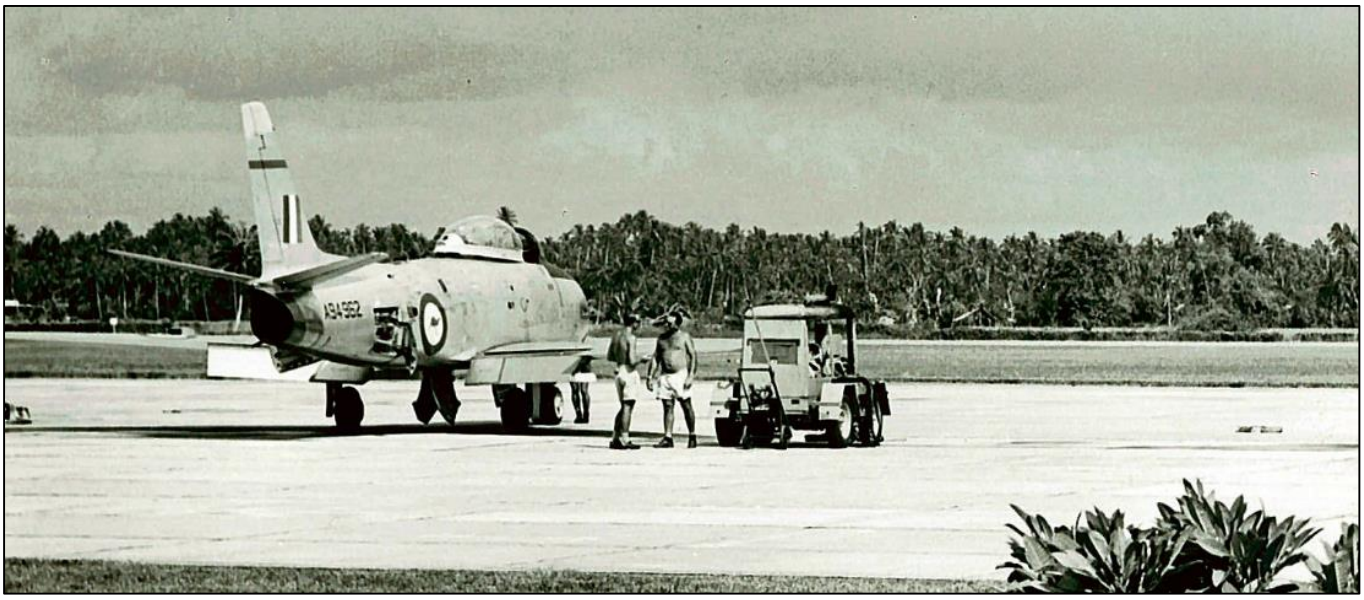
The flying classroom, looking weird with six VHF antenna masts sticking out in odd places as anchors for the HF antennae, worked beautifully in tests. How much use it subsequently got I have no idea, but Flt. Lt. Shorty MacDonald received a special commendation for getting it built.

I left 1 AD, with its happy memories, when I was promoted to W. Off on 1/12/60, posted to RADSCL.

Ubon.

Charles bond sent us the following 2 pics, which he took while posed to 79 Sqn in Ubon.

After five years in Thailand, 79 Squadron was disbanded, however 18 years later, the Squadron reformed for a short period at Butterworth following 3 Squadron's return to Australia for re-equipping with the F/A-18 Hornet.



Equipped with Mirages, No 79 Squadron participated in numerous air defence exercises and represented the RAAF's last permanent fighter presence in Malaysia. 79 Squadron disbanded again on 30 June 1988.

The Squadron was reformed in 1998 and is now located at Pearce. It operated Macchi aircraft from 1998 until the introduction of the BAE Hawk in 2000, and conducts Introductory Fast Jet Flying for RAAF pilots newly graduated from No 2 Flying Training School using the Hawk Mk 127 Aircraft; as well as Hawk Refresher and Instructor Conversion Courses for previously converted Fighter Pilots.

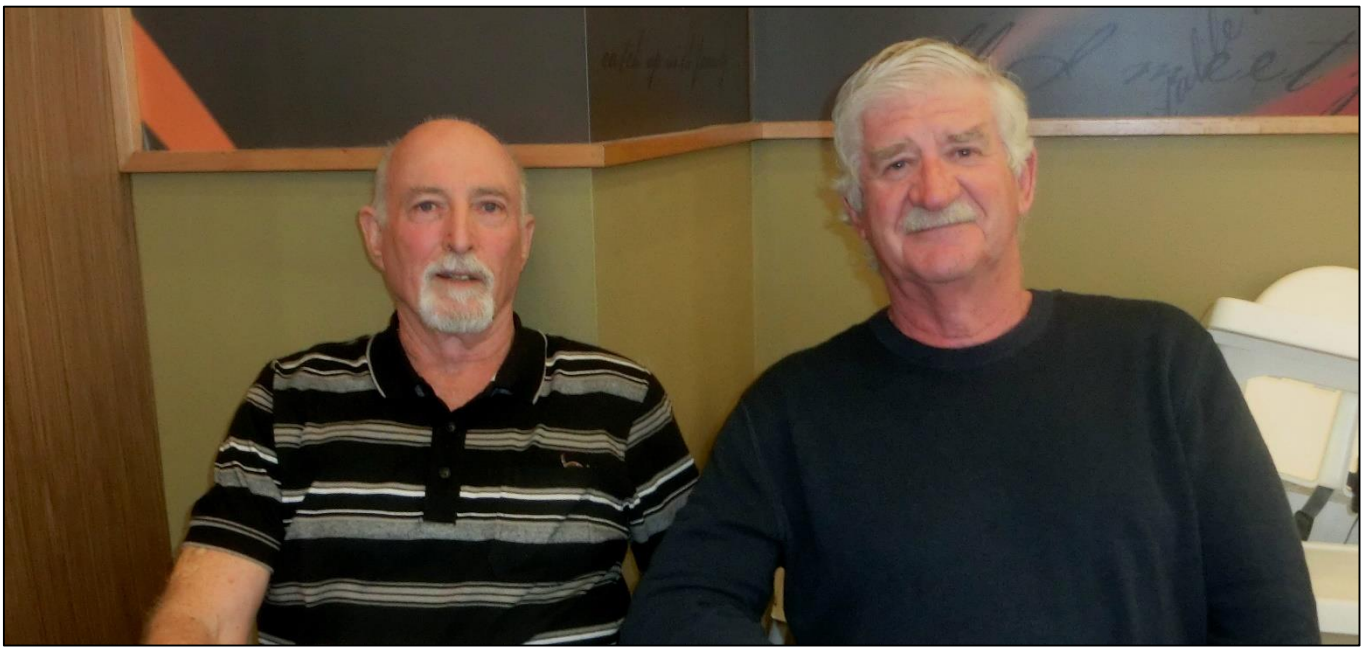
52 RMC

Unfortunately we don't have any names, if you can help, please do.

34 RTC.

Peter Griffiths.

A lot of people have been looking for Pete for yonks and he finally found us, through the mag. And as is usually the case, he lives only 30 minutes from us so we got together for a coffee and a good old yarn. Years ago we'd have met in a bar somewhere (and would probably still be there), but alas, we decided to meet in a Coffee Club – age is such a pacifier. Was great to see him again.



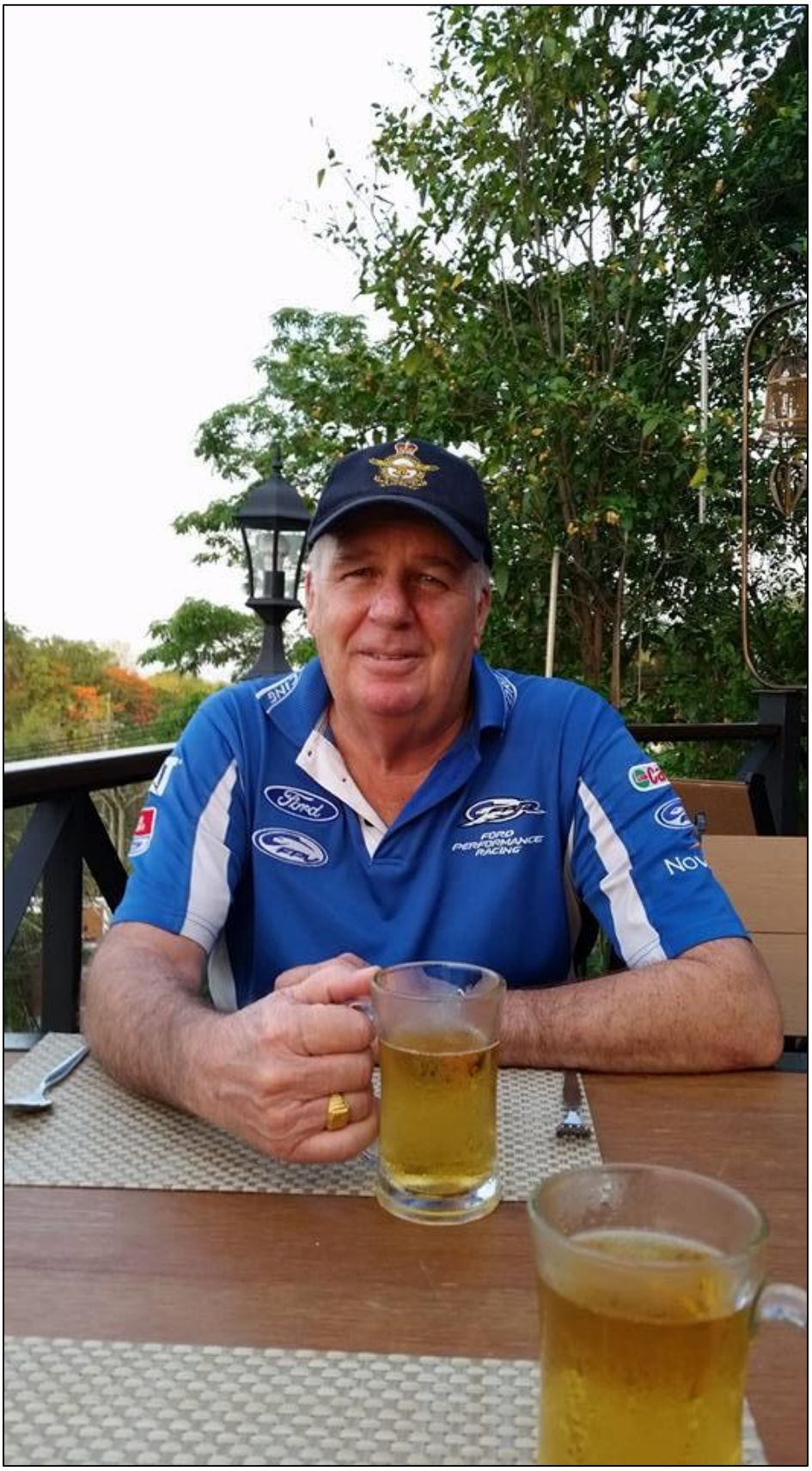
On the Skyway at Katoomba back in 1967 are L-R: John Boyne, Peter Griffiths, Phil Penny.

12 Appy course, with partners. (Sorry, no names, please supply if you can)

13 Appy course, with partners.

My wife got 8 out 10 on her driver's test - the other two blokes managed to jump out of her way.

Al Shaw – having brekky!



THE RAM
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Base Radio – Amberley. 1983.

Some photos of the Butterworth area, taken in 1980 - 81.

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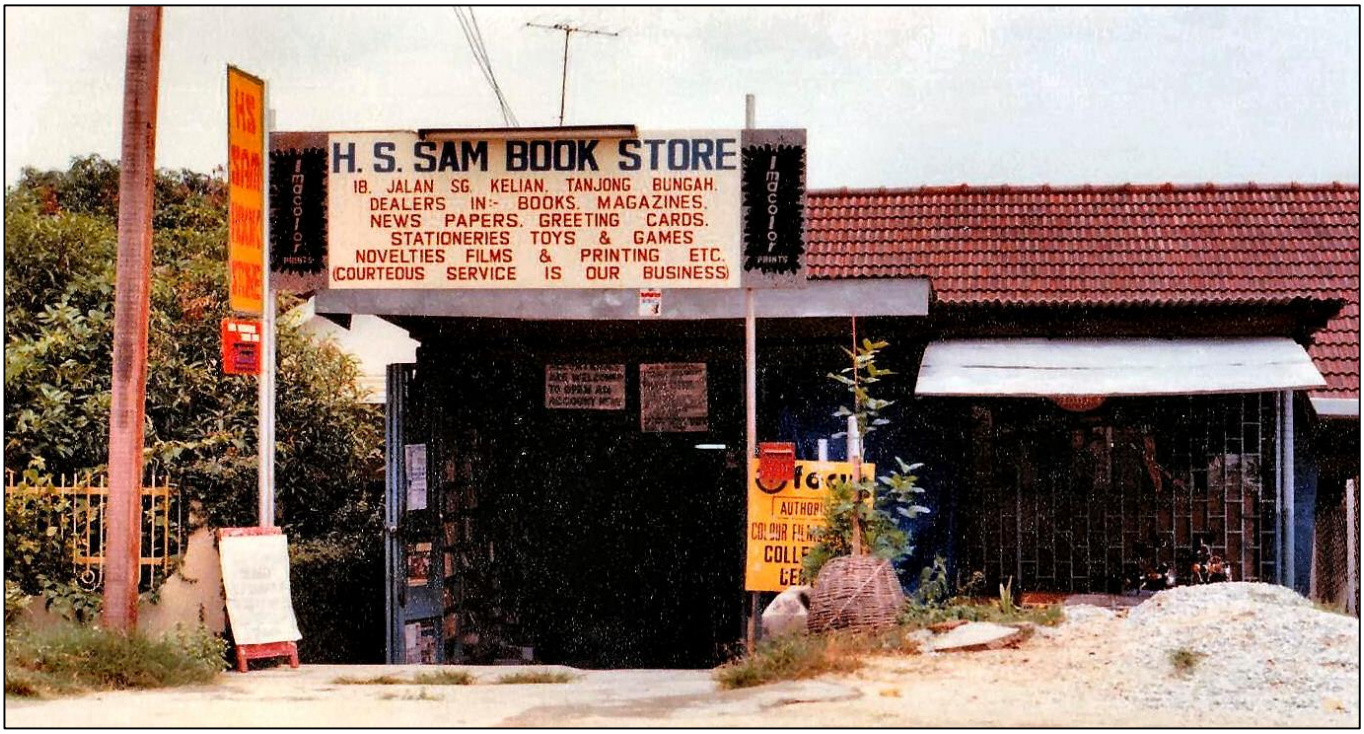
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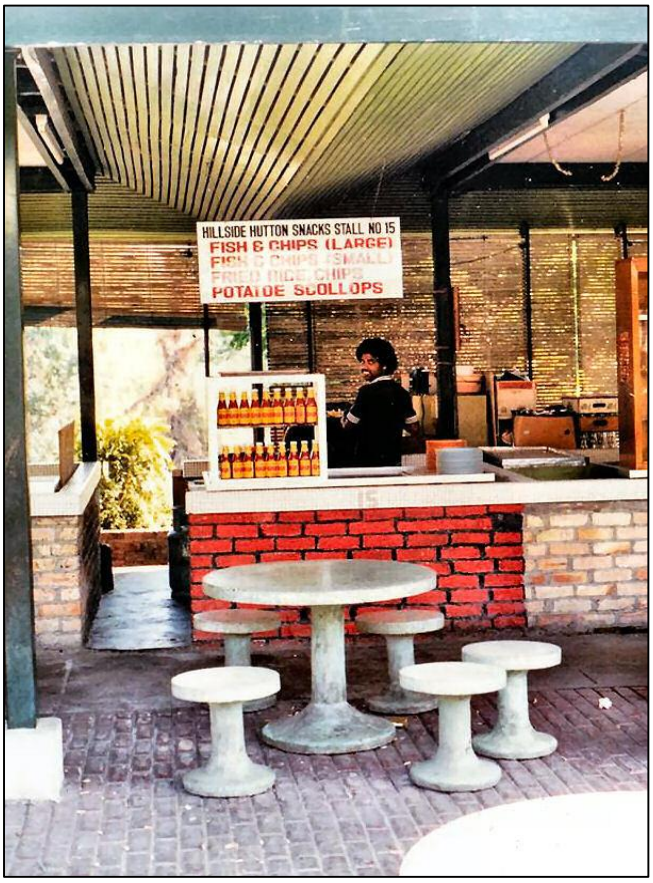
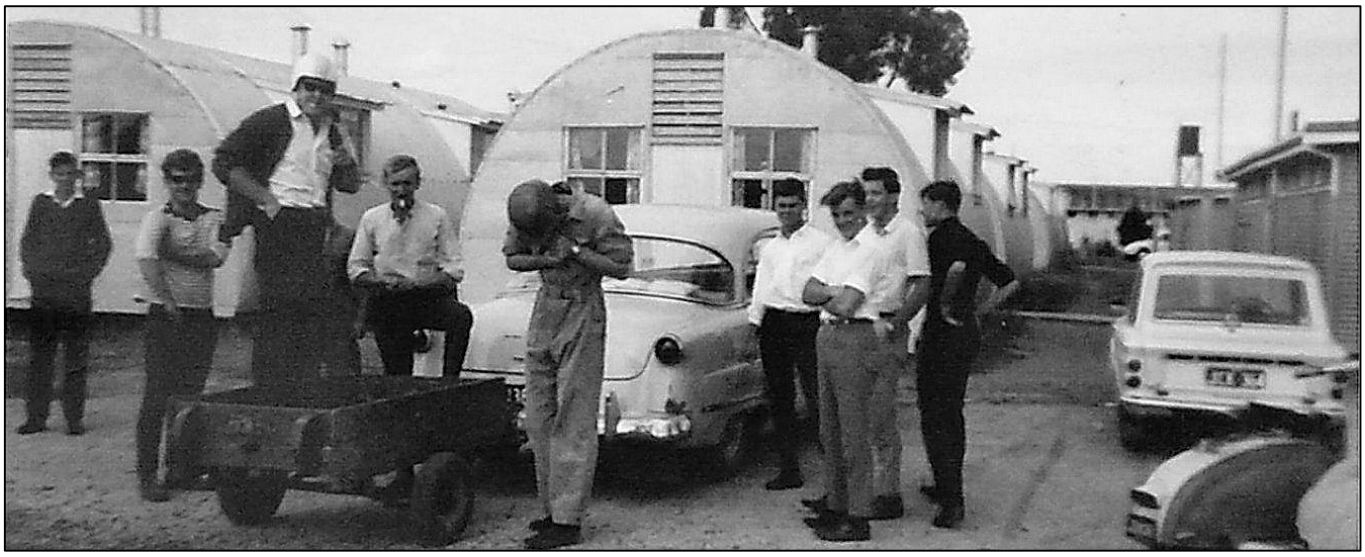


Radschool 1964 (Names please)



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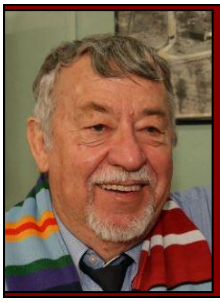


Out in the shed with Ted.

Ted McEvoy

A Sukhoi 30 showing off.....

"See the Russian fighter plane doing a delicate solo dance at ground level. It is even more amazing when one realizes this is a deadly plane capable of supersonic speeds and dropping nuclear bombs and shooting down almost any fighter plane". ???????

I don't know how many times I've received the above email which shows this "remarkable" Russian aircraft performing seemingly impossible manoeuvres in front of half a dozen blokes who seem just as excited as though they were watching a game of marbles (Click the pic to see the video)

And everyone who sends me the email suggests it's the real deal!! Am I the only sceptic left in the world?? Before you send it on, just have a look at the video:

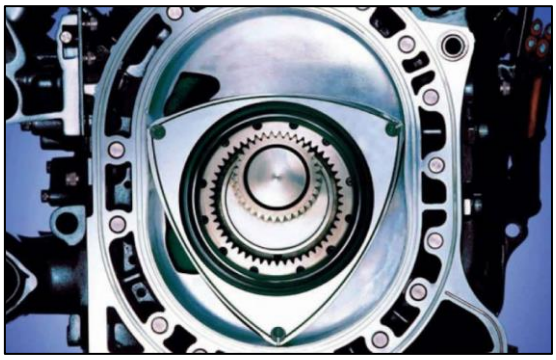
- Why is there no jet thrust disturbing the ground under the aircraft??
- Why would those blokes in blue be allowed so close to it?? (Would one of them be the pilot of the aircraft perhaps?)
- And hello, what is that model aircraft doing on the ground in one of the scenes??

Please don't send it to me anymore. It's just a model people, but you have to admit, whoever is doing the "flying" is actually very talented.

If people can't control their own emotions,
then they have to start trying to control other people's behaviour.

Rotary “Wankel” engines

Some years ago, Mazda picked up the rotary engine developed by German Engineer, Felix Wankel, and after making a number of modifications, introduced it into their cars in 1965. Over the years Mazda made many modifications and improvements to the engine, but on Friday, 22 June 2012, the Wankel rotary engine's last remaining and steadfast devotee, Mazda, produced their final rotary engine in their Hiroshima plant.



The Wankel engine never really fulfilled its promises and hopes, though over its history over 25 major car, motorcycle, tractor, and aircraft companies, ranging from Suzuki to Rolls-Royce, were actively researching, developing, and/or building the piston-less engine.

The Wankel motor is one of those things that, for all its issues, was just too pure and beautiful for engineers to ignore. With far fewer parts than a regular reciprocating piston engine and a visually elegant design, it's no wonder Mazda kept with it. For a given displacement, it produces far more power than a given piston engine, at a much smaller size and weight. It can rev faster and is inherently smooth, since the motive force is rotational from start to finish, not the back-and-forth hopping of a piston engine. The down side is that Wankels are always a bit more fuel-gluttonous than a piston engine and almost always have dirtier exhaust. Poor fuel economy and more polluting are pretty much the only strikes you need against you in our modern age, so the mainstream Wankel is going away.

Felix Wankel was a gifted and largely self-taught engineer. The fundamental concept behind the rotary engine came to him quite early, as he is reported to have told friends at the age of 17 he would build a new kind of car with "a new type of engine, half turbine, half reciprocating”. His past was checkered with periods in Hitler Youth and the Nazi party, though he was forced out in 1932. After his first patent in 1929 for the engine, it wasn't until after WWII that development started in earnest, thanks to a development deal with NSU in 1951. In 1957, an NSU engineer built the first working Wankel motor without Wankel knowing, which caused him to comment "you have turned my race horse into a plow mare." Like a typical gearhead, I'm sure Wankel was imaging a powerful racing motor instead of the practical lump made by NSU.

The NSU Spider was the first production Wankel-engined car, in 1964. A pretty little rear-engined roadster, it was sort of like the VW Type III convertible that was never made, with its under-trunk-floor engine position and two luggage compartments. Later NSU created the legendary Ro80, a beautiful rotary-engined sedan that looked 20+ years ahead of its time. Sadly, the Wankel proved to be the achilles heel

of the car, with issues with rotor-tip sealing causing some engines to fail as early as 30,000 miles.

Attempts from the Wankel's homeland were nothing compared with the engine's longest and greatest patron, Mazda. Starting with the lovely Cosmo back in 1967 (which had the first two-rotor Wankel) and ending in 2012 with the advanced Renesis engine in the RX-8, Mazda has built cars (and trucks) with rotary engines for 45 years, and in that time managed to work out most of the major sealing and other issues.

The final version of Mazda's rotary, the Renesis, developed 238 HP out of 1.3 litres, very impressive. Less impressive is its fuel consumption and emissions, the latter being the final, shiny coffin nail, as the engine failed to pass the Euro 5 emissions tests. Mazda did release a limited run of a hydrogen-based rotary engine, but future development seems unlikely.

It's not totally gone, though. The engine's just too elegant and simple to disappear entirely, and is finding strange and novel niches in which to survive. Like seat belts. The seat belt emergency pretensioner system in some Mercedes-Benz and Volkswagen is actually a tiny Wankel motor driven by an explosive charge. Wankels may also stick around in certain niche markets, like snowmobiles, since when they fail it's more gradual, and some power may still be generated, for a time. This is unlike piston engines, who may throw a rod and be done with it in a horrific moment of smoke and oil. For snowmobiles, this is a big deal, since breaking down can mean much more than an annoying afternoon. Much more as in lost noses and fingers to frostbite or determined wolves. UAVs are also experimenting with small Wankels, since their simplicity and durability are big advantages for robot aircraft.

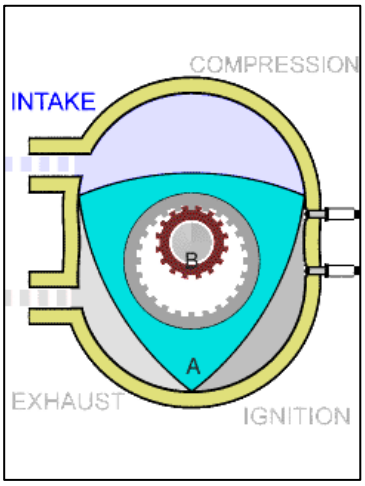
So, why did it fail?

Rotor sealing. This is still a problem as the engine housing has vastly different temperatures in each separate chamber section. The different expansion coefficients of the materials give a far from perfect sealing. In comparison a piston engine has all four functions of a cycle in the same chamber giving a more stable temperature for piston rings to act against.

Apex seal lifting. Centrifugal force pushes the apex seal onto the housing surface forming a firm seal. Gaps can develop between the apex seal and trochoid housing in light-load operation when imbalances in centrifugal force and gas pressure occur. In low engine-rpm ranges, or under low-load conditions, gas pressure in the combustion chamber can cause the seal to lift off the surface, resulting in combustion gas leaking into the next chamber. Mazda has identified this problem and has developed a solution. By changing the shape of the troichoid housing, the seals remain flush to the housing. This points to using the engine at sustained higher

revolutions in applications such as an electric generator. In vehicles this leads to series-hybrid applications of the engine.

Slow Combustion. The combustion is slow as the combustion chamber is long, thin, and moving. The trailing side of the combustion chamber naturally produces a "squeeze stream" that prevents the flame from reaching the chamber trailing edge. This problem is sought to be overcome by direct injection in which fuel is injected towards the leading edge of the combustion chamber to minimize the amount of unburned fuel in the exhaust.



Bad fuel economy. This occurs from seals leakages, and the 'difficult shape' of combustion chamber, with poor combustion behaviour, and bad Mean Effective Pressure at part load, low rpm. Meeting the emissions regulations requirements sometimes mandated a fuel/air ratio that is not the best for fuel economy. Acceleration and deceleration as in direct drive average driving conditions also affects fuel economy. Running the engine at a constant speed and load eliminates poor fuel consumption.

Poor emissions. As unburnt fuel is in the exhaust stream, emissions requirements are difficult to meet. This problem looks to be overcome by implementing direct fuel injection into the combustion chamber. The Freedom Motors Rotapower Wankel engine which is not yet in production, met the Ultra Low California emissions. The Mazda Renesis engine, with both Intake and Exhaust Side Ports, suppressed the loss of unburned mix to exhaust formerly induced by port overlap.

Click HERE to see a video on why the rotary engine failed.

You can read more about the Wankel engine HERE

<iframe width="800" height="450" src="https://www.youtube.com/embed/v3uGJGzUYCI" frameborder="0" allowfullscreen></iframe>

Vietnam.

In 1970, a very silly North Vietnamese decided to set himself up as a sniper and fire onto a US army base. Photographer James Speed Hensinger just happened to be on the base at the time and he captured the US

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response. The Yanks first opened up with a 40mm auto-cannon, followed by launching flares into the hills, as a pair of M-60 machine guns in guard towers began pelting the woods with hot lead.

The sniper was never found, though soldiers did discover traces of blood when they searched the area the next day. He never came back.

Beware of business scams impersonating the ACCC.

14 July 2016

The Australian Competition and Consumer Commission is warning businesses to watch out for scam emails that claim to be from the ACCC but in fact contain links that can infect your computer with malware. Several businesses have reported receiving bogus requests from the ACCC to respond to a complaint that has been made about their business, or seek payment for an infringement notice for breach of copyright.

Both scams encourage the recipient to find out more by either clicking on a link disguised as a .pdf file or responding to contact details in the email. In the first scam, the embedded link is actually a .zip file that will download malware on to your computer or device. The ACCC is warning people that there are scammers trying to use the ACCC's name to try and to steal money from businesses. People should be on the lookout for ransomware, which is a type of malware that freezes your computer and demands a ransom for you to be able to access your computer again. Scammers commonly ask for bitcoins or ask you to transfer money by wire transfer but even if you pay the fee, there is no guarantee that your computer will be unlocked.

Fortunately, no money has been reported lost from these particular scams to Scamwatch yet. The emails are easy to spot as fakes and you can avoid falling victim by checking the email address of the sender before clicking on any links. Scammers have been using email addresses such as 'accc.govt.au'. Australian government agencies do no use free web based email accounts like outlook.com and their emails end with gov.au, not .govt.au. If you hover your mouse pointer over links they will generally display the real address or file name. Zip and .exe files are easily disguised as pdf files but can contain malware.

Both of the scam emails circulating are simply addressed to a non-specific 'Business Owner' and may contain errors. If you unexpectedly receive an email from the ACCC, do not click on any links or respond to contact details provided in the email. Instead, independently source contact details for the ACCC through an internet search or phone book

80,000 Collingwood Fans meet at the MCG for a "Collingwood Fans Are Not Stupid" Convention. Eddie says, "We are all here today to prove to the world that Collingwood fans are not stupid. Can I have a volunteer?" Dane Swan gingerly works his way through the crowd and steps up to the stage. Eddie asks him, "What is fifteen plus fifteen?" After 15 or 20 seconds Swan says, "Eighteen!" Obviously everyone is a little disappointed. Then all 80,000 Collingwood Fans start chanting, "Give Him Another Chance! Give Him Another Chance!" Eddie says, "Well since we've gone to the trouble of getting 80,000 of you in one place and we have the world wide press and global broadcast media here, I think we can give him another chance." So he asks, "What is seven plus seven?" After nearly 30 seconds he eventually says, "Ninety!" Eddie is quite perplexed, looks down and just lets out a dejected sigh - everyone is disheartened. Swanny starts crying and the 80,000 Collingwood fans begin to yell and wave their hands shouting, "Give Him Another Chance! Give Him Another Chance!" Eddie, unsure whether or not he is doing more harm than damage, eventually says, "OK! OK! Just one more chance...What is two plus two?" Swanny closes his eyes, and after a whole minute eventually says, "Four!" Throughout the stadium pandemonium breaks out as all 80,000 Collingwood fans jump to their feet, wave their arms, stamp their feet and scream... "Give Him Another Chance! Give Him Another Chance!"

The Tasmanian Vietnam Veterans State Memorial Bush Retreat.

What is the “Bush Retreat”?

It is a memorial to those 16 Tasmanians who served and lost their lives in Vietnam. The building was constructed with funds from both State and Federal Governments and was erected by veterans and professionals who donated their time and materials to the project. The 5 bedroom house is located at Dago Point, Interlaken, beside Lake Sorell in the Central Highlands of Tasmania. It was opened by Governor General Sir Phillip Bennett on the 20th January 1990. It sleeps up to 13, has tank water, a large wood fire plus all electric mod-cons including TV, Video and DVD player. Although there is no mobile phone reception, there is a telephone (03) 6254 1055 for incoming calls and emergency 000 calls.

What's in the "Bush Retreat" for my use?

Bedroom 1 – Single bunk, 2 single mattresses, 6 single blankets, 2 pillows, wardrobe, bedside table and lamp.
Bedroom 2 – Tri bunk, double and single mattresses, 9 single blankets, 4 pillows, wardrobe, bedside table and lamp.
Bedroom 3 – Tri bunk, double and single mattresses, 9 single blankets, 3 pillows, wardrobe, bedside table and lamp.
Bedroom 4 – Single bunk, 2 single mattresses, 6 single blankets, 2 pillows, wardrobe, bedside table and lamp.
Bedroom 5 – Tri bunk, double and single mattresses, 9 single blankets, 3 pillows, wardrobe, bedside table and lamp.
Bathroom – Wheel chair friendly shower, hand basin, toilet, toilet chair, shower chair, heater and first aid box.
Lounge/Dining Room/Kitchen – Large wood heater, lounge suite, TV, video, DVD, dining suite, 3 fridges, stove, sink, microwave oven, toaster, electric jug, crockery and cooking utensils.
2 wood containers – Wood, barrow, block buster, axe, hoe, shovel, tomahawk and step ladder.
Covered barbecue area – Barbecue, table & stool assembly, fire pot and 2 freezers as ice containers.
Outside toilet – Toilet only
Laundry – Twin tub washing machine and trough
Tank water pump shed – Pump, filter, 2 valves, axe, leaf blower with cord. Also broom, mops and buckets
Clothes Line – Pull out type clothes line.

What is the cost?

The nightly rental cost is $40 for 2 adults plus $10 for each additional adult. Tenants may enter from mid-day and must exit by mid-day and are asked to use what-ever is in stock, but replace when it runs out. Example – ensure that there are toilet rolls, sugar, coffee, tea and washing up liquid for the next tenant.

Who can book?

Any adult who is eligible to be (you don't have to be) a member of the "Vietnam Veterans Association Australia" may book. That means Vietnam Veterans, their partners, adult children and adult grand-children. Also, any adult member of the "Peacekeepers and Peacemakers Association" may book.

How do I book?

Bookings are made by ringing Tamara Abbott at the Tasmania Branch RSLA on (03) 6242 8900 or email tamara.abbott@rsltas.org.au

How do I pay?

- By cheque to "Viet Vets Memorial Fund" send to Tas. RSLA, PO Box 147, NEWTOWN, TAS, 7008.
- Direct debit to Viet Vets Mem. Fund, BSB 807.009, Account Number 12149527, Reference – your name.

Keys are available on showing your receipt at the following:

- The RSLA Tasmania Branch, 206 Newtown Road, NEWTOWN, Hobart, TAS 7008, (03) 6242 8900
- The Launceston RSL, 313 Wellington Street, LAUNCESTON SOUTH, TAS 7249, (03)6344 9584
- The Devonport RSL, 18 Mac Fie Street, PO BOX 365, DEVONPORT TAS 7310. (03) 6424 2673 devonportrsl@netspace.net.au Paul Barker.
- The S tHelens RSL, 35 Quail Street, ST HELENS TAS 7216, (03) 6376 1372.

What do I need to take with me?

- Bedding – Your towels, sheets and pillow slips plus favourite pillow and doona. There are some single blankets and pillows.
- Food, drinks, warm clothing for bush walking, fishing gear, a book or DVDs.

How do I find the Bush Retreat

- From Hobart – Travel North up the Midlands Highway to Oatlands. Turn left onto Interlaken Road (C526). Keep left and drive between the 2 lakes then turn right into Dago Point. Follow the red roosters to the right and you are there.
- From Launceston – Travel South down the Midlands Highway to Tunbridge. Turn right up the Tunbridge Tier on (C526) until you are between Lake Sorell and Lake Crescent.

Turn right about 2km past the connecting channel into Dago Point. Drive a few hundred meters, then follow the red roosters to the right and you are there.

- From Devonport – Travel Highway 1 to Deloraine, then (A5) along the Western shore of Great Lake to Steppes. Turn left onto (C527) to Interlaken. Turn left into Dago Point, then right following the red roosters and you are there.

PLEASE NOTE

If you are staying at the "Retreat" in the Winter, you may get lots of SNOW, so be prepared. Don't forget your CHAINS and a little extra food and medication, just in case you get snowed in. Lake Sorell is closed for Carp eradication, but Lake Crescent has large trout in season and the Great Lake is open all year round, so fishing gear could be handy.

On arrival Process of unlocking

1. Using the orange key, unlock the meter box and turn the power on using both switches.
2. Using the blue and the yellow key unlock the end and back doors, checking that the door will not lock you out accidentally when shut.
3. Using keys 5, 6 and 7 unlock the outside toilet, the water pump shed and the laundry.
4. In the PUMP shed, turn the blue gate valve and black circular handled valve behind the door on, then switch the pump on.
5. Using the red and green keys, unlock the large wood containers. Someone may have the fire alight by now.

On departure.

1. Clean the barbecue if you have used it.
2. Pack your bedding and tidy beds and bedrooms.
3. Check under beds, in cupboards and drawers.
4. Pack up your food and clothing.
5. As fridges will be switched off, please remove food.
6. Clean the toilets, shower and hand basin.
7. Check and clean the oven, stove, microwave oven, refrigerator, table and kitchen benches.
8. Mop the vinyl areas, vacuum the carpet and sweep around the fire place.
9. Ensure that the fire is safe and that there are sticks and wood ready for the next tenant. If the fire is cold, please set the fire for the next tenant.
10. Check that all windows are closed and locked. The sliding glass door is locked at the top with the purple key.
11. The last one out to check that all 6 doors and containers are locked, power is turned off and fuse box is locked.

If you like the bush and you're looking for somewhere different to spend a few days that won't break the bank, this would be ideal.

Increased Travel Allowances.

Travel allowances for transport, meals and accommodation under DVA's Repatriation Transport scheme increased from 1 July in line with the Consumer Price Index (CPI). The intention of the Scheme is to provide financial assistance with travelling expenses for an entitled person and their medically required attendant, not necessarily to reimburse the entire cost incurred. To claim reimbursement for transport a cost must be incurred. To receive the maximum benefit, you should travel to your closest practical health provider.

Holders of a Gold or White Card, eligible under the Veterans' Entitlements Act (VEA) are entitled to assistance towards travelling expenses when attending approved treatment. The increases apply to travel by private vehicle, as well as accommodation and meal allowances, in respect of travel for treatment purposes or disability and income support claims for all eligible veterans, war widow and widowers (entitled persons).

For any queries about travel allowances contact Veterans' Transport Services on 1300 550 454 (for metropolitan areas) or 1800 550 454 (for country areas).

Type of Allowance	Measure	New Allowance 1st July 2016	Travel with a medically required Attendant
Private vehicle	per kilometre	34.1 c	X1
Public Transport	Actual fare	Actual fare	X2
Commercial accommodation, non-capital city. Single	Per night	$140.90	X2
Commercial accommodation, capital city. Single	Per night	$167.40	X2
Attendant and Veteran sharing commercial accommodation - shared	Per night	$229.20	X1
Subsidised accommodation - single	Per night	$88.00	X2
Private accommodation - single	Per night	$44.00	X2
Meal allowance – more than 50klm but less than or equal to 200klm from your home to the treatment location	Per day	$14.00	X2

Meal allowance – more than 200klm from your home to the treatment location.	Per day	$28.40	X2

Further information is available on DVA's factsheet: *HSV02 – Claiming Travelling Expenses under the Repatriation Transport Scheme*.

