SITREP

AIR FORCE ASSOCIATION NSW - NEWS AND VIEWS

Forward Air Control (FAC) in Vietnam

From Peter Condon

The Forward Air Controller's job was one of the most dangerous flying occupations in Vietnam. It involved flying slow light aircraft over enemy territory at low altitude for up to six hours in a day searching for the enemy and then directing pilots flying ground-attack aircraft onto those targets—the average FAC mission lasting just under three hours. Other FAC tasks included artillery adjustment, visual reconnaissance and assisting ground forces with navigation. During the war the USAF lost 220 FACs killed in action, which is about a 10% loss rate. 36 RAAF fighter pilots flew as FACs with the USAF in Vietnam between 1966 and 1971 and we had no losses; but Chris Langton was shot down in his OV-10 in February 1970, and was rescued.

Arrival at Bien Hoa in Vietnam. Dick Kelloway, on the right, points to the Cessna O-1 rockets as Doug Riding, Peter Condon and Huck Ennis pose for the camera.

Doug Riding, Huck Ennis and I arrived at Bien Hoa in late April of 1969 after completing some administration at RAAF Vung Tau a few days earlier. There was one OV-10 'Bronco' and two O-1 'Bird Dog' positions to be filled and I'm afraid that rank had its privileges—Flight Lieutenant Riding got the OV-10 slot while the two Flying Officers tried to work out what went wrong. What happened to the three straw draw? We all had an operational flight in an A-37 strike aircraft belonging to the 'Rapp' squadron at Bien Hoa before moving on to Phan Rang. The A-37 was a very effective ground attack aircraft but was only fitted with machine guns, not cannons. Maybe firing 20mm cannons would have pushed it backwards.

We all flew to Phan Rang where the USAF FAC training school was located and we were billeted with the RAAF's No. 2 Squadron personnel. After seven days and seventeen hours, Huck and I were checked out as Forward Air Controllers in the Cessna O-1 'Bird Dog', one of the slowest aircraft in the world! It had a 213 hp Continental piston engine and a maximum level speed of 100 knots; but the usual cruise speed was around 70 knots. Its maximum 'g' limit was "pull until the door pops open." Because of our fighter background we were 'A' class FACs which allowed us to control airstrikes in close proximity to friendly ground troops. These close encounters were

known as 'troops in contact' situations and involved a lot of liaison with the troop leader on the ground.

A Cessna O-1 'Bird Dog' fitted with four marking rockets.
Photo by USAF FAC Gary Dikkers.

Huck and I were assigned to the US 9th Infantry Division in the Mekong Delta area south of Saigon. There was a vacant FAC position at Dong Tam (near My Tho) and another a bit further south at Bin Thuy (near Can Tho). We travelled from Bien Hoa in a USAF Caribou to Dong Tam, the home of the US 9th Division HQ, where we drew straws to see who was the lucky man to remain at Dong Tam with the 1st Brigade FAC team. I lost that draw too! Huck flew down to Bin Thuy to join the 2nd Brigade crew and Doug Riding moved to Lai Khe after his OV-10 conversion to support the 1st Brigade of the US 1st Infantry Division.

After a few rides in the back seat of the O-1 watching experienced FACs controlling some airstrikes I was placed in the front seat with an experienced FAC supervising me from the back seat as I controlled my first air strikes in anger. It was difficult getting used to operating three radios, all at the same time, especially when working with troops in contact. We controlled the fighters on UHF, we spoke with Brigade HQ on VHF and we spoke with the ground forces on FM. I was sent solo after seven days and ended up controlling 34 airstrikes and flying 75 hours in my first month as a FAC. The next month I controlled 35 airstrikes and logged 78 hours flying time. The pace was high compared to my 22 hours per month back in the squadron.