The people who lived in the retirement village had small apartments but they all ate at a central cafeteria. One morning one of the residents didn't show up for breakfast so my wife went upstairs and knocked on his door to see if everything was OK. She could hear him through the door and he said that he was running late and would be down shortly so she went back to the dining area.

An hour later he still hadn't arrived so she went back up towards his room and she found him on the stairs. He was coming down the stairs but was having a hell of time. He had a death grip on the hand rail and seemed to have trouble getting his legs to work right. She told him she was going to call an ambulance but he told her no, he wasn't in any pain and just wanted to have his breakfast. So she helped him the rest of the way down the stairs and he had his breakfast.

When he tried to return to his room he was completely unable to get up even the first step so they called an ambulance for him. A couple hours later she called the hospital to see how he was doing. The receptionist there said he was fine, he just had both of his legs in one leg of his boxer shorts.

Overseas travel.

If you're travelling overseas in the near future, there are a few things you should do before you go. Number one, two and three is to take out travel insurance. If you get sick or break something overseas, you could firstly be up for huge buckets of money and secondly, depending on where you are, could be under the care of some doubtful (to say it nicely) medical practitioners. Travel insurance is a must.

Next thing you should do is study to where you're going. You should know the financial, communication, and transport facilities available in the country to where you're going well before you climb aboard the freedom bird. Luckily, 1Cover has done all that for you, and

although we have no agreement with them, we suggest you check out their tips for travel overseas.

If you're going to Bali – check HERE
If you're going to Thailand, check HERE
If you're going to the USA, check HERE
If you're going to the UK, check HERE

And if you want a quote for travel insurance, check them out HERE

A man comes home to find his mate having sex with his wife,
he grabs his 22 from the cupboard and shoots the bloke and kills him.
His wife says "carry on like that and you'll have no mates left".

Intentionally crashing a Boeing – what did we learn?

On the 1st December, 1984 a remotely piloted Boeing 720, loaded with specially formulated anti-misting Jet A, was intentionally crashed at Edwards Air Force Base to determine if the fuel would preclude or suppress a post-crash fire long enough for occupants to escape. It was a bold but ill-conceived experiment that went up in smoke.

In addition to the anti-misting kerosene (AMK) evaluation, the controlled crash also provided data on how passenger seats and other structures performed in such situations. Instrumented dummies were seated in the cabin to assess acceleration forces and cameras documented fire propagation and how well other fixtures held up. It was well planned and carefully rehearsed over four years including multiple remotely-piloted approaches to 150 feet above the ground, 16 of which included engines running on anti-misting kerosene. Engines had to be modified with degraders to chop up the AMK's long molecules so fuel would flow reliably into combustion chambers and burn like regular Jet A. Proving flights were a cautious, step by step process, incrementally feeding the AMK from a few tanks to a few engines to be sure engines ran properly.

Airlines were deeply sceptical about the whole idea and very concerned about its costs and practicality. Going forward with such a program meant, at the very least, adding more steps to fuel refining and costly fleet-wide fuel system retrofitting to accommodate the AMK's long fuel

molecules. All of this to address those extremely rare events where suppressing or delaying a post-crash fire would allow passengers to escape in an otherwise survivable accident.
The industry view was that the money could be better spent on accident prevention rather than adding costly mechanical complexity to prevent what might possibly happen in rare post-crash events. Instead airlines advocated better automation, cockpit displays and warning systems as a better use for the money. More on this later. NASA worked diligently on the project, methodically fixing remote control bugs and refining control techniques to where they were confident the old Boeing could be flown wings level into eight fixed barriers designed to slice open fuel tanks but leave the fuselage intact.

Finally, with all details complete, the crash date was set. Word went out to the airlines, manufacturers and other interested industry groups to come see the fruits of NASA's efforts. And so, everyone gathered at Edwards Air Force Base on that cool December morning several miles from the Rogers Dry Lake runway where NASA 's remotely controlled Boeing 720 loaded with 76,000 pounds of anti-misting kerosene would end its last flight. The plane lifted off, retracted its landing gear, climbed to 2300 feet then banked around and lined up to land wheels up on the spiked runway. We watched through binoculars as the 720 began its descent on a slightly steeper than normal 3.8 degree descent toward the runway. Also present was Alex Ogston, an old timer British chemical engineer who worked for Standard Oil in World War II helping develop the 100 octane gasoline that contributed to the Spitfire's success in besting the Germans in the Battle of Britain.

Ogston chatted about those long ago times and related how Messerschmitt 109s had to make do with 87 octane gas while the Brits' 100 octane fuel allowed higher manifold pressure and more power for their Merlin engines, giving them a narrow edge over their adversaries. Ogston was incredulous about what he said was "NASA's silly effort to keep jet fuel from burning."

Nearing touchdown the Boeing banked left and right then struck the ground slightly left wing down. Immediately a monstrous fireball erupted as the plane slid along. Ogston was right. Liberating tons of jet fuel in the presence of an ignition source will result in a large fire ball. Fire fighting vehicles arriving on the scene were no match for the conflagration and the plane burned for over an hour in spite of their efforts. The 720's wing wobbling Dutch roll (common in swept wing aircraft) was at the root of the pilot's control problems. Seeing that a wings level touchdown was doubtful, the remote pilot spooled up the engines apparently trying to go around but couldn't complete the manoeuvre in time. The plane struck the ground left wing down in a left skid at full thrust instead of being at idle for landing. It

then slid into the barriers, one of which sliced through the number 3 engine and passenger cabin, providing a flame path into the fuselage. The botched experiment highlighted the fallacy of carefully engineering a crash scenario to serve as the basis for retooling airliner fuel systems and reformulating jet fuel specifications.

The fireball and post-crash analysis dramatically confirmed industry scepticism about AMK, and pointed up its shortcomings as a viable safety enhancement in the real world. The effort was abandoned. But it wasn't all for naught. Analysis of fire propagation in the cabin led to new standards for fire blocking materials in passenger seats and highlighted the need for faster flight recorder data sampling rates.

The FAA estimated that 25 to 28 of the cabin's 113 occupants might have been able to exit the cabin before dense black smoke completely obscured visibility. Escape time varied from five seconds in the forward cabin to 20 seconds further back. The FAA's survivability estimates are debatable in such a fiery accident scenario because passengers often wear clothing and footwear providing almost no bodily protection and some seem only marginally able to manoeuvre into and out of seats even in normal circumstances.

In contrast to that long ago AMK experiment, consider how today's well engineered terrain awareness warning systems (TAWS), also known as enhanced ground proximity warning systems or EGPWS, have largely prevented the kind of accidents AMK was intended to make survivable. Enhanced ground prox systems were first installed in air carrier jets in 1997 and are now in over 55,000 airliners, corporate jets, turboprops, helicopters, business aircraft and military transport aircraft around the world. TAWS installations can include a worldwide terrain and obstruction database and cover all airports with paved runways 2200 feet and longer, although some systems are less inclusive depending on user needs.

These warnings did more for safety than the fanciest fuel projects.

TAWS warns pilots of terrain and obstructions with visual and audio alerts plus, on some aircraft, color-coded situational awareness terrain displays. TAWS also warns of flight dangerously close to terrain, excessive bank angle, excessive deviations from the ILS glideslope or excessive deviations from the approach descent path – as well as descents after take-off. Since EGPWS was introduced 20 years ago, the airline hull loss rate for Western built airliners has decreased about 2.5 times.

What TAWS can't do is convince overly headstrong pilots to heed warnings.

For example, on May 9, 2012, a brand new SU95-100 equipped with TAWS flew into a mountainside during a demonstration flight in IMC while the pilot in command listened to "terrain" warnings and finally, "pull-up" warnings for 36 seconds before impact. To better understand where and under what circumstances significant airliner flightpath deviations occur, Honeywell analysed five years of escape activations (2011 through 2015) on glass cockpit airliners equipped with their TAWS. There were 224 final approach premature descent events extracted from about 24.38 million flight legs operated around the world. None were reported by pilots and air traffic controllers. The event data covered the period 20 seconds before the alert through 10 seconds after and were de-identified so that they only could be used for safety analysis.

How many of these premature descents would have ended in an undershoot accident is impossible to know but it's comforting to know TAWS is doing its job around the world by alerting pilots in a manner that results in a successful avoidance manoeuvre. And because thoughtful regulators acknowledged the impracticality of AMK as a safety enhancer, we're not saddled with an unnecessary, unworkable fuel additive which would neither prevent accidents nor materially increase post-accident survivability.

See the crash HERE

Independent history of Vietnam War medical legacies is under way.

Work has commenced on an independent history that will document and analyse the medical legacies of the Vietnam War. The volume, commissioned by the Council of the Australian War Memorial, will be written by Dr Peter Yule, a research f

Dr Yule said the new volume would examine the complete range of medical issues experienced by Australian veterans, with particular focus on post-traumatic stress disorder and the health effects of exposure to herbicides. Dr Yule also said that it is essential to find out about the health concerns of veterans by talking with the veterans themselves. He emphasised that the voice of the veterans must be heard.

Director of the Australian War Memorial Dr Brendan Nelson said the history would be informed by 30 years of new knowledge and interviews with Vietnam War veterans. "This important

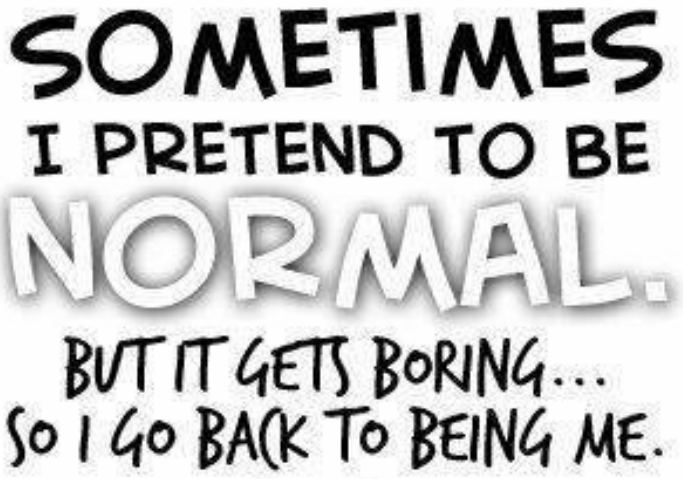
project will enable greater understanding of the implications for those Australians who served in the Vietnam War.

We cannot rewrite history, but a generation on, informed by new knowledge and a deeper understanding, we can bring a sense of informed justice and meaning to veterans still suffering." He added that the Memorial has a strong reputation for producing authoritative histories.

"Dr Yule brings a level of academic rigour that a project like this deserves. His work as an independent historian is extensive, and he has written or edited some 19 books as well as numerous articles and other publications," said Dr Nelson.

During the four-year project, Dr Yule and a team of researchers will undertake interviews with a wide cross-section of Vietnam veterans. Existing research and medical studies will also be reviewed as part of the project.

The final manuscript is expected to be completed by the end of 2019, with publication planned for 2020.



Senate given permission to investigate Veterans' Suicides and DVA performance after Lambie motion succeeds.

JLN Independent Tasmanian Senator Jacqui Lambie has won historic support in the Senate for a motion to establish an independent inquiry and investigation into the performance of the Department of Veterans' Affairs (DVA), especially in relation to crisis in Australian Veterans' health and rising suicide rates. The Inquiry will report back to the Senate by 30 March 2017.

"My message to veterans and their families, and even members of DVA who want to blow the whistle is: We now have a historic Senate Committee established which will thoroughly investigate the performance of the Department of Veterans Affairs. This will be a chance to tell the truth about the dysfunction within DVA and help stop our veterans from killing themselves." said Senator Lambie.

"Veterans are killing themselves at a rate of one every two weeks. Some reports suggest that the number is 280 since 1999. The government is trying to cover this scandal up through their Department of Veterans' Affairs, which doesn't even keep official statistics on the numbers of veteran suicides.

That's why last week in Parliament I moved a motion that ensured a Senate Committee will investigate why Australian veterans are completing suicide at such high rates. The RSL Tasmanian state executive supported this motion."

"The Alliance of Defence Service Organisations (ADSO) wholeheartedly supported my motion. And I am grateful that all the Crossbench Senators, Labor and the Greens also supported the motion."

"As you are about to see the Liberal government tried to stop my motion and opposed it on the voices, but were too scared to call a division." said Senator Lambie.

Click HERE to read the petition put forward by Senator Lambie and click HERE to watch the video.

Good News - at last!!

Blessed are those who are cracked,
for they are the ones who let in the light!

Ok, Ok!! – I'm going back to my room now!!

THE RAM
THE MAGAZINE BY & FOR SERVING & EX-RAAF PEOPLE & OTHERS
Vol 55

My Story.

Nick Ford.

This remarkable story by former RAAF Mirage pilot, Nick Ford, has a flight safety lesson for all pilots, airline and general aviation, in that it is all too easy to forget to lower your landing gear when various disconcerting factors build up to affect the pilot's train of thought at a critical time.

Nick Ford did a beautifully smooth wheels up landing on Melbourne Runway 34 into 30 knot plus head wind component. His story of this landing was published by the Queensland Air Museum.

The flying career of Mirage A3-16 came to a premature end on 24 October 1974 when the aeroplane was inadvertently landed wheels-up at Melbourne International Airport (Tullamarine). It was, according to the popular pilot definition, a good landing because the pilot walked away from it. Indeed, it came very close to being a great landing because inspections several years later revealed that they could have used the aeroplane again had there been a will to do so.

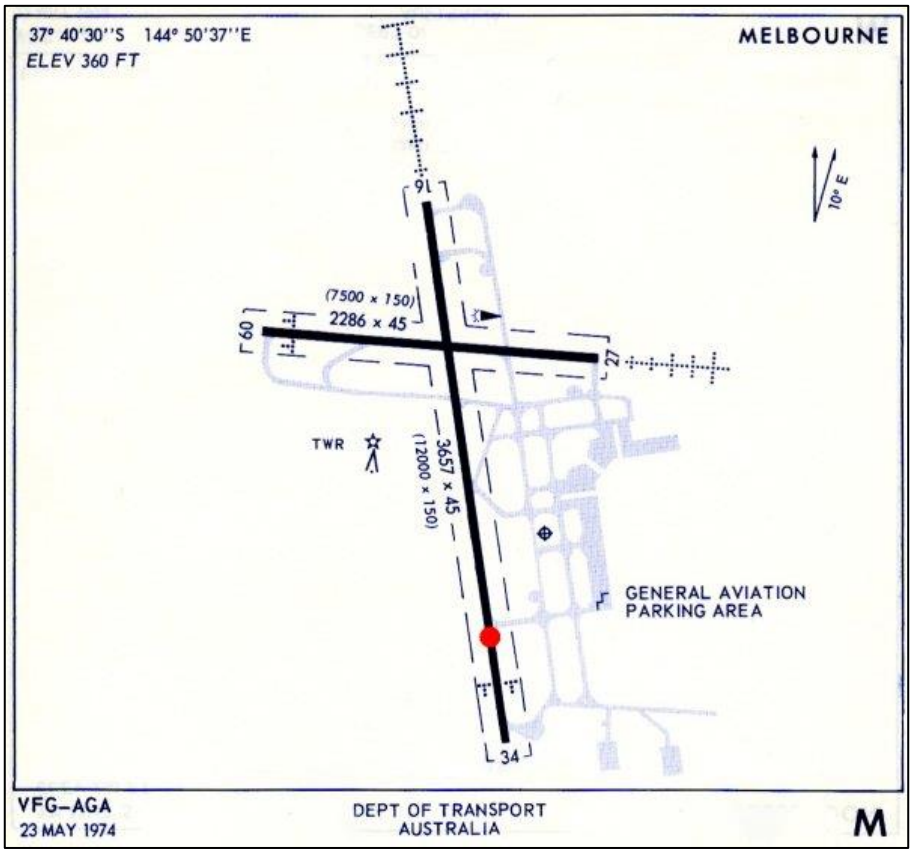
Most accounts of the accident emphasise the requirement for civil Air Traffic Control to issue a "Check Wheels" warning with landing clearances to military aircraft and the fact that such a

warning was not issued on this occasion. In the past, this requirement had led to amusing instances where pilots of fixed gear aircraft would respond "Down and Welded". Less amusing were instances of USAF C-141s going around from short final at Sydney and Alice Springs because the crew misinterpreted the "Clear to Land Check Wheels" as a warning that the Tower could not see their gear down. Nevertheless, the causes of the accident involving A3-16 were significantly more complex than the lack of a "Check Wheels" warning. As demonstrated by the following first-hand account by the pilot of A3-16, the holes in several layers of the well-known Swiss cheese safety model aligned that day!

“At approximately 1050hrs on the 24th October 1974, I landed “wheels-up” at Tullamarine Airport in Mirage A3-16. I forgot to lower my wheels which caused this accident. Since I was the only one who could have lowered the wheels, I was fully responsible for this accident.

Because I'm a man, when I lock my keys in the car, I will fiddle with a coat hanger long after hypothermia has set in. Calling RAC/NRMA is not an option. I will win.

I also had the dubious “honour” of becoming the first Mirage pilot in the world to survive a “wheels-up” landing. The RAAF had been told that several French pilots were killed attempting to land “wheels-up” before the French made it compulsory to eject rather than land. As a consequence, RAAF pilots were forbidden to intentionally land “wheels-up”. Accompanying this advice was a macabre description of the death of these pilots, their spines were driven up into their brains. Having survived my landing, I now doubt the veracity of much of this French tale.



This diagram at right of the Tullamarine runways appeared in a 1974 Visual Flight Guide (VFG). The red dot shows the approximate location where A3-16 came to rest on Runway 34 having used only 2,300 feet of the total length of 12,000 feet.

The Board of Inquiry found that my aircraft touched down at the 480 foot mark from the end of the runway three feet left of the centreline (my intention was to land at the 500 foot mark on the centreline). The total landing roll, or should I say landing “slide”, was 1820 feet. After the French tales, which talked of the Mirages slamming into the runway, surprisingly the nose of my aircraft contacted the ground at the 1000 foot mark in this slide showing that the nose was in effect lowered onto the runway by me during the landing. There was no slamming!

The aircraft came to a stop in good shape. It was resting on its two supersonic wing tanks and an empty bomb beam attached to the centreline of the aircraft. On vacating the aircraft and walking around the aircraft, I found there was a small fire (an area of a quarter of a square metre, flames 5-7cm high) under the rocket bay tank. The rocket bay tank was the first part of the aircraft to make contact with the runway and in the process a fuel line had been cracked and was dripping fuel into this small fire.

This small fire was put out by the firemen when they arrived on the scene. I will talk a little more about the actions of the firemen later.

Because I'm a man, when I catch a cold, I need someone to bring me soup and take care of me while I lie in bed and moan. You're a woman.
You never get as sick as I do, so for you, this is no problem.

Because Laverton’s runways were too short, all Mirage operations (by both RAAF and GAF pilots) were flown out of Avalon airfield (below). In the case of an emergency or bad weather the only suitable alternative airfield was Tullamarine Airport. Unfortunately, because this civilian airfield did not have a TACAN or a precision radar to allow a GCA, Mirage pilots had little that could be used to allow a safe landing at Tullamarine in bad weather.

The only available option was to use the approach radar to line us up with the centreline of the runway and have the air traffic controller tell us the distance out from the threshold. Using this radar, it had been found that an experienced controller could line us up with the centreline of the runway plus or minus 150 metres. An inexperienced controller’s error could be plus or minus 500 metres. Pilots would organise their own descent and hopefully, on breaking out of low cloud,

they could correct the left/right errors and land safely. The larger the error the harder it was to land safely.

On this day I was authorised for a “General Flying” sortie. There was good weather, no cloud (CAVOK), with 30-40kts northerly winds with some gusts up to 50kts. I was told to make one radar controlled approach to Tullamarine to help train the approach controllers. It was suggested I do this first before returning to the Avalon area for the rest of the sortie.

Straight after take-off, the Avalon Tower controller passed me to the Melbourne Approach controller who controlled me until late finals when he passed me to the Tullamarine Tower controller for my landing.

The pattern we were required to fly at Tullamarine was a very large rectangle overlaid on the runway. It was at least two times larger than our military patterns. However, this pattern gave the controller ample time and distance to precisely line us up with the centreline of the runway. Since that was the primary aim, we did not complain about the size of the pattern although it consumed a lot of fuel, something fighter pilots are sensitive about. In all my time at ARDU, I had never done a “straight in” approach on runway 34.

As Avalon and our training areas were south of Tullamarine, we would always approach from the south. If we were landing to the south (on runway 16) we would be flown to a path well west of the airport that was parallel with 16. This was in effect a “downwind leg”. We were then turned east through 90 degrees on a long “base leg” which was then used to turn south and intercept the extended centreline about 15nm out from the threshold of 16.

Landing to the north, which was to happen on the accident day, the pattern was more laborious as it consisted of flying on all four legs on the large rectangle. Once again we would be flown west of the airport, then turned east to eventually turn south ending up well east and parallel to the runway as a “downwind leg” for runway 34. The approach to runway 34 was complicated by the light aircraft corridor that ran approximately east west, and from memory was approximately six miles south of the runway.

By taking us east, this path allowed us to avoid the light aircraft corridor, allowed us to descend to 1500 feet, and gave the controller the greatest distance, although limited, to accurately line us up on the extended centreline of the runway.

Unfortunately for a lot of people, this pattern was not used on the day of the accident.

Airport Information
YMML (Melbourne Intl) JEPPESEN *JeppView 3.5.2.0*

General Info
Melbourne Vl, AUS
S 37° 40.4' E144° 50.6' Mag Var: 11.6°E
Elevation: 434'

Public, Control Tower, IFR, No Fee, Rotating Beacon, No Customs
Fuel: 100-130, Jet A-1
Repairs: Major Airframe, Major Engine

Time Zone Info: GMT+10:00 uses DST

Runway Info
Runway 09-27 7500' x 148' asphalt
Runway 16-34 11998' x 197' asphalt

Runway 09 (83.0°M) TDZE 395'
Lights: Edge
Stopway Distance 197'
Runway 16 (160.0°M) TDZE 432'
Lights: Edge, ALS, Centerline, TDZ
Stopway Distance 197'
Runway 27 (263.0°M) TDZE 407'
Lights: Edge, ALS, Centerline, TDZ
Stopway Distance 197'
Runway 34 (340.0°M) TDZE 330'
Lights: Edge, ALS, Centerline
Stopway Distance 197'

Communications Info
ATIS **132.7**
ATIS **114.1**
Melbourne Tower **120.5**
Melbourne Ground Control **121.7**
Melbourne Intl Clearance Delivery **127.2**
Melbourne Approach Control **132.0**
Melbourne Departure Control **129.4** (263°-93°)
Melbourne Departure Control **118.9** (264°-92°)

How Did This Accident Happen?

This is the most often asked question about this inexplicable accident. Having put just a few thoughts into answering this question during the past few decades, I find it helpful to use a flight safety tool called the “Causation Chain of the Accident”. Every accident has a causation chain made of links that led to the accident. If any one of these links had been broken the accident might not have occurred. Two points need to be made when using a causation chain.

First, it is not to be used to attribute blame – especially in this accident. I was the only person that could put down the undercarriage. I failed to do so, and caused the accident all by myself! Secondly, one of the major roles of flight safety is to prevent more accidents. So they use the causation chain to identify areas that can be improved which will prevent future accidents. They do not attribute blame using this tool.

THE CAUSATION CHAIN

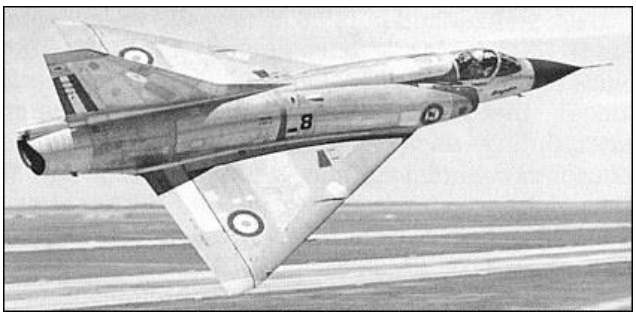
On my accident, the Flight Safety people identified a causation chain that had the following six links;

1. Inappropriate CAA Rules for Mirage Operations.
2. Non-standard Landing Pattern.
3. Non Standard descent profile.
4. Late handover of the aircraft between Approach and Tower controllers.
5. Non Standard “Clearance to Land”.
6. Light Aircraft Corridor.

1. CAA Rules for Mirage Operations:

Before discussing this causation link, two characteristics of the Mirage need to be understood.

The Mirage was built for speed – high speed. It was a beautiful aircraft, but it only reflected its graces when it flew over 300 knots. Below that speed the delta wing produced drag – lots of it. This characteristic encouraged pilots to refer to it as a “flying speed brake” when it was below 300 knots. Below 300 knots this drag caused it to chew up fuel. Because of this high speed design it probably had the fastest take-off and landing speed of any operational fighter aircraft in the world.



The second characteristic was the first part of a two part system that helped prevent pilots from unintentionally landing “wheels-up”. The upper speed limit for lowering the undercarriage was 240 knots. The aircraft had a large flashing red undercarriage warning light that came on once you were below 240 knots, without the

undercarriage down, and if the engine was not at high power. In these conditions the aircraft "thought" you wanted to land and would remind you that you had not lowered the undercarriage. This was a fairly standard warning light system used in most aircraft. There was no aural warning system.

Because I'm a man, I can be relied upon to purchase basic groceries at the store, like milk or bread. I cannot be expected to find exotic items like "cumin" or "tofu."
For all I know, these are the same thing.

However, operating within 50 nm of Tullamarine and below 10,000 feet, CAA required all aircraft to fly under 250 knots to help air traffic controllers manage aircraft movements. This restriction had little effect on most military or commercial aircraft but did have two significant impacts on Mirage operations.

The bulk of Mirage operations flying out of Avalon were carried out within this restricted area. Consequently, Mirages were mostly flown below 250 knots as "flying speed brakes" using a lot of fuel which significantly reduced sortie lengths. A speed of 300 knots would have been more appropriate as this was the minimum drag speed.

More importantly, by flying below 250 knots the undercarriage warning light was on most of the time and, after a very short time of operating out of Avalon, Mirage pilots learnt to ignore it. In my accident flight, shortly after take-off when I cut the afterburner and pulled back power to stay below 250 knots, the undercarriage warning light came on and probably remained flashing for the whole of my sortie. I don't know for sure because, like all other Mirage pilots operating in Melbourne, I had learnt to ignore this warning light.

In conclusion, by requiring Mirages to fly below 250 knots within their operating area, inadvertently the CAA had significantly reduced the effectiveness of one of the two systems designed to prevent wheels-up landings in Mirages.

2. Non-Standard Landing Pattern:

On the day of the accident, because of the strong winds, I knew I would be landing on runway 34 and I expected to fly clockwise on every side of the large rectangular pattern before lining up

with the extended centreline of the runway. I was very interested in how well the radar controller executed this last part of the flight but was facing a fairly boring 60nm trip at 240kts getting to this point. After leaving Avalon, the Approach controller initially directed me to the west indicating that I was to fly the standard pattern.

However, while still some way south of the standard pattern, the controller turned me right which had me pointed at the eastern side of the rectangular pattern. I assumed there must be an aircraft on the west side that they wanted to avoid and I assumed that they were taking me east to go around the standard rectangular pattern counter clockwise instead of clockwise. I settled down as I still had a 60nm slow trip ahead of me. Unbeknown to me, my controller was a student with an instructor standing behind him. This student was not going to use the standard pattern I was expecting.

I was flying at 3,000 feet to go over the light aircraft corridor which was perfectly normal. The first indication that something abnormal was about to happen, came as I was approaching the light aircraft corridor. The controller turned me left which had me pointing at the threshold of 34. He then started the hard work of fine tuning the direction changes to keep me on the extended centreline.

Because I'm a man, when one of our appliances stops working, I will insist on taking it apart, despite evidence that this will just cost me twice as much once the repair person gets here and has to put it back together.

Several things dawned on me all at the same time. First, we were no longer going around the whole standard rectangular pattern - he was directing me for a straight in approach. Second, we were already at a very short distance from the threshold of runway 34. Third, he was keeping me high to avoid the light aircraft corridor which meant I was going to have an exciting descent to get back to the normal glide path at the right speed for me to be able to do a “touch and go” landing. In summary, I went from full “ho hum” mode of a boring 60nm trip to a “get yourself organised ASAP” mode, if I was to have any chance of landing at Tullamarine.

My concerns started to grow when we cleared the light aircraft corridor but he continued to hold me at 3,000 feet. As a student, he was probably being cautious making sure he was well clear of the light aircraft corridor before allowing me to descend and was slow to adapt to the faster Mirage speed.

The Flight Safety people pointed out at this stage that every pilot uses a generic landing pattern and performs his landing checks at the same position in this pattern every time. For example, a Mirage pilot that “pitches out” into the circuit will be triggered to do his landing checks on downwind when his speed comes below 240 knots (NB. At the same time the undercarriage warning light starts to flash). If he is doing a straight in approach a Mirage pilot slows down and puts the undercarriage down about 10nm point from the runway.

This routine helps the pilot to “remember” to do these checks. The controller, on this occasion, had bypassed both these points. This would mean that under a high workload or with any sort of distraction the pilot would be less likely to remember to do his landing checks.

3. Non-Standard Descent Profile:

A normal descent profile for a Mirage starts at 5nm from the threshold at an altitude of 1,500 feet. Depending on winds this would have a Mirage descending at approximately 700 feet per minute.

However, on this day, with the delayed permission to descend, I was already within 5nm and then was only allowed to descend to 2,000 feet. When I was three miles from touchdown I was allowed to descend to 1,500 feet. Shortly afterwards I was cleared to descend and was passed over to the Tower controller at two miles from touchdown. At different stages of this staggered descent I was descending at rates up to 3,000 feet per minute. This would have been difficult, if not impossible, for most other aircraft but luckily I was in a “flying speed brake”. Although challenging, the Mirage aerodynamics made this possible. I finally arrived on the correct flight path at the correct speed one mile short of the threshold.

Because of the Approach controller’s inexperience, the non-standard approach and the Mirage’s faster speed, this student was getting “behind the eight ball”. As a result, he transferred me to the Tower controller at a very late stage on finals (i.e. 2nm). Unbeknown to both of us, this Tower controller was also a student with an instructor standing beside him. This late transfer immediately put this other student under pressure.

The Flight Safety people believed that if I had been on a standard descent I would have realised that I was using significantly less power to remain on the glide path. Then I might have realised the aircraft had less drag, which in turn would then have led me to discover my undercarriage was still up.

However, I was on a non-standard descent profile – in fact one that I had never seen before. Consequently, I was unable to recognise any indications that my undercarriage was still up.

4. Late Handover of the Aircraft between Approach and Tower Controllers:

Both the student Approach controller and the student Tower controller were above average students. However, as all inexperienced students are, they were cautious as they tried hard to do the right thing, and were slightly slow in their decision making and making their radio calls. This slowness gradually snowballed and put them under more pressure exacerbating their poor responses.

Through all this, my Mirage was travelling at a faster speed than speeds they were used to, which contributed to accelerating this snowballing effect.

For example, the student Approach controller should have decided earlier to make a "straight in" approach which would have allowed him to position me on the centreline, say at 15nm (instead of 6nm). This would have eased his workload considerably and may even have triggered me to do my landing checks realising much earlier that I was on a "straight in" approach.

He was slow in clearing me to descend, and then staggered this descent, which then put him under pressure to make a timely transfer to the Tower controller. The very late handover to the Tower controller (2 nm out) immediately put that controller under pressure to complete his job in a timely manner. I was half a mile out at 100 feet about to "go around" when I was finally given clearance to land. This clearance would normally have been given 4-5nm out. With more time, the Tower instructor could have corrected his student's error of omitting the "Check wheels" call and told me to "go around" which would have prevented the accident with time to spare.

As the pilot, I was "champing at the bit" to receive a descent clearance, a transfer to the Tower, and to receive a clearance to land. All this was delayed and was a distraction that was not needed in this accident.

5. Non Standard "Clearance to Land":

The Mirage aircraft has a "fool proof" system to prevent unintentional wheels-up landings. I can see you smiling as you realise that these words were written by a fool that beat the "fool proof" system. However, even after my accident, I still believe it is the best system in the world. And to back up my boast, I should point out that I am the only "fool" to beat the system. An understanding of the history of attempts to prevent wheels-up accidents is needed.

First, pilots were on their own and had to remember to lower the undercarriage – there were many unintentional wheels-up landings. The engineers then provided both visual and then aural warnings to the pilot when it was thought he might have unintentionally left the undercarriage up. This reduced the number of accidents.

Then a significant breakthrough was made when air traffic controllers were asked to have the pilots check their wheels before landing. On the introduction of this procedure, the American civilian

and military operators measured a significant reduction in accidents. This was attributed to the fact that a person outside the “environment” of the cockpit was involved and could not be distracted by whatever was happening in the cockpit leading to such accidents.

To produce their "fool proof" system, the Mirage engineers introduced a third party to further enhance safety. When a Mirage pilot is cleared to land and is asked to "Check wheels", he does not answer on the radio – he leans forward and presses a button on the front instrument panel. This button is on a circuit that passes through the undercarriage system and the radio in use with the Tower controller.

If the undercarriage is both down and locked correctly, the pressing of the button sends out a sound (a beep) on the radio that both the pilot and the Tower controller can hear. The human input and its error prone behaviour is bypassed completely. The aircraft (i.e. the third party) confirms that the undercarriage is down and locked. Without hearing the "beep" the Tower controller will not let the aircraft land.

Responding to the "Check wheels" challenge becomes a Pavlovian response for Mirage pilots - they automatically reach out and press the button. From personal experience of not hearing a "beep", when there is a problem, is stunning. To hear silence instead of a "beep" is akin to being hit in the forehead with a hammer. It really focuses your attention.

Because I'm a man, I must hold the television remote control in my hand while I watch TV. If the thing has been misplaced, I may miss a whole show looking for it, though one time I was able to survive by holding a calculator instead (applies to engineers only)

Civilian Tower controllers did not have to say "Check wheels" for commercial and other civilian aircraft. In contrast, it was mandatory for all military aircraft and they were trained to hear and respond to the Mirage’s beep.

In my accident, the student Tower controller did not use the challenge "Check wheels" and consequently did not trigger my Pavlovian response. Between the both of us I became world famous as the fool who beat the "foolproof" system because we managed to bypass the "foolproof" system completely.

The Tower instructor noticed the student’s error straight away and reminded the student that for military aircraft he had to say "Check wheels". Continuing the conversation as he picked up his binoculars he said "But you will see that he does have his wheels down ...". While I was landing ever so gently on the runway this instructor was grabbing the microphone from the student to tell me to "go around" as my wheels were still up. I still feel for this instructor and his student to this day. They didn’t need the hassle that my accident caused them in the following months.

Flight Safety pointed out the obvious that if the standard military landing clearance had been used by the Tower controller, it could have prevented the accident.

J

6. Light Aircraft Corridor:

Flight Safety also pointed out that several problems could have been avoided if the light aircraft corridor had been situated even 2-3 miles south of its position that day. The corridor had been there for years before Tullamarine Airport had been built and no-one had ever considered moving it after the airport was built.

When Did I Realise?

I cannot over-emphasise how strong my conviction was that my undercarriage was down. I also cannot understand where that conviction came from – but it was there and it was very strong.

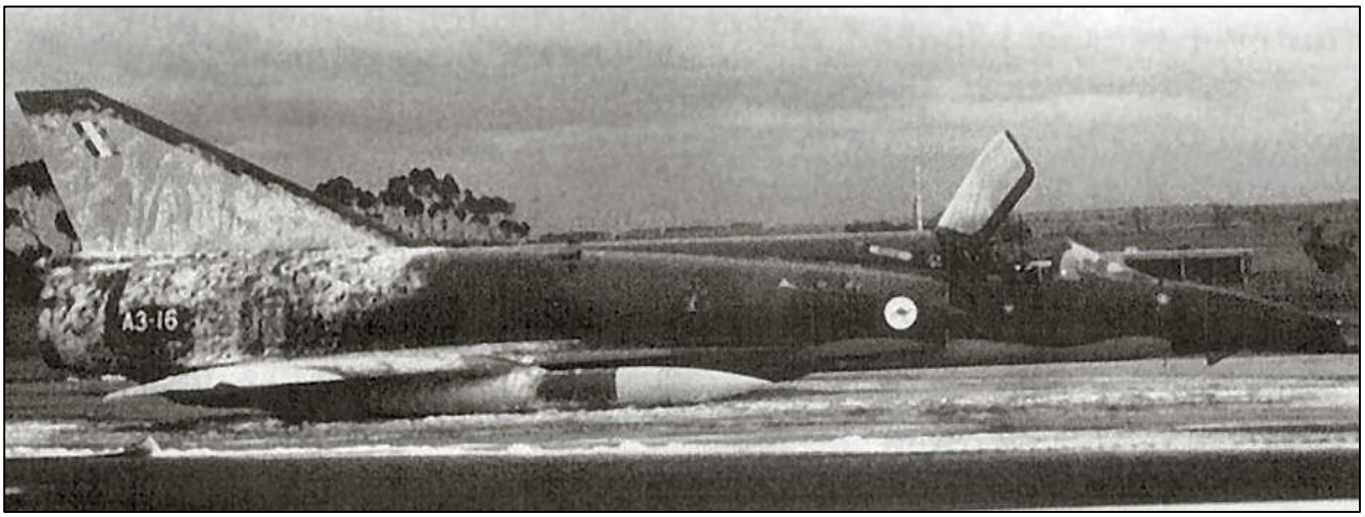
When I touched down I felt and heard a high frequency vibration which was not alarming but did tell me something was wrong. Instead of doing a "touch and go", I knew I had to land so I deployed my drag chute.

My thoughts were that the only parts of the aircraft that were in contact with the runway were the main wheels so they must be causing the vibration. So I immediately thought I had blown both main tyres. If I had only blown one tyre the aircraft would be pulling right or left. Because the aircraft remained on the centreline I assumed I had blown both tyres.

Because blown main tyres were said to cause a rapid deceleration, I was not concerned with the above average deceleration that was occurring. In the last few hundred feet of the landing, the aircraft drifted off the centreline. I tried to correct this deviation using my wheel brakes. In hindsight, it was not surprising that they were not working too well! I knew that blown tyres significantly degraded braking so, once again, I was not surprised.

Three days before my accident, I landed at Avalon and during that landing roll the nose wheel tyre gradually deflated. It felt as if I had a square tyre and my head was being repeatedly bashed against the canopy. So much so I was later checked out for concussion. Because of the French tale of wheels-up landings, everyone was telling me the landing must have been really bad. I had difficulty convincing them it was very smooth. If they were concerned about harsh landings I advised them not to have a nose wheel deflate on them. This incident might have predisposed me to assume I had a problem with my main tyres.

When the aircraft stopped, I completed all my after landing checks shutting down the engine that was working perfectly well, and finished by turning off all the electrics. I thought I better get up and make sure the ejection seat was safe before anyone else arrived. I looked over the edge of the cockpit and realised that God had lifted the runway up and it was a lot closer to me than usual. Reality then started to dawn on me.



I looked in to check the undercarriage indicator hoping to see "three greens" and my heart sank when I saw they weren't there. I then realised that all the power was off so there would be no indications. While this reasoning was taking place, my hand subconsciously went to the undercarriage lever. It was up, and reality blossomed.

I made the ejection seat safe and climbed out of the aircraft to wait for the firemen who were on their way. "Reliable" eye witnesses claimed I climbed down a ladder getting out of the aircraft. I still cruise Bunnings fruitlessly trying to find a ladder that will fit in a Mirage cockpit. I did not need a ladder – I just stepped over the side of the cockpit.

Because I'm a man, there is no need to ask me what I'm thinking about. The true answer is always either sex, cars, sex, sports or sex. I have to make up something else when you ask, so just don't ask.

I was most impressed when the first fireman raced up and climbed into the cockpit. I thought to myself these guys are really well trained – he must be trying to make the ejection seat safe. As I walked up to tell him I had already done this, I saw him with a hose pulling and pushing it through the top loop of the ejection handle – thank God it was safe. I asked him what he was doing.

He said he was trying to secure the hose so it would not flap around too much when he turned on the hose to fill the cockpit with foam. My horrified look stopped him in his tracks, and I told

him there was no need to do that and the only small fire was down the back of the aircraft not in the cockpit. He climbed out of the cockpit looking totally disappointed.

His boss arrived then and announced that instead they would fill the engine up with foam. For those that don't know, fire extinguisher foam destroys the metal in all jet engines. Once again, I was horrified as I could see these guys progressively destroying a perfectly good three million dollar aircraft. I was becoming sensitive that I was the amateur telling the professionals what to do. So I backed off a bit, calmed their boss down, so he could see my logic.

I convinced him that the engine was working perfectly well and as I had shut it down it would cool down normally. I convinced him his highest priority was to extinguish the fuel fire at the back of the aircraft and keep foaming any fuel leaking out of the rocket bay. Finally, the unusually hot bits that might cause problems were under the supersonic tanks and the bomb beam. They then foamed these areas and waited and watched ready to respond if needed.

Much later, the ARDU maintenance staff sincerely thanked the fire crew for doing such a professional job and saving the aircraft with minimum damage – diplomatically not referring to all the gratuitous advice I had given them.

The Effects of the French Tale.

I don't doubt that the French lost aircraft and their pilots were killed when attempting to land wheels-up, but I disagree with their explanation. The French believed that the Mirage's notable high angle of attack when landing caused the aircraft to "slam" into the runway – killing the pilot and destroying the aircraft.

My accident showed that this explanation cannot be true. My Mirage only suffered minor damage and I survived unhurt – with the landing being quite pleasant! I believe the explanation lies in the different ways the French and Australian pilots land a Mirage.

Depending on the weight of the aircraft, the French pilots' landing speed was approximately 150 knots and the Australian pilots' landing speed was approximately 170 knots. Australians used the additional 20kts to allow them to flare the aircraft like every other aircraft. I am told that the French land with a positive descent rate which can be as high as 200 feet per minute. This is a similar type of landing used by aircraft landing on aircraft carriers. I personally think this is an abuse of the word "landing" – it is in effect a controlled crash.

The robust undercarriage on these aircraft is the sole reason both the pilots and the aircraft survive these "controlled crashes". Using this technique to land without the undercarriage is

bound to kill the pilot and destroy the aircraft. Even if the pilots landed with "only" 50 feet per minute descent, I would suggest there would be a similar outcome. Imagine it is like dropping a ten ton aircraft from a 15 foot high wall – it is bound to be devastating for both aircraft and pilot.

Flying a Mirage at 150 knots is worse than flying a "speed brake". At that speed a Mirage becomes a brick held up with power. I cannot emphasise too strongly to non-Mirage pilots the tremendous drag this aircraft could generate. An example might help.

If your engine flamed out in a Sabre aircraft, the rectangular flame-out pattern to land allowed you to land if you entered the pattern at 3,500 feet. The Sabre will glide around this pattern losing very little height. The Mirage does not glide - it falls out of the sky.

The Mirage flame-out pattern is a tear drop pattern starting over the threshold of the runway. You have to arrive over the threshold outbound at 15,000 feet. When you are "gliding" in a Mirage you are falling out of the sky at 8,000 feet per minute. On turning onto finals and lowering the undercarriage the rate of descent increases to 12,000 feet per minute. You begin your flare to land and arrest this rate of descent at 400 feet above the threshold.

Because I'm a man, you don't have to ask me if I liked the movie. Chances are, if you're crying at the end of it, I didn't... and if you are feeling amorous afterwards . .
then I will certainly at least remember the name and recommend it to others

Consequently, I do not envy French pilots trying to land wheels up at 150 knots with any positive rate of descent.

This French tale had a surprisingly dominant effect on all who studied my accident. Rather than accept the realities of my accident, far too many tried to distort such realities so it matched their preconceived views of the French tale. Few questioned their assumption that the French tale was correct. They spent far too much effort trying to force elements ("square pegs") of my accident into the "round holes" of their assumptions based on the French tale.

Three Examples:

The Perfect Landing:

As I had survived, I must have been a "miracle pilot". Apparently my landing was more than perfect. Wrong!

I carried out a normal landing that any Mirage pilot could have achieved. I was not attempting to do something special – this was meant to be a normal "day in the office". Any pilot can land

wheels up in a Mirage safely with minimum damage to the aircraft – it doesn't take a perfect landing.

A3-16 Was Not Permanently Damaged:

The French tale had everyone looking and then imagining damage in my aircraft that was not there. Initially, the aircraft was written off with CAT 5 damage.

Five years later when the French tale effect had dissipated, it was decided that the aircraft could easily be repaired and the damage was reclassified as CAT 3. After the accident, a faulty mensuration check had people believing the fuselage had been bent when the aircraft "slammed" onto the runway. They had incorrectly carried out the mensuration check on the fuselage without the engine. A proper mensuration check, with an engine installed, showed the fuselage was not bent.

Board of Inquiry Finding:

One of the findings of the Board of Inquiry was that I had landed at 300 knots. Their twisted logic was as follows. If you land a Mirage normally with wheels up, the pilot dies and the aircraft is destroyed (The French tale). For Nick and his Mirage to survive, Nick couldn't have landed normally – even though Nick told us he landed at 174knots. To avoid the "slamming" effect, the angle of attack had to be reduced to zero which occurs at 300 knots. Therefore, Nick must have landed at 300kts.

This laughable finding was easily discredited by ARDU test pilots by taking photographs of a Mirage at 300 knots which showed the rocket bay would not touch the runway let alone be damaged while landing at this speed. The damage to the rocket bay could only be done by landing at the lower speed. The Board had claimed I had flown the last 5nm at 300knots. With an exact flight path and times provided by Tullamarine ATC, the test pilots could show that, if that was true, I must have flown the remainder of my flight from Avalon at an average speed of 150kts (which was below take-off speed!)

Because I considered this finding dangerous for all Mirage pilots if they ever decided to use this technique to intentionally land wheels-up at 300 knots, I put in a formal Redress of Grievance (12/A/12) to have this finding reversed. Five years later it was reversed.

I have put this notation here for two reasons. Either I am not sure of my memory and the facts need to be checked, or I am relying on someone else who has told me this. Once again it could be checked.

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A3-16 was the first all Australian built Mirage. A total of 114 Mirages were built in Australia, which flew front line service from 1963 until replaced by F/A 18 Hornets in 1984.

Classic Jets Fighter Museum's (Adelaide) Mirage A3-16 survived scrapping and was acquired by Classic Jets in 1992. Despite enormous difficulties in finding Mirage airframe parts sufficient components were gathered to restore this beautiful supersonic fighter aircraft.

Click HERE for the complete history of A3-16

Because I'm a man, when the car isn't running very well, I will pop the hood and stare at the engine as if I know what I'm looking at. If another man shows up, one of us will say to the other, "I used to be able to fix these things, but now with all these computers and everything, I wouldn't know where to start." We will then drink a couple of beers and break wind, as a form of holy communion.

The People I meet.

Late in July I was holidaying on the Sunshine Coast, when unbeknown to me, the Red-Hat Ladies had also decided that now would be a good time to hold one of their annual gigantic get togethers and as fate would have it, to hold it also in Caloundra. Estimates put the number of ladies under the dashing red millinery to be in excess of 450 and you can bet Caloundra's traders were very pleased to see them. They could be seen everywhere, in the coffee shops, in the fashion shops, in the nick-knack shops, in busses going here there and everywhere, in the pubs and clubs, all with red hot and bulging purses at the ready and generally having a big old spend up and one heck of a good time.

While I was completely oblivious to all this, it seems the word has spread through the group that there was a Radtech holidaying on the Sunshine Coast and they had their spies out to see if they could first find then entice this Radtech into their group to brighten up their day and to try and capture some of that alluring and much sought after Radtechitis.

I just happened to be walking past Caloundra's Civic Centre when I heard this ecstatic shriek pouring forth from what seemed a thousand female voices, all of them shouting, "There he is, there he is".

L-R: Jan Holmes, Sandi Owen, dashing Radtech, Maggie Anderson, Barb Ross, Sue Andrew, Leslie Andrews, Judy MacKenzie and down front, Judith McDonald.

The next minute, a group of these lovely ladies dashed across the road, unconcerned that the road was heavily congested and their lives were in imminent danger, their whole beings concerned only with ensnarling and capturing mine-self in an attempt to rub off and obtain some of that captivating Radtechitis.

Heavily outnumbered, and unable to resist, a terrified self was ushered across the road and into the Civic Centre and ordered to place one's person on a strategically placed lounge chair while the ladies in turn draped themselves upon ones-self endeavouring to rub off some of that magic elusiveness. At first I fought and struggled as hard as was possible but to no avail, I was a prisoner to these determined ladies and in the end I capitulated and abandoned all defence and allowed a small amount of that Radtechitis to change hands.

Such is the burden the average Radtech must endure.

The "Red Hat Society" is an international social organization founded in 1998 in the United States by Sue Ellen Cooper. It was originally open for women aged 50 and beyond, but now is available to women of all ages and today, there are over 20,000 chapters throughout the world.

In Australia membership is open to all young-at-heart middle aged woman who are looking to reunite with their youth by playing dress-ups and having tea parties. The rules are as follows:

- Strictly no responsibility or obligations
- No strict rules and by-laws
- Time for a break is in the Red Hat dictionary, Busy is not!
- You must be a woman of 50 or over, and
- You must attend functions in a Red Hat and Purple Outfit.

In 1997, inspired by a well-known Jenny Joseph poem which begins “When I am an old woman, I shall wear purple, with a red hat which doesn't go and doesn't suit me,” Sue Cooper bought an old red fedora from a thrift shop and when one of her good friends was nearing her 55th birthday, she knew she had to give her friend something out of the ordinary. She bought another red hat and gave it to her friend suggesting that she keep it as a reminder of how to grow old in a playful manner.

Cooper repeated the gift to other ladies on request several times, and those women responded by wearing their own red hats and several bought purple outfits and held a tea party on the 25th April 1998. Thus began a new women's movement that embraced a renewed outlook on life filled with fun and friendship, fulfilling lifelong dreams.

The Red Hat Society was born

After spreading by word of mouth, the Society first received national publicity in the US in the year 2000 through the magazine Romantic Homes. Cooper then established a "Hatquarters" to field the hundreds of e-mail requests for help starting chapters. She now serves as "Exalted Queen Mother", and has written two best-selling books about the Society, "The Red Hat Society: Friendship and Fun After Fifty" published in April 2004 and "The Red Hat Society's Laugh Lines: Stories of Inspiration and Hattitude" published in April 2005.

The Red Hat movement has been in Australia for over 16 years. The first group was started by Florence Slattery (The Queen) who lives in Warwick in Qld and who when aged 83, was visited by a friend from the USA who suggested that Florence should introduce the movement to

Australia. Florence talked to her friends in Warwick and soon formed the first chapter in Australia, called the “Rose City Red Had Society”. This was in November 2000.

Florence and her friends dressed up and went off to lunch always drawing attention to themselves with people always wanting to know “what it was all about”. The word spread and the movement eventually flourished all over Australia and today Florence, who is in her 101st year, is still living the dream of love, laughter and friendship and although not able to travel to large events outside of Warwick, is still active in her home town.

Anyone can form a group as there are no “rules” pertaining to red hatting. Any lady, or group of ladies can go out dressed in purple clothes with a red hat and refer to themselves as red hatters, but cannot refer to themselves as being a Supporting Member of the RHS if they are not. Ladies wishing to join should go to their web site (http://www.matildarose2.com/) find a group close to them and make contact.

If I had a dollar for every girl that found me unattractive, they'd eventually find me attractive.

Fourth generation warfare: is Australia ready for it?

The Canberra Times

Australia's current war on terror was declared after the September 11 attacks in 2001. It's still going on. Do you ever wonder what the military nature of that long war is? If so, do you also wonder why so little of our current ADF is used in that war? Could it be that our current war is what future wars will be like? If so, how relevant is our current force structure to fighting those future wars? Indeed how secure are we really, despite the heavy investment in capital equipment?

The Australian Defence Force structure is complex and extensive, nevertheless some "big ticket" items stand out. In a war lasting 15 years to date, one might expect them to have seen some action, yet, this does not seem to be the case. For example, the army has nearly 60 Abrams tanks yet the last time we used tanks in action was in the Vietnam War. The navy has six Collins class submarines that have never sunk anything. We are committed to 12 new submarines whose deterrent role is questionable. The air force has a fleet of F18s, soon to be replaced by the Joint Strike Fighter. The last time an RAAF aircraft shot down an opponent was in the Korean War.

Is it possible that Australia is equipped to fight a war that will never eventuate? Even worse, do we have expensive, complex capital equipment, intended for that illusory war, lying idle, while

we fight a long, real, current and different war effectively on a shoestring? Increasingly, the answer seems to be that, yes, it is possible. The nature of war is changing – yet again and we could be failing to keep up. This change is captured, controversially, by the doctrine of fourth generation war. The military mind likes to put things in boxes. They are challenged by this because change does not move discretely from one box to another. It evolves. If we are in the era of the fourth generation of warfare, what were the other three?

- First generation warfare was characterised by formal battles, taking place on identifiable battlefields.
- Second generation warfare began in the 1860s and was characterised by massive attrition, driven mostly by artillery fire.
- It was superseded, after World War I, by the third generation, characterised by fluidity and manoeuvre – the Blitzkrieg. The Israelis were masters of this type of warfare, but we haven't seen many raging tank battles since 1967.

Fourth generation warfare is characterised by asymmetry, in which the weak can and does triumph over the strong. As one noted exponent observes "it is very easy to win all the tactical engagements in a fourth generation conflict yet still lose the war". Afghanistan is a major conflict zone in our war on terror, and yet, neither the British, nor the Soviets, nor ourselves seem able to "win". Indeed, we have already withdrawn.

A smart but weak combatant, embracing the doctrine of fourth generation war, can bog down a much stronger opponent until that opponent tires and gives up. This combatant recognises that contemporary, fourth generation warfare is fought at three levels: physical, mental and moral. This combatant emphasises the moral level, rather than the physical and mental, in which he can never compete. The emphasis is achieved, internally, by inciting anger and hate against the opponent, as that strong opponent inflicts harm, and desolation on the combatant's own innocent civilians. Externally, the emphasis is achieved by performing and encouraging isolated outrages in the opponent's homeland, thereby creating fear and uncertainty, and also by portraying the opponent's active operations in the worst possible light in that homeland.

By these means, a determined combatant can neutralise an opponent's huge physical and mental advantages and inflict defeat – not battlefield defeat, but moral defeat. This type of warfare is here to stay. Lest anyone is tempted to dismiss the new doctrine, flawed though it currently may be, let them understand that copies of military analyses, illuminating fourth generation warfare, were found in the caves at Tora Bora, the al-Qaeda hideout in Afghanistan.

When the American President claims that there are no identifiable links between the latest terrorist outrage and organisations such as Hamas, Hezbollah, al-Qaeda, IS, etc, he should choose his words very carefully, because people other than ourselves are listening.

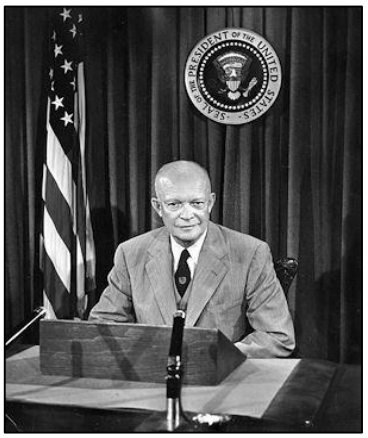
If we recognise fourth generation warfare and adapt accordingly, what changes might we see in Western armed forces in general, and in the ADF in particular?

The first reform that needs to take place is to recognise that the enemy is operating here, locally and domestically as well as in the operational zone, which is usually overseas. Co-ordination, if not unification, between the police and the military is therefore essential.

The police have much to teach the ADF. Their approach is to de-escalate a conflict, whereas the military approach is to escalate it. Escalation requires ever heavier firepower, and we certainly have a lot of that. De-escalation means lots of things including features not yet identified, since no one is analysing fourth generation warfare. However, it certainly includes reducing the "strangeness" of friendly forces by eschewing the sort of "apartheid" that we have so often employed, particularly when operating with the Americans. US Forces routinely create a doppelganger society in countries they invade, importing their own lifestyle and not mixing at all with the indigenous population. Also, "Shock and Awe" – the Rumsfeldian doctrine – has to be consigned to the garbage bin. There is nothing that smacks of de-escalation in that extreme approach.

Then there is the fact that, although we still structure ourselves around entities we call states, the enemy does not. In former times, it was simple and clear to declare war, as we did in 1939 against Germany. However, where the opponent does not necessarily hold territory, and is not a state, we can be disorientated by this.

Finally, there need to be troops on the ground, as many as possible, who are highly mobile, who are equipped and trained to resolve provocations and outrages, both by anticipatory intelligence to prevent them in the first place, and also by minimum necessary force, when they occur.



How likely is it that force structure would be allowed to change so fundamentally? The answer is: not very likely. In his farewell speech, President Eisenhower warned specifically "against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex".

A notable example of his warning is surely the new submarines' project in which the industrial tail, assisted by a command mindset of monster World War II battles in the Pacific, is wagging the military dog. We are pre-occupied with a possible future war with China and although we cannot ignore that threat, we should recognise that China, too, is vulnerable to a fourth generation warfare opponent.

In moral warfare, what was true in the Bronze Age is still true. We sympathise with David, not Goliath. Despite their current brutality, that is the terrorists' ultimate strategy. Political and cultural change as well as military change is essential. The recent white paper shows that we have hardly started.

I find it ironic that the colours red, white, and blue stand for freedom, until they're flashing behind you.

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Allan George's Gems

RAAF Spartan 'crash-lands' in Waco Texas.

The RAAF has commenced a safety investigation after a C-27J Spartan which had an incident on landing during a routine training flight at Waco Airport, Texas, USA, on the 18th May.

Thankfully, no one was injured in the incident.

Local news sources in Waco say the RAAF C-27J Spartan was involved in a serious incident that damaged the aircraft and the airport's main runway, closing the airport to all other traffic for about 18 hours. It is reported that two tyres blew out as the pilot made a landing after a training mission before 1am Tuesday local time.

A TV News in Waco published this photo of the C-27J disabled on the runway

The airport was closed and at least 180 American Eagle commuter passengers had their flights cancelled. One local news source quoted an assistant Waco fire chief as saying the airplane had attempted a landing but may have touched down short of the runway and damaged two tyres. Firefighters were dispatched to the incident when it happened but there was no fire and no one was injured.

In a statement, the RAAF thanked local airport, emergency services and security staff who assisted with the recovery and apologised for the inconvenience to other airfield users. The flight was a pilot-qualification flight for RAAF pilots converting to the new aircraft, flown alongside industry instructors, a RAAF spokesman said. Air Force aircraft are serviced and flown under a very strict and controlled airworthiness and safety system. All aircraft are under constant surveillance to ensure that they maintain the highest standards.

Harry's Café de Wheels

Everyone who spent a bit of time living in the Sydney area knows Harry's. But do you know the background behind the Café.

The story of 'Harry's Café de Wheels' goes back to the depression years of the late 1930's.

In 1938, with the world on the brink of a devastating war, an enterprising Sydneysider by the name of Harry Edwards opened a caravan café near the front gates of the Woolloomooloo naval dockyard. Word spread quickly with Harry's 'pie n' peas' and crumbed sausages soon becoming a popular part of the city's nightlife - keenly sought by sailors, soldiers, cabbies, starlets and coppers alike. Harry operated the caravan until 1938 when he enlisted in the AIF.

In 1945, during Harry's time in the Middle East, he was nicknamed "Tiger" due to his boxing prowess and the name stuck. Upon his return in 1945, Harry realised that Sydney hadn't changed much and it was still almost impossible to get a good feed late at night, so he reopened and the caravan has been operating continuously since.

The phrase 'Café de Wheels' came about as the city council of the day insisted that mobile food caravans move a minimum of 12 inches a day. Harry dutifully obeyed and thus the name was expanded to Harry's Café de Wheels. Before the councils ruling, the caravan was known simply as 'Harry's.' When its wheels went missing one night, local wags coined the nickname 'Café de Axle.' Harry operated the caravan for a further 30 years before selling the business to Alex Koronya in 1975.

IBy 1988, Alex was getting on in years and the business had fallen on hard times. A Michael Hannah, (the current owner) made Alex an offer to purchase the business and the exchange took place on Australia Day 1988. Michael is the first Australian born owner of Harry's and as a child his father, a Sydney cabbie, would take him and his siblings down to the loo for a pie at Harry's. In 1970, Michael returned from a tour of duty in Vietnam and his first stop after disembarking the HMAS Sydney was of course Harry's. It would be another 17 years until Michael purchased the business.

Michael believes Harry's finest moment came in 1978 when Rear Admiral David Martin - over a pie and glass of Champagne - commissioned the caravan as 'HMAS Harry's.' In December 2004, Harry's was classified by the National Trust of Australia (NSW) and included on its Register. Per the National Trust of Australia, Harry's is a 'quintessential Sydney icon' and in the Trust's opinion, falls within the following definition:

1988. 'Those places which are components of the natural or the cultural environment of Australia, that have aesthetic, historical, architectural, archaeological, scientific, or social significance or other special value for future generations, as well as for the present community.'

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As the years have passed, Harry's has become a 'must' for visiting celebrities. Harry's has served up the likes of Frank Sinatra, Robert Mitchum, Marelene Dietrich, Kerry Packer and more recently, Sir Richard Branson, Russell Crowe, Kevin Costner, Brook Shields, Pat Rafter, Olivia Newton-John, Jerry Lewis, Billy Crystal, Pamela Anderson, Sara O'Hare, Lachlan Murdoch, Kerri-Anne Kennerley, Adrian Greiner, Anthony Bourdain and Peter Blakely.

In 1974, chicken king, Colonel Sanders, stopped at Harry's and enjoyed the food so much that he ate three 'pies and peas' while leaning on his walking stick in front of the caravan. Elton John has also been a visitor to Harry's over the years and held a press conference from inside Harry's during the 1970's. And then there's the album . . . in 1990, Peter Blakely released his debut album 'Harry's Café de Wheels' which went platinum.

Harry's has become so popular with the celebrities that in 1991, Rupert Murdoch had pies shipped to Los Angeles for an Australian themed Oscar's party. But you definitely don't have to be a celebrity to enjoy Harry's, just hungry. Since its initial opening in the 1930's, Harry's has withstood the test of time. A trip to Harry's lets you enjoy authentic Aussie tucker while taking a trip back through Harry's history.

In 1998 the first Harry's franchise opened in 1998 in Newcastle. The café is in fact an original tram, Tram #1892, that in its heyday, operated between Sydney and Bondi. It was left in a paddock at Rutherford, NSW before being completely refurbished by the Tramways Museum at Loftus in Sydney.

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"Those places which are components of the natural or the cultural environment of Australia, that have aesthetic, historical, architectural, archaeological, scientific, or social significance or other special value for future generations, as well as for the present community."

Also in 2004, the opening of the Haymarket store saw the conversion of a National Trust building to the current Harry's Café de Wheels Chinatown and in February 2007 Harry's opened the second Franchise at the Orange Grove Supercentre at Liverpool.

The Virgin Pie Eating Competition at Harry's Cafe De Wheels was a highlight in July 2008. Foxtel's Charlotte Dawson beat off her younger TV rival from Nickelodeon Kyle Linehan in the Virgin Mobile Celebrity food fight. Dawson downed her pie-and-mushy-pea dish in record time, during a promo for the phone carrier's "All You Can Eat" campaign. Rob Creganwon the overall pie eating competition.

In 2010 the Tempe and Parramatta Franchises opened. Tempe took over the old Denos Diner site on the Princes Hwy and opened its doors in August 2010. It was previously the Cobb & Co Drive in Restaurant.

In March 2012 the cast of American Reunion chose Harry's for the release of the movie – a return visit for most of them! In July 2012 Harry's Burwood and Penrith Franchises opened in the same week. Before Harry's Burwood was opened it was the old site of Laziko International Café. The Penrith outlet was opened adjacent to the Penrith Panthers Leagues Club.

Harry's just goes from strength to strength.

My wife and I were happy for twenty years; then we met.

The Charge of the Australian Light Horse.

October 2017 will mark the 100 year Centenary anniversary of one of the most famous and last great cavalry charges in history - The charge of the Australian Light Horse at Beersheba.

The battle of Beersheba took place on 31 October 1917 as part of the wider British offensive collectively known as the third Battle of Gaza. The final phase of this all day battle was the famous mounted charge of the 4th Light Horse Brigade. Commencing at dusk, members of the brigade stormed through the Turkish defences and seized the strategic town of Beersheba. The capture of Beersheba enabled British Empire forces to break the Ottoman line near Gaza on 7 November and advance into Palestine.

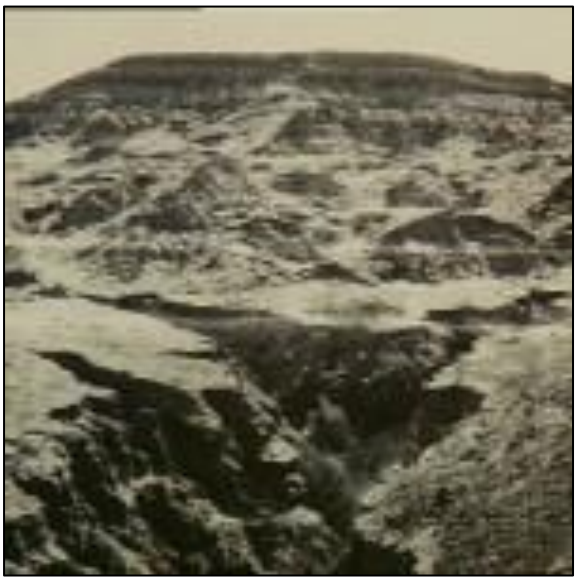
The mounted troops spent the summer of 1917 after the second battle of Gaza in constant reconnaissance and in preparation for the offensive to come. The Turkish forces held the line from Gaza near the coast to Beersheba, about 46 kilometres to its south-east. The Allied forces held the line of the Wadi Ghuzzer from its mouth to El Gamly on the East. The positions were not continuous trench lines but rather a succession of strong posts. Both sides kept their strength in front of the city of Gaza.

The newly arrived British commander of the Egyptian Expeditionary Force, General Sir Edmund Allenby used plans prepared by Lieutenant General Sir Phillip Chetwode. The plan was to attack Beersheba by using mounted troops from the east whilst the infantry attacked Beersheba from the south west. The preparation also involved persuading the Turkish forces that the offensive would again be against Gaza. Chetwode was in command the 20th Corps and the Desert Mounted Corps was under Lieutenant General Sir Harry Chauvel.

The greatest problem for Chauvel was to find sufficient water in the Beersheba area for his mounted troops. Information from reconnaissance revealed that there was none other than at Esani which was too far to the west to be of any use for a surprise attack. Chauvel, through studying the records of the Palestine Exploration Fund and after questioning local Arabs, knew that the larger ancient towns in the area to the south and south-west of Beersheba must have had existing water supplies. At Asluj the old wells were found and a fortnight's work put them into working order. This made the attack on Beersheba a feasible operation.

Various deceptions were employed to keep the enemy thinking the attack was going to be at Gaza including keeping the Infantry strength there until the last minute.

Beersheba's defences were held by 1,000 Turkish riflemen, nine machine guns and two aircraft. The position was extended through a series of trenches and redoubts placed on commanding positions with good zones of fire; but on the east and south the trenches were not protected by barbed wire. The Turkish forces were relying on the forbidding open terrain as well as the absence of water to defend Beersheba. Calculating that the attack was most likely to be upon Gaza they were also not prepared for a force such as Allenby's which was moving on 30 October.



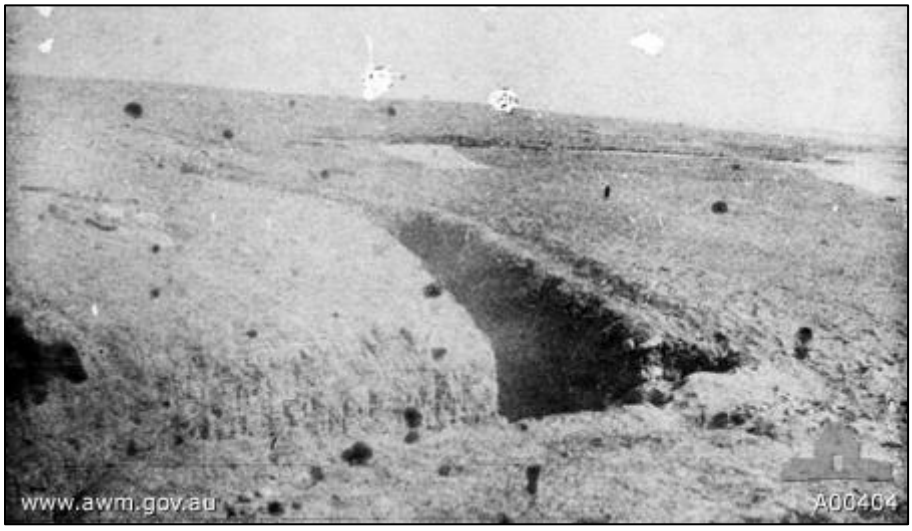
Chauvel's orders when he left Asluj early on the evening of the 30 October were for Major General Chaytor's ANZAC Mounted Division to close the Beersheba Road at Sakati (almost 10 kilometres north-east of the town) in order to prevent Turkish reinforcements from coming in and also to cut-off escape from the town. Once the road was secured, he was to storm Beersheba using Major General Hodgson's Australian Mounted Division. Allenby had insisted that Beersheba must be captured on the first day of operations. On the night of 30 October about 40,000 allied troops moved towards Beersheba, including most of Chetwode's 20th Corps and Chauvel's the Desert Mounted Corps, in a night march of over 40 kilometres.

Trekking since October 28 via Esani members of the 12th Light Horse Regiment arrived at Asluj on 30 October. Corporal Harold Gleeson mentions in his diary that he obtained no water at Asluj and at 6pm on 30 October recorded moving on towards Beersheba, marching all night on a "very weary and dusty ride of 30 miles." Private Hunter in his diary wrote "The dust was terrible. One could not see beyond his horses head. The horses braved the journey which was about 36 miles. Walked at my horses head for about 10 miles of flat country giving him a rest." The horses were carrying heavy packs on average of about 120 kilograms and their riders knew that there was no water available until Beersheba fell into their hands. Private Keddie: "On this stunt we have been told we would have to live on what rations we had for a few days."

On the morning of 31 October, Chetwode's three British divisions attacked the Turkish positions around Beersheba from the west and south supported by a sustained artillery bombardment of

over 100 guns. By 1 pm they had driven the Turks from their defences to the west and south west of Beersheba, but the wells of the town were still in Turkish hands.

The 4th Light Horse Brigade waited, scattered over a wide area as a precaution against bombing, to the south-east of the town. Private Hunter: “The Turks immediately started shelling us with heavies. Good cover and tact on our part prevented casualties”. Their horses were unsaddled, watered and fed. William Grant was the Brigade’s new commander following Brigadier General Meredith, who had been invalided home to Australia.



Trenches at Tel-es-Saba: objective of the NZ Mounted Rifle Brigade.

The wells of Beersheba were vital for the welfare of the Desert Mounted Corps’ horses, many of whom had been without water for several days. Enemy resistance at Tel El Saba, three kilometres to the east of the town, had been stronger than expected and it took a stiff day of fighting for Chaytor’s force to capture this strong redoubt protecting Beersheba's eastern flank. The fall of Tel El Saba at 3:15 pm meant that the 1st and 3rd Light Horse Brigades were free to attack Beersheba from the East.

At 3:30 pm there was only a few hours of day light remaining and orders were issued for the final phase of the struggle, the occupation of Beersheba. Chauvel decided to put Grant’s 4th Light Horse Brigade straight at the remaining trenches, from the south-east. Chauvel knew that he must take the town before dark in order to secure the wells for Allenby's large force. Private Keddie recorded: “We began to talk among ourselves saying Beersheba will be taken and us not doing anything when about 5 o’clock our major came and said that Beersheba had not been captured but we were going in.” Chauvel: “owing to the constant attacks from aeroplanes, which had devoted a good deal of attention to my own headquarters, it took some time to assemble them and push them off”. General Grant gave the order personally to the 12th Light Horse Regiment: “men you’re fighting for water. There’s no

water between this side of Beersheba and Esani. Use your bayonets as swords. I wish you the best of luck". The Light Horse were equipped with rifles and held their bayonets as swords, which would have been more suited to a cavalry style charge. Fortuitously their bayonet tips had been sharpened on the orders of Major General Hodgson, on 26 October.

Grant made the decision to order his light horsemen to charge cavalry-style, when they would normally have ridden close to an objective then dismounted to fight.

Brigadier General William Grant.

Trooper Edward Dengate: "we got mounted, cantered about a quarter of a mile up a bit of a rise lined up along the brow of a hill paused a moment, and then went atem, the ground was none too smooth, which caused our line to get twisted a bit . . . Captain Davies let out a yell at the top of his voice . . . that started them all we spurred our horses . . . the bullets got thicker…three or four horses came down, others with no riders on kept going, the saddles splashed with blood, here and there a man running toward a dead horse for cover, the Turk's trenches were about fifty yards on my right, I could see the Turk's heads over the edge of the trenches squinting along their rifles, a lot of the fellows dismounted at that point thinking we were to take the trenches, but most of us kept straight on, where I was there was a clear track with trenches on the right and a redoubt on the left, some of the chaps jumped clear over the trenches in places, some fell into them, although about 150 men got through and raced for the town, they went up the street yelling like madmen." Captain Robey was at their head.

Captain Jack Davies followed Robey's men towards the town and shouted when three miles away: "Come on boys Beersheba first stop". Major Fetherstonhaugh's horse fell shot and was himself shot through the leg. The major put his horse out of its misery then got down behind his dead horse and fired his revolver until he ran out of ammunition. Fetherstonhaugh wrote to Davies congratulating him. In the letter he also mentioned his own injury: "I got a bullet through both thighs, it made a clean hole through the left but opened out a bit and made a large gash through the back of the right which will take a little while to fix up".

While the 4th Light Horse Regiment dismounted at the trenches and tackled their objective on foot many in the 12th Light Horse Regiment were able to get straight through and take the town, Keddie: "we were all at the gallop yelling like mad some had bayonets in their hand others their rifle then it was a full stretch gallop at the trenches . . . the last 200 yards or so was good going and those horses put on pace and next were jumping the trenches with the Turks underneath . . . when over the trenches we went straight for the town."

Sergeant Charles Doherty wrote that the horsemen who cleared all the trenches came up to an open plane which "was succeeded by small wadies and perpendicular gullies, surrounding which scores of sniper's nests or dugouts each were holding seven or eight men.

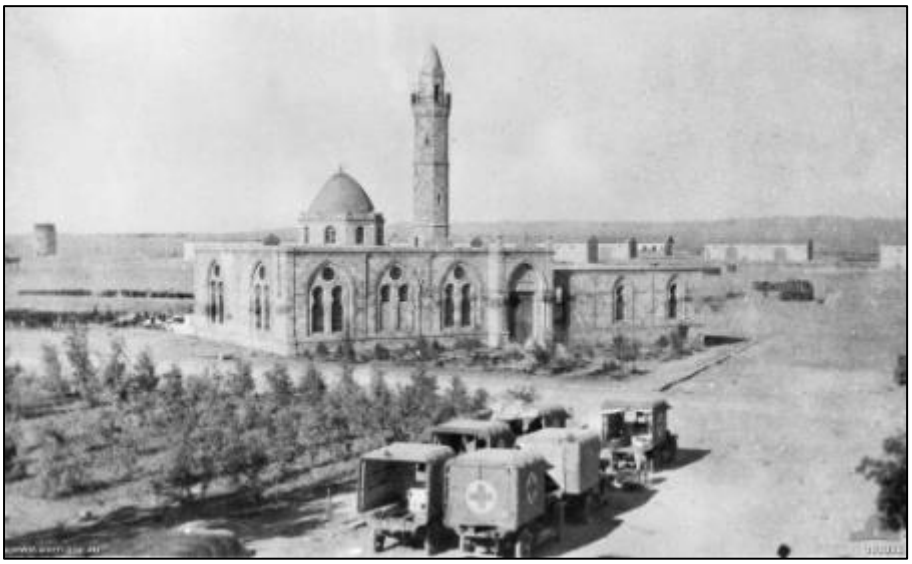
Main street of Beersheba shortly after its capture.

After progressing another quarter of a mile, we turned to the right at an angle of 45 degrees to converge on Beersheba. The enemy's fire now came from the direction of the town and a large railway viaduct to the north. The limited number of entrances to the city temporarily checked us but those in front went straight up and through the narrow streets. Falling beams from fired buildings, exploding magazines and arsenals and various hidden snipers were unable to check our race through the two available streets that were wide enough for 2 to ride abreast." Private Keddie had a near miss: "I felt a bullet go past my ear and thought if that bullet had been a few more inches to one side" as did Trooper Dengate: "I suppose you heard about the capture of Beersheba by the 4th Brigade, well I was right in it, and came through safe, and with my skin intact, I got a bullet through the leg of my breeches, just above the knee, grazed my leg but didn't make it bleed."