I controlled airstrikes on most days that I flew. These were mainly pre-planned strikes on targets identified by the army during some of their previous patrols. I knew the time the fighters would arrive in the target area so I would depart Dong Tam in time to find the target and make a few assessments about attack heading, position of any friendlies in the area, safe bail-out areas and the nearest diversion base for the fighters if anything should go wrong. Soon after, the fighters would check-in on the UHF radio and I would describe where I was holding relative to a well defined ground feature. They got close to my position by flying to a TACAN radial and distance from Bien Hoa. After they made visual contact with me, I would ask the fighter pilots what weapons they were carrying and then give them a detailed briefing of the target and how I planned to run the airstrike. For example, bombs and napalm were usually dropped before any 20mm strafing passes.

There was a general rule that FACs should not fly below 1,500 feet to remain safe from enemy ground fire. In the early days many FACs were shot down trying to win the war at low level all by themselves; hence the height rule. However, if low flying was necessary to complete the mission, especially when friendly ground forces were in serious trouble, then a FAC would do what was necessary to get the job done. After the weapons were expended the FAC would give the fighters a Bomb Damage Assessment (BDA) and they would depart the area while the FAC positioned himself for the next scheduled airstrike. Having two pre-planned airstrikes each day was common when I was with the 9th Division, and on a busy day, especially after ground forces called for assistance because they were engaged with the enemy, I controlled up to four flights of fighters. On one day I managed to log four hours and five minutes for the one mission, only to be told some time later that I exceeded some rule about flying time. It was the only mission where I

intentionally ran one fuel tank dry and played around with the mixture control while using the other fuel tank.

The most common fighter aircraft used for ground attack when I was in Vietnam was the USAF F-100 Super Sabre. These aircraft were based at various locations around Vietnam but the most common departure airfields for operations in my area were Bien Hoa and Phan Rang. The weapon load usually consisted of a mix of bombs and napalm and 20mm cannon. I controlled USAF Cessna A-37 attack aircraft, USAF F-4s and F-5s along with a few Australian Canberra bombers, the 'Magpies'. I even controlled a USN OV-10 which stumbled into the target area looking for somewhere to expend his Zuni rockets. The Vietnamese Air Force operated F-5s and piston-engined A-1 bombers and they were very accurate in the ground attack role. Understanding the VNAF pilots, and them understanding me, was a bit of a problem so we had to run the briefing very carefully, emphasizing the important points. They had been doing the job since they were old enough to fly so I respected their skills. They were good.

I took this photo from the backseat soon after I arrived at Dong Tam. Looking south, it shows the north arm of the Mekong River in the distance and four rocket tubes under the wing. On the ground we can see a bright white WP smoke just blooming alongside a burnt-out smoke rocket. The larger smoke blooms are the result of bombs hitting the target nearer to the canal. Further to the right of the target area is a triangular shaped abandoned Vietnamese Army fort. We were probably around 1,500 feet high.

Controlling fighters in troops-in-contact situations was very rewarding, especially if I managed to get the fighter ordnance on target and the enemy assault defeated. I ended up being very busy during these missions, listening to all three radios at the same time and liaising with the ground forces to mark their positions with coloured smoke. Once the friendly positions were identified I would roll in to mark the enemy positions with a White Phosphorus (WP) smoke rocket. I aimed the rocket by lining up a painted nut on the inside of the divided windscreen with the tip of a welding rod fitted to the nose of the aircraft. On most occasions when I controlled airstrikes in close proximity to friendly ground forces, only the fighter's 20mm cannons could be used because the friendlies were inside the safety distances of the bombs and napalm. On two occasions when controlling airstrikes in the Bird Dog I ran out of smoke rockets and had to mark the enemy position with beer can-sized white smoke grenades. The smoke grenades were carried behind the seat and had to be dropped by hand through the open cockpit window after the pin was pulled. I lined the aircraft up in a shallow dive towards the enemy position, and when overhead the enemy at about 200 feet, dropped the grenade. Descending so close to the enemy was a bit uncomfortable because I knew the aluminium engine cowling would not stop a pea shooter if someone wanted to have a go at me. I wanted to hide behind the engine but I could not lift my feet off the rudder pedals nor duck my head down low because I had to see where I was going. There I was, flying the slowest aircraft in the war, trying to hit the enemy on the head with a smoke grenade!