<u>Locomotive & well at Beersheba, blown up by retreating Turkish forces</u>

The success of the charge was in the shock value and sheer speed in which they took the town before it could be destroyed by a retreating Turkish force. The town was small but had some very nice buildings with tiled roofs. The water scheme was excellent. They got into the army stores and helped themselves to grain for the horses and got bivy sheets and peg posts. They got all the Turkish stores, there was everything from a telephone to a pack saddle and lots of horses and bullocks. There were rifles and gear lying everywhere. The Turks left bombs and if you kicked one up it went. One Tommie got both his eyes blown out by a bottle. He just kicked it out of the way and it must have been full of explosives."

The first party sent across to the large cement troughs had just finished when from the east came an unexpected fusillade of bullets. Through this assault made it appear that we had been cleverly ambushed, we retained control over the prisoners and secured what cover there was until further support arrived. Between 8 and 9:30pm the 11LHR arrived and the 4th MG Squadron came in. Then a complete chain of outposts was established while the main body of prisoners, together with many scattered lots from the various redoubts were taken back to Brigade HQ."



Motor ambulances waiting near the Beersheba town mosque

31 light horsemen were killed in the charge and 36 were wounded. Some originals from the Brigade who had enlisted in 1914 such as Edward Cleaver and Albert "Tibbie" Cotter, the famous Australian cricketer, were killed. The next morning Private Keddie rode over the ground to see if any of the horses could be found roaming but he recorded only seeing dead carcases. He said: "We were sent looking for the horses whose riders were killed so we made for the other side of the town where several other light horse regiments were . . . met some friends in the first light horse and yarned for a while they asked me what it was like in the charge gave them a full account". At least 70 horses died. The Turkish defenders suffered many casualties and between 700 and 1,000 troops were captured.

There may be no excuse for laziness, but I'm still looking.

C-130 Gunship.

The Lockheed AC-130 gunship is a heavily armed, long-endurance ground-attack variant of the C-130 Hercules transport fixed-wing aircraft. It carries a wide array of anti-ground oriented weapons that are integrated with sophisticated sensors, navigation, and fire-control systems. Unlike other military fixed-wing aircraft, the AC-130 relies on

visual targeting. Because its large profile and low operating altitudes (around 7,000 ft.) make it an easy target, it usually flies close air support missions at night. Click HERE and HERE to see video of this remarkable aircraft.

The airframe is manufactured by Lockheed Martin, while Boeing is responsible for the conversion into a gunship and for aircraft support. Developed during the Vietnam War as 'Project Gunship II', the AC-130 replaces the Douglas AC-47 Spooky, or 'Gunship I'. The sole operator is the United States Air Force, which uses the AC-130U Spooky and AC-130W Stinger II variants for close air support, air interdiction, and force protection, with the AC-130J Ghostrider in development. Close air support roles include supporting ground troops, escorting convoys, and urban operations. Air interdiction missions are conducted against planned targets and targets of opportunity. Force protection missions include defending air bases and other facilities. Gunships can be deployed worldwide. The squadrons are part of the Air Force Special Operations Command (AFSOC), a component of the United States Special Operations Command (SOCOM).

The AC-130 has a non-pressurised cabin, with the weaponry mounted to fire from the port side of the fuselage. During an attack, the gunship performs a pylon turn, flying in a large circle around the target, therefore being able to fire at it for far longer than in a conventional strafing attack. The AC-130H Spectre was armed with two 20 mm M61 Vulcan cannons, one Bofors 40 mm autocannon, and one 105 mm M102 cannon;

During the Vietnam War, the C-130 Hercules was selected to replace the Douglas AC-47 Spooky gunship in order to improve mission endurance and increase capacity to carry munitions. Capable of flying faster than helicopters and at high altitudes with excellent loiter time, the use of the pylon turn allowed the AC-47 to deliver continuous accurate fire to a single point on the ground.

By 2018, AC-130 gunships will have been providing close air support for special operators for 50 years. Although the aircraft have been kept relevant through constant upgrades to their weaponry, sensor packages, and countermeasures, they are not expected to be survivable in future non-permissive environments due to their high signatures and low airspeeds. Military

analysts, such as the Center for Strategic and Budgetary Assessments, have suggested that AFSOC invest in more advanced technologies to fill the role to operate in future contested combat zones, including a mix of low-cost disposable unmanned and stealthy strike aircraft.

Mirage.

If you worked on or flew the Mirage (1963 – 1988), this nostalgic video will bring back some memories. See a short video of the first Mirage built in Australia being delivered HERE

AWM.

During the Centenary period, the name of each of the 62,000 Australians who gave their lives during the First World War will be projected onto the façade of the Hall of Memory at the Australian War Memorial. The names will be displayed from sunset to sunrise every night, and can be seen from the Memorial's grounds. Each name will be visible for 30 seconds. This special commemoration runs from 4 August 2014 until 11 November 2018. During this period, the entire set of 62,000 names will be displayed about 30 times.

As an example, see picture below of my great Uncle's name which has been projected several times so far with more to come. He was KIA Gallipoli day 3 aged 20!

Search the Roll of Honour to help you find out when a particular person's name will be projected. This site provides the estimated date and time at which the name will be displayed. The information will be updated during the Centenary period.

Start and stop times for nightly projections:

(Times are Canberra local time (AEST & Daylight Savings)

From date	To date	Start time	Stop time
3/08/2016	7/09/2016	18:47	5:35
7/09/2016	1/10/2016	19:08	4:55
1/10/2016	2/10/2016	19:08	5:55
2/10/2016	5/10/2016	20:08	5:55
5/10/2016	2/11/2016	20:32	5:20
2/11/2016	7/12/2016	21:06	5:01
7/12/2016	4/01/2017	21:21	5:01
4/01/2017	1/02/2017	21:22	5:15

From date	To date	Start time	Stop time
1/02/2017	1/03/2017	21:11	5:43
1/03/2017	1/04/2017	20:41	6:11
1/04/2017	2/04/2017	20:41	5:11
2/04/2017	5/04/2017	19:41	5:11
5/04/2017	3/05/2017	18:53	5:40
3/05/2017	7/06/2017	18:19	6:03

Women spend more time wondering what men are thinking than men spend thinking.

'It cost and arm and a leg'

It cost and arm and a leg is one of those phrases that rank high in the 'I know where that comes from' stories told at the local pub. In this case the tale is that portrait painters used to charge more for larger paintings and that a head and shoulders painting was the cheapest option, followed in price by one which included arms and finally the top of the range 'legs and all' portrait. As so often with popular myths, there's no truth in that story. Painters certainly did charge more for large pictures, but there's no evidence to suggest they did so by limb count. In any case the phrase is much more recent than the painting origin would suggest.

It is in fact an American phrase, coined sometime after WWII.

In December 1949, Food Editor Beulah Karney of The Long Beach Independent, wrote that he had more than 10 ideas for the homemaker who wants to say "Merry Christmas" and not have it cost her “an arm and a leg”. He used 'Arm' and 'Leg' as examples of items that no one would consider selling other than at an enormous price. It is a grim reality that, around that time, there were many US newspaper reports of servicemen who had lost an arm and a leg in the recent war. It is possible that the phrase originated in reference to the high cost paid by those who suffered such amputations.

O

A more likely explanation is that the expression derived from two earlier phrases: 'I would give my right arm for...' and '[Even] if it takes a leg', which were both coined in the 19th century. In the 1849 edition of Sharpe's London Journal it was written:

“He felt as if he could gladly give his right arm to be cut off if it would make him, at once, old enough to go and earn money instead of Lizzy”.

Give me ambiguity or give me something else.

Australia’s first PC-21 takes flight.

Lockheed Martin and Pilatus Aircraft have successfully completed the initial production test flight of the first PC-21 aircraft destined for the Australian Defence Force under the AIR 5428 Pilot Training System program.

Under a contract signed in December 2015, the initial seven-year program is valued at AU$1.2 billion.

Performance-based options for up to 25 years will provide the opportunity to extend the length and increase the value of the total contract. Lockheed Martin leads the delivery of an integrated solution tailored for all future pilots for the Royal Australian Air Force, Royal Australian Navy

and the Australian Army and will form the backbone of future pilot training for the Australian Defence Force for the next 25 years.

This first PC-21, registered as A54-001, will be handed over to the RAAF at East Sale in June next year after completion of testing and verification work in both Switzerland and Australia. Under the prime contract, Lockheed Martin will provide overall project management for the pilot training system and deliver a family of integrated ground-based training technologies.

Women sometimes make fools of men, but most guys are the do-it-yourself type.

The Viscount.

The World's airline systems began to greatly expand during the post-WWII decades. Given that Australia was such a large area; rather akin to the USA, the number of airline aircraft was very low but that was due to the small population and the cost of travel as rail fares were much cheaper.

Australia's Inter-State airlines were restricted, by Law, to the private Ansett-ANA and the 100% owned Govt. TAA (Trans Australian Airlines). Both operators used a fleet of:

DC-3, DC-4, DC-6B, Fokker F-27, Vickers Viscount, Lockheed L-188 Electra, Boeing 727, Douglas DC-9.

The Viscount, with strong headwinds, needed wing slipper-tanks fitted to fly direct Adelaide to Perth as, without them, it may have to land at Meekatharra to uplift some fuel. That was about seven hours to dry tanks....with a tad more if they shut down one engine thus reducing fuel-flow by 25% but TAS by only 12%.

There is an interesting Video HERE

Velly Intelesting – but stupid!!!!

Long Tan – 50th Anniversary.

The 18th August 2016 marked 50 years since the battle of Long Tan.

In May 1966 the first soldiers of the 6th Battalion, Royal Australian Regiment (6RAR) had arrived in South Vietnam; the rest followed in June. Within two months some of those men found themselves engaged in one of the largest battles fought by Australians in the Vietnam War and sadly, 18 Australians and more than 250 enemy were killed.

Late in the afternoon of the 18th August, 1966, Major Harry Smith and his dispersed company of 108 young and mostly inexperienced Australians from 6RAR and a three-man New Zealand forward observer party under Captain Maurice Stanley, were fighting for their lives in the pouring rain and the mud and shattered trees of a rubber plantation called Long Tan, holding off an overwhelming enemy force of 2,500 battle hardened Viet Cong and North Vietnamese soldiers. With their ammunition running out, their casualties mounting and the enemy massing for a final assault, a resupply was urgently needed.

9 Squadron started that day with two Iroquois which had been moved from VungTau up to Nui Dat. These aircraft were on standby duties and later in the day would be required to transport Ozzy entertainers, Col Joye and Little Pattie, back to VungTau following their concert show for the troops. Being on the spot, these two aircraft were tasked to supply ammunition to the troops fighting at Long Tan. Flying conditions could not have been worse; the heavy rain reduced visibility and forced the crews to fly at tree-top height. Following a smoke signal from the Australian troops, the supply helicopter, flown by the late Flt Lt Cliff Dohle and Flt Lt Bruce Lane, hovered at 10 metres, just above the tree tops and dropped the critical ammunition to the waiting troops. They were spot on and a relieved voice was heard over the radio, "You bloody beaut, that was smack on". That aircraft was A2-1022 and is today on display at the Caloundra RSL – see HERE. The second helicopter crew, Flt Lt Frank Riley and Flt Lt Bob Grandin, was tasked to establish radio contact and locate the troops for the ammunition drop and to provide backup and support.

At about 2300 that night, seven Iroquois helicopters evacuated the wounded and recovered the dead from the battle area. The helicopters landed, in turn, on a landing zone about the size of a

tennis court with the only lighting being provided by four torches, vertically positioned in the corners of the landing area.

Lick HERE to see an excellent Channel 9 doco on the battle.

You can watch a movie HERE

The Australian War Memorial (AWM) held a ceremony to mark the 50th anniversary and had invited one representative from each of the numerous ex-Military associations which, one way or the other, were involved in the battle all those years ago. These representatives were treated to a stirring rendition of the song "I was only 19" which was sung by the group Redgum back in 1983. (Click HERE).

The AWM had invited John Schumann, who was the lead in the group Redgum and Hugh McDonald to perform the song late in the day in the wonderful Hall of Remembrance. Both John and Hugh were introduced by the Director of the AWM by Dr Brendan Nelson, who has done a magnificent job since taking the reins at the AWM and who, at the conclusion of the performance, personally met and thanked everyone for attending.

The AWM is one of Australia's "must sees". If you haven't been, you are really missing something. There is an enormous amount of material on display and to do it credit, you really need to devote a full day. New material is being added all the time

and if it's been a while since you were there, odds are there will be a lot you haven't seen. The aircraft section, which contains G for George, the Lancaster bomber, with its sight and sound display is probably the main draw in the AWM - with the Vietnam section coming a close second.

G for George – Avro Lancaster Mk I, four engine heavy bomber.

This particular Lancaster was ordered in 1940 as part of a batch of 400 Avro Lancaster aircraft constructed by Metropolitan Vickers Ltd in the UK and was delivered to 460 Squadron RAAF in October 1942. It was powered by four Rolls-Royce Merlin XX 12-cylinder liquid-cooled engines, each with a single stage centrifugal supercharger. The airframe was constructed primarily of aluminium alloy and breaks down into a number of major sub-assemblies for ease of construction and transport. Steel tube and forgings were used for the installation of the engines undercarriage and some smaller fittings. It was fitted with a tailwheel undercarriage.

The aircraft normally carried a crew of seven: Pilot, Navigator, Wireless Operator, Bomb Aimer, Flight Engineer, Mid-Upper Gunner and Rear Gunner. When first constructed, this aircraft was fitted with a mid-under defensive gun position, which would have required an eighth crewman. There is no evidence that this position was retained when the aircraft entered operational service. A timber blanking panel was fitted in the mounting equipped with a flare shoot. This aircraft was never fitted with H2S radar. The bomb load varied depending on the type and

duration of the operation but a common load was 14,000 pounds (6350 kgs of bombs or incendiaries). Defensive armament consisted of eight guns installed in three turrets; two in the forward turret, two in the mid-upper turret and four in the rear turret. The cruising speed was 200mph (322km/h) with maximum speed 287mph (467km/h).

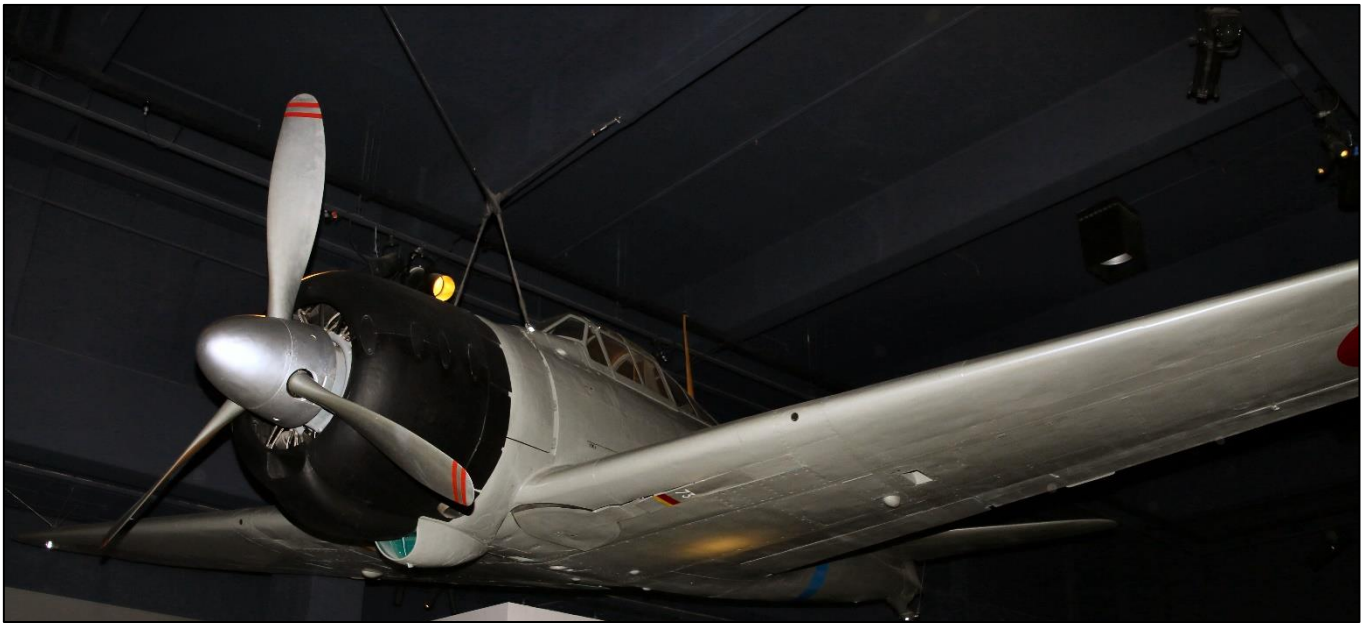
While in service with 460 squadron, it flew some 90 operations with 27 crews. The main crews were captained by:

- Flight Sergeant J A Saint-Smith (13 operations),
- Flight Sergeant J Murray (13 operations),
- Flying Officer Henderson (10 operations), and
- Pilot Officer H Carter (21 operations).

The aircraft's longest operation lasted 10:09 flying hours, to La Spezia, Italy on 13 April 1943. Its last operation was a raid on Cologne, Germany on 20 April 1944. When G for George retired from service after this raid it had completed more operations than almost any other aircraft in RAF Bomber Command. In June 1944 the Department of Air made it available for war museum purposes and after an extensive overhaul it left for Australia on 11 October 1944, flown by an all-Australian crew captained by Flight Lieutenant E A Hudson, DFC and Bar. It arrived in Brisbane, Queensland on 8 November 1944 and the following day was received by 3 Aircraft Depot, Amberley where it was given RAAF registration number A66-2. In 1945 the aircraft toured the eastern states of Australia in connection with the Third Victory Loan until finally declared surplus and transferred to the Australian War Memorial.

G for George spent almost ten years, most of them exposed to the elements, at RAAF Canberra before being installed at the AWM. It was the centrepiece of Aircraft Hall for 44 years before being disassembled and removed for an extensive conservation program in March 1999. In the second half of 2003 it was reassembled, and returned to display in Anzac Hall. After undergoing extensive restoration at the AWM's Treloar Conservation workshops, it went back on display in Anzac Hall in "Striking by night", a permanent exhibition featuring a dramatic sound and light show that re-creates a night bombing operation over Berlin in December 1943. Three German Messerschmitt fighter aircraft also feature in the display. It is now one of only 17 Lancasters left in the world from the 7,378 originally manufactured.

Some of the other aircraft on display in the aircraft section are the following:



THE RAM
THE MAGAZINE BY & FOR SERVING & EX-RAAF PEOPLE & OTHERS
Vol 55

The Vietnam War display is also a very popular section of the memorial.

From the time of the arrival of the first members of the Australian Army Training Team Vietnam (AATTV) in 1962 almost 60,000 Australians, including ground troops and air force and navy personnel, served in Vietnam; 521 died as a result of the war and over 3,000 were wounded. (See HERE) The war was the cause of the greatest social and political dissent in Australia since the conscription referendums of the First World War. Many draft resisters, conscientious objectors, and protesters were fined or jailed, while soldiers met a hostile reception on their return home. Australian support for South Vietnam in the early 1960s was in keeping with the policies of other nations, particularly the United States, to stem the spread of communism in Europe and Asia. In 1961 and 1962 Ngo Dinh Diem, leader of the government in South Vietnam, repeatedly requested security assistance from the US and its allies. Australia eventually responded with 30 military advisers, also known as "the Team". Their arrival in South Vietnam during July and August 1962 was the beginning of Australia's involvement in the Vietnam War. In August 1964 the Royal Australian Air Force (RAAF) also sent a flight of Caribou transports to the port of Vung Tau.

By early 1965, when it had become clear that South Vietnam could not stave off the communist insurgents and their North Vietnamese comrades for more than a few months, the US commenced a major escalation of the war. By the end of the year it had committed 200,000 troops to the conflict. As part of the build-up, the US government requested further support from friendly countries in the region, including Australia. The Australian government dispatched the 1st Battalion, Royal Australian Regiment (1RAR), in June 1965 to serve alongside the US 173 Airborne Brigade in Bien Hoa province.

The following year the Australian government felt that Australia's involvement in the conflict should be both strong and identifiable. In March 1966 it announced the dispatch of a taskforce to replace 1RAR, consisting of two battalions and support services (including a RAAF squadron of Iroquois helicopters), to be based at Nui Dat, Phuoc Tuy province. Unlike 1RAR, the taskforce was assigned its own area of operations and included conscripts who had been called up under the National Service Scheme, introduced in 1964. All nine RAR battalions served in the taskforce at one time or another, before it was withdrawn in 1971. At the height of the Australian involvement it numbered some 8,500 troops. A third RAAF squadron (of Canberras) was also committed in 1967, and destroyers of the Royal Australian Navy (RAN) joined US patrols off the North Vietnamese coast. The RAN also contributed a clearance diving team and a helicopter detachment that operated with the US Army from October 1967.

The year 1968 began with a major offensive by the Viet Cong and North Vietnamese Army, launched during the Vietnamese lunar new year holiday period, known as "Tet". Not only the timing but the scale of the offensive came as a complete surprise, taking in cities, towns, and military installations throughout South Vietnam. While the "Tet Offensive" ultimately ended in military defeat for the communists, it was a propaganda victory. US military planners began to question if a decisive victory could ever be achieved and the offensive stimulated US public opposition to the war. For Australian troops, the effects of the offensive were felt around their base at Nui Dat, where a Viet Cong attack on targets around Ba Ria, the provincial capital, was repulsed with few casualties.

By 1969 anti-war protests were gathering momentum in Australia. Opposition to conscription mounted as more people came to believe the war could not be won. A "Don't register" campaign to dissuade young men from registering for conscription gained increasing support and some of the protests grew violent. The US government began to implement a policy of "Vietnamisation", the term coined for a gradual withdrawal of US forces that would leave the war in the hands of the South Vietnamese. With the start of the phased withdrawals, the emphasis of the activities of the Australians in Phuoc Tuy province shifted to the provision of training to the South Vietnamese Regional and Popular Forces.

At the end of April 1970 US and South Vietnamese troops were ordered to cross the border into Cambodia. While the invasion succeeded in capturing large quantities of North Vietnamese

arms, destroying bunkers and sanctuaries and killing enemy soldiers, it ultimately proved disastrous. By bringing combat into Cambodia, the invasion drove many people to join the underground opposition, the Khmer Rouge, irreparably weakening the Cambodian government. When the Khmer Rouge came to power in April 1975, it imposed a cruel and repressive regime that killed several million Cambodians and left the country with internal conflict that continues today. The extension of the war into a sovereign state, formally neutral, inflamed anti-war sentiment in the United States and provided the impetus for further anti-war demonstrations in Australia. In the well-known Moratorium marches of 1970 and 1971, more than 200,000 people gathered to protest against the war in cities and towns throughout the country.

By late 1970 Australia had also begun to wind down its military effort in Vietnam. The 8th Battalion departed in November (and was not replaced), but, to make up for the decrease in troop numbers, the Team's strength was increased and its efforts became concentrated in Phuoc Tuy province. The withdrawal of troops and all air units continued throughout 1971 – the last battalion left Nui Dat on 7 November, while a handful of advisers belonging to the Team remained in Vietnam the following year. In December 1972 they became the last Australian troops to come home, with their unit having seen continuous service in South Vietnam for ten and a half years. Australia's participation in the war was formally declared at an end when the Governor-General issued a proclamation on 11 January 1973. The only combat troops remaining in Vietnam were a platoon guarding the Australian embassy in Saigon (this was withdrawn in June 1973).

In early 1975 the communists launched a major offensive in the north of South Vietnam, resulting in the fall of Saigon on 30 April. During April a RAAF detachment of 7–8 Hercules transports flew humanitarian missions to aid civilian refugees displaced by the fighting and carried out the evacuation of Vietnamese orphans (Operation Babylift), before finally taking out embassy staff on 25 April.

They say that Vietnam was a helicopter war and the Vietnam gallery has as its centrepiece an Iroquois helicopter, complete with a multimedia experience of a ‘helibourne assault’ – a landing with soldiers disembarking, and a ‘dust-off’ – a medical evacuation. The aircraft on display, a Bell UH-1B Iroquois A2-1019, was among the first such aircraft deployed to Vietnam, arriving in May 1966. Over the next two years it carried out 489 missions, including casualty evacuation, troop insertion/extraction, logistics supply and freight carriage, and reconnaissance.

Following the war, the Iroquois was used for training and operations while based at Williamtown (NSW), Butterworth (Malaysia) and later Pearce (WA). The Memorial acquired the Iroquois in May 1985, and the aircraft has been extensively conserved and refurbished by Memorial and volunteer staff to bring its back to its operational appearance in early 1967.

The Iroquois on display at the AWM.

The light and sound show starts every day at 15 minutes to the hour and is always well attended.

At the end of the day, at 4.30pm, there is a very moving and memorable changing of the guard of the tomb of the Unknown Australian Soldier, followed at 4.55pm by a stirring rendition of the Last Post.

The ceremony is a public event open to all visitors. Each ceremony follows the same format:

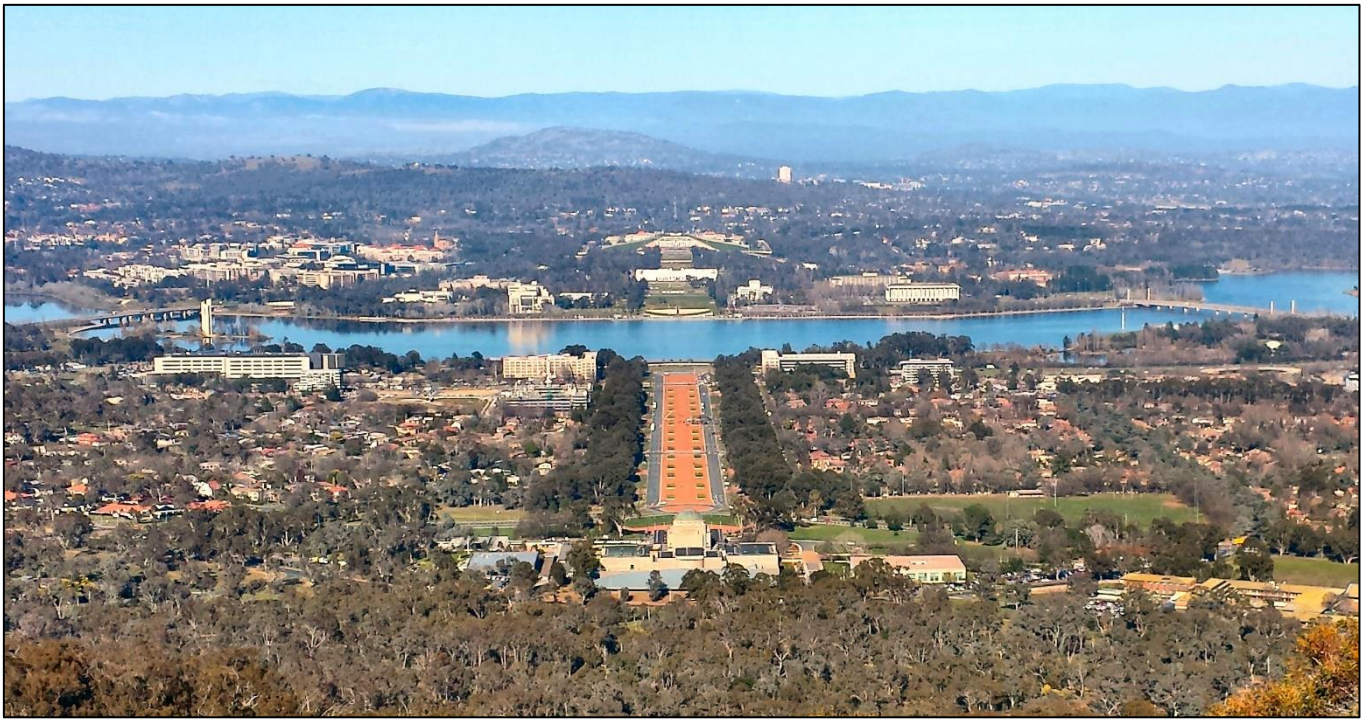
- The Memorial's Master of Ceremonies starts with a brief introduction.
- The National Anthem is played and sung.
- A piper plays a lament, during which visitors can lay wreaths and floral tributes at the base of the Pool of Reflection.
- A serving member of the Australian Defence Force (ADF) attends every ceremony to read the story of the person on the Roll of Honour being honoured.
- The member of the ADF recites the Ode.

- A bugler plays the Last Post.
- The Master of Ceremonies ends the ceremony with a final reflection.

You can see a video of the Catafalque party mounting a vigil at the Tomb of the Unknown Soldier HERE.

You can see a video of the playing of the Last Post HERE.

If you have never been to the ACT and more specifically to the AWM, you are really missing something. It is set at one end of the wide Anzac Parade with the old and new Parliament Houses at the other. From the Mt Ainslie lookout you get a view of some of the planning that went into building Canberra.



Commemorative Memorials have been erected all along Anzac Parade and a well-attended ceremony was also held in front of the Vietnam Memorial. On the third anniversary of the Long Tan battle, 18th August 1969, a cross was raised on the site of the battle by the men of 6RAR and Veterans from the battle gathered at the cross to commemorate the fallen and the day was commemorated by them as Long Tan Day from then on. Over time, all Vietnam veterans adopted the day as one to

commemorate those who served and died in Vietnam. In 1987, following the very successful Welcome Home parade for Vietnam veterans in Sydney, Prime Minister Bob Hawke announced that Long Tan Day would be known as Vietnam Veterans Day. Since then, it has been commemorated every year as the day on which the service of all those men and women who served in Vietnam is remembered.

Vietnam Veterans Memorial, Anzac Parade, ACT.

The Vietnam Veterans Memorial is across the road from and directly opposite the RAAF Memorial.

Another must see establishment while in Canberra is the Royal Military College at Duntroon. Thankfully the security boffins haven't got their hands on this site and there is no restriction on entry, you can drive in and have a look around at some of the magnificent old buildings.

The Royal Military College, Duntroon, was opened on 27 June 1911 by the Governor-General, Lord Dudley. Situated on the Campbell family homestead in Canberra, which had been named "Duntroon" after Duntrune Castle, their ancestral home on Loch Crinan in Argyll, Scotland, the college was one of the first Commonwealth facilities established in the newly created capital. The Australian Government first rented the Duntroon homestead for two years (November 1910 to July 1912) and finally acquired the freehold to the estate and 370 acres of land after the creation of the federal capital. The college was modelled on aspects from the Royal Military College of Canada and the military colleges of Britain and the United States.

The First World War provided the college with its first chance to demonstrate its worth, however, when the war broke out in August 1914, there had not been enough time for the first class to complete the full Duntroon course. Nevertheless, it was decided to graduate the class early so that they could be sent over to Gallipoli, where General Sir Ian Hamilton, commander of the Mediterranean Expeditionary Force, said that "...each Duntroon educated officer was...worth his weight in gold". During WW1, 158 Duntroon graduates had been sent overseas on active service, of whom 42 were killed or died of wounds and another 58 were wounded.

In the beginning, the college offered a four-year course, during which the first two years focused upon civil subjects and the last two years focused upon military subjects. Over the entire course, however, there was military specific training, including physical training, drill, signalling and weapons handling. Over the years, however, with the impact of the two World Wars, the duration and focus of the course changed as the requirements of the Army dictated. The college was forced to relocate to the Victoria Barracks, Sydney between 1931 and 1936 due to the economic downturn caused by the Great Depression. During the Second World War

short courses of between six months and a year were run and ultimately 696 graduates of the College undertook active service overseas.

The Parade Ground at “Duntroon” today, and below, how it was in 1920.

Following the war, the length of the course was set at four years again and efforts were made to increase the level of academic rigour in the college's programs. This culminated in 1967 when the college affiliated with the University of New South Wales (UNSW) to offer Bachelor courses in Arts, Science or Engineering, commencing in the 1968 academic year. Under this program, the first degrees from RMC were awarded in 1971. In order to graduate, cadets had to achieve passes in both military and academic studies and leadership. The link with UNSW was almost severed in 1969 when Duntroon was the centre of an inquiry after Gerry Walsh, a member of the academic staff, revealed details of bastardisation passed on to him by a student at the college. The inquiry resulted in at least one army career ending, while other personnel were severely punished. A further bastardisation scandal was exposed in 1983.

With the closure of the Officer Cadet School, Portsea, in December 1985, and the closure of the Women's Officer Training Wing at Georges Heights, Sydney, in December 1984, the Royal Military College, Duntroon became the sole General Service Officer training institute in the Australian Army, as all Regular Army officers serving in combat, combat support or service support Corps were required to attend Duntroon in order to be commissioned. Shortly after this, the role of the college changed again with the establishment of the Australian Defence Force

Academy in 1986. As a result of this change, Duntroon ceased to offer university degrees as ADFA became responsible for the academic training of Army cadets, as well as those from the Air Force and Navy.

Origins of the magnificent Australian War Memorial.

The Memorial ranks among the world's great national monuments. Sharply etched grandeur and dignity, in its stylised Byzantine profile contrast with a distinctively Australian setting among lawns and eucalypts, at the head of a wide ceremonial avenue, ANZAC Parade. Kangaroos, occasionally straying from nearby bushy hills, add to the physical effect.

An aerial photograph of the Australian War Memorial, 1945

The Memorial is more than a monument. Inside the sandstone building, with its copper-sheathed dome, selections from a vast National Collection of relics, official and private records, art, photographs, film, and sound are employed to relate the story of a young nation's experience in world wars, regional conflicts, and international peacekeeping.

The Memorial forms the core of the nation's tribute to the sacrifice and achievement of 102,000 Australian men and women who died serving their country and to those who served overseas and at home. A central commemorative area surrounded by arched alcoves houses the names of the fallen on the bronze panels of the Roll of Honour. At the head of the Pool of Reflection, beyond the Flame of Remembrance, stands the towering Hall of Memory, with its interior wall and high dome clad in a six-million-piece mosaic. Inside lies the Tomb of the Unknown Australian Soldier, an official war grave and national shrine.

After the anguish of Gallipoli, the Australians of the 1st AIF (Australian Imperial Force) and their official war correspondent, Charles Bean (right), moved on to the greater horrors of the Western Front in France and Belgium. The Australians' first big battles were at Fromelles and Pozières, in July 1916. Bean was immediately appalled by the sufferings of the men.

He wrote in his diary:

> *"Pozières has been a terrible sight all day ...*
>
> *One knew that the Brigades which went in last night were there today in that insatiable factory of ghastly wounds. The men were simply turned in there as into some ghastly giant mincing machine. They have to stay there while shell after huge shell descends with a shriek close beside them, each one an acute mental torture, each shrieking tearing crash bringing a promise to each man, instantaneous, I will tear you into ghastly wounds. I will rend your flesh and pulp an arm or a leg, fling you half a gaping quivering man (like these that you see smashed around you one by one) to lie there rotting and blackening like all the things you saw by the awful roadside, or in that sickening dusty crater. Ten or twenty times a minute every man in the trench has that instant fear thrust tight upon his shoulders, I don't care how brave he is, with a crash that is a physical pain and a strain to withstand."*

A month later the idea of a memorial museum for Australian was born, as Bean's confidant A.W. Bazley later recalled:

> *"I remember in August 1916 when after his busy days tramping the Pozières battlefield and visiting units in the line he would roll out his blankets on the chalk firestep of the old British front line ... on the edge of Becourt Wood and Sausage Gully. We used to sleep feet to head– C.E.W.B., Padre Dexter, myself, and others – and although I cannot recall the actual conversations today I do remember that on a number of occasions he talked about what he had in his mind concerning some future Australian war memorial museum".*

Two men, above all others, moulded the Memorial: Charles Bean, Australia's Official Historian of the First World War, and John Treloar, the Director of the Memorial between 1920 and 1952.

2nd Australian Division troops chatting after emerging from trenches in France.

Charles Bean (1879–1968) was born in New South Wales but grew up largely in Britian. He returned to Australia and worked as a journalist and in 1914 was chosen by the journalists' association as official war correspondent. Bean went ashore on Gallipoli on 25 April 1915 and for the rest of the war stayed close to the soldiers in the front line. As well as lobbying for the creation of the Australian War Memorial, he was appointed to edit

the 12-volume Official History of Australia in the War of 1914–1918; he wrote six of the volumes, completing the last in 1942.

John Treloar (1894–1952) contributed more than any other person to the realisation of Bean's idea. Treloar, who came from Melbourne, also landed on Gallipoli on 25 April 1915.

In 1917, as a captain, he was appointed to head the newly created Australian War Records Section (AWRS) in London, responsible for collecting records and relics for the future museum and to help the official historian in his work. After the war, Treloar devoted his life to the Memorial and had influence over every aspect of its development.

Bean working on files during the writing of the official history of the First World War.

Appointed Director of the Memorial in 1920, he remained in this position for the rest of his life, apart from a period in charge of the Military History and Information Section (MHIS) during the Second World War.

AWRS was set up in 1917 to ensure Australia would have its own collection of records and relics of the great war being fought. Treloar devoted himself especially to improving the quality of the unit war diaries which recorded the action of each unit day by day, and to ensuring that after the war the official historian would have a well ordered collection of the diaries and supplementary material to work from.

Others, such as Sid Gullett and Ernie Bailey, went out into the field to collect relics or material evidence of the conflict. At the same time orders were given to the common soldiers to do their bit of collecting for the projected museum and, in this way, 25,000 relics were gathered together.

Lieutenant Colonel J.L. Treloar, Officer-in-Charge, Military History and Information Section.

Bean and Treloar also arranged for the appointment of official artists and

photographers. There were 18 official war-artists, the best known being Will Dyson, George Lambert, and Arthur Streeton. Bean's official photographers included two adventurers, Frank Hurley and Hubert Wilkins. Hurley had been to the Antarctic with both Mawson and Shackleton, while Wilkins had been to the Arctic and in 1912 had filmed the Balkan War with the Turkish army. Bean insisted that art and photography should show the war as it was, not an idealised version.

After the war it took a long time before the Memorial's building in Canberra was constructed. Initially there were delays in arousing public and government enthusiasm. Then the Depression intervened. In the meantime, large, long-running exhibitions were held in Melbourne and Sydney. The "Australian War Museum" opened on ANZAC Day 1922 in the Exhibition Building, Melbourne (right). This exhibition of war relics was enthusiastically received by press and public, and attracted large crowds. The exhibition closed in 1925 and was moved to Sydney, where it remained until 1935.

In 1918 Bean conceived how the Memorial would appear:

> *"On some hill-top, still, beautiful, gleaming white and silent, a building of three parts, a centre and two wings. The centre will hold the great national relics of the A.I.F. One wing will be a gallery, holding the pictures that our artists painted and drew actually on the scene and amongst the events themselves. The other wing will be a library to contain the written official records of every unit".*

The Memorial's design was a compromise between the desire for an impressive monument to the fallen and a budget of only £250,000. An architectural competition in 1927 failed to produce a satisfactory single design for the building. Two of the entrants in the competition, Sydney architects Emil Sodersteen and John Crust, were encouraged to submit a joint design, incorporating Sodersteen's vision for the building and Crust's concept of cloisters to house the Roll of Honour. The joint design was accepted and forms the basis of the building we see today, completed in 1941.