The smoke bloomed soon after it was released. It was during these two low flying missions that I realized the Bird Dog did not climb very well on full power. It took forever to get away from the action on the ground. In all, during my time flying the Bird Dog I flew 13 missions supporting troops in close contact with the Viet Cong (VC) enemy. These missions usually involved controlling three flights of fighters. During one afternoon battle I had to request a Dakota flare ship (Spooky) to illuminate the target area as the fight continued into the night. That was a different and difficult experience again. In a bit over two months flying the Bird Dog I clocked up 210 flying hours and controlled 91 airstrikes. The US 9th Infantry Division was one of the first US Divisions to return to the USA so Huck and I were out of a job and sent back to Phan Rang to learn how to fly the new OV-10 twin-engined FAC aircraft. It carried 14 smoke rockets so I would never have to do a low-level grenade-dropping pass ever again.

The idea for the OV-10 was started by two US Marine officers. They saw the need for an aircraft that could operate from rough fields and be able to support troops on the ground with some fire power such as bombs and machine guns. They wanted it to be able to carry 2,000lbs of cargo or carry six paratroopers, and have a short takeoff and landing capability. Two seats and good cockpit visibility were other requirements. The production aircraft was fitted with two 715 shp T-76 Garret turbine engines and two zero-zero ejection seats. In the FAC role it carried four seven-rocket canisters—two for WP and two for HE, and four M60 machine guns. It had a 40 feet wingspan and its maximum speed at sea level was about 250 knots. Its take-off speed was around 100 knots and its red-line speed was 350 knots. The usual recon speed with the rocket pods was about 130 knots. The approach speed was 100 knots and it was aerobatic with a +6.5 ‘g’ limit. A joy to fly.

An OV-10 ‘Bronco’ with a centreline fuel tank.
Photo by USAF Captain Brad Wright.

After Huck Ennis and I finished our OV-10 conversions (we were checked out in three days - eight flights), we were sent to the US 1st Infantry Division; me to Di An with the 2nd Brigade FAC team and Huck joined Doug Riding at Lai Khe with the 1st Brigade. Not long after, I was joined at Di An by FLTLT Ron Slater. Di An was just to the north of Saigon. At Dong Tam and at Di An, the FAC teams consisted of about five FACs so we sometimes flew two sorties each day while covering the Area of Operations (AO) during daylight hours. The living quarters were quite basic in both places; I had a bed and a small table and chair in a long ‘hooch’ building, separated from the other FACs with a fixed partition and a metal locker. The shower and loo facilities were very primitive too.

I supported the 2nd Brigade of the US 1st Infantry Division, flying the OV-10, from late July to mid December 1969, ending my eight-month posting to Vietnam. I logged 260 hours and controlled 48 airstrikes in the OV-10. I was promoted to Flight Lieutenant in September. We had one OV-10 aircraft at Di An, No 639. The Australian War Memorial collected and restored OV-10 No.639 which is now of particular interest to all Australians because it will be the only USAF aircraft in the Memorial. Seven Australian FACs flew No 639 while on duty in Vietnam and I

managed to fly it on 41 missions before I returned to Australia. You can check the history of how the OV-10 ended up in the AWM in Canberra and the restoration progress at: https://www.awm.gov.au/about/our-work/projects/asteedreborn

Ron Slater and Peter Condon - 1969

Ron Slater and Peter Condon – 2023…we hadn't changed a bit!

In late 1969 Ron Slater and I had our photo taken with USAF OV-10 No. 639 at Di An, and 54 years later, when we had a FAC reunion to welcome a USAF FAC aircraft into the AWM collection, Ron and I managed to have another photograph of us posing with our beloved and restored OV-10 No. 639. The ceremony was held at the AWM Storage facility in Mitchell.