As Australia entered the Second World War, the Memorial in Canberra was still not complete and intended to be devoted solely to the First World War. As it became apparent that the new war was comparable in scale with the Great War, it became almost inevitable that the scope of the Memorial should be extended. In 1941 the government extended the Memorial's charter to include the Second World War; in 1952 it was again extended to include all Australia's wars.

With the inclusion of the Gulf War and of peacekeeping operations the Memorial in the 1990s must remain ready to respond to new events.

During the Second World War the MHIS was set up, once again under the charge of John Treloar. A more mobile war made collecting difficult and the Memorial's Second World War collection has never quite matched that of the first. Bean wrote to Treloar urging the collection of evocative relics:

> *"The kind of relic that would stir me to the marrow is, say, a section of the original Kokoda trail, … part of the charred wharf from Darwin; … a uniform taken from a man after a muddy jungle fight."*

How exactly a "section of the original Kokoda trail" could have been collected is hard to say. In any event, the Memorial, which was still run by First World War veterans, remained predominantly a First World War museum. In a sense, the comparative failure of the MHIS demonstrated the magnitude of the achievement of the AWRS.

Once again, extensive collections of art, photographs, and film were assembled. Other areas were less lucky: during the 1950s, for instance, many of the Memorial's fine collection of Second World War aircraft were disposed of, a number being sold for scrap. Space was a major problem. The building had been designed to display relics from the First World War only. It was not until 1971 that the eastern and western wings were added, finally allowing room for adequate display of Second World War material.

From the beginning, Bean had hoped that the Memorial would incorporate a Roll of Honour, listing all the Australian dead of the war. Originally this was intended to be inside the Hall of Memory and Bean even hoped to include a photograph of each man. The list would be arranged by town of origin, so that visitors to the Memorial could easily find the names of all the dead from their own town.

The scale of the casualties and the cost constraints imposed on the building defeated these plans. John Crust's most important contribution to the building's design was the beautiful and moving idea of placing the Roll in cloisters around a central courtyard. But long delays ensued and by the time the Roll of Honour was completed in 1961 it had become a list of Australia's dead in all wars, arranged (for administrative simplicity) by units rather than towns. There was certainly no room for photographs. But the Roll remains an impressive achievement. This vast list of names serves to remind us of the equality and individuality of every one of the dead, commemorating not the

sacrifice of a nameless mass but the tragic loss of each well-loved man or woman among this great number.

The Hall of Memory was completed in 1959 but had ceased to have an obvious purpose except to inspire contemplation. In the early years the proposal was sometimes made that Australia, like other countries, should have a tomb of an unknown soldier. Bean and Treloar resisted this, fearing that such an edifice might compete with the Memorial. In 1993, however, it was decided to create such a tomb as part of the Memorial and to place it in the Hall of Memory. In this way two forms of commemoration, of one anonymous individual together with a great mass of named men and women, would be combined. On Remembrance Day in 1993 the remains of a soldier killed on the battlefields of the Western Front during the First World War were placed in a marble-covered tomb in the Hall of Memory. The event – regarded as the biggest and most significant staged by the institution since opening – attracted generous national coverage and interest. The four pillars erected at the same time symbolise the four elements of earth, air, fire, and water.

In keeping with the sombre commemorative tone of the Memorial, Bean was from the start concerned that it should not be seen to be glorifying war or triumphing over the enemy. He urged Treloar and others not to speak about "trophies", preferring the term "relics" instead. He also urged that captions and text should not use derogatory terms, such as Hun or Abdul (German and Turk were preferable). In the 1950s Bean drew up a list of exhibition principles, suggesting among other things that the galleries should "avoid glorification of war and boasting of victory" and also "avoid perpetuating enmity for both moral and national reasons and because those who have fought in wars are generally strongest in their desire to prevent war". In general, the former enemies should be treated as generously as were Australians. The exhibitions also needed to be made interesting, for example, by presenting relics as objects with their own story rather than as just examples of a type. Bean also thought of the future: "exhibits [should be] so described and displayed as to be understood and interesting seventy-five years after the events."

Some of these issues became an area of dispute in the early 1950s when some swords surrendered by Japanese generals at the close of the Second World War were taken off display, as being tokens of surrender and thus violating the principle that the Memorial should not be in any way a monument to victory. After a public outcry, however, the swords were put back on display. In the 1990s the Memorial set out to formalise its guiding principles in a set of policy documents, such as the Acquisition and Disposal Policy and the Exhibition Policy.

In 1980 the Memorial became a separate authority (previously it was merely a part of a government department) with a new Act which gave it much greater powers to manage its own affairs. This was one of the catalysts for a period of major progress and growth which continues today. In the early 1980s a conscious effort was made to improve the funding and staffing of the Memorial, the levels of which had fallen well below what was needed. Within a few years staff numbers had increased, from around 100 to over 200, and funding to support new and existing programs was substantially increased. This enabled the Memorial to embark on initiatives, such as increasing its impact and scholarly profile in the area of Australian military history. A Research Grants Scheme was set up to foster original research in the field, the annual history conference was instituted, to bring together all those interested in the field and to give a forum for the discussion of new ideas. At the same time a considerable publication program was developed.

A program of gallery refurbishment was undertaken during the 1980s starting with the Gallipoli Gallery's opening in 1984. The opening was attended by 240 Gallipoli veterans. This was followed by the opening of galleries commemorating recent conflicts such as Korea and Vietnam. At the same time, the Memorial became more professional in many other ways. Senior curators were recruited to care for the collection and improve professionalism; the Conservation Section expanded to provide world-class facilities and highly qualified staff to ensure the collection's preservation; collection management practices using modern computer technology were introduced; and a greatly expanded education program was instituted to bring the Memorial's message to an ever increasing number of children and adults.

Additional government funding in the last few years has enabled the Memorial to build up-to-date facilities at the Treloar Centres at Mitchell to house the large part of our collection not able to be displayed in the galleries. This centre is open to the public once a year. A major fund raising program has been introduced which is seeking funding from private and corporate sources to supplement what the AWM receives from government, and which will enable them to undertake projects that would otherwise have not been possible.

A significant beneficiary of the fund raising has been Gallery Development, which set a fund raising target of $20 million. In 1995 the Gallery Master Plan was endorsed by Council, an extensive program to revitalise the galleries. The work has included major changes to the layout of the galleries – making them more accessible through a centrally planned information space – and the development of new exhibitions to replace existing ones.

Emphasis was placed on making maximum use of the Memorial's collection in combination with modern exhibition technologies and resources. The redeveloped galleries, Research Centre, and Sculpture Garden were officially opened by Prime Minister John Howard on 11 March 1999. In June 2001 the construction of ANZAC Hall, was completed. It houses the Memorial's collection of large technology items.

Undoubtedly, the Memorial's staff take pride in working for an institution which in many ways lives up to Bean's vision of "the finest monument ever raised to any army".

Health and Life Style.

Veterans and Veterans Families Counselling Service (VVCS) can be reached 24 hours a day across Australia for crisis support and free and confidential counselling. Phone 1800 011 046.
VVCS is a service founded by Vietnam veterans.

Mozzy Bites.

MAYO CLINIC

Mosquito bites are the itchy bumps that appear after mosquitoes use their mouthparts to puncture your skin and feed on your blood. The bump usually clears up on its own in a few days but occasionally a mosquito bite can cause a large area of swelling, soreness and redness. This type of reaction, most common in children, is sometimes referred to as skeeter syndrome. Bites from Infected mosquitoes in many parts of the world can carry certain viruses or parasites and cause severe illness such as West Nile virus, yellow fever, malaria, dengue fever and some types of brain infection (encephalitis).

Mosquito bites are caused by female mosquitoes feeding on your blood. Female mosquitoes have a mouthpart made to pierce skin and siphon off blood. Males lack this blood-sucking ability because they don't produce eggs and so have no need for the protein in blood. As a biting mosquito fills itself with your blood, it injects saliva into your skin. Proteins in the saliva trigger a mild immune system reaction that results in the characteristic itching and bump.

Mosquitoes select their victims by evaluating scent, exhaled carbon dioxide and the chemicals in a person's sweat which is why some people are more prone to being bitten than others.

For many of us, mozzie bites are an unavoidable part of life if we want the luxury of having our balcony door open on a summer's night or sips at six around the barby. But apart from not scratching them, what's the most effective way of minimising the itch? The key is in how our

immune system responds to a mosquito bite in the first place. When you're bitten, a mosquito will use its sharp, tubular proboscis to deliver saliva that's full of anticoagulants to the blood, which thins it out for quick and easy siphoning. As researchers discovered back in 2012, these mouthparts are so small, they actually pierce individual blood cells and suck them dry.

The first ever time you get bitten by a mosquito you won't feel a thing because your immune system hasn't had a chance to develop a coordinated response. But once it does, it will know to deliver an unrelenting burst of histamines to the dried-up, shrunken blood cells, and these are what turns the bite wound into a red, swollen, and itchy disaster area. This is one of those cases where your immune system ends up causing more harm than good, so the best solution to combat a histamine-related itch is to douse it in antihistamines. Benadryl and calamine lotion are good. Calamine lotion and both Benadryl cream and the pills can be found over the counter and are pretty inexpensive. Benadryl pills can even be taken as a precaution beforehand, to deal with the inflammation as soon as you are bitten.

While antihistamines are the most widely accepted treatment for mosquito bites, there have been questions over just how effective they are. In 2012, a study published in the US Drug and Therapeutics Bulletin reviewed the available evidence for how over-the-counter treatments dealt with the itch of bug bites, and found "little direct evidence for the efficacy of treatments for simple insect bites, and, in general, recommendations for treatment are based on expert opinion and clinical experience." They added that with ointments containing antiseptics, antihistamines, or numbing agents such as lidocaine and benzocaine only appeared to help "sometimes". That said, "sometimes" is better than nothing, the researchers concluded, and having reviewed all available options, came to this recommendation:

"For mild local reactions, the area should be cleaned and a cold compress applied. Oral analgesics can be given for pain, and a mild corticosteroid cream (such as Daktozin) applied to reduce inflammation and itching. Large local reactions can be treated with an oral antihistamine. Non-sedating antihistamines are preferred during the day, but a sedating antihistamine can be of use at night if sleep is disturbed. Antibacterial treatment is not required for simple insect bites, but secondary infections should be treated with an oral antibacterial agent in accordance with local guidelines."

Click HERE to see the rather confronting footage of a mosquito's flexible proboscis probing a blood cell.

You'll know you've been bitten by a mozzy when:

- A puffy, white and reddish bump appears a few minutes after the bite, or
- A hard, itchy, reddish-brown bump, or multiple bumps, appearing a day or so after the bite or bites, or

- Small blisters appear instead of hard bumps, or
- Dark spots appear that look like bruises.

More-severe reactions may be experienced by children, adults not previously exposed to the type of mosquito that bit them, and people with immune system disorders. In these people, mosquito bites sometimes trigger:

- A large area of swelling and redness.
- Low-grade fever.
- Hives.
- Swollen lymph nodes.

Children are more likely to develop a severe reaction than are adults, because many adults have had mosquito bites throughout their lives and become desensitized.

If mosquito bites seem to be associated with more-serious warning signs, such as fever, headache, body aches and signs of infection — contact your doctor.

The best defence against Mozzy bites is, of cause, to go on the offensive.

Nothing shuts down a balmy summer BBQ or ruins the romance of an exotic tropical holiday quicker than an army of mosquitos out for blood. And then there's the dreaded experience of waking up in the middle of the night because the buzzing from a blood-sucking bug has roused you - it's somewhere out there, just waiting for you to fall asleep before it resumes its feeding frenzy.

A good mosquito repellent often means the difference between an enjoyable summer of outdoor fun and three nightmarish months in mozzie hell. But which one will do the best job of keeping you bite free? Repellents can be produced using synthetic chemicals or natural products and are available as aerosols, creams, pump sprays, wipes and wearable devices such as wrist bands. The concentration of the active ingredient in mosquito repellents determines how long it will protect you.

The most common active ingredients used are diethyltoluamide (DEET) and picaridin. Both DEET and picaridin are effective at preventing bites, but picaridin is odourless and so considered to be more pleasant to use. Plant-derived ingredients like melaleuca oil and citronella are also sometimes used and although natural repellent sprays and roll-ons are considered a safer alternative and do provide some protection, in most cases they're not as effective as chemical products that use DEET or picaridin. Despite its popularity, citronella has repeatedly been shown to be less effective than DEET.

Some companies also make wrist band mosquito repellents, which are a different story. When CHOICE tested mosquito repellents, the wrist band they looked at was relatively useless.

Generally, mosquito repellents are safe for adults and children over three months of age. For bubs older than three months, look for child-specific insect repellent or those that have a low concentration of DEET or picaridin (less than 10%). Apply the repellent evenly to all areas of exposed skin. A spray here and there or applying repellent to your clothes or belongings isn't effective. Don't apply aerosols or pump sprays directly to your face, spray them onto your hands first and rub on evenly, avoiding contact with your eyes and mouth.

Reapply frequently if you go swimming or sweat heavily.

Bushman has proven to be possibly the best repellent but any that contain DEET will prove to be effective.

Gimmicks such as traps, ultrasonic devices and smartphone apps all sound very appealing if you find that putting on repellent is a bit of a hassle, unfortunately, there is little scientific evidence that any of these will protect you from mosquito bites.

My dad worked for the Department of Main Roads for twenty years before he got fired for stealing! At first I didn't believe it.... But when I got home all the signs were there.

Are chicken eggs good or bad for my cholesterol?

MAYO CLINIC

Chicken eggs are high in cholesterol, but the effect of egg consumption on blood cholesterol is minimal when compared with the effect of trans fats and saturated fats.

The risk of heart disease may be more closely tied to the foods that accompany the eggs in a traditional breakfast, such as the sodium in the bacon, sausages and ham, and the saturated fat or oils with trans fats used to fry the eggs and the hash browns. Most healthy people can eat up to seven eggs a week with no increase in their risk of heart disease. Some studies have shown that this level of egg consumption may actually prevent some types of strokes.

But the story is different for people who have diabetes. In this ever-growing population, eating seven eggs a week significantly increases the risk of heart disease. According to the U.S. Department of Agriculture, one large egg has about 186 mg milligrams (mg) of cholesterol, all

of which is found in the yolk. When deciding whether to include eggs in your diet, consider the recommended daily limits on cholesterol in your food:

- If you are healthy, consume no more than 300 mg of cholesterol a day.
- If you have diabetes, high cholesterol or heart disease, limit the daily cholesterol intake to no more than 200 mg a day.
- If you like eggs but don't want the extra cholesterol, use only the egg whites. Egg whites contain no cholesterol. You may also use cholesterol-free egg substitutes, which are made with egg whites.

He who laughs last thinks slowest.

Convinced You Need a Fitness Tracker? Think Again.

It might be tempting to get one, now that the weather's warming and you're spending more time outdoors. A Fitbit or an Apple Watch, for instance, could prove useful if you're new to exercise or looking to increase physical activity. They nudge you to keep moving throughout the day and track workouts like running and cycling. Many devices also measure heart rate and sleep. But if you're a procrastinator or have trouble staying motivated, a tracker can easily end up in a drawer. If you're already athletic or fairly stable in your routine, it might just tell you the same thing over and over again, which won't help much. If you must have one, it's important to know what you're getting and to know what they don't do before you spend as much as a few hundred dollars on one.

Counting Steps

Fitness trackers typically use arm swings to gauge how far you've walked or run and push you to reach, say, 10,000 steps a day. Many also track floors climbed and calories burned. They can keep you on track if you're new to physical activity, if you're the type to go for a walk at 11 p.m. just to meet that daily goal. But a tracker won't do much if you keep telling yourself, "tomorrow."

Once you hit that goal consistently, you might be inclined to leave your tracker in a drawer, but if you're competitive, Fitbit and other companion phone apps will let you enlist peer pressure by joining groups that track, challenge and taunt each other to meet and exceed those arbitrary goals. Some devices, like the Apple Watch, will also step up your goals as you improve.

Of course, this count isn't perfect. Trackers might give you bonus steps for doing the dishes or even punching someone, as they're measuring arm movements. A bike ride also won't reward you with steps, though some devices will credit you with calories burned.

Heart Beats
Mid-range and higher-end trackers offer heart-rate monitoring, but these aren't approved medical devices. Measurements can vary wildly at times, but most readings are close enough to give you a general sense of your workout intensity. A higher heart rate means your workout is tougher, though heavy breathing and fatigue will also tell you that.

For Workouts

These devices are awful at translating steps to miles, and very few let you calibrate your tracker by checking it against a known distance. GPS in higher-end trackers help, but that drains the battery more quickly, so many long-distance runners might see their trackers die before they're finished. Most GPS fitness trackers also aren't as versatile as a GPS device fine-tuned for running, cycling, golfing or whatever your sport is. And while trackers are typically water resistant, few work for swimming. A tracker lacking sports-specific features can still be useful. You might run three miles with a GPS running watch and use the tracker to make sure you're not sitting the rest of the day.

How's your Sleep?
Most trackers also monitor sleep, though Apple and Android smartwatches require third-party apps. If you toss and turn a lot, the tracker will mark you as a light sleeper. If you get up to use the toilet, the tracker will note that, too. But is it useful? While a tracker might deem you a light sleeper, it can't guide you to better sleep. All it can do is recommend more sleep.

Do you have a Desk Job?
Even if you meet step goals, prolonged sitting can be unhealthy, too. Many devices now have reminders to get up and walk around, though they're useless if you keep ignoring the prompts. Sometimes they even nag you while you're in bed — which is especially irritating if your tracker is also on your case about getting more sleep.

Your Phone
Many key features are already available on phones. The iPhone has Health built-in for counting steps, while you can get Google Fit for Android. You can also download Moves for either system. Beyond steps, GPS apps such as Strava will track running and cycling workouts.

A tracker could still be a worthwhile investment for some people. The phone won't record sleep or remind you to take breaks, nor will it record steps when your phone sits on a desk. Microsoft's Band 2 adds a UV sensor to warn you when you need sunscreen, while the Samsung's Gear Fit2 can track squats and other strength training. The key is whether you'll use it. If you can't even motivate yourself with a phone, a tracker is just a waste of money.

A blonde lady motorist was about half an hour from the Gold Coast when she was flagged down by a man whose truck had broken down. The man walked up to the car and asked, “Are you going to Surfers?” “Sure,” answered the blonde, “do you need a lift?” “Not for me. I’ll be spending the next few hours fixing my truck. My problem is I’ve got two chimpanzees in the back that have to be taken to the Currumbin Zoo. They’re a bit stressed already so I don’t want to keep them on the road all day. Could you possibly take them to the zoo for me? I’ll give you $100 for your trouble.” “I’d be happy to,” said the blonde. So the two chimpanzees were ushered into the back seat of the blonde’s car and carefully strapped into their seat belts, and off they went.

Five hours later, the truck driver was driving through the heart of the Gold Coast when suddenly he was horrified! There was the blonde walking down the street, holding hands with the two chimps, much to the amusement of a big crowd. With a screech of brakes he pulled off the road and ran over to the blonde. “What are you doing here?” he demanded, “I gave you $100 to take these chimpanzees to Currumbin.” “Yes, I know you did,” said the blonde. “But we had money left over so now we’re going to Sea World.”

Staying connected.

Being and staying connected has never been easier thanks to the multitude of social media programs and apps that are now available. With so many available, what should you choose?

Well, the obvious choice for many and used by almost 13 million Australians is **Facebook**. When you think that nearly 1.5 billion people worldwide have a Facebook account, that 'six degrees of separation' theory is now much more a reality. Some people aren’t a fan of Mr Zuckerberg's creation due to the targeted ads which annoy some people but used wisely, and with the appropriate security settings, Facebook remains a favourite for many.

For some, **Instagram** is a better option. Over a quarter of all Australians are now on Instagram and its popularity has exploded in the past couple of years, especially for those wanting to share content with fewer people. Instagram can be used to share photos and videos across other social networks, as well as send messages and posts to friends. Sound familiar? Give it a try and decide for yourself which best suits your needs.

Another popular application to help stay connected is **Skype**. Skype allows free messaging, and free voice and video messaging (if Skype to Skype) to any of your contacts, no matter where they are located. Both video and voice calls can include 25 people. The advantage of Skype is that it can be used on all devices, even on

many smart televisions.

Two other applications also available are **Vine** and **Snapchat**. Both are becoming increasingly popular, with most users sending videos and posts to a small number of their friends, unlike Facebook where updates are generally broadcasted to your extended friend group.

Many would not know of **FireChat**, but it has the advantage of free instant messaging without an internet connection or mobile phone coverage. The user creates their own network of friends and, using a 'mesh network' using Bluetooth and Wi-Fi, can transmit messages and pictures offline to other devices located within 150 meters or so of one another. The more in the user's network, the bigger and faster their network becomes!

This is just a sample of the many social media tools available, but the clear message in this digital age is that there is no excuse not to be connected ... so go forth and connect!

While the above resources provide a strong platform to help strengthen mental health and wellbeing, sometimes it mi ght not be enough, or may not be what is needed.

For Australia's serving men and women, the very unique experiences of combat and other traumas that may be experienced during deployments can, for some members, contribute to longer-term mental health consequences. The demands of military service, adjustment to life at home following deployment, and/or separation from the military, can all be highly stressful events and contributing factors to the deterioration of a veteran's mental health.

Like any health condition, the sooner help is sought the more quickly recovery can occur. If you need additional support consider discussing your situation with a counsellor.

How long can you safely keep leftovers in the refrigerator?

MAYO CLINIC

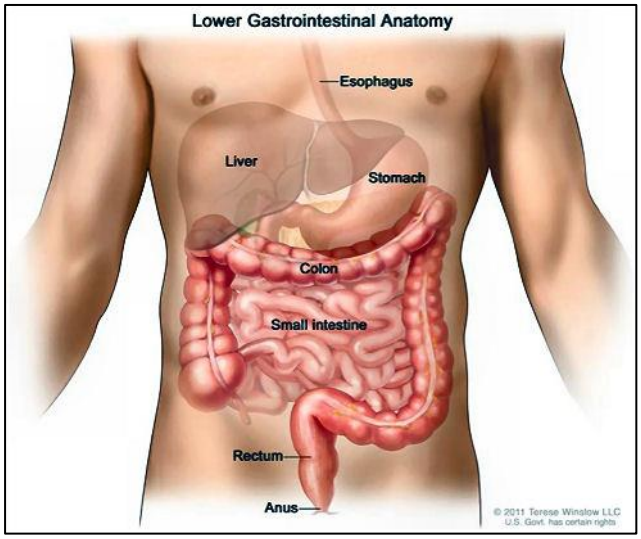
Leftovers can be kept for three to four days in the refrigerator. Be sure to eat them within that time. After that, the risk of food poisoning increases. If you don't think you'll be able to eat leftovers within four days, freeze them immediately. Food poisoning, also called foodborne illness, is caused by harmful organisms, such as bacteria in contaminated food. Because bacteria typically don't change the taste, smell or look of food, you can't tell whether a food is dangerous to eat. So if you're in doubt about a food's safety, it's best to throw it out.
Fortunately, most cases of food poisoning can be prevented with proper food handling. To practice food safety, quickly refrigerate perishable foods, such as meat, poultry, fish, dairy and

eggs, don't let them sit more than two hours at typical room temperature or more than one hour at temperatures above 32 C.

Uncooked foods, such as cold salads or sandwiches, also should be eaten or refrigerated promptly. Your goal is to minimize the time a food is in the "danger zone" — between 4 and 60 C when bacteria can quickly multiply. When you're ready to eat leftovers, reheat them on the stove, in the oven or in the microwave until the internal temperature reaches 75). Because they may not get hot enough, slow cookers and chafing dishes aren't recommended for reheating leftovers.

Is it wrong that only one company makes the game Monopoly?

Is colon cleansing a good way to eliminate toxins from your body?



Colon cleansing is normally used as preparation for medical procedures such as colonoscopy. However, some alternative medicine practitioners also offer colon cleansing for other purposes, such as detoxification.

But colon cleansing, also called a colonic or a colonic irrigation, for such purposes isn't necessary because your digestive system and bowel already eliminate waste material and bacteria from your body.

During a colon cleanse, large amounts of water, sometimes up to 60 litres and possibly other substances, such as herbs or coffee, are flushed through the colon. This is done using a tube that's inserted into the rectum. In some cases, smaller amounts of water are used and are left to sit in the colon for a short time before being removed.

Proponents of colon cleansing believe that toxins from your gastrointestinal tract can cause a variety of health problems, such as arthritis, allergies and asthma. They believe that colon cleansing improves health by removing toxins, boosting your energy and enhancing your immune system. However, there's no evidence that colon cleansing produces these effects and

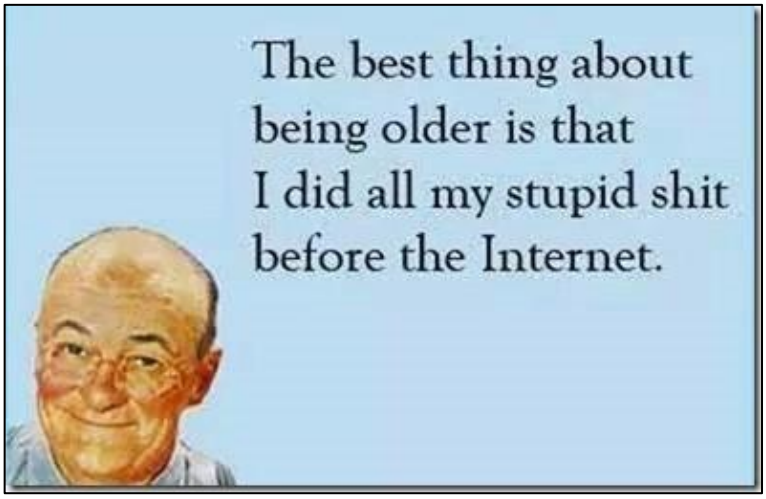
colon cleansing can sometimes be harmful. In fact, coffee enemas sometimes used in colon cleansing have been linked to several deaths. Colon cleansing can also cause less serious side effects, such as cramping, bloating, nausea and vomiting.

Other concerns with colon cleansing are that it can:

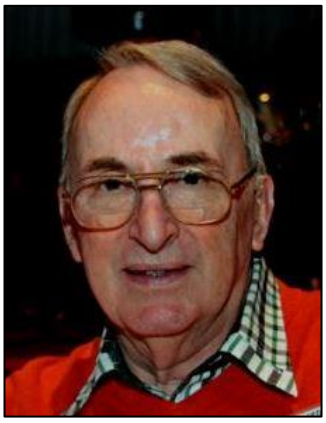
- Increase your risk of dehydration
- Lead to bowel perforations
- Increase the risk of infection
- Cause changes in your electrolytes, which can be dangerous if you have kidney or heart disease or other health problems

If you choose to try colon cleansing, take these precautions:

- Check with your conventional medical providers first, especially if you take any medications or have any health problems, such as kidney or heart disease.
- Make sure your colon-cleansing practitioner uses disposable equipment that hasn't been previously used.
- Get a list of specific herbal ingredients and amounts in any colon-cleansing products you use, some ingredients can cause health problems.
- Stay well-hydrated by drinking lots of fluids while undergoing colon cleansing to prevent dehydration.



Pedro's Patter.



Excerpt from Jeff's book – Wallaby Airlines.

Tuesday, 9th August, 1966

The front beach was a black void as I walked down to breakfast in the morning darkness to our dining room, which was a block away from the Villa Anna behind the Sergeants Mess. A few scattered lights indicated others were up early. Far out in the bay, lights twinkled on anchored ships. I had spent Saturday and Sunday flying short trips to Tan Son (Saigon), Nhut, Bien Hoa and back with the CO and 'Blue' McDonnell. Blue's real name was John Terrence and some people referred to him as Terry. I never heard him called anything but 'Blue'. My diary entry for Monday records one word: 'diarrhoea'. Apparently I was not up to much else. The washbasins in the Villa had signs over them saying that the water was not potable. Even so, most people cleaned their teeth with it. So if only for this reason it was not a surprise to come down with a dose of the trots. The other blokes told me that it was a fairly common condition.

Villa Anna.

Next day I was back to normal. I was programmed for the 405 Mission, a northbound mail run operating Tuesdays, Thursdays and Saturdays to various MACV (Military Assistance Command, Vietnam) and Special Forces outposts between Saigon and the air force base at Nha Trang. Nha Trang is a large coastal city about 200 miles north-east of Saigon in that part of the country designated the II Corps Military Region by the Americans. The trip was also a left-hand seat check out with Blue McDonnell, the squadron QFI (Qualified Flying Instructor), before I flew as captain myself. So today I was pleased to know that I would do most of the flying.

Any Australian reader would realise Blue got his nickname because of his red hair. The other personality trait that often went with red hair was a volatile temper. Blue did not qualify here. He was quite unexcitable, even under trying conditions, which was a good attribute for anyone involved in flying training. He also had an offbeat sense of humour. You never knew whether he was joking or serious.

Blue flew the first leg out of Saigon himself to show me the defensive spiral descent procedure developed and used by the squadron to minimise exposure to ground fire. In 1966 towns and military bases in South Vietnam were secure ‘islands’ in an unfriendly ‘sea’ of VC-controlled countryside. Connecting roads were unsafe except in a convoy. Even trains, when they operated, included a tank-like carriage with a large calibre weapon to ward off VC attack. Rural and mountain areas, even at a relatively short distance from a major population centre or government outpost, often harboured snipers or worse, small teams of VC irregulars armed with more dangerous, large calibre weapons, who took pot shots at low flying aircraft. Snipers strategically placed around the boundary of an airfield, concealed in patches of jungle, usually had plenty time to aim and fire at aircraft due to the slow speeds used during approach and landing.

To minimise this hazard, 35 Squadron had developed ground fire safety procedures.

To start with, it was squadron policy not to cruise below 2500 feet above ground level. This afforded protection against small arms fire. In fact, most pilots flew at 5000–6000 feet. The second procedure was designed to ensure some protection during approach and landing when the aircraft was most vulnerable. Approaching the destination airfield, the aircraft was set up in a tight, high-speed spiral descent over the runway from 2500 feet down to circuit height, normally 1000 feet. (A circuit consists of a downwind, a base and a

final leg.) At the last possible moment, the aircraft was slowed so that the undercarriage and flaps could be extended abeam the point of landing, prior to a tight base turn. It worked very well. We could never understand why our American colleagues did not use it.

Blue was about to demonstrate the descent procedure to me. We arrived over Ham Tan, our first port of call out of Saigon, at 2500 feet and 165 knots. Staying within about half a mile of the runway, Blue spiralled down, maintaining speed until we were abeam the runway threshold, our landing point. He then throttled back and levelled off until the airspeed came back sufficiently to lower the undercarriage and flaps. After a tight base turn and super short finals, we were on the ground. After this demonstration, I was not surprised our squadron had taken very few hits compared with our American counterparts, who used a more conventional approach technique.

If this procedure was necessary to avoid VC ground fire, I needed no further encouragement to use it. Ham Tan was a classic defensive triangle on a model developed by the US Army Special Forces. The camp was surrounded by a triangular fortification of sandbags and trenches with a central lookout tower. The triangular shape gave a wide field of fire from the trenches when the camp was under attack. The airfield, a fairly rough gravel runway and parking area, was outside the triangle running along parallel to one side. It was more than adequate for our needs. After ten minutes on the ground dropping passengers and mail, we were soon airborne again heading for the coast, and Phan Thiet.

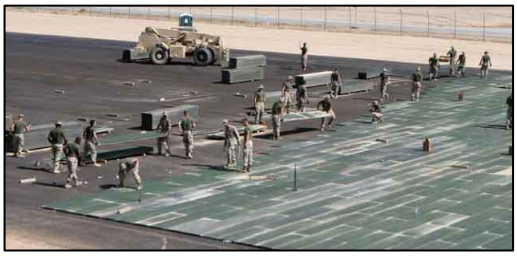
The aircraft was now under my control. After the drab Delta, the north was like a Garden of Eden. The terrain changed from browns to greens, from alluvial plains to purple highlands. Along the coast, the azure sea sparkled as it can do only under a tropical sky. Everything looked clean, at least from our cruising altitude. I felt good. Phan Thiet is a coastal town with its airport clinging to the top of a windswept cliff. Although the runway was reasonably long, the approach was rather hairy due to a vicious wind shear caused by offshore winds on the cliff, and a forest of aerials on the approach path. Both ensured my active concentration all the way to the ground. After landing, we squeezed into the tiny parking area beside a USAF C-123 Provider. We exchanged passengers and mail with motors running.

Further north was Song Mao. The airfield was built on a narrow plain sandwiched between mountain ranges and the coast, and was short enough to be interesting. More than the usual number of kids crowded out to see us, pushing against the wire barricade bordering the ramp. Three small children, the oldest in a miniature sailor suit and looking more like an American kid, enjoyed a better view from the back of a jeep. They were the children of the province chief, a Vietnamese colonel.

Departing Song Mao, we had to climb overhead beyond the usual 2500 feet to clear the mountain range by a safe margin. The Caribou climbed effortlessly, like a glider, its thick cambered wings picking up thermals induced by the strong south-easterly on the sloping terrain. As we climbed we tracked over a large area pockmarked with bomb craters, the result of an earlier B-52 carpet-bombing. It looked like the surface of the Moon. A strip of jungle almost a mile wide and several miles long had been blasted off the map, along with whoever or whatever was in it at the time. One can only imagine the pandemonium among ground forces when the giant bomber's load of 1000-pound high explosive iron bombs rained down on them.

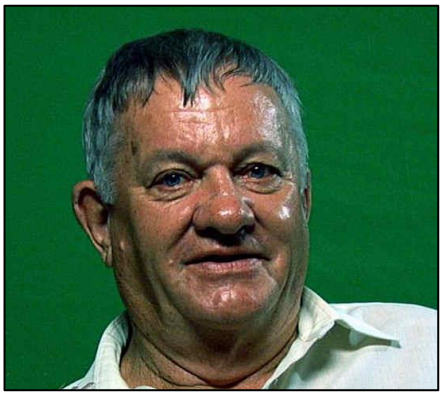
Crossing the first mountain range, we saw Cam Ranh Bay glistening in the hot sun. The bay and the surrounding countryside looked particularly beautiful from the air. No doubt if we descended from cruising altitude to fly low level over the small, close-packed towns which dot the way, their shanties elbowing each other greedily for space beside the river, the squalor would be the same as the towns of the Delta. The Americans were developing Cam Ranh Bay from a superb natural harbour surrounded by rolling sand dunes into one of the country's biggest naval and air bases. The bay was already a major supply port for the II Corps region, its waters crowded with shipping. The adjacent airfield was undergoing a transition from a supply base for C-130 and smaller cargo aircraft to one capable of handling larger cargo aircraft, as well as high-performance fighters and bombers.

Construction teams were busy grading the sand dunes flat prior to laying acres of AM-2, solid aluminium matting similar to PSP. Beyond the next range was Nha Trang, a large and beautiful coastal city set in a narrow river valley whose mountain walls rise to around 4000 feet. We



approached from the south-west, across the ranges, at 6000 feet. At this level the city was hidden from view behind the mountains until we were quite close, when it was suddenly revealed like a scene from a picture postcard. The blue mountains, the verdant green valley, the sapphire sea and a magnificent white Buddha towering over the city—those were unforgettable first impressions. At this level also the decrepit buildings and shantytown, which are features of most Vietnamese cities, were mercifully hidden from view. Nha Trang airfield was also a busy transport base, supplying many government outposts and Special Forces camps in the II Corps Military Region. USAF C-123 and C-130 squadrons, a US Army Caribou detachment and a host of smaller aircraft and helicopters were based here, as well as training aircraft of the fledgling Vietnamese Air Force. One of our Wallabies was also kept here on semi-permanent detachment, and was parked on the loading ramp when we arrived. Like Tan Son Nhut, there was a TMC to allocate parking, and coordinate loading and unloading. We were given a parking position on the radio.

Parking here was at a premium, the aircraft being parked nose to nose in eight double rows, making ground manoeuvring difficult, as I was to find later to my cost. Taxiing in was easy. Coming out in a tight reverse turn was another matter. The loading supervisor, a youthful-looking sergeant second grade, pencil on right ear, clipboard in hand, poked his head through the side door as we climbed down from the cockpit. ‘Hi, Aussie’, he began with the universal American greeting. ‘We got nuthin’ much for yuh—just a few bags of mail and six pax. The other Wallaby cleaned us out.’ This was good news for Malcolm ‘Bugs’ Rose, the crew chief, and his assistant ‘Blue’ Campbell. Aside from the refuelling operation, there would be little for them to do.



I followed Blue McDonnell over to a two-storey wooden building behind the aircraft lines. ‘TMC is downstairs, Ops [Operations] up top’, he explained as we climbed the steep flight of external steps to the balcony above. Operations had no new information for us, so Blue started back towards the aircraft. It was nearly midday. ‘What about lunch?’ I inquired hopefully, my stomach triggering alarm signals. In my humble opinion, civilised people normally eat something in the

middle of the day. 'There's a snack bar round the corner', said Blue 'but I don't usually bother. TMC will sell you a Coke.' 'Show me the snack bar', I insisted. The snack bar was a semi-enclosed counter at the end of the building manned by a Vietnamese wearing a white apron and an American-diner style peaked cap. A rough sign advertised meat sandwiches at an exorbitant price. They looked unappetising, but I was determined to eat. 'Two sandwiches please', I requested, holding up two fingers. The Vietnamese handed over two pre-wrapped packages. I paid him with a wad of MPC and opened one packet.

The sandwich consisted of a thick slab of dry- looking ham between two equally thick slices of half-stale bread, with no butter. Almost choking on my first mouthful, I threw the rest into the nearest bin, much to Blue's ill-concealed amusement. I bought a Coke at TMC. After chatting to the crew of the other Wallaby we fired up our Caribou again. This time the going was not so easy. The afternoon clouds, initially cotton wool puffs, swelled rapidly into bubbling cumulus towers as we headed west into the mountains. The next three stops were mountain bases without radio navigation aids. The only way to make a visual approach and landing at these bases in these conditions was to descend visually through holes in the rapidly increasing cloud cover, doing our best to adapt the spiral descent to get down without compromising our safety by being too low too far out from each airfield.

Our first port of call in the mountains was Dalat Cam Ly, the main airport for the mountain-top city of Dalat. Sixty miles south-west of Nha Trang, Dalat was a surprising city on a plateau 5000 feet above sea level surrounded by a ring of mountains. I saw fine public buildings, curved tree-lined boulevards, and elegant houses. Originally built as a cool and lofty retreat for the French well-to-do to escape the sticky Saigon summer, it now belonged to wealthy Vietnamese. The runway at Cam Ly was 4400 feet long. This was a potential trap for Caribou pilots used to operating from runways a quarter as long at sea level. Due to the high altitude and often above 30°C temperatures, take-off performance was greatly

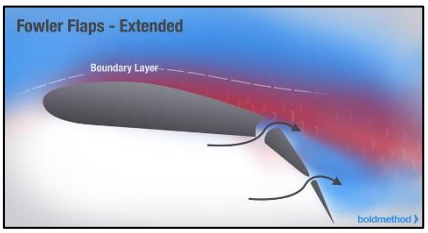
reduced. Pilots had to be aware of this and compensate by restricting the available outbound payload.

Another 60 miles west was Gia Nghia, a US Army Special Forces camp. There were many Special Forces camps scattered throughout the highlands. Each camp was virtually a fortified Montagnard village, the whole population and the Special Forces personnel living inside the boundary. The French originally coined the term Montagnard to describe the ethnic minority peoples living in the highlands. The Special Forces recruited the Montagnards, and trained them in guerrilla warfare. They were willing participants since they had no love of lowland Vietnamese and hated the VC in particular for disrupting their traditional lifestyle. Because the men were diverted from their traditional hunting and gathering activities, they were 'paid' for their efforts in livestock and vegetables, flown in by Caribou or C-123.

> Gia Nghia was listed in the Aerodrome Directory as a Type 2 runway for Caribous: *TYPE 2 – (MINIMUM OPERATIONAL). A facility constructed to provide a sub-standard but operable margin of safety. Operations from this facility will be reasonably efficient, but may be seriously jeopardised under adverse operating conditions.*

They were not committing themselves much, were they? Bulldozing the tops of two adjacent mountains into the dividing saddle had formed the unique dumbbell shaped, red gravel runway at Gia Nghia. The bulldozers, of course, had to be airlifted in by heavy helicopter. The result was a 2000-foot narrow ochre-red strip with sheer drop offs at ends and sides, 2100 feet above sea level and lashed by unpredictable winds. As I came bucking down finals towards this incredible tabletop runway and realised I was going to have to land on it, my adrenalin glands started pumping full bore. I made a full STOL approach, arrived with a thump on the ground, and pulled up in half the distance available in a cloud of dust thrown up by the reverse thrust of the propellers. To use an Air Force expression, the passengers sat behind us 'fat, dumb and happy', unaware that I had chalked up a first.

Blue, unflappable as ever, said nothing. Of course, we had practised STOL approaches and landings back home with the backup of a full-length runway in case we stuffed up. Here it was the real thing. The Caribou is a strange beast in the STOL configuration. It does not really want to fly at the very low speeds necessary for STOL performance. To get around that, its designers resorted to aerodynamic trickery by using an incredible wing with two different aerofoil sections bolted together, the inboard section with anhedral (angled down) and the outboard with dihedral (angled up), and full-length triple-slotted Fowler flaps which extended down to a huge 47 degrees. Handling a 28,000-pound Caribou at speeds as low as 58 knots required considerable skill. To make the task easier, the pilot was given a special gadget called a short field approach indicator. It was mounted on the glare shield at the top of the instrument panel, just below eye level, so that he could see it without looking away from the runway. A computer calculated the optimum speed above the stall and drove a needle on the indicator, which the pilot had to keep aligned with an index mark appropriate to the aircraft weight. Any changes in power setting or aircraft attitude, or turbulence, produced immediate fluctuations of the needle. The pilot had to interpret these fluctuations and avoid 'chasing the needle'.



Furthermore, at very low speed a lot of muscle power was required to move the controls to obtain the large control surface deflections required – a bit like an FJ Holden, definitely no power steering there. For these reasons it is easy to understand why even the most proficient pilot found himself in a lather of sweat on a full STOL approach. Having forced the unwilling brute down to a position just over the intended touchdown point, hopefully close to the ground, the pilot then rotated the aircraft to a landing attitude. Since this placed it below stalling speed, the aeroplane then literally fell out of the sky. (Click HERE to see the aircraft tin action)

Having 'arrived' on the ground in this fashion the long, forgiving undercarriage legs soaked up the inevitable shock. The only thing left to do was to apply maximum braking and full reverse power and—presto—there you were sitting in a stationary aircraft after a 700–800-foot landing roll trying to look calm and disguise your rapid breathing. Fortunately, few runways required this unnerving performance and most pilots adopted a modified STOL technique, using only 30 degree flap and a higher approach speed, for all but the shortest of them. Back to Gia Nghia, I mentally reclassified it as a 'modified STOL' runway.

Blao, our next stop, was also high in the hills. It was shortish, sloping and slippery due to a recent shower of rain on its membrane surface. It was set in the midst of vast tea plantations which, in spite of the war, were surprisingly still operated by a private company. The tea was sold in attractively decorated tins. I later bought several and sent them home as gifts. The loading team here, rifles slung over their shoulders, appeared like wraiths from among the tea shrubs which surrounded the parking area. Having taken the mailbags and whatever else we had for them, they disappeared again without waiting to see us rumbling down the runway towards the gulch at the bottom, the staccato of our exhaust augmentors at take-off power shattering the whispering calm of the plantation.

Ahead of us was the longest leg of the day, a 200-mile run to Saigon. Dodging this way and that, we found a clear path out of the highlands around the many large cloud build-ups that now towered all around us. After diverting us around an air strike, Paris Control left us to make our own way back to Saigon, and we were soon back again in the babble and roar of Tan Son Nhut. The return flight to Vung Tau was an anticlimax. Once again, I was tired and thirsty.

A woman went to the doctor's office where she was seen by one of the younger doctors. After about four minutes in the examination room, she burst out screaming as she ran down the hall. An older doctor stopped her and asked what the problem was, and she told him her story. After listening, he had her sit down and relax in another room. The older doctor marched down the hallway back to where the young doctor was writing on his clipboard. "What's the matter with you?" the older doctor demanded. "Mrs. Terry is 71 years old, has four grown children and seven grandchildren, and you told her she was pregnant?" The younger doctor continued writing and without looking up asked, "Does she still have the hiccups?".....

The F-35.

Australia has committed to 72 F-35A aircraft for three operational squadrons to be based, two at Williamtown and one at Tindal. The second one at Willytown will be a training squadron.

Sometime in the future, a fourth operational squadron will be considered and would be based at Amberley, making a total of 100 F-35As.

The first F-35A aircraft will arrive in Australia sometime in 2018 and the first squadron, 3 Squadron, which currently operates the F18 Hornets, will be operational in 2021.

All 72 aircraft are expected to be fully operational by 2023.

The F-35A will provide Australia with a fifth generation aircraft at the forefront of air combat technology, to provide a networked force-multiplier effect in terms of situational awareness and combat effectiveness. Capable of supersonic flight whilst retaining stealth, the F-35A has extraordinary acceleration, agility and 9G manoeuvrability. It is characterised by a low profile design; internal weapons and fuel carriage; advanced radar; electro-optical and infrared sensors with advanced voice and data link communications; and the ability to employ a wide range of air-to-surface and air-to-air weapons.

The F-35A is the most suitable aircraft to replace the aging F/A-18A/B Hornets and is being purchased AIR 6000.

At a wedding ceremony, the pastor asked if anyone had anything to say concerning the union of the bride and groom. It was their time to stand up and talk, or forever hold their peace. The moment of utter silence was broken by a young beautiful woman carrying a child. She started walking toward the pastor slowly. Everything quickly turned to chaos. The bride slapped the groom. The groom's mother fainted. The groomsmen started giving each other looks and wondering how best to help save the situation. The pastor asked the woman, "Can you tell us why you came forward? What do you have to say?"

The woman replied, "We can't hear in the back."

MIRAGE FATAL ACCIDENT ON BUTTERWORTH RUNWAY 06 July 1976

By Jim Hall

I was having a clean out on my computer recently and I came across a couple of photos of the accident at Butterworth when one Mirage landed on another back on 06 July 1976.....40 years ago.

At the time I was a Herc Flight Engineer on C130A's at 36 Squadron and we were on a regular Butterworth supply run which on the day meant Darwin-Tengah (RSAF Fighter Base in Singapore) - Butterworth. We were taxiing at Tengah for Butterworth when the runway at Butterworth was declared 'black' i.e. closed, so we taxied back and shut down. Sometime later we were given clearance to proceed to Butterworth and land over the wreckage which was basically in the centre of the ideal landing area of the runway (RWY 18). The remaining available runway was ample for a C130. Here is what I know and I have attached a couple of pictures (hitherto unpublished) I took as we landed over the top of the wreckage.

The following is an attempt to inform and perhaps clear up any misconceptions on what happened on that tragic day. There were plenty of rumours and half-truths and as it worked out, these were surprisingly accurate. I asked around and I had a fair knowledge of what may have happened when The Aviation Safety magazine SPOTLIGHT of Feb 2014 (page 18) turned up which carried the full report. This then made my task much easier and more accurate which is paramount.

It appears one Mirage was doing circuits interspersed with 'touch and go's and 'go-arounds' as the pilot had been on leave and he was doing some refresher time. That was A3-64 (from 75 Squadron), piloted by Flt Lt Paul Kaye and he was on finals when the pilot of A3-26, Flt Lt Perry Kelly (3 Squadron), was given clearance by the tower to enter the runway. Subsequently the one on finals landed on the Mirage on the runway.

The Mirage, having a delta wing with no leading edge or trailing edge flaps, had a very high Angle of Attack (Incidence) on landing and pilot forward vision, although good, was not ideal, to the extent there was an indicator in the cockpit reflecting the Angle of Incidence of the aircraft by a series of lights. I understand A3-26 was on another test flight after numerous post E Serving test flights. It was in the process of being transferred from 75 Squadron to 3 Squadron.

I was fortunate to get the following comments and observations from Bruce Grayson, one of our Association members and an ex CO of 3 Squadron at Butterworth (March 1977 - July 1979), so I present them without alteration:

> *"Aircraft accidents rarely result from a single causal factor and this accident is no exception. There are several factors involved here, any of which, if eliminated, could easily have influenced the result.*
>
> *1. The pilots were on different radio frequencies - one on tower frequency and the other on GCA (Ground Controlled Approach) frequency. This is a standard, normal, necessary procedure but does mean that one cannot hear the instructions being given to the other.*
>
> *2. The departing aircraft, because of the ground tests required before takeoff, had entered the runway from the ORP (Operational Readiness Platform) which placed him further down the runway than usual and was positioned within the 'normal Mirage touchdown zone', i.e. 500 ft down the runway.*
>
> *3. The 'normal touchdown zone' was contaminated with black rubber deposits - the result of many years of aircraft landings. When combined with the dark Mirage camouflage paint scheme this made any Mirage aircraft within this area very difficult to see from the air, especially by the pilot of a Mirage which has a very high angle of attack at normal approach speeds. Apparently, and as a result of this incident, a regular program of de-rubbering the runway thresholds was introduced and continues to this day."*

The official report from the Spotlight publication is elsewhere in this newsletter and includes an aerial view of a Mirage parked on the 'rubberised' section of the runway. Camouflage painting of aircraft obviously works.

Whatever the reasons for this most tragic accident, it reminds us of the inherently dangerous pastime of flying aircraft, more so when they are in the high performance category as was the Mirage. Most aircraft accidents can be tracked back along the 'chain' and in hindsight, it becomes obvious that a *('what if?')* link were to be broken the accident may well have been avoided. This can be as simple as a missing split pin, a 'say again' to an indistinct radio transmission or a feeling that something is not quite right. I'm sure all of us have been in a situation where we have thought….what if? Personally, I recall our Herc being given a line up clearance at Townsville one clear sunny day when a B737 was on short finals…….the silence from the tower when we said "is that after the Boeing?" was deafening. A good lesson for all concerned.

I have added some other photos of the wreckage of the aircraft involved which have come across my desk, courtesy of another one of our members……Barry Roberts.

A3-26

A3-64

A3-26

A3-64

A3-26

Official Report.

Mirage Tragedy

By Paul Cross.
Deputy Director Safety Communications
(DDAAFS)

About 2pm on 6 July 1976, Mirage A3-64 was landing from a practice ground control approach (GCA) and impacted Mirage aircraft A3-26 which was lined-up on runway 18, waiting for take-off clearance.

A3-26 was destroyed and its pilot killed instantly. A3-64 was also destroyed but the pilot escaped without significant injury.

Both aircraft were engulfed in flames almost immediately after impact. As the aircraft separated, A3-26 continued to burn fiercely as did A3-64 with the exception of the partially broken away front fuselage section. About three minutes after impact, the first crash vehicle arrived at A3-64 and had no difficulty in rapidly extinguishing the fire. Simultaneously, other crash-rescue vehicles were directed to A3-26 where the fire in

the vicinity of the cockpit area was quickly controlled. However, considerable difficulty was encountered in containing and extinguishing the fuselage fire because of fuel leakage and numerous flashback fires. The ambulance arrived after about seven minutes and the duty medical officer declared the pilot deceased.

The pilot of A3-26 was a Category B fighter pilot with a total of 1187.4 hours including 761.5 on Mirage and an authorised squadron test pilot. The pilot of A3-64 was a Category C fighter pilot and considered most dependable, conservative in his approach to flying and well aware of his capabilities and limitations.

Following the investigation, the Court of Inquiry outlined several factors that were integral to the tragic events of 6 July.

Circadian dysrhythmia.
Three days before the accident the pilot of A3-64 had returned from a 54 day holiday in Europe. He would have, in that time, established a sleeping pattern consistent with the northern hemisphere summer and, having travelled east to return to Butterworth would have experienced a time shift of more than seven-and-a-half hours. His sleep pattern on return showed evidence of significant disruption consistent with interference to the normal circadian rhythm. The Court noted “One response to circadian dysrhythmia relates to the tendency for mental blocking or lapses in attention. This phenomenon, termed response blocking, has been under investigation in the analysis of accidents, where subjects have apparently failed to see, interpret or react to apparent or dangerous situations”.

Other physiological factors
Other physiological factors could also have influenced the pilot’s performance level including his loss of heat acclimatisation and sleep deficit. It was accepted that there would have been a loss of acclimatisation after 54 days in a temperate climate and that it was very unlikely that the pilot had reacclimatised in the three days before the accident. “Two lengthy sorties and a low fluid intake (one cup of black tea and a drink of water) would lead to a body-fluid deficit. The effect of this deficit and loss of acclimatisation would be to increase the individual’s susceptibility to the effects of heat with the resultant fatigue.”

On the two nights before the accident, the pilot had only slept a total of nine-and-a-half hours.

"Sleep deficiency will result in fatigue… fatigue produces a further decrease in performance in an individual subjected to time zone shift."

Currency.

Following a lengthy break, the pilot of A3-64 was considered "a little rusty" by his supervisor in a simulator refresher before flying. His flying of the GCA that culminated in the accident was flown very accurately. It was thought that the attention to accuracy could impose a "greater than usual" workload on top of an already medium-to-high workload situation. "The pilot was in the habit of checking his glideslope and centreline at the commencement of the approach then monitoring his approach on TACAN, which he did. Because of his lack of currency he only monitored the TACAN range but did not compare expected height with actual height or monitor approach on the air-to-ground radar. That is; he was load shedding."

GCA four-mile call.

The pilot of A3-64 at the four-mile point was given an instruction by ATC to check wheels and to overshoot at minimas. This call was given amid glideslope and heading information and was acknowledged by the pilot. However, he did not obey the overshoot instruction and was confident in his own mind that after GCA minimas he had been given clearance to land.

"An important point in regard to the four-mile call is the fact that there was no laid down requirement to read back the key executive word of such a clearance." "In this particular case, read back of the executive 'overshoot', firstly, would have confirmed with the controller that the clearance had been heard and understood and, secondly would have reinforced the executive in the pilot's short term memory, enhancing retrieval or, alternatively, reducing the probability of substitution."

"The Court therefore believes that had overshoot been read back, there is a high probability that the causation chain would have been broken."

Hand off at minimas.

The hand-off call given to A3-64 by the controller was "continue visually and call the tower on the go." In contrast, the standard call, as contained in the manual was "look ahead and land/overshoot visually." The hand-off call was non-standard and importantly did not contain the essential executive word overshoot. This was not a positive and reinforcing four-mile call and contained the ambiguous phrase "on the go". Some pilots interviewed contended that "on the go" was consistent with the continuation of a touch and go but all, including the pilot of A3-64 stated they would not interpret the phrase as a change of clearance but would respond to the previous instruction to overshoot and at the least query their clearance.

Departure and arrival procedures.

It was accepted and common practice at Butterworth to line up aircraft with other aircraft on finals. Some controllers would not have done this with an approaching Mirage within three miles of touchdown but at the time of this accident no distances were laid down for visual meteorological conditions (VMC) operations. In this particular instance controllers thought the approaching aircraft was beyond four miles—when in fact it was about three.

Had A3-26 been positioned at the runway threshold, there was a possibility that A3-64 might have cleared it but A3-26 was some 500 feet further along the runway, close to the touchdown point for a ground-controlled approach. This would create a visual problem for the approaching pilot.

A failure to see.
The pilot of A3-64 did not perceive A3-26 lining up 500 feet from the threshold of runway 18 and there were a number of factors that could account for this. A camouflage-painted aircraft sitting on the rubber-darkened section in the centre of the runway is not so easy to see. It has a very low contrast ratio and added to this would be the hot gasses emitting from the engine, reducing sharpness of the aircraft's outline. A3-26 was stationary, reducing the approaching pilot's visual cues that he was on a collision course.

The position of the sun made it unlikely that any glint from the Mirage's canopy would be seen by the approaching aircraft.

Investigation image one mile GCA Finals with Mirage lined up

"During a simulation it was apparent that the target aircraft became invisible when displaced one to two degrees from the central vision. Thus, unless A3-26 had been fixated centrally, the probability of target detection and recognition would have been very small. "Although many pilots are unaware of reflections in aircraft windscreens, this does not alter the fact that they impose an additional load on the visual system and reduce contrast ratios of targets seen through these reflections, thereby reducing the probability of successfully detecting a low-contrast visual stimulus."

Another factor is that the pilot of A3-64 did not expect to see an aircraft lined up on runway 18 if he thought he was cleared to land. Further, he did not expect an aircraft to be lined up 500 feet from the threshold, where A3-26 was located.

“These factors will affect both the pilot’s visual search strategy and also the perception formed by the brain in response to a particular visual stimuli. The probability of perceiving an aircraft on the runway is likely to be less in these circumstances for a just perceptible stimulus.” A3-26 represented a visual target with a low probability of detection. The effects of fatigue and circadian dysrhythmia may have aggravated the situation by raising visual thresholds, particularly in the periphery, where high workload situations can lead to tunnelling of vision.

The Court concluded that while A3-26 was seeable, the possibility of it being seen by the pilot of A3-64 was remote.

Trainee controller.

At the time of the accident, a trainee controller from the RMAF was under supervision and working in the Tower 1 position. From the time the pilot of A3-26 called “ready”, there was a delay of one minute before he was given a line-up clearance. Although there was other traffic in the pattern, there were opportunities to line up A3-26 and obtain a departure clearance from approach. After clearance from the approach controller was given, there was further delay and discussion about the possibility of an airborne confliction between A3-26 and A3-64 and the decision was made to await the overshoot by A3-64 before clearing A3-26 for departure.

“As the controllers had witnessed previous low overshoots, it was only three or four seconds before impact that they realised that A3-64 was continuing with the landing. At this point a controller called ‘overshoot’ into the microphone while another was attempting to select all frequencies.”

By this stage the accident was inevitable. While the delay in clearance of A3-26 was a link in the causal chain, under the circumstances no criticism of the controllers was intended or warranted.

Court conclusions.

The primary cause of the accident was that the pilot of A3-64 landed without clearance but that landing was the effect of numerous causal factors that coalesced into a series of events, any of which by themselves would have been insignificant but in this instance came together at one place and at one time for tragic consequences. This complex chain of events could have been broken at many points by the removal of just one of those insignificant events.

DDAAFS comments.
The use of non-standard radio calls by both aircrew and ATC continue to be contributory in some Defence aviation safety occurrences with luck often playing a large part in averting disaster. If nonstandard radio calls are detected, it behoves the receiver to question and clarify the call to ensure that there is no miscommunication and both parties understand what is meant or expected.

This accident as usual had numerous contributing factors and failed or absent defences that culminated in tragedy when the pilot mistakenly landed without clearance. Could the accident causation chain have been broken had the other aircraft back-tracked and lined up at the threshold rather than the usual practice of simply taxiing out of the ORP and lining up, or if the upper surface of the Mirage been fitted with an anti-collision light, or the pilot on approach realised and questioned the non-standard radio call?

Physiological and psychological factors were also contributory. Such factors can compromise the safety of a flight by increasing susceptibility to errors and degrading decision making and flying abilities. Pilots are encouraged to use the IMSAFE checklist which is designed to help pilots check whether any of these factors individually, or in combination, affect their physical and mental state before each flight.

IMSAFE Checklist.
Before each flight, ask yourself the following questions:

Illness	Am I sick today? Am I coming down with a cold or another ailment?
Medication	Am I taking any medications that would impair my ability to act as Pilot in Charge?
Stress	Am I under a lot of stress right now (work, family, or other pressures)?
Alcohol	Have eight hours, or more, elapsed since I last consumed alcohol?
Fatigue	Have I had enough rest or am I feeling sleepy?
Eating	Have I had enough to eat or am I feeling hungry or thirsty?

This article appeared in the February 2014 Issue of The Aviation Safety Magazine Spotlight.

Caribou A4-228's last sortie.

Warbirds Online participated in the dismantling and relocation of RAAF Caribou A4-228 with the Australian Aviation Heritage Centre (QLD) Inc. along with other willing volunteers. It was a big day moving all the relevant equipment from Oakey to Caboolture with everything going smoothly, a testament to the extensive planning undertaken to dismantle, transport and relocate the Caribou aircraft to the hangar at

Caboolture. The aim was for the Caribou to join DAP Beaufort A9-141 and the other historic aircraft at Caboolture by the end of June 2016.

The Australian Aviation Heritage Centre – QLD (AAHC) team commenced work in earnest on DHC 4 Caribou A4-228. The process involved the removal of the many panels and fittings to facilitate the removal of the wings and tail. Defence staff supervised these activities and the relationships between them and AAHC was very positive. The dismantling involved some large machinery and impressive skills being applied, for instance, to remove the wing inner leading edges there are a “million” hidden 3/8th bolts? Some people reckon they breed in there!

The removal of the Caribous from Oakey to various museums across Australia was the largest successful disposal and dismantling project of historic military aircraft in Australia and is a blueprint for the future so it’s in everybody’s interest that they succeed for the ongoing disposal of future retired Australian Military aircraft.

On Day one all the wing bolts and associated connections were dealt with ready for the time when the wings would be separated for transport. The plan was to remove the tail assembly first and then separate the wings. A crane was required for that task.

The inner wing leading edges were removed to give further access to the wing attachments which was a difficult and time consuming task as there are a myriad of hidden hoses and bolts that have to be dealt with requiring the skills of a contortionist. After the tail was removed it was

necessary to tilt the fuselage up at the front so they could reach the rear fuselage joint which has to be de riveted for transport reasons as the fuselage would be too high otherwise.

The oil tanks had to be removed so the aircraft would meet its width requirements on its road trip.

Unfortunately, the rain delayed the first large scale dismantling of the tail and wing assemblies as the crane would be unsafe on the soft ground. AAHC removed all the attachment bolts and accessories on the wings and the engines were mounted in their cradles for the move. The sun did eventually come out and the wind died down so the dismantling work resumed. Emerald Transport in Oakey supplied a bunch of tyres on which they would lay the rudder, fin and horizontal stabilizer. It then took two days to derivet the 400 rivets which held the rear fuselage to the rest of the aircraft as in place it would make the load too high.

With the wings removed, the main body of the aircraft was loaded onto a truck for removal to its new home as were the propellers, engines, rear fuselage, wings, tail moveable surfaces and tail cone and a host of small fittings and engine component and other bits and pieces. Kline

Transport was the transport of choice. All of the dismantling was done with a view to totally functionally reassembly and no parts were damaged or cut in the process. All of the smaller components and the dismantling equipment were loaded into the fuselage of the aircraft, whilst the fin and rudder as well as the group's tools were loaded onto the workshop trailer.

Weather and transport permit issues resulted in a week's delay in transporting the major components of A4-228 from Oakey to Caboolture. The fuselage centre section was on one truck and the wings on a second, both vehicles requiring full oversize transport permits and escorts. The tail surfaces, engines and other remaining components were transported on a variety of AAHC Qld vehicles.

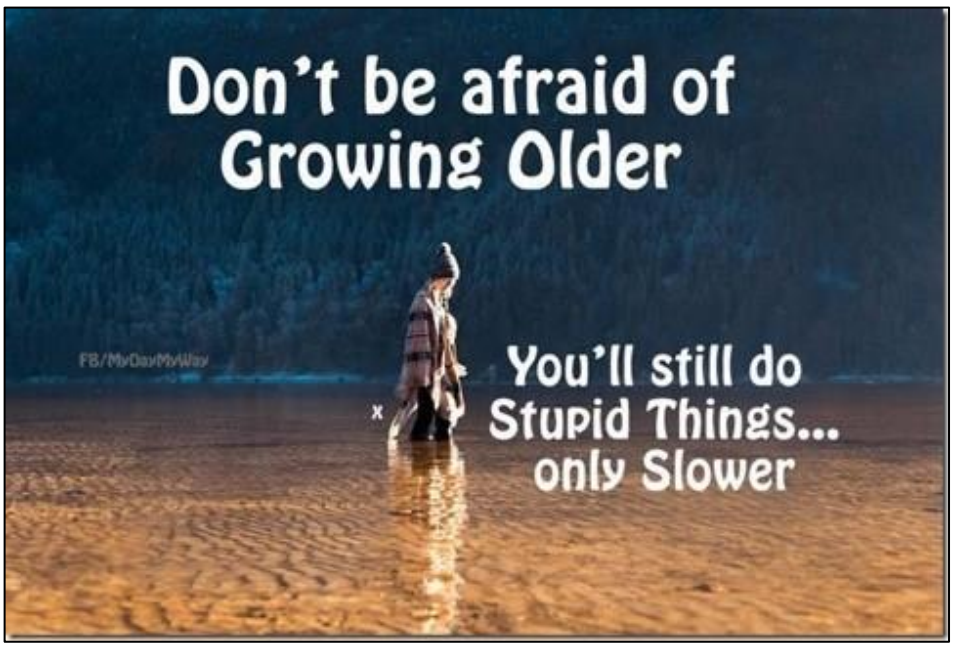
The vehicles left Oakey Museum paddock at approx 5:30PM on Thursday 23 June led by the Police escort vehicles and the Pilot vehicles and headed towards Warwick and then over to Cunningham's Gap on the Cunningham Highway. They rested at Aratula until 11PM when the permit allowed the journey via the Ipswich Motorway and Gateway Motorway to the Bruce Highway and onto Caboolture, arriving at 3.20am on Friday 24 June 2016. The convoy passed over the Gateway Bridge which was quite a sight with the move covered by the Brisbane TV stations. The convoy numbered 20 vehicles in total and although the weather was not kind and they were to experience rain throughout most of the journey, fortunately it was not heavy enough to cause a delay.

Now that the aircraft has reached its new home, the serious work of reassembly and restoration of it can begin. Whilst the aircraft is largely complete and undamaged a few small items are missing such as, a right hand side windscreen, both pilots seat inertia reels, altitude setting switch, prop control unit and 2 prop oil control units and some minor radio equipment. AAHC has approached several sources and hopes to gain access to the items soon. One thing that the group are appealing for are volunteers to work on the Caribou. The aircraft will require a detailed assessment, plan of assembly and many hours of detailed work to restore to display condition and will require many hands to work on her.

All help is gratefully accepted and it's a good chance to make friends and acquire new skills. No previous experience is necessary. It took 1500 hours to dismantle this Caribou and will easily consume double that to get her restored again. You can work as many or as few days as you choose.

Contact Australian Aviation Heritage Centre – QLD via Facebook or email cessna170@bigpond.com to indicate your interest.

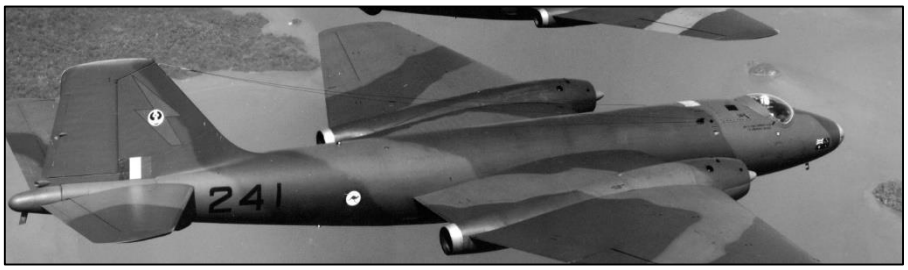
(While removing A4-228 from Oakey to Caboolture is quite a feat, it hardly compares to the restoration job undertaken by the blokes from 35Sqn who, in 1966, replaced the wing, engine, propeller and nose wheel assembly on Caribou A4-173 which had a bad landing at Ba To in Vietnam. Under the threat of enemy fire and with rudimentary tools and using such support equipment as 44 gal drums, sand bags and logs of wood, they carried out their task and the aircraft was flown out. See HERE – tb)



2 Squadron Dedication.

On Wednesday the 20th July, members of the 2 Sqn Association gathered at the Caloundra RSL Club (on Queensland's Sunshine Coast) to participate in the dedication of a plaque to commemorate the Squadron's service in Vietnam during the period, 1967 to 1975.

When eight Canberras of 2 Squadron (It had been operating Canberras since 1953) landed at Phan Rang air base in South Vietnam in April 1967, the squadron had already been serving in south-east Asia for nine years. In July 1958 it had been sent to Butterworth to relive 1 Squadron as part of the Far East Strategic Reserve. 1 Squadron had been operating Lincolns and was being repatriated to Australia to be re-equipped with Canberras. Until then, it had been the mainstay of the Commonwealth air operations in Malaya during the Malayan Emergency but by the time 2 Squadron arrived the communist insurgency was all but over. The squadron did, however, fly some missions, including several large strikes against the communists. On the 2nd October 1958 five of its Canberra bombed three communist camps, believed to be reoccupied, near Ipoh. A report on the bombing mission noted "the devastation caused was so complete that it was impossible to assess the result". The squadron conducted its last combat sortie in Malaya on the 17th August 1959 when four Canberra's attacked a communist target on the northern slopes of Bukit Tapah in Perak.



The Government Aircraft Factory (GAF) built a total of 48 Canberras in Australia with modifications including a reduction in crew from three to two (pilot and navigator/bombardier) and increased fuel capacity. The first came off the production line in 1953 and the last in 1958, they became known as the GAF Canberra Mk.20. The Australian Canberras were joined in 1956 by two British-built Canberra T.4 trainers and in 1957-1958 five Mk.20's were converted to dual control Mk.21 trainers. They were operated by Number 2 Squadron from 1953, Number 6 Squadron from 1955 and Number 1 Squadron from 1958. (the Canberra went on to serve with distinction for many years and the last was retired from the RAAF in 1982.)

Although the Canberra had a smaller weapons payload than the Lincoln it could deliver ordnance more accurately at lower levels and at higher speeds, which was highly important to compete in a modern theatre of combat with more sophisticated air defences. The Canberra carried a 3,628 kg/8,000 lb payload in an internal weapons bay and on two external underwing hard points which was 2,700 kg/6,000 lbs less than the Lincoln.

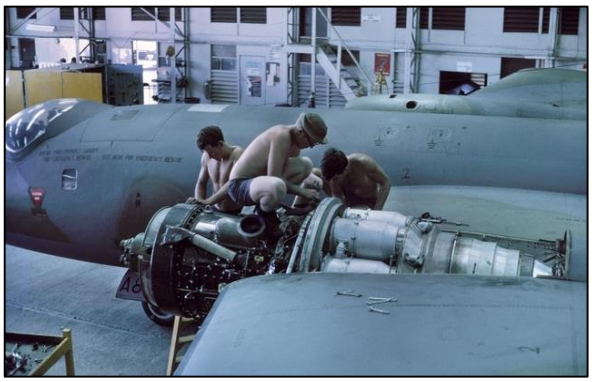
Phan Rang, 260 kilometres north-east of Saigon, was the capital of Ninh Thuan province. The base was situated 13 kilometres from the city and was a "giant complex" covering more than 27

square kilometres. It had only recently been completed when 2 Squadron arrived and was home to the United States Air Force's 35th Tactical Fighter Wing. The first of the squadron's Canberra bombers landed at Phan Rang on 19 April and flew their first mission on 23 April. For the next four years the squadron flew an average of eight missions a day, seven days a week. Unlike the 1st Australian Task Force in Phuoc Tuy province, which operated independently of American forces, 2 Squadron was integrated into the 35th Tactical Fighter Wing, although its missions were restricted to targets in South Vietnam.

For the first few months the squadron mostly few "combat sky spot" missions, where aircraft were guided by ground radar to a target and told when to drop their bombs. Most of the flights were flown at night and tended to be routine and boring. In September the squadron began low-level daylight bombing, hitting targets from low altitude, between 370 and 915 metres. The squadron had conducted similar bombing missions in Malaya but refined its accuracy in Vietnam to such an extent it consistently out-performed all other units of the 35th Tactical Fighter Wing.

As I was getting in bed, she said, "you're drunk" I said, "How do you know?"
She said, "You live next door."

This high proficiency was not limited to just aircrew, but applied to the ground crew as well. The maintenance staff worked 24 hours a day on a two-shift roster, achieving the noteworthy rate of 97 per cent serviceability.



The squadron hit targets from the demilitarised zone in the north, the border between North and South Vietnam, and the Mekong Delta in the south. This included enemy concentrations around Hue, the siege of Khe Sanh in 1968, and the South Vietnamese attack into Laos in 1971. In total, the squadron flew over 11 900 combat missions. It also lost only two aircraft during the conflict: one disappearing on a night bombing mission in 1970, with its crew were listed as "missing in action", while the other shot down by a surface-to-air missile near the demilitarised zone in 1971.

After four years and two months in Vietnam 2 Squadron returned to Australia in June 1971, the first RAAF squadron to do so. Upon its return 2 Squadron was awarded two foreign unit citations: the Cross of Gallantry with Palm, from the Republic of Vietnam; and a United States Air Force Outstanding Unit Award.

By the time it returned to Australia, No 2 Squadron was the last RAAF operational Canberra unit, Nos 1 and 6 Squadrons having temporarily converted to F-4E Phantoms while they waited for the much-delayed F-111s to arrive. No 2 Squadron continued flying Canberras well past their planned retirement date, until 1982, in the meantime completing many cartographic surveys in Australia and overseas (notably Indonesia), the Canberras equipped with survey cameras.

The Canberra's distinguished RAAF career officially ended on 30 June 1982 when No 2 Squadron flew four aircraft over Brisbane and surrounding areas in a farewell fly-past.

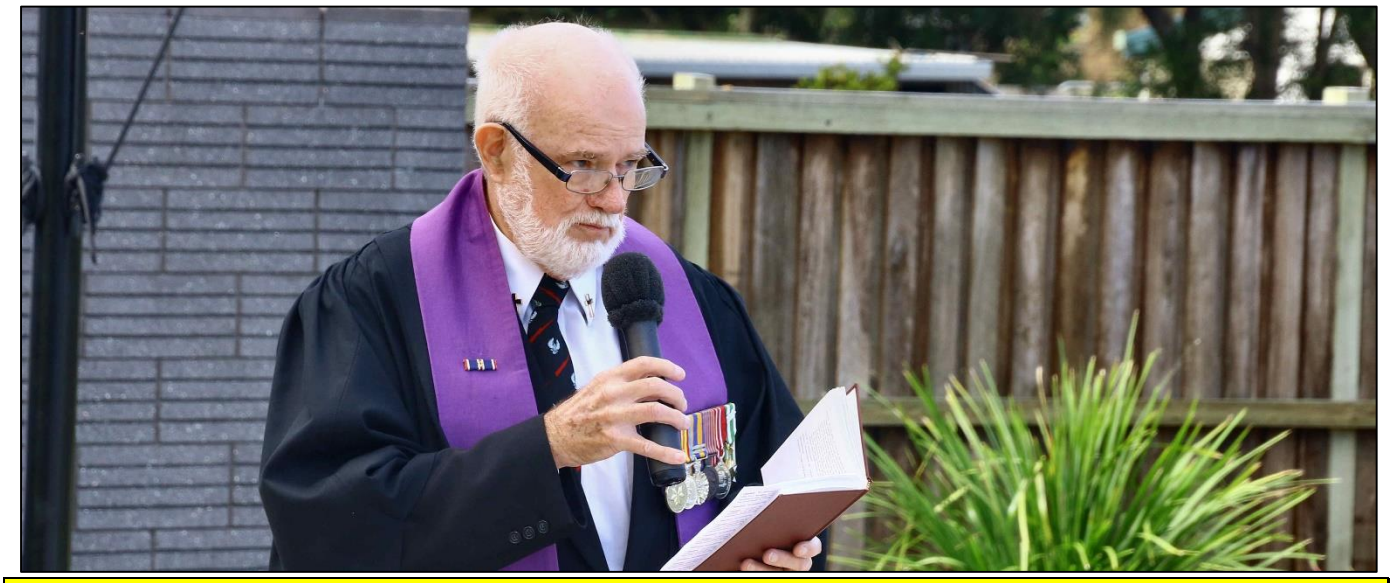
On the 20th July, members of the Association met at the Caloundra RSL at 11.00am for the dedication ceremony which was conducted by Padre Arthur Fry and which was held in the vicinity of the 9 Sqn Iroquois. The Association's secretary, Arthur Rennick opened the ceremony by welcoming everyone to the event.

(You can click a lot of these photos to get a bigger/better view, all names left to right).

The Association's secretary, Arthur Rennick, welcomed everyone to the celebration.

Arthur then introduced the Association's President, Doug Pickering who read out the URO's for the day and then in turn handed the baton to Pastor Arthur Fry for him to conduct the ceremony.

Doug Pickering – reading the URO's.



Pastor Arthur Fry – conducting the ceremony.

Part of the troops who gathered for the service.

President Alan Pickering laid a wreath in memory of all 2 Sqn members who, over the years, have failed to return.

Alan Pickering laying the wreath.

The troops lined up in front of the memorial wall.