The FAC group in Canberra in August 2023 when the OV-10 was added to the AWM collection

Together with Chris Clark, Peter has written a book entitled '*Hit my smoke - Australian pilots targeting the enemy in Vietnam'*, a synopsis of which is below:

At the height of the Vietnam War, allied tactical fighter aircraft flew over 700 missions every day against ground targets across the southern republic. This formidable fire power was directed by forward air controllers (FACs), whose job was to ensure that each operation was destructive to the enemy yet harmless to friendly troops. The work was high pressure and frequently hazardous for the FAC pilots who flew small, slow and often unarmed aircraft and marked targets for attack with smoke rockets or smoke grenades. Hit my smoke tells the story of the 36 Royal Australian Air Force pilots who flew with the US Air Force as FACs between 1966 and 1971. Told through a series of first-hand narratives, it captures the full flavour of the gallant work performed by this little-known band of professional and highly-decorated airmen—from the perils and triumphs of combat, to the frustrations of participating in a politically unpopular conflict

The book is available on line at: Hit my smoke - Australian pilots targeting the enemy in Vietnam

Reliving History: Duxford's Battle of Britain Airshow Brings the Past to Life

From vintageaviationnews.com, by Moreno Aguiari, photos by Matt Haskell

In the world of warbirds, many notable airshows and events showcase the beauty and capabilities of these historic aircraft. However, one stands out above the rest: the Battle of Britain Airshow, held annually by the Imperial War Museum at Duxford Aerodrome. What makes this show so unique? Not only is it held at the very airfield from which many of the aircraft flew during the Battle of Britain, defending the free world, but the event also immerses visitors in a living history experience. Reenactors and historical displays transport attendees back to the 1940s, allowing them to experience a glimpse of what life was like during that pivotal time.

B-17G 'Sally B' and RAF Avro Lancaster Soaring Together During IWM Duxford Battle of Britain Air Show.
Photo by Matt Haskell

Every year, Spitfires and Hurricanes from across the UK gather at this iconic airfield to create a ramp lineup unlike any other. This year, 12 Spitfires and four Hurricanes were featured, many of which are veterans of the Battle of Britain itself. In addition to these iconic aircraft, numerous other warbirds took part in the display, including a joint formation of the Boeing B-17G "Sally B" and the Battle of Britain Memorial Flight's Avro Lancaster B1. The "Thunder Flight" segment celebrated the power of radial-engine fighters, featuring a P-47D Thunderbolt, a Hawker Fury ISS, and an F8F Bearcat. Even light aircraft played a role, with a formation representing what is considered the last dogfight of the Western Theatre during

WWII, involving a Piper L-4 Grasshopper and a Slepcev Storch, a ¾ scale replica of the wartime Fieseler Storch.

While aircraft from the Battle of Britain are the primary focus, the airshow also includes impressive displays from modern military and civilian aircraft. The RAF made a strong showing this year, with demonstrations by the Typhoon, F-35B, and the Tutor display team. Additionally, Duxford's connection to World War I history was honoured with a flying display featuring the world's only airworthy WWI bomber, the Airco/de Havilland DH-9 (Reg. G-CDLI). Civilian aircraft joined the action too, including a unique three-ship formation of Beechcraft Staggerwings, dubbed "The Beech Boys."

But the warbirds are only half the story. Duxford's ability to transport visitors back in time owes much to the dedication of reenactors and living history groups who portray the people who flew and supported these aircraft. These passionate individuals go to great lengths to ensure authenticity, often wearing original uniforms and using period equipment. The grounds are filled with meticulously recreated camps, observation posts, and maintenance areas, all contributing to the immersive experience. From the Home Guard to the operations room, fighter camps, and the American crews who arrived later in the war, these reenactors provide an accurate and heartfelt depiction of the Greatest Generation.

The location of Duxford Aerodrome, with its preserved WWII-era facilities, further enhances the event's atmosphere. Visitors can explore original hangars, operations rooms, and air raid shelters, most of which now house the Imperial War Museum's collection and are open to the public during the airshow.

Duxford's cinematic history also adds to its allure. The airfield and some of its aircraft were featured prominently in the 1969 film *Battle of Britain*. The airshow pays tribute to this legacy with a mock dogfight between a Hispano HA-1112-M1L Buchón, a Spanish-built licensed copy of the Messerschmitt Bf 109G-2, and a Spitfire AT213, both of which appeared in the film. Another highlight included a graceful tail-chase formation of four Hurricanes, reminiscent of the pre-attack training sequences depicted in the movie.

Airshow manager Phil Hood shared insights into the event's mission: "We wanted to bring Duxford back to life. This was a Battle of Britain airfield. Sorties launched from here during the battle, and we've built the show around recreating the 'big wing' formation. It's important to show people what really happened, especially now that there are so few left who can tell those stories firsthand. This airshow has centred on the Battle of Britain theme since 2015, and we've been growing it ever since. It's meant to be an emotional, immersive experience that truly connects with Duxford's history."

Regarding the living history component, Hood added, "Duxford is a museum day-to-day, with over 200 aircraft on exhibit. But bringing in people dressed in period attire, with a deep understanding of the subject matter, allows us to tell those stories and bring them to life. We're very selective about the groups we work with—they spend a year preparing and coordinating with us to deliver an authentic experience, and it really does bring the site to life."

The airshow concludes with Duxford's most famous segment, the "Big Wing." During this breathtaking display, all of the Spitfires and Hurricanes in attendance take to the sky for several large formation flypasts. With no music and minimal commentary, aside from a speech by Winston Churchill, the audience is left to savour the symphony of 15 Rolls-Royce Merlin engines, a sound that silences the airfield and stirs the hearts of all who witness it.

While other airshows may boast a broader variety of aircraft or more dynamic aerobatic performances, none can match Duxford when it comes to capturing the spirit of the Battle of Britain and transporting spectators back to that critical moment in history.

Mirage Flight Controls Causing Grey Hairs

From Chris Mirow

Incident when ferrying a Mirage from Williamtown to Learmonth for an FCI Course exercise and then the return ferry tried to get me again – Chris Mirow

The ferry flight to Learmonth from Williamtown pushes the Mirage to the limits of its endurance. We had headwinds to contend with so we planned from Williamtown to Edinburgh (just north of Adelaide) then via Alice Springs to Learmonth. This last leg was fuel critical.

On the flight from Alice to Learmonth I had an unusual problem with my flight controls. I noticed during the descent into Learmonth that the flight controls appeared to be getting stiffer. When I arrived into the circuit at Learmonth via the standard run in and pitch, I was having trouble controlling the aircraft - on final approach I had to use both hands on the control column and was barely able to achieve enough movement of the control column to perform a safe landing. Unfortunately, as I taxied into the parking area the controls slowly reverted to normal.

Despite exhaustive tests no fault could be found and I continued to fly this same aircraft during operations at Learmonth, which all happened to be conducted below 10,00 feet. I also flew this aircraft on the leg from Learmonth back to Alice when redeploying back to Williamtown. The exact symptoms occurred again and I had extreme difficulty getting the aircraft safely back on the ground. Although again no fault could be found, I refused to ferry it back to Williamtown. After weeks of engineering checks and still no fault found, another pilot was despatched to bring the aircraft home. I briefed him to ensure that he set up for a long straight in approach back at

Williamtown and sure enough, he encountered the same problem and was very shaken up by the experience.