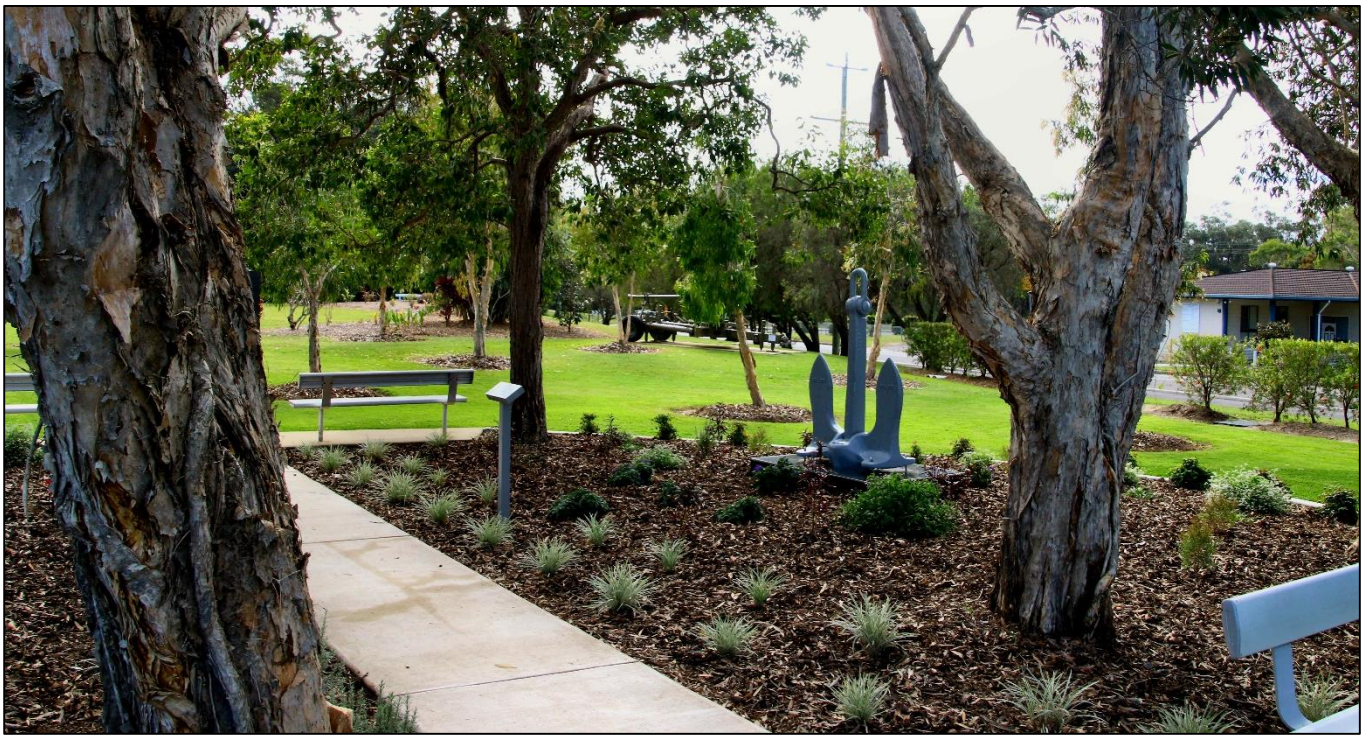
President of the RSL Social Club, Bob McInnes came along to the ceremony to ensure all the troops behaved and that there was no drinking, fist fights or hair pulling around his beloved helicopter.

I changed my password to "incorrect" so whenever I forget it the computer will say, "Your password is incorrect."

The 2 Squadron plaque on the wall.

The Caloundra RSL should be congratulated for the effort and forethought they have devoted into putting together the Memorial Garden which adorns the rear section of the RSL Social Club. Pride of place in the Garden is the 9 Squadron Iroquois which was completed and dedicated back in March 2012. The grounds, gardens and memorabilia are magnificent

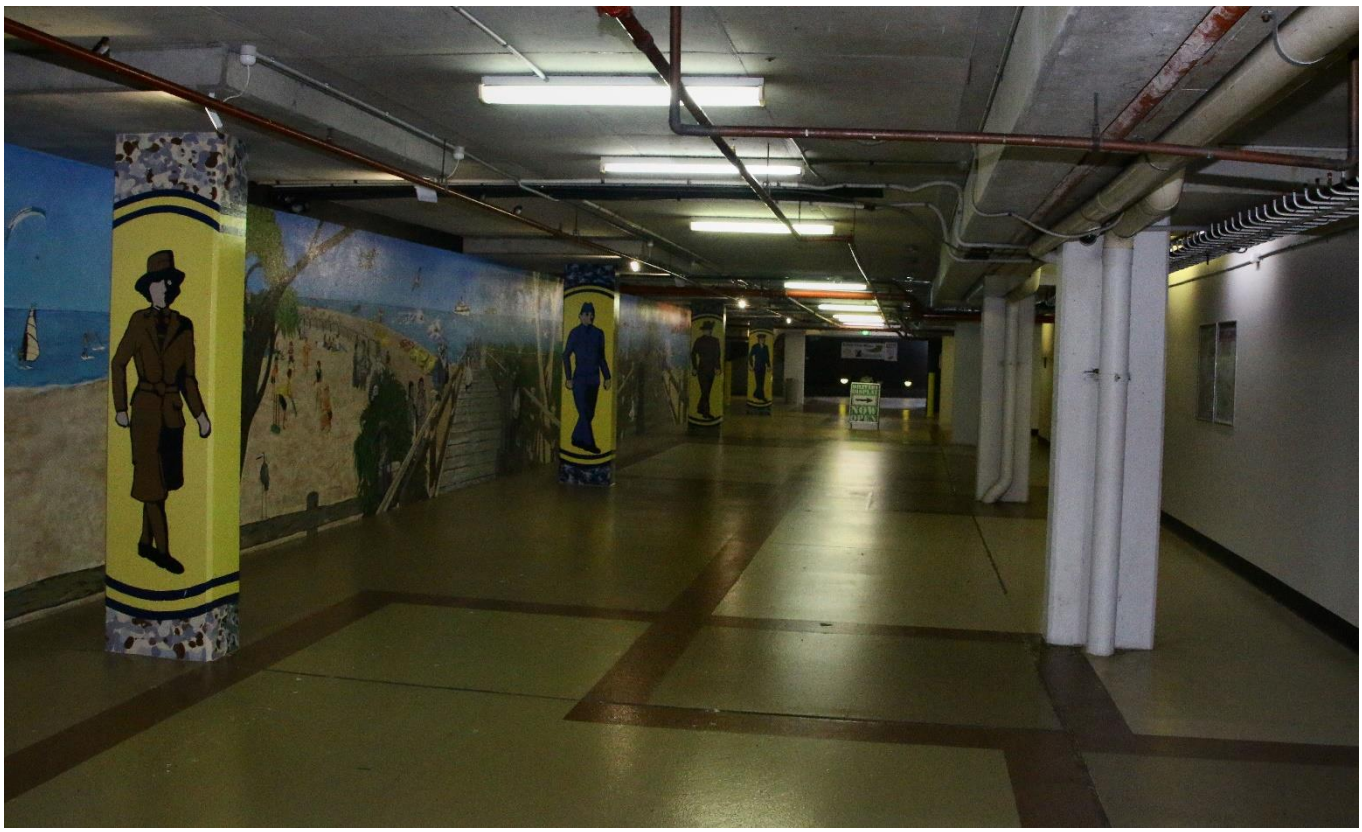
Man's best friend is not forgotten either, with a plaque dedicated to all the animals that have waged war with their masters.



Part of the wonderful Memorial Gardens.

After the dedication ceremony, President Doug invited everyone to the Club and promised to dig deep and shout a few beers. You wouldn't want to be standing in the way, as 2 milliseconds later, everyone had bolted and in no time at all they were lined up at the bar.

The rear entrance to the RSL Club, from the car park, leads through a decorated corridor to the Military Display which is on the lower ground level, under the social area of the Club. It is a wonderful time capsule of unique collectibles and memorabilia from the First World War though to more recent conflicts and is of great historical and educational value. It is open from 10.00am to 2.00pm every Tuesday, Wednesday and Thursday, though group Bookings can be catered for at different times.

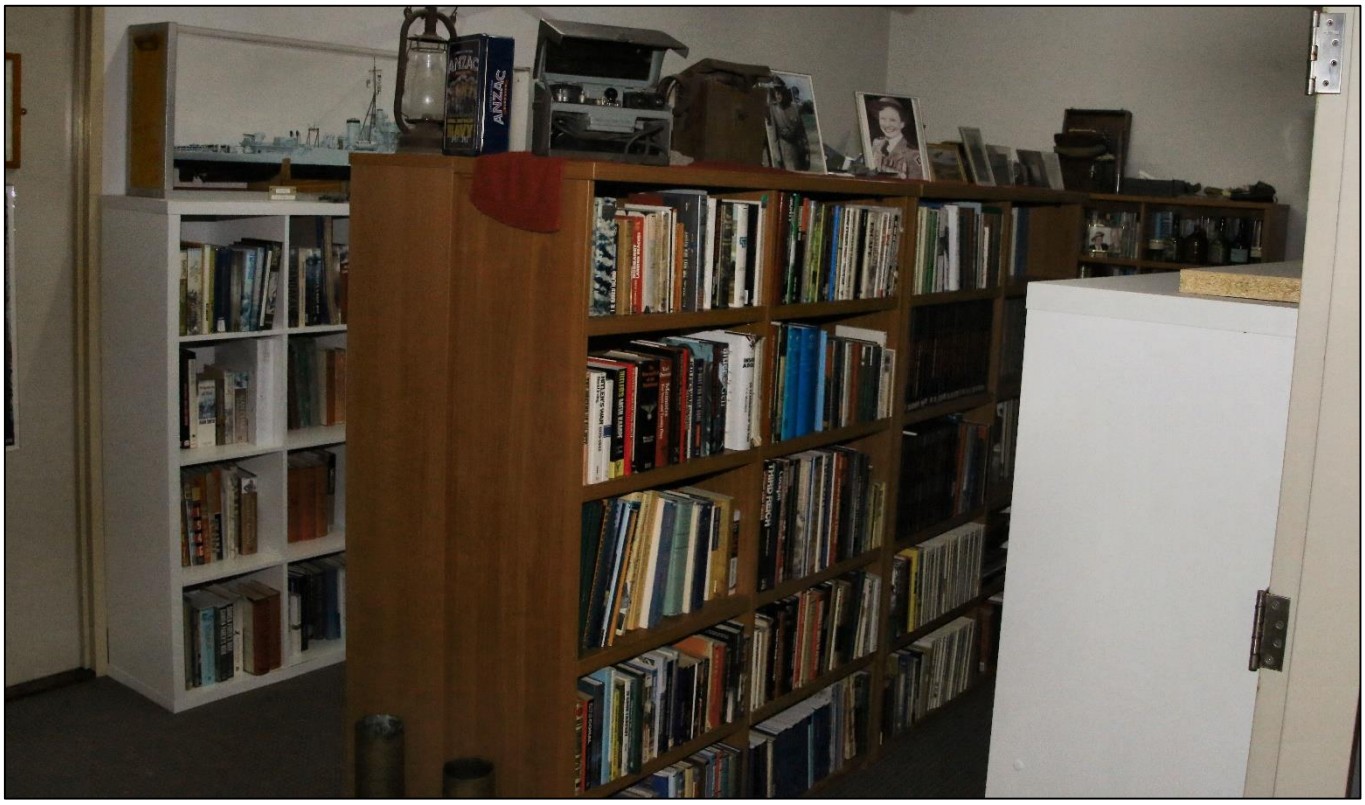


If you're thinking of going to the Club, set aside at least half an hour and have a look over the display, it is excellent.

Inside the Military Museum.


Ein Volk ein Reich ein Führer

The display also includes a well-equipped lending library.



Enjoying some of President Doug's generosity were the following:

Arthur Rennick, Jessica and Paul Groom.

Arthur Fry, Hap Prior, Bob McInnes.

If you can smile when things go wrong, you have someone in mind to blame.

Colin and Jennifer Rose, Annette and Arthur Fry.

Ellen Marston, Bonny Perry, Graeme Marston.

Peter and Bev Jerdan.

Thelma and Arthur Rennick

Myra Suosaari, Pat hjorgan, Trevor Nichols, Gary Olsen, Nev Duus, John Ward, Len Suosaari.

Annette Fry, Jennifer Rose.

Doug Pickering, Noel Hendrix.

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3 Squadron Knees up.

3 Squadron held another of their regular get togethers at the Currumbin RSL on Saturday 30 July.

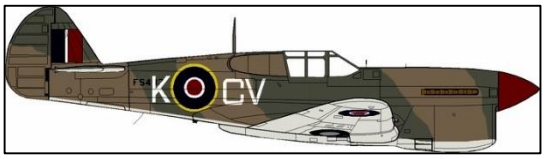
3 Squadron people, have a lot to be proud of. Formed at Point Cook in September 1916, during WW1, it moved to England for training before deploying to France the following year. Squadron aircraft were used for bombing and reconnaissance missions in support of British, Canadian and ANZAC forces and, by the end of hostilities, the unit was regarded as the best allied reconnaissance squadron in the war. (You can read the Squadron's history HERE)

3 Squadron was one of twelve permanent Royal Australian Air Force Squadrons in existence at the beginning of the Second World War. In the first months of the war the squadron adopted an operational alert status, absorbed new personnel and intensified its training, prior to being identified to accompany the 6th Division of the Second AIF overseas as an attached army co-operation squadron.

Leaving its aircraft behind, 3 Squadron sailed from Sydney on 15 July 1940. Arriving in Egypt on 23 August 1940, the squadron was placed under the command of the Royal Air Force's Middle East Command and organised a three flight army co-operation squadron: two flights were equipped with Gloster Gauntlet (below) and Gladiator fighters and the third with Westland Lysander utility aircraft. It commenced active operations in support of British Commonwealth land operations in the Western Desert on 3 November 1940.

During the next four and a half years, 3 Squadron became one of the most active squadrons in the RAAF, quickly becoming a jack-of-all-trades. In addition to the conventional reconnaissance and ground attack roles of an army co-operation squadron, it defended ground forces and bombers from enemy aircraft, and conducted strikes against enemy shipping. The squadron was involved in the first Allied campaign in Libya between November 1940 and April 1941, and played a critical role in the invasion of Syria in June and July 1941. In September 1941 it returned to the see-sawing war in North Africa, which finally ended with the defeat of the Axis forces in Tunisia in May 1943. Operating from Malta initially, the squadron supported Allied operations in Sicily between July and August 1943. Sicily was a stepping-stone to Italy, which became 3 Squadron's principal area of operations for the rest of the war.

By January 1941, 3 Squadron's original aircraft had been replaced by Hawker Hurricanes but for most of the war its principal workhorse was the Curtis P-40, with which it was first equipped in May 1941. Two successive variants of the P-40, known as Tomahawks and Kittyhawks (left), were employed by the squadron before they were finally replaced by North American P-51 Mustangs in November 1944. In Italy, the squadron adorned its aircraft with a southern cross painted on the rudder, a practice which has been continued by more modern incarnations of 3 Squadron to the current day.



During WW2, in terms of both numbers and operational impact, the P40 Kittyhawk was the most important fighter aircraft flown by Australians. When it entered mainstream service in March 1942, the RAAF possessed few modern aircraft and Japanese bombers were already attacking targets in Australia's north. It was armed with six .50 calibre machine guns and had the ability to carry 650 kg of bombs. In all, 13,738 P-40s of all variants were produced between April 1940 and December 1944. In the Middle East and then Italy, Kittyhawks were operated primarily in the fighter bomber role by 3 Sqn The end of the war effectively marked the end of the Kittyhawk's service with the RAAF and the last examples were retired in March 1946.

3 Squadron's war was brought to an end by the surrender of German forces in Italy on 2 May 1945. Since November 1940, the squadron had been responsible for shooting down 217 enemy aircraft, making it the highest scoring British Commonwealth squadron in the

Mediterranean theatre of operations. It destroyed another 29 aircraft on the ground in addition to 709 motor vehicles, 28 water vessels of varying sizes, and 12 locomotives and today remains the highest scoring fighter squadron of the RAAF. It sailed from Egypt for home on 27 September 1945 and was disbanded at Point Cook in Victoria on 30 July 1946. 3 Squadron was, however, destined to reform in 1948.

In 1958 it was deployed to Malaya with its Sabres and later was equipped with Mirages. It operated out of Butterworth as part of the five-power defence arrangement. Following its return to Australia in 1986, 3 Squadron received its first Hornets and continues its role as one of the nation's most vital defence assets. 3 Squadron is expected to introduce the F35 strike fighter to RAAF operational service in the year 2020.

Members of the 3 Sqn Association regularly meet several times each year to get together, swap yarns, continue friendships , have a drink or two, tell a bunch of lies and relax in each others' company – as only ex-service people can.

One such reveller was Gus Thomson, below. Gus, now 95 years old, served with 3 Squadron from 1941 to 1943 as a gunny on the Kittyhawk. He was discharged as a Flight Sergeant at the end of the war and was made to feel most welcome by the "younger" association members at their most recent get together..

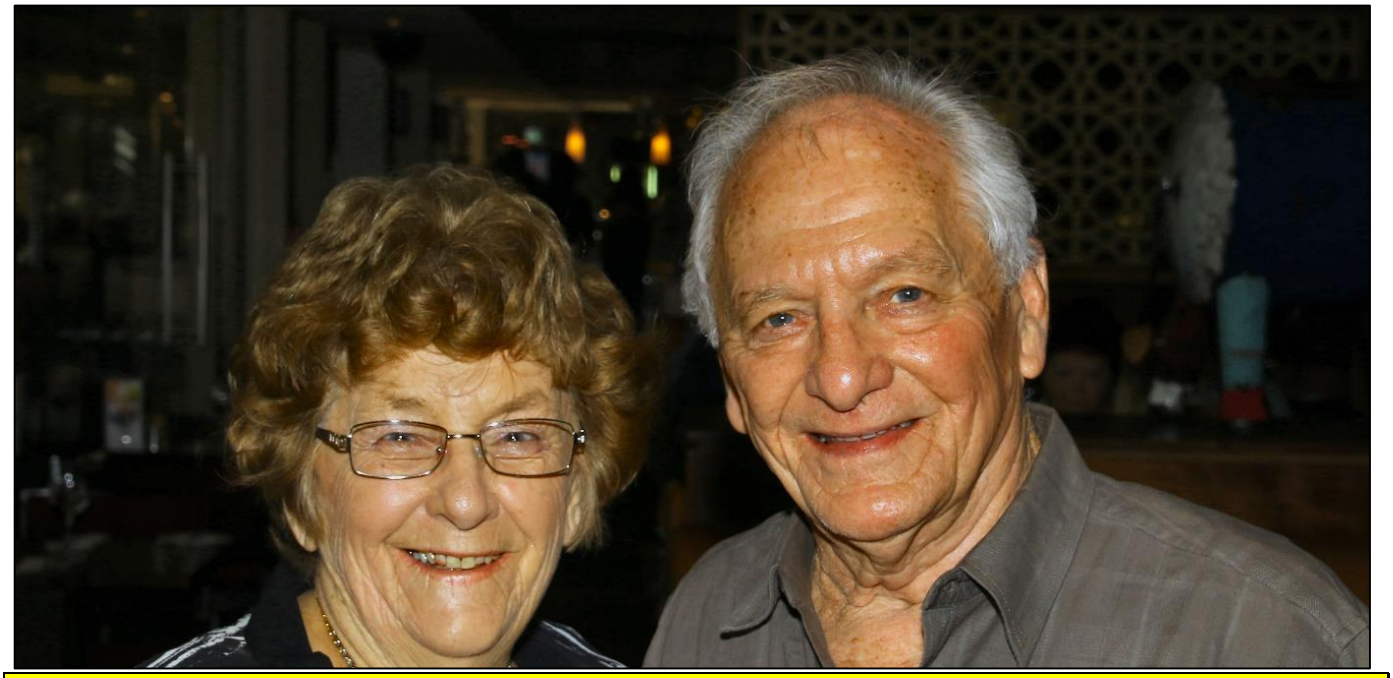
Sandra, Gus and Chris Thomson.

Other party goers were:

(All names left to right, click each pic for a HD view which you can download/print)

Anne Lollback, Judy James

As usual, organiser of the event was Jim Hall, the Association's hard working Queensland President.

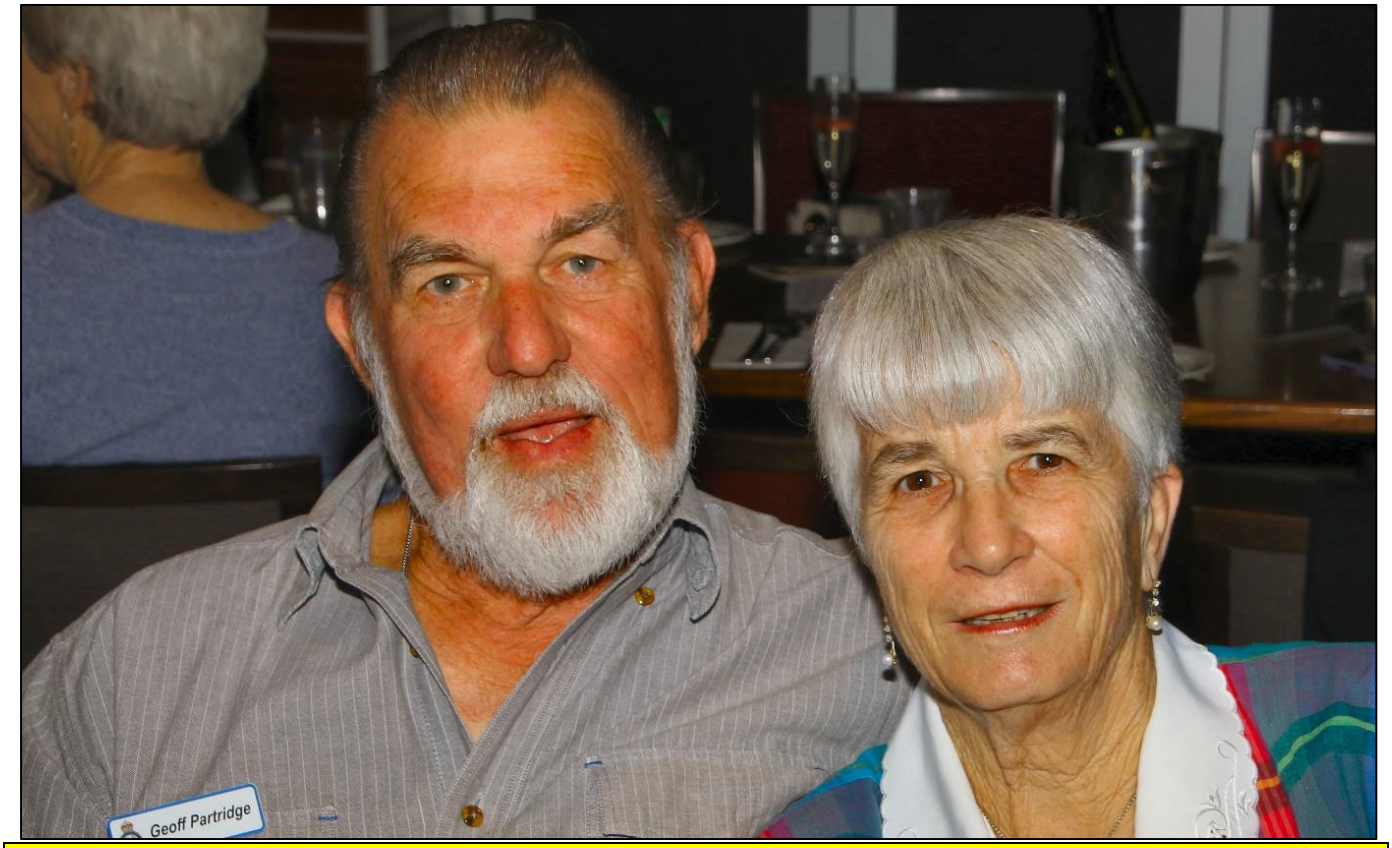


Carol and Jim Hall.

Grant Small, Max Lollback, Mick Terakes.

Ellen Marston, Diane Terakes.

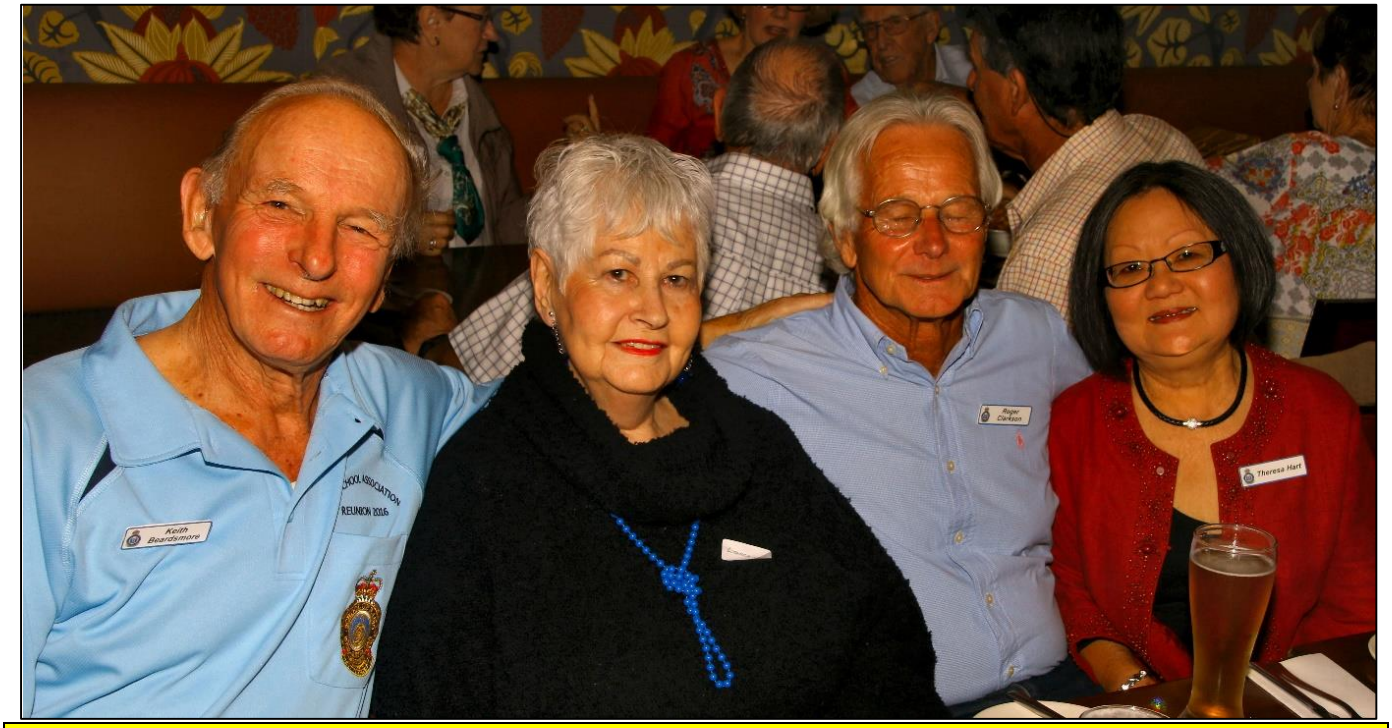
Damon Taylor, Margaret Taylor, Carol Hall, Jan Robinson.



Geoff and Jan Partridge.

"Hap" and Lisle Pryor.

Carol Hall, Jan Robinson.



Keith Beardsmore, Lorraine Stafford, Roger Clarkson, Theresa Hart.

Les and Leslie Harrison.

Pat (Pedro) and Jean Newman.

Warren Neil, John Kane, Ray Maher.

And of course, these 3 fun loving girls, who definitely need no introduction……

Brenda Vogelzang, Marie Roberts, Sheena Millar.

Next event Caloundra in November, - put it in your diary!!

John Laming.
Aircraft and other stuff.

As Fighter Pilot. not required Standard.

Sixty three years after that assessment was penned into my pilot's log book by the CFI of No 2 Operational Training Unit at RAAF Base Williamtown, I still have a twinge of shame and regret. In 1952 the Korean War was hotting up and the RAAF had a fighter squadron of Meteors already based in Korea. The RAAF increased its pilot recruiting and after graduation with brand new `Wings` on my chest I was posted to Williamtown to undergo a fighter course on Mustangs and Vampires. We did 50 hours on Mustangs learning dog-fighting, rocketry, dive-bombing and air to ground gunnery. After that it was on to the single engine single pilot British designed Vampire where again we covered high altitude flying, dive bombing and air to air tactics using camera guns.

There was no dual instruction as the Mustang and Vampire were single seaters. Our fighter combat instructors flew in formation with us and we learned the art of being fighter pilots from them. They had all returned from a tour of 100 missions in Korea and were well qualified to pass their experiences on to us. The Vampires we flew did not have ejection seats and it was accepted that baling out at high speed should something go wrong was impossible.

Part of the Vampire course included air to air cine-camera gunnery where one Vampire would act as the target while another Vampire would practice gunnery attacks from various angles all of which were recorded by camera actuated by the gun-firing button. We were briefed to break off each attack at 200 yards from the target. Most of these attacks were at 15,000 feet and 300 knots. The target aircraft was known as the `Stooge`. The pilot of the stooge was in contact with the attacker by radio and held level flight as the attack progressed. It could be quite unnerving as the stooge could not see the attacker coming in fast from behind until it flashed past under him then into a climbing turn or another

go. Disturbed airflow from the attacker passing a few feet below the stooge often elicited a warning radio call from the stooge that he was too close for comfort.

After several dummy attacks the roles would be reversed with the stooge becoming the attacker. The Vampire was essentially a short range fighter with an endurance of just over one hour. Both aircraft would land after 45 minutes and the camera evidence removed and assessed for `hits.` My camera gun results indicated I was firing from too far away and therefore inaccurate.

About that time the first of the two seater Vampire design arrived at Williamtown and the CFI decided it would be a good opportunity to give me a dual check to see if my cine-camera results could be improved. After all, the fighter course was almost completed. I had not flown a dual seat Vampire before and the cockpit layout was quite different to the single seat version. Nevertheless, time was short and my instructor and I squeezed into the cockpit of the dual Vampire and after airborne soon caught up with our stooge.

At 15,000 feet and 300 knots I made the first pass and broke off the attack at the regulation 200 yards. My instructor seemed happy but suggested I get closer before breaking away. He took over control and demonstrated his method of attack. I simply sat and observed his technique. To my surprise he bored into 50 yards behind the stooge before making a violent break below then up and over the stooge. It must have been mighty close because the stooge pilot complained he was nearly hit. I didn't like what I saw and told my instructor his method of attack and close break was dangerous. The instructor was a young pilot just returned from Korea and full of enthusiasm. He made several more close attacks before roles were reversed and we became the stooge. I was thoroughly alarmed at his bravado attitude and told him so.

The following day the Commanding Officer called me into his office and gently broke the news that I was not up to standard as a fighter pilot and that it was arranged I be posted to fly bombers. I tried to explain that my instructor had broken all the rules by his cowboy antics in the dual Vampire but it was too late. The CO took the word of the instructor which I suppose was understandable. My log book was then endorsed as "As fighter pilot. Not required standard." I was close to tears. Perhaps it was all for the best, though. My remaining course members went to Korea where soon after one was killed when his Meteor broke apart in mid-air and another was shot down and became a POW.

A few days later, as I was packing my bags and preparing to leave Williamtown, I was called upon to fly a Mustang in a Mustang squadron versus Vampire squadron exercise. Each squadron had twelve aircraft. One of the Mustang pilots had gone sick and someone realised I

was still on the base and could be a replacement. I hurried to the briefing gathering my parachute on the way. I was to be No 4 in one of the Mustang formations which meant I was a wingman in the battle soon to take place. Cine-camera guns were loaded and the two squadrons got airborne.

I was the first to spot the first flight of Vampires attacking from above and guessed that as a wingman I would be targeted. Normally whoever spots the attackers warns the squadron leader and calls for the squadron to break sharply into the attack to make a deflection shot hard to achieve. I had nothing to lose as I had already been scrubbed. I broke into the attacking Vampires but delayed my warning call until I was half-way around in a steep turn. Then I called "squadron break starboard." To this day I don't know why I did that because several Mustangs were caught by the cine-camera guns of the Vampires and were shot down during the ensuing dog fight.

The melee didn't last long due to the limited endurance of the Vampires. Everyone landed and attended the post flight de-briefing by the Commanding Officer. The same CO who had written in my log book "As fighter pilot. Not required standard." There were 24 pilots at that briefing; many were fighter combat instructors as well as members of my fighter course.

As the briefing progressed I decided to sneak out as I wasn't needed and in any case I felt a bit guilty about not giving an early warning for the squadron break. As was about to leave, the CO asked who was Red Four in the Mustang formation. That was my call-sign and I raised my hand. "That was excellent flying" said the CO who led the Vampires. "You broke so fast we couldn't get a bead on you – well done, lad."

I thanked him and wondered if he realised I was also the pilot who he had scrubbed a few days earlier for not being the required standard for a fighter pilot.

The next day I caught the train to Townsville in North Queensland the home base of No. 10 Squadron equipped with Lincoln four-engine heavy bombers. Also on the base was a Mustang fighter equipped to tow airborne drogues for the Lincoln air gunners to shoot at.

When the CO of the Lincoln squadron saw that I had flown Mustangs he was delighted because he needed a Mustang pilot to tow the drogues. I thought at the time who cares that I wasn't up to the required standard to be a fighter pilot. I now had the best of both worlds flying a heavy bomber one day and the Mustang fighter the next.

The grass may be greener on the other side but at least you don't have to mow it.

Convair YB-60

On 25 August 1950, Convair issued a formal proposal for a swept-winged version of the B-36 with all-jet propulsion. The United States Air Force was sufficiently interested that on 15 March 1951, it authorized Convair to convert two B-36Fs (49-2676 and 49-2684) as B-36Gs. Since the aircraft was so radically different from the existing B-36, the designation was soon changed to YB-60.

The Convair B-36.

The YB-60 had 72% parts commonality with its piston-engined predecessor. The fuselages of the two aircraft were largely identical, although the YB-60 had a longer, pointed nose with a needle-like instrument probe instead of the B-36's rounded nose; its tail surfaces were swept to match the wings and a wedge-shaped insert added at the wing root. The swept wings also used many B-36 parts.

The YB-60's unofficial competitor for an Air Force contract was Boeing's B-52 Stratofortress. Convair's proposal was substantially cheaper than Boeing's, since it involved

modifying an existing design rather than starting from scratch. Like the B-52, it was powered by eight Pratt & Whitney J57-P-3 turbojets mounted in pairs in four pods suspended below the wing.

Boeing YB-52

Instead of the B-36's crew of 15, the YB-60's crew numbered 10. Production B-60s were to have defensive armament similar to those of the B-36. Convair YB-60 serial number 49-2676 made its maiden flight on 18 April 1952, piloted by Beryl Erickson but the Boeing YB-52 beat the Convair aircraft into the air by three days. The YB-60 was approximately 100 mph (160 km/h) slower than the YB-52 and also had severe handling problems. It carried a heavier bomb load, 72,000 lb (33,000 kg) against 43,000 lb (20,000 kg) for the YB-52, but the Air Force did not see the need for the extra capacity, given the YB-60's other drawbacks. Later, "big belly" modifications increased the B-52's bomb load to 60,000 pounds (27,000 kg).

The flight test programs were cancelled on 20 January 1953, with 66 flying hours accumulated. A second prototype was never completed: the airframe was built, but it was not fitted with engines or much equipment. Since Convair completed their prototype contract satisfactorily, both YB-60s were formally accepted by the Air Force in 1954. The operational aircraft never flew again, and both airframes were scrapped by July.

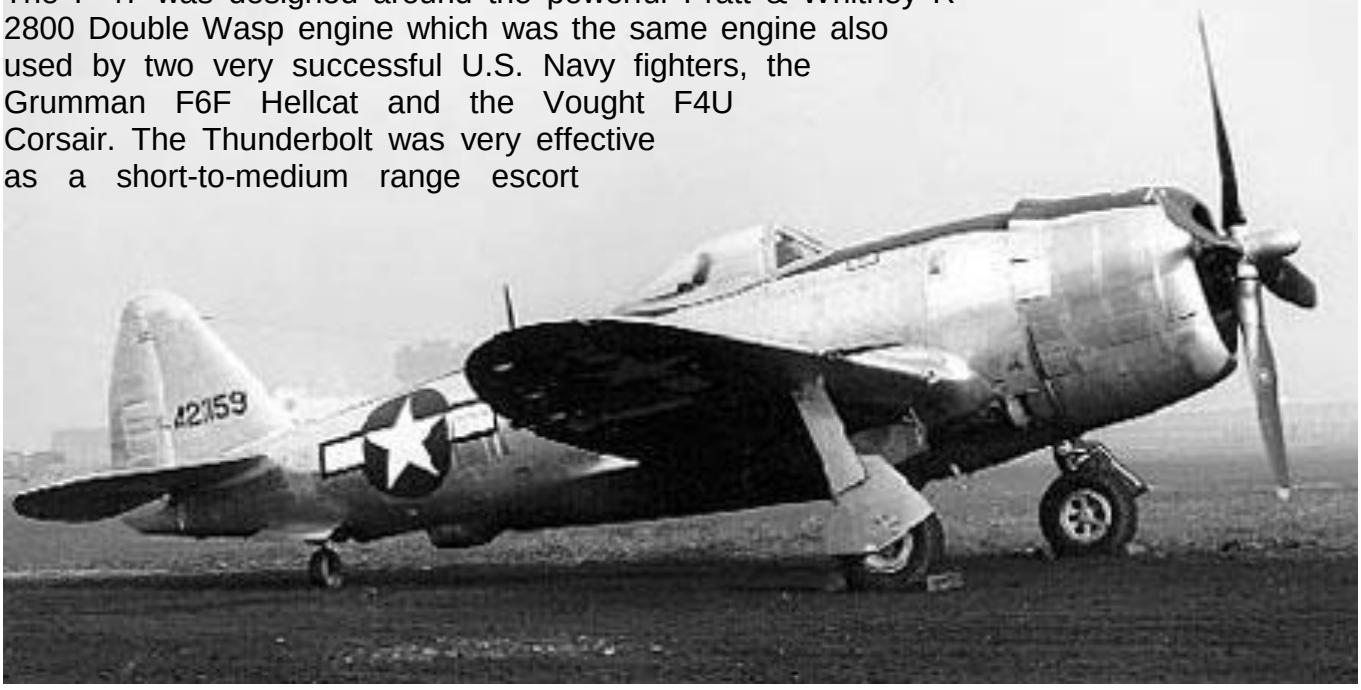
Click HERE to see a short video on the YB-60

I was going to wear my camouflage shirt today, but I couldn't find it.

Republic P-47 Thunderbolt

The Republic P-47 Thunderbolt was a World War II era fighter aircraft produced by the United States between 1941–1945. Its primary armament was eight .50-caliber machine guns, four per wing, and in the fighter-bomber ground-attack role it could carry five-inch rockets or a bomb load of 2,500 pounds, more than half the payload of the Boeing B-17 Flying Fortress bomber. When fully loaded the P-47 weighed up to eight tons making it one of the heaviest fighters of the war.

The P-47 was designed around the powerful Pratt & Whitney R-2800 Double Wasp engine which was the same engine also used by two very successful U.S. Navy fighters, the Grumman F6F Hellcat and the Vought F4U Corsair. The Thunderbolt was very effective as a short-to-medium range escort



fighter in high-altitude air-to-air combat but was also adept at ground attack in both the World War II European and Pacific Theatres.

It was one of the main United States Army Air Forces (USAAF) fighters of World War II, and served with other Allied air forces, notably those of France, Britain, and Russia. Mexican and Brazilian squadrons fighting alongside the U.S. were equipped with the P-47.

The armoured cockpit was roomy inside, comfortable for the pilot, and offered good visibility. A modern-day U.S. ground-attack aircraft, the Fairchild Republic A-10 Thunderbolt II, takes its name from the P-47.

You can see a video on the aircraft HERE

Sometimes I wake up grumpy; other times I let her sleep.

Boeing Model 307

The Boeing Model 307 Stratoliner was the first commercial transport aircraft to enter service with a pressurized cabin. This feature allowed the aircraft to cruise at an altitude of 20,000 ft, well above many weather disturbances. The pressure differential was 2.5 psi (17 kPa), so at 14,700 ft the cabin air pressure was equivalent to an altitude of 8,000 ft. The Model 307 had capacity for a crew of six and 33 passengers. The cabin was nearly 12 ft (3.6 m) across. It was the first land-based aircraft to include a flight engineer as a crew member (several flying boats had included a flight engineer position earlier).

In 1935 Boeing designed a four-engine airliner based on its B-17 heavy bomber (Boeing Model 299), then in development, calling it the Model 307. It combined the wings, tail, rudder, landing gear, and engines from their production B-17C with a new, circular cross-section fuselage of 138 in (351 cm) diameter, designed to allow pressurization.

The first order, for two 307s (named Stratoliners), was placed in 1937 by Pan American Airways; Pan Am soon increased this to six, and a second order for five from Transcontinental and Western Air (TWA), prompting Boeing to begin production on an initial batch of the airliner.

At the time the United States entered World War II in December 1941, flying across oceans was a rare luxury. The war required government and military officials to do so and most four-engined long-range commercial aircraft, including Pan American Airways' 14 flying boats and TWA's five Boeing 307s, were pressed into service. Additional fuel tanks were added to give them the extra range required; once converted they were designated C-75 for military use. Before World War II ended their production, ten commercial 307s had been built. TWA flew domestic routes between New York and Los Angeles for 18 months until the Army purchased their Stratoliners for wartime use as long-range, transatlantic transports for various VIPs or critical cargo. TWA converted their 307s to military service in January 1942, and its Intercontinental Division (ICD) then operated these C-75s under contract to the Army's Air Transport Command (ATC) until July 1944. These were the only U. S. built commercial aircraft able to cross the Atlantic with a payload until the arrival of the Douglas C-54 Skymaster in November 1942.

Conversion to the C-75 included removal of the pressurization equipment to save weight and some seats were removed providing space for crew requirements on extremely long flights. Five 212.5 U.S. gal fuel tanks were added for increased range and the landing gear was strengthened as the maximum takeoff weight was increased from 45,000 to 56,000 lb. The exterior was painted military olive drab.

The maiden flight of the first Boeing 307 Stratoliner took place from Boeing Field, Seattle on December 31, 1938. It crashed on March 18, 1939, while its performance with two engines inoperative on one wing was being demonstrated to representatives of KLM. When the engines were shut down, the pilot moved the rudder to maximum deflection to counter the resulting yaw. The Stratoliner then experienced rudder lock, where the control loads prevented the rudder from being re-centred. As a result, the 307 went into a spin and crashed. The ten people aboard, including KLM’s test, Boeing’s test pilot, Boeing’s Chief Aerodynamicist, Boeing’s Chief Engineer and a TWA representative were killed. Subsequent wind tunnel testing showed that the addition of an extended dorsal fin ahead of and attached to the vertical tail prevented

rudder lock. This was incorporated into the 307's rudder redesign, while also being incorporated in Boeing's rear fuselage redesign for their models "E" through "G" B-17 bomber.

The first delivery to a customer was to multi-millionaire Howard Hughes, who bought one 307 for a round-the-world flight, hoping to break his own record of 91 hours 14 minutes set from July 10–14, 1938 in a Lockheed 14. Hughes' Boeing Stratoliner was fitted with extra fuel tanks and was ready to set out on the first leg of the round-the-world attempt when Nazi Germany invaded Poland on September 1, 1939, causing the attempt to be abandoned. This 307 later had the extra fuel tanks removed, was fitted with much more powerful Wright R-2600 engines, and was transformed into a luxurious "flying penthouse" for Hughes, although it was little used, eventually being sold to oil tycoon Glenn McCarthy in 1949.

If tomatoes are technically a fruit, is tomato sauce a smoothie?

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THE RAM
THE MAGAZINE BY & FOR SERVING & EX-RAAF PEOPLE & OTHERS
Vol 55

Sick Parade.

If you know someone who is a bit crook,
let us know so we can give them a shout out..

Bill DeBoer.

Bill has frequented the local newsagency recently – buying lotto tickets. He now reckons he's the luckiest bloke in Yeppoon in Queensland. A few weeks ago, he was mowing the lawn at home and felt a bit funny and being a bloke thought nothing of it. He sat down, had a bit of a spell, then went and finished off the lawn.

Next day, he got that funny feeling again, tingling in the left arm and a bit of a thump in the chest – and once again didn't think much of it – thinking perhaps it was just an ageing thing.

Next day he and wife Sandy were driving and he mentioned the episodes to Sandy who immediately took charge and booked him in to see the doctor. The doctor plugged Bill into a few doctor things and then immediately admitted him to the Rockhampton hospital as local doc reckoned he's had a couple of serious heart attacks.

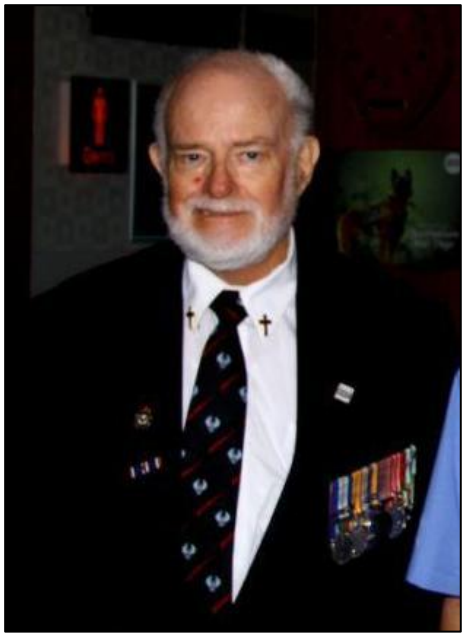
The docs at Rocky hospital started their checks and the next thing you know, Bill is in the air ambulance and headed for the Holy Spirit hospital in Brisbane. On the Monday he was wheeled into theatre and several hours later, after they had performed double bypass heart surgery, he was placed in ICU, then transferred into a private ward for recovery. The surgeon who worked on him came to see him shortly afterwards and told him he was on very short finals in that big heaven bound aircraft and if he'd left it a few weeks longer he would have arrived. One of the major arteries that supply blood to his heart was completely blocked and the other one was 90% so.

Amazingly, after only a few days in the ward, he was allowed to leave – it was only Friday. He was told not to fly for a few days so he and Sandy decided to take it easy in the local motel near the hospital. On Monday, one week since he was wheeled into the theatre, he was enjoying lunch with some mates at the Kedron Wavell Ex-Services Club.

Who said we have a problem with our Health Service??

Arthur Fry

I had been meaning to write to you after I read the April 2016 edition of RAM. Seems you and I had the same 'life-changing bug' thrown me as you did. As I told my surgeon, if I could had chosen my own disease, I would have picked measles!



Your fix apparently took a lot less time that mine, but still a bit of a hardship nevertheless as you so eloquently described in your article.

It appears they took the long road around with me. After being diagnosed in May 2015, I first had to undergo radio therapy and chemo therapy concurrently, which laid me flat on my back for ten weeks while the grubby little chemo gremlins exited my once perfect body!

Then I had the first operation which left me with an ileostomy bag which leaked more times than it didn't! Blue Care nurses attended three times a week and finally gave in and watched my wife, Annette, manage the situation as she somehow had reduced the leakage days considerably. Still, I concur heartily with your comments about our wonderful nurses and I did write them up in one of my columns in 'Ricochet'.

Then setback Number One came along and tests showed that as my cancer was so close to the entrance, they may not have taken all of it, so I went on another round of chemo for four months. As with the first time, towards the end of the session, I was flat on my back for another ten weeks.

My surgeon says I am doing better than he expected and better than most of his other patients walking the same road. Sometimes I wonder!

When we met last Wednesday, that was the first time since Anzac Day, which was two days before my reversal surgery, that I had been able to take part in any form of ceremonial activity.

You met Colin Rose that day. Colin has been stepping in for me to officiate at any services I couldn't attend. We have been friends for well over 50 years. Colin preceded me at Radio School both on our Mechs and Techs course. He retired as a Radio Officer about the same

time as I pulled the plug and both finished up in the same church as we did on our first postings out of Radio School to Amberley 55 years ago.

In fact, as I type, Colin and Annette are out at the church counting the collection from last Sunday, then they bank it in Caloundra at the same community bank where Colin has been a Director for about ten years since it opened a bank in Caloundra.

If you ever are looking for a sponsor for any event in this area, Caloundra's Bendigo Bank has sponsored more functions than I can count. Here endeth the commercial!

All the very best in your recovery from this dreaded hiccup. I'll find out next Tuesday if the little rotter has completely been annihilated by the chemo and radiation. My surgeon says I have managed to keep my humour throughout this ordeal, a reason for staying on top. I am sure you have done so also. It's been a mite uncomfortable, but compared to the alternative, well, there is no comparison. As a clergyman, did I just say that?

With every blessing,

Arthur F

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Where are they now?

Robert Maxwell Wark

Warren Whittaker is trying to contact his old mate Sergeant Loady Robert (Bob) Maxwell Wark who was with 35 Squadron in Vietnam from Jul 1964 - March 1965. Bob was given an award for bravery for repairing a damaged Caribou in November, 1964 when under fire from the Viet Cong. Because we are now both 78 years young I would like to speak to Bob before we get much older. Hoping you can help me.

If you can help, contact Warren direct on merrilliewhittaker@yahoo.com.au

38 Sqn Personnel Archerfield.

Marilyn Campbell writes, “I am trying to locate photographs of RAAF 38 Squadron personnel who were based in Archerfield, Brisbane, in the years 1944-1945. I am also looking for photos of RAAF trainees at No. 2 Wireless School, Calgary, during the war.

Do you know where I could find these photos? (I have already searched Point Cook, and AWM photo collections). Any suggestions would be greatly appreciated.

If you can help, let us know and we’ll pass on the info to Marilyn. tb.

Peter Chappelow.

Geoffrey Schmidt got in touch, he says: “Do you have an email address for a Radtech (later RadO) Peter Chappelow? I was given an address of 'petesandyc@live.com.au' but without luck. Or if you don’t have an email address, then perhaps a phone #? We worked together in

the mid to late 70's at 481 Sqn Willytown – Field Training Flight as I recall? I suspect he probably retired in the Newcastle Area?

Keep up the good work – much appreciated."

If you can help, let us know and we'll pass on the info to Geoff. tb.

109 RTC.

Tim Corcoran got in touch, he says: "I was on 109 RTC at Laverton from mid-1977 and graduated November 1978. In 2018 our course will celebrate 40 years since our graduation. I have spoken to a few of those who were in 109 and we have decided to hold a reunion to celebrate.

To get this started, we wanted to list all those who were at any time a part of the course; whether they started and didn't finish or were back-coursed to 109 to finish their training. We also need to include the Telstechs who were split off just after the halfway mark of the course.

Are you able to advise where we might be able to get a list of who started on the course? Are there any official records we can access to get the names? We could then see if you are able to pass my details to any of them that are recipients of the magazine and we can employ methods such as Facebook searches to find others. I would also welcome any suggestions in regard to the planning of a reunion, what activities should be or could be included (tour of Rads buildings, airman's mess and the other important sites of Laverton). Any info would be great or a contact number/address for someone else that has already run such a reunion.

I give you permission to add this to the next edition of the magazine or diseminate the information to others that may be able to assist. Many thanks and let me know if there are any questions.

If you were on 109, let us know and we'll pass on your details to Tim. tb.

100 Year old Ex-RAAF Personnel.

The Radschool Association is trying to contact all ex-RAAF personnel, both men and women, who have turned, or are about to turn, 100 years of age so they can be rightly honoured. If you know anyone who has or is about to reach that milestone, please let us know so we can contact them. Their details will not be made public but their details will be passed onto the RAAF's History and Heritage Branch which is keen to know of them. It does not matter what their mustering was, not does it matter if they served overseas or in a war zone, the only requirement is their age. If you know of someone who has or will turn 100 within the next 12 months, please contact us here 100@radschool.org.au or you can or get them to provide their details here www.radschool.org.au/100

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Your say!

While the Association does not necessary agree or disagree with everything on this page, we do respect the right of everyone to have their say.

Ron Tyler.

Ted Washbrook writes, “Hello at RAMS, I was saddened to hear that Ron Tyler isn't travelling too well. I was fortunate enough to meet Ron in about 1978-79 when he was BRADO in Darwin. A really good bloke and it would be hard to get a different opinion from anybody who met Him. As a stroke sufferer please pass on my best wishes to Ron and advise him that the first 20 years are the hardest.

Thanks for a great magazine, I look forward to receiving it. Best Wishes, Ted Washbrook”

AN/FPS-36

Tony Semler got in touch, he says: “Reference the article by Brian Abraham on the AN/FPS-36 Quadradar. As far as I can recall the search antenna was keyed to follow whatever direction the Height Finding antenna was pointing. It had a clutch arrangement that somehow (white man's magic) aligned the two antennae precisely in the same direction when activated. The search antenna rotation time was less than ten seconds (too many sleeps to remember the timing) so this would have been the maximum activation time between "Search" and "Precision".

An interesting note. We techs would get a little bit peeved if the Air Traffic Os operating the system would consistently activate the "Precision" mode when the search antenna was a long way off alignment with the height finder antenna. As soon as activation occurred, the clutch would try to engage both antennae, but would have to wait until the next time the key slot came

around - which could be up to 355 degrees. It caused excessive wear to the clutch assembly. Not an easy part to replace".

LED Motion Sensor toilet light.

Ian Mckay wants to know, "Is this what you call a 'flash in the pan'???"

Bernard Gaynor.

"In the Navy!"

You will, no doubt, be extremely pleased to know that the Chief of the Royal Australian Navy, Vice Admiral Tim Barrett AO CSC, recently fasted in solidarity with Australian Catholics for Ash Wednesday.

Actually, scrap that.

The good Admiral did no such thing. At least, I can't find any reference in any Navy publication stating that he did. For what it's worth, I can't find any Catholic organisations calling on him to do any such thing either. And I would hate to defame

the good Admiral by giving the impression that he has gone out of his way to show solidarity with Catholics. He hasn't. Instead, Vice Admiral Barrett is content to let his sailors participate in an event that the Australian Defence Force acknowledges vilifies Christianity.

On the other hand, Vice Admiral Barrett has gone out of his way to show solidarity with Islam.

That's right: Islam.

Islam is the only religion that Vice Admiral Tim Barrett publicly participates in, according to Navy publications. He did so this year when he fasted in solidarity with 'Muslim-Australians', as he calls them, and rocked up to the Australian War Memorial to praise this ideology. The Royal Australian Navy held a dinner to celebrate the end of Ramadan for the first time in 2015. It was held in the Anzac Hall at the Australian War Memorial. I'm sure no offence was meant. After all, the Anzacs were fighting the Islamic caliphate.

This is how Vice Admiral Barrett describes his participation in Islam:

> *"I am delighted to be able to host this Inaugural Navy coordinated Iftar. I have fasted today in solidarity with you all, to properly immerse myself in the experience and purpose of Ramadan and to gain an appreciation of the challenges and rewards Muslims experience during this important month in the Islamic calendar"*.

Vice Admiral Barrett then went on to state:

> *"Muslim-Australians and the knowledge and the values they bring to the workforce are a key and essential component of a successful Team Navy."*

If Muslim-Australians are essential to Team Navy then we have a serious problem. Unfortunately for Team Navy, the vast majority of Muslim-Australians who are interested in the military have already shipped off to Syria to fight with the Islamic State. So maybe, on second thoughts, Muslim-Australians are not so essential for our maritime capability. And what's so wrong with saying that? After all, the Department of Defence released a report last year pretty much saying the same thing. Except it was focused on Anglo-Australian males. It stated they were undesirable.

Regardless, it seems the Army agrees with the Chief of Navy's sentiment about Islam. So much so that senior officers now think that it's policy to allow soldiers to participate in events that denigrate Christianity, but not Islam, as shown by this excerpt from an Australian Defence Force report written in mid-2013.

If a uniformed member were to support a gathering that insulted strongly held beliefs of a religion other than Christianity (to use his example, vilifying Islam with "Mohammed is Gay" signs v's Jesus is Gay" signs in the Mardi Gras) that member will be severely dealt with. In the case of the Mardi Gras, the opposite occurred.

That all sounds very diverse. And this is the kind of diversity that is here to stay.

In fact, Vice Admiral Barrett announced from the Australian War Memorial that the Navy is intent on representing the full diversity of the Australian demographic by 2030. Not only is this a stupid thing to say (will the Navy soon have children, the blind and the elderly?) but it's also dangerous. After all, the fastest growing demographic in Australia is the growing number of Muslims who have signed up to support the Islamic State. Will they get a gig too?

Yes is probably the answer.

We know this because, by sheer dumb luck and good fortune, Australia is not so far down the path of lunacy as the UK. And in the UK the military has already resigned itself to the fact that it will be infiltrated by Islamic State supporters. You can bet your bottom dollar that Australia's military will face similar threats as well, especially given that the Chief of Navy is prepared to say things like this:

"…I, and my successors as Chief of Navy, will continue to need guidance to ensure that what should be done by Navy to meet the legitimate religious needs of those members of the Islamic faith is done. Henceforth Navy will always need advice on how to be an inclusive recruiter and employer of choice for those Australians who profess Islam."

The Chief of Navy might do well to remember that the Army has already been embarrassed by Islam. Australia's first suicide bomber was an AWOL Muslim soldier and he did us all a favour early last year when he went out with a bang in Syria.

There are a couple of other clangers worth noting from Vice Admiral Barrett's speech and this whole she-bang promoting Islam at the Australian War Memorial. He claims the Australian Defence Force's Guide to Religion and Belief contains a great deal of information. That's more than a little off the mark. It has two glossy pages about Islam. That's all. And while it does say that Muslims strive to follow Mohammed's example, his example has been left out. All of it. There's no mention of the fact that he raised an army. Or the fact that he was a warlord. Or a murderer. Or that he was comfortable beheading entire Jewish tribes before retiring to enjoy himself with the sexual concubines he captured.

None of this is in the guide that Vice Admiral Barrett speaks so glowingly about at a dinner in which he praises Islam. That's probably why he turned up: he simply has no idea what he is

doing. That would be excusable if he was just a sailor. But he's not. Barrett is commanding the Royal Australian Navy at a time we are at war with the Islamic State. No wonder victory seems so far away. Fortunately, Vice Admiral Barrett was there to hear the Grand Mufti speak from the hallowed halls of the Australian War Memorial. He told us all that Muslims donate money at the end of Ramadan and that this goes all over the world.

Isn't that nice to know.

If I was the Chief of Navy I'd be a little peeved about this. After all, the Grand Mufti of Australia breezily announced the flow of Islamic funds out of Australia at a dinner he organised in Islam's honour at the Australian War Memorial.
But now that the Grand Mufti's let this little cat out of the bag, he might like to explain exactly where this money goes. After all, Islamic charities in Australia are funded by halal certification paid for by you and me. And it would be really embarrassing if this was used to raise funds that end up in the hands of the Islamic State.

Actually, it would be really embarrassing if these funds ended up at the local Parramatta mosque as well, but that's a whole different story.

Captain Mona Shindy addresses the inaugural Iftar Dinner at the Australian War Memorial. And yes, she is wearing the uniform of the Royal Australian Navy.

Finally, it's worth noting that since the Islamic State kicked off its little campaign of world conquest, the Royal Australian Navy has released Islamic uniforms and now commemorative coins that have Navy values on one side and the words, 'Ramadan Mubarak' on the other. In addition, the Chief of Navy is fasting in solidarity with Muslims and attending Islamic feasts at the Australian War Memorial.

Somehow, I get the impression that it doesn't matter what our military does in Iraq and Syria. The Islamic State has already won the cultural war.

A 25-year-old Jewish girl tells her mum that she has missed her period for 2 months. Very worried, the mother goes to the local pharmacy and buys a pregnancy test kit. The test confirms that her daughter is pregnant. Shouting and crying, the mother says, "Who was the selfish bastard that did this to you? I demand to know!" Without answering, the girl picks up the phone and makes a call. Half an hour later, a Bentley stops in front of their house. A middle-aged and very distinguished man steps out of the car and enters the house. He sits in the lounge with the father and mother, and tells them, "Your daughter has informed me of the problem. I can't marry her because of my personal family situation but I'll take charge. I will pay all costs and provide for your daughter for the rest of her life." He continues, "Additionally, if a girl is born I will bequeath two retail furniture stores, a deli, a chateau in France and a $1m bank account." He continues, "If a boy is born my legacy will be a chain of jewellery stores and a $25m bank account." "However, if there is a miscarriage I'm not sure what to do. What would you suggest?" All silent at this point, the mother placed a hand firmly on the man's shoulder and told him, "You'll try again."

Jobs?

Greg Moore writes: "When I was going through the sausage factory in Laverton, it seemed that the future for careers was in electronics. Microprocessors and programming was new, Ellistronics and Dick Smith in Melbourne CBD were thriving with activity and customers were buying parts, books and magazines. That was in 1980, I was on 133RTC.

Going forward a few years, TAFE had a very big demand from students for electronics at trade level and engineering. In the 1980's the Police used Motorola Mocom and Syntrex, in vehicles, each having discrete components and providing work for electronics techs. The Mocoms used a varactor tripler in their output stage, drawing around 15A from the vehicles battery system on transmit. Everything was serviceable and techs were in high demand. Come the 1990's the PC was common, the internet was born and digital signal processing was fast replacing analogue systems.

Well...by 1993 Radschool was history but TAFE enrolments continued to rise because of colour television and VCR's. The internet, analogous to Skynet from the Terminator trilogy, eventually replaced even the DVD and Blu Ray and PVR's. Box TV's are long gone and LED technology replaced backlights in panels. Everything has surface mount soldering. Radios are synthesised with digital voice encryption and the 3G and 4G telephone network provides for data and voice. Little is now serviceable by the old RadTech.

The 4 Corners documentary on Monday 4th July 'Future Proof' summed this up also, but did show that now, in the Skynet age, S.T.E.M. (science technology engineering and maths) will be needed for 75% of all new growth jobs in the next 10 years. For techs now, domestic work is gone and industrial is where the work is. TAFE NSW is up there and ready for the challenge ahead. www.learn.org.au is my teaching platform which complements in class work. The demand for good techs in the RAAF, Navy, Army is at an all time high now. Who knows, maybe one day, RadSchool will reopen

Regardless of who won the Federal election, the major issue facing Australians is the future of work. There are startling and credible predictions that more than five million Australian jobs will simply disappear in the next 15 years, as a result of technology. That's 40% of the jobs that exist in Australia today.

What do you want to be when you grow up?

Answering that question is only going to get harder as many of the jobs our kids will do haven't been invented yet. And if parents believe that steering their kids towards "safe" professions like accountancy will guarantee them a job, they're in for a shock. "Machine learning and artificial intelligence in particular are actually solving jobs that we thought traditionally were very highly qualified jobs, people like lawyers and doctors and accountants and bankers... It's eating out the middle of the job market."

There will be winners and losers in some surprising areas as more and more jobs become automated or operated by intelligent computers. What's happening is the same thing that happened to blue collar work in the seventies, eighties and nineties is going to happen to white collar work...People need to start understanding the impact that it's going to have on them.

It's good news for baristas and personal trainers, but not for real estate agents. And the days of long haul truck drivers may be numbered. I think the first thing on the agenda is really going to be driving autonomously between Sydney and Melbourne on the highway. It's not hard to imagine and indeed the technology exists for dedicating a lane and saying this is going to be for autonomous trucks.

The loss of these jobs will be challenging for the existing workforce as there may simply not be enough jobs to go around. But the greater fear is that we're not preparing our kids for work in this technological age. Schools and universities are churning out students with qualifications for jobs that won't exist, instead of training them for the ones that will be created. We've had incredible education in this country, but there is no-one that genuinely really thinks it's fit for purpose now and into the future... Australia is, right now, not prepared.

We meet the kids giving up their weekends to learn the computer coding skills they say they're not being taught at school. I believe that coding is the next layer of literacy. And explore the schools who believe they're unlocking the future with innovative teaching methods and an emphasis on the so-called STEM skills, maths and science.

Many are arguing that we must act now to change the way we educate our kids or risk them sleep walking into a world they won't be equipped for.

We could start working with 12 year olds today. By the time they've done six years of high school and they're 18, we could genuinely have changed their trajectory if we focussed on some of these education changes that need to happen and set them up and Australia up for a very different future."

I don't feel my age! In fact, until midday I don't feel anything at all.
Then it's time for my nana nap.

News and Reunions!

Concessions.

This may be of interest to anyone in NSW who:

- Is a NSW resident
- Holds one of the following valid concession cards:
  - Pensioner Concession Card
  - Health Care Card or Low Income Health Care Card from Centrelink
  - Veterans' Affairs Gold Card
- Owns a fridge six years old, or older, and wants to replace it (Approximately 40% discount) OR
- Owns a plasma or cathode ray tube (CRT) television and wants to replace it (Approximately 50% discount).

The deal is in conjunction with the Good Guys and they have a range of Hisense and Samsung fridges of most sizes; however, the TV range is limited. One of the conditions is that they remove your old fridge and TV.

You have to register and get approval from Environment NSW before contacting the Good Guys head office (this phone number is provided when NSW Environment approve your application along with an approval code). Click HERE for further details.

Amberley.

Two ladies, Laraine Nelson and Joanne McAuley (contact details below) are Cultural Heritage Consultant of RPS Australia Asia Pacific. They have been project tasked by the Aust. Defence Force to write a book to record the history of RAAF Base Amberley.

It is hoped that Members of the Radschool Association can give these ladies assistance in compiling the book. There must be a horde of memories and knowledge and photos of RAAF Amberley over the years.

What I would like to ask is if you could assist these ladies though the Radschool network with any history snippets which would benefit their project, in particular need is personal knowledge and photos including those of the base buildings and structures over the passing years, 1940 to 2016.

In general, any assistance that anyone can provide these ladies on RAAF Base Amberley history would be much appreciated.

Laraine Nelson Laraine.Nelson@rpsgroup.com.au
Joanne McAuley joanne.mcauley@rpsgroup.com.au

Regards,
George Hatchman
(RAAF WOFF Ret'd)
Historian
No. 23SQN Association
M. 0408 643 463.

I hate sex in the movies. Tried it once.
The seat folded up, the drink spilled and that ice, well, it really chilled the mood.

Religion in the ADF

Ernie Gimm says: "Some of you old and not so old may be interested in this, thank God, I am no longer in the Service. There has been a lot of stick poked by many at various actions by the ADF in relation to allowing certain freedoms of various outward signs and actions of religions and beliefs within the ADF. The attachment may help settle some of the uneasiness felt by some former members of the ADF in relation to current religious practices and beliefs allowed within today's ADF.

I commend the attachment to your perusal. I am sure that it will provide some background as to the legislative requirements that the ADF is bound to follow and to the seemingly unusual (at least to former members) practices now seen in the ADF".

Click HERE

It used to be only death and taxes. Now, of course, there's shipping and handling, too.

East Sale Reunion.

Hope everyone has been coping with the weather we have been going through. Neil and I have been in contact and with his concurrence I am sending out a gentle reminder, that we are on the countdown for coming together in November.

Attached is the flyer and list of attractions websites that may be of interest for you. Tentative times have been listed on the flyer to give you an idea of when we are hoping to start on the Friday and Saturday evenings. Through Neil and Kev whose help is appreciated, they will give you another update when we get closer to the date. Hopefully you are aware of the accommodation venues in the area as well. Also, if you have not let Neil know that you are attending, could you let him know so, that we aware of the numbers attending.

If there is any further information that you may require, if you could contact Neil or Kev whose contact details are on the attached flyer. If there is anyone that you think we have omitted from the list also, please let us know as well.

See HERE.

Best wishes
Harry Allie

Definition of a teenager? God's punishment...for enjoying sex.

Freedom of Entry to the City of Adelaide

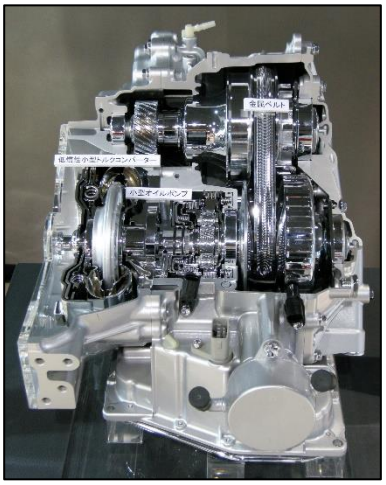
This year is the 75th Anniversary of the wartime Air Training Corps (ATC), its successor the AirTC, and the modern Australian Air Force Cadets (1941-2016).

As part of the commemorations, on Saturday 11 June 2016, 6 Wing exercised its Freedom of Entry to the City of Adelaide, “with swords drawn, drums beating, band playing and banners flying” – a privilege which had been granted to 6 Wing on 12 July 2003.

It’s a unique opportunity to stop Adelaide traffic and march on King William Street.

You can watch a video clip of the march HERE

Continuously variable transmission.



A continuously variable transmission (CVT) (also known as a single-speed transmission, stepless transmission, pulley transmission, or, in case of motorcycles, a twist-and-go) is an automatic transmission that can change seamlessly through a continuous range of effective gear ratios. This contrasts with other mechanical transmissions that offer a fixed number of gear ratios. The flexibility of a CVT allows the input shaft to maintain a constant angular velocity.

A belt-driven design offers approximately 88% efficiency, which, while lower than that of a manual transmission, can be offset by lower production cost and by enabling the engine to run at its most efficient speed for a range of output speeds. When power is more important than economy, the ratio of the CVT can be changed to

allow the engine to turn at the RPM at which it produces greatest power. This is typically higher than the RPM that achieves peak efficiency. In low-mass low-torque applications a belt driven CVT also offers ease of use and mechanical simplicity.

A CVT does not strictly require the presence of a clutch. Nevertheless, in some vehicles (e.g. motorcycles), a centrifugal clutch is added to facilitate a "neutral" stance, which is useful when idling or manually reversing into a parking space.

If you're interested, you can see why HERE

Larry Pickering.

Dave Gaffee sent us THIS

Switchie reunion.

The Switchies (TPhoneops) intend to hold a reunion in Brisbane on the 24th September at the Kedron-Wavell Services Club located in Chermside. The event will be a luncheon with the option to continue into the evening at the Gallipoli Bar located within the Club.

Tour of France.

Phil Brookes writes, he says, could you insert our flyer for our 2018 Anzac tour in your newsletter, I've also attached an article on our 2015 France trip. By the way, I'm still enjoying reading your newsletters and as an old *Bones Day* participant, it's always good to catch up on what our RAAF cousins have been up to.

Our group tours comprise mostly Vietnam veterans and I've been organising and leading quality tours since 2009 to Vietnam, China, Cambodia and France. For the 2018 France tour, our agent has donated international airfares for two-year 12 students from the Murray Bridge High School (South Australia) as part of an Anzac Scholarship program and the Murray Bridge RSL is donating $2,000 toward the trip together with corporate sponsorship.

It will be an exciting tour for the students.

You can see the flyer HERE and the story on the 2015 France trip HERE.

Remembrance.

Al Ex and Serving RAAF Members are invited to participate in a Remembrance and Wreath laying ceremony being held at the Queensland Air Museum at Caloundra Airport on Thursday the 3rd November 2016, at the Caribou A4-173 ex RTFV/35Sqn (Wallaby Airlines) Vung Tau.

The service will start at 1030 hrs.

The Remembrance service will be to mark the remembrance of all RAAF personnel who served in units and Squadrons involved in the Vietnam War and other theatres of war as well as Peacekeeping and Peacemaking and all home based Service.

Padre Arthur Fry will lead the service in prayer and following the Ceremony there will be a morning tea provided.

It is hoped you are able to participate and if so, could you please RSVP to this email address vvaas@bigpond.net.au (Attention Mal Sayers, Secretary) by the 25th October 2015.

Women Veterans Network Australia. (WVNA)

WVNA is a network helping women veterans connect with each other to share information and access services.

WVNA aims to provide a cohesive and engaging environment for Australian women veterans to network effectively on social media and in local groups.

WVN groups are inclusive of all ranks who are currently serving or have served in the Navy, Army or Air Force, either in a full time or Reserve capacity, regardless of whether they have been deployed or not.

WVNA supports all organisations who help veterans and intend to work together to establish peer support networks focused on the specific health and wellbeing needs of women veterans to ease transition, isolation and assist with readjustment problems.

You can see further information HERE

Tadpoles.

11 Wagga Appy (Tadpoles) are proposing a reunion at the Opal Cove Resort in Coffs Harbour over the weekend of 17-19 Mar 2017.

Anyone wishing to attend or requiring further information can contact Doug Waters via email: doug.waters@esc.net.au, ph 08 8256 1709 or mob 0412 421 345.

THE FIGHTER SQUADRONS' BRANCH
Of The RAAF Association NSW Division
Patron: Air Vice-Marshal W.H. Simmonds, AO, MID

The RAAF have advised that once you register, you will receive an email advising parking arrangements and also program information. A Base Access pass will also be posted to you.

If you would like to go, click HERE and register, it looks to be a great day.

IT'S ON

THE FIRST EVER! (as far as I know)

EDPOP REUNION

WHERE?

WHERE IT ALL STARTED OF COURSE

CANBERRA

WHEN?

WELL, SOMEONE THREW A DART AT THE CALENDAR JUST LIKE DPA DID FOR OUR POSTINGS AND IT LANDED ON

15 OCT 2016

DETAILS?

THE REUNION WILL BE HELD IN A FUNCTION ROOM AT THE DICKSON TRADIES

ACCOMODATION IS AVAILABLE AT THE DICKSON HOTEL CONTACT ME FOR YOU BOOKING

WHAT DO I HAVE TO DO?

COME ALONG, PUT THE WORD OUT TO ALL YOUR OLD MATES THAT THE EVENT IS ON, OFFER ANY SUGGESTIONS TO THE ORGANIZERS YOU MAY HAVE, AND PUT YOUR HAND UP TO BE PART OF THE ORGANIZING TEAM ☺

EXPRESSION OF INTEREST AND DEFINATE DECISION TO PARTICIPATE:

THE SAGS

steve.sagnol@ozemail.com.au or the Facebook Page I Served (Am Serving) as an EDPOP/CISCON in the RAAF

FURTHER DETAILS CAN BE VIEWED

https://sites.google.com/site/ulyssesclubcapricorniabranch/coming-events-2/edpopreunion

Ivar Giaever

Ivar Giaever, born April 5, 1929, is a Norwegian-American physicist who shared the Nobel Prize in Physics in 1973 with Leo Esaki and Brian Josephson "for their discoveries regarding tunnelling phenomena in solids". Giaever's share of the prize was specifically for his "experimental discoveries regarding tunnelling phenomena in superconductors". Giaever is an institute professor emeritus at the Rensselaer Polytechnic Institute, a professor-at-large at the University of Oslo, and the president of Applied Biophysics.

Giaever has said man-made global warming is a "new religion." In the minority report released by the U.S. Senate Environment and Public Works Committee in March 2009, Giaever said, "I am a skeptic…Global warming has become a new religion."

In a featured story in Norway's largest newspaper, *Aftenposten*, 26 June 2011, Giaever stated, "It is amazing how stable temperature has been over the last 150 years."

On 13 September 2011, Giaever resigned from the American Physical Society over its official position. The APS Fellow noted: "In the APS it is ok to discuss whether the mass of the proton changes over time and how a multi-universe behaves, but the evidence of global warming is incontrovertible?"

As part of the 62nd Lindau Nobel Laureate Meeting, Giaever referred to agreement with the evidence of climate change as a "religion" and commented on the significance of the apparent rise in temperature when he stated, "What does it mean that the temperature has gone up 0.8 degrees Kelvin, Probably nothing." Referring to the selection of evidence in his presentation, Giaever stated "I pick and choose when I give this talk just the way the previous speaker (Mario Molina) picked and chose when he gave his talk." Giaever concluded his presentation with a pronouncement: "Is climate change pseudoscience? If I'm going to answer the question, the answer is: absolutely."

Giaever repeated his claims in a speech at the same place in 2015, referring to data on global average temperature published amongst others by NASA that show global average surface temperature has risen less than 1K in 140 years, and not risen at all for the years from 2000 - 2014.

A main point of his speech was discussing reliability of the statistical calculation of this temperature with respect to the quite inhomogeneous spatial distribution of measurement locations over the globe, especially the poor coverage in the southern hemisphere. He highlighted the fact evident from the dataset used by NASA for the calculations that there have

been only 8 measurement locations on the entire Antarctic continent, which holds the greatest and currently further increasing mass of ice found on earth. He claimed that these facts erode the credibility of accuracy usually attached to these data, not-withstanding that established statistical procedures have been used to cope with that lack of data statistical independence and hence data quality.

Another main point was that observed significant change in atmospheric carbon dioxide (CO_2) concentrations in a magnitude of 40% during the last 250 years of the industrial age does in no way correlate with the observed temperature change in that time, thus experimentally rendering invalid the claim that rising concentrations of CO_2 are the cause of global warming, as stated by the UN led Intergovernmental Panel on Climate Change (IPCC) and leading climatologists from different countries in a vast amount of publications, and widely believed as a fact in scientific as well as political discussions worldwide.

Giaever, on the base of the facts presented, urged the scientific community to rethink and to reject these claims as baseless or at least not properly founded, and to redirect the immense funds invested in technologies aiming to reduce CO_2 emissions to the real problems of humanity.

You can see a video of his speech HERE.

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