Gratuitous Mirage photo

The Mirage flight control system was notoriously difficult for engineers to maintain and a specialty engineering section at Williamtown was solely responsible for flight controls. After exhaustive testing, a very embarrassed engineer came to me with two hydraulic valves and asked me if I could pick the difference between them – I couldn't. He showed me a small arrow on the side of one valve - on the other valve the arrow was double ended. One valve was a one-way valve and the other was a restrictor valve which had been incorrectly installed in the system. The restrictor valve allowed pressure to bleed back at high altitude, but didn't allow the pressure to return quickly during a rapid descent to land. This explained why the low altitude flights during the exercise at Learmonth didn't cause a problem, but the high-altitude ferry flight and subsequent descent for landing triggered the fault.

That's a Furphy!

From the Editor – seen on a recent Qld trip at Herberton Historic Village

A blacksmith and wheelwright company was established by John Furphy in 1864 in Shepparton Victoria. The Furphy Water Cart took the Furphy brand to Europe and the Middle East during World War I. Typically, the water carts were placed near the latrines where soldiers would gather and share their news, away from the influence of their officers.

The cart drivers were well known for their gossip, and their news was not always reliable. It was for this reason that the word *furphy* entered the language as a synonym for questionable information or rumour.

The cart was constructed by shrinking an iron band onto the 34" cast iron end to seal the cylinder of the tank. Originally the tanks were made of imported plate steel, until John Lysaght began producing galvanised steel in Melbourne. The tank is fitted with 30" cast iron wheels and holds 180 gallons of water weighing approximately one ton. The weight is well distributed over the axle, providing a safe load for the horse.

This furphy tank is mounted on a wagon. In the background at right is an original Furphy Water Cart.

John Furphy was quick to realise the value of advertising and the cast iron ends carried the maker's name and the products the company manufactured. In 1898, John Furphy, a pious well-respected and upright citizen, added the inspirational verse 'Good, better, best – never let it rest – till your good is better and your better, best.' In 1920, William, John's son, added an inscription in Pitman's shorthand, which roughly translates as 'Water is the gift of God, but beer and whisky are concoctions of the devil – come and have a drink of water.' Throughout Australia, the Furphy Water Cart came to be a familiar symbol of simple rural life, of moral values and the rewards of hard work and enterprise.

Ground Controlled Approach (GCA) in the RAAF and RAN

A short history by Jim Males

Recovering aircraft efficiently and safely in inclement weather – low cloud and poor visibility was a challenge around the world until the broad adoption of precise electronic glideslope and track guidance provided by Instrument Landing System (ILS) equipment and more recently GPS precision navigation. Early military aircraft, particularly tactical aircraft, did not have the compartment or cockpit panel space to accommodate ILS components and displays. Military aviators consequently relied on a ground-based Air Traffic Controller (ATC) providing glideslope

and track guidance from a precision radar installation at each field. The procedure was called a Precision Radar Approach (PAR) and the pilot flew a Ground Controlled Approach (GCA).

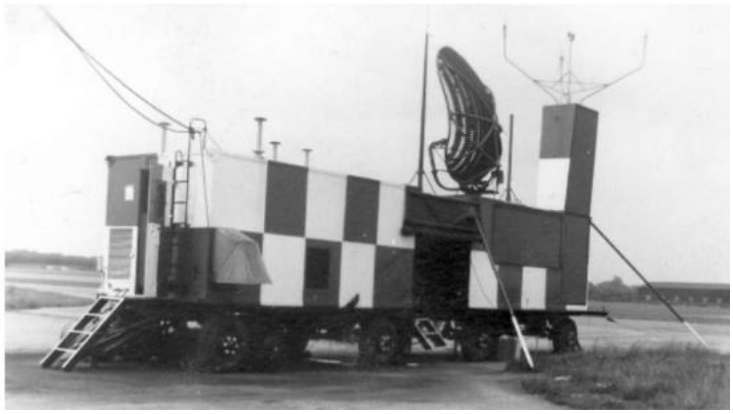
GCA is now a part of RAAF history; phased out of service in 1990 following the arrival of aircraft equipped with ILS and the advent of GPS. But, when in service, GCA played an important role, especially for Sabre, Mirage and Macchi aircraft all-weather operations. None of those aircraft had accurate navigation systems and the pilot relied mostly on Dead Reckoning (DR) – time, heading and speed and a Tactical Air Navigation System called TACAN that provided range and bearing from a fixed ground transmitter. TACAN was notoriously unreliable, limited in range and subject to Line-of-Sight (LOS) reception and inherent errors. All aircraft had limited fuel capacity, particularly the Mirage, and efficient recovery in bad weather was essential.

RAAF GCA procedures were introduced in 1956, when an AN/CPN4 PAR system was purchased and deployed to Essendon Airport for the Olympic Games. CPN4s were subsequently installed at RAAF Bases Pearce, Williamtown and Amberley.

On other Bases, the RAAF installed the smaller and less cumbersome AN/FPN 36 Quadradar, affectionately named to reflect its four functions: 360 degree azimuth search, precision approach, height finder and taxi modes, plus the Indicator Group used by the controller. The Quadradar had 47 individual parameters that could be manually adjusted by the operator to achieve consistent and useful performance. Throughout an approach the controller continually adjusted radar reception gain - left side of console while simultaneously working the elevation antenna azimuth servo left and right to keep it pointed at the aircraft - right side of console. One of the best controllers was Vic (Wingy) Meyn, so called because he had only one arm, but still managed to operate the Quad effectively despite the console ergonomics.

Quadradar display

The CPN4 system including the controller station was housed in two mobile cabins which were positioned in close proximity to the runway network and had to be moved and reorientated whenever there was a runway change. The working environment was very noisy, particularly with fighter type aircraft (Mirage) taking off with full afterburner thrust. There were three radar console positions in the Operations Cabin; the centre console usually manned by the Traffic Director with a Final Approach controller in the other bays. The radar equipment bays were behind the controllers. In wet weather, one of the controllers had to reach into the equipment bay to select circular polarization to enable the x-band precision radar to 'see' through the rain. Snakes were attracted to the warmth of the electronics and took up residence in the compartment. It was a brave controller who put his arm into the equipment bay to wind in the polarizer - although no one ever was bitten.



CPN4 Operations and Systems Cabins

The standard GCA traffic pattern was a 10nm Base leg at 1500 ft perpendicular to the final track, with a 3 degree Glide Slope intercept at 5 nm and a Decision Height (DH) at 220 ft and 1/2 nm from runway touchdown. A compressed minimum fuel pattern was flown at 1000 ft with final intercept at 3 1/4 nms. Once established on Final, the basic approach geometry was a constant descent at about 900ft/min – depending on aircraft speed over the ground, on the extended runway centreline. The controller directed the pilot with small heading and rate of descent (RoD) changes to maintain track and glideslope. At DH, if clear of weather and the runway was visible, the pilot would complete the approach and touchdown visually. On occasions, in severe weather, and cloud base or visibility that prevented the pilot from landing visually, gun controllers would continue RoD and track guidance all the way to touchdown.

HMAS Melbourne had a ship-based version SPN-35 and many old RAN controllers will fondly remember conducting a 'Carrier Controlled Approach' (CCA in lieu of GCA). The SPN-35 had a gyro stabilized antenna group because of ship movement. It was similar to the FPN36, but talk down commenced as the ship was turning onto the final heading. It was not uncommon for naval aviators to be given large heading corrections with the ship turning up to 90 deg to port or starboard - "commenced descent and turn left 40 deg etc." The philosophy was that we were training for war and aircraft were more expendable than the carrier! Normally, their 'Charlie time (land on was + or - 15 seconds) so the ship spent minimal time vulnerable while tracking into wind. In training for Electronic Warfare procedures communication, radar, and nav aids would be turned off deliberately by the ship to avoid detection. In those scenarios, aircraft returning in IMC would initially descend on a signal from a sonobuoy submarine location beacon located in one of the gun sponsons, until acquired by the SPN-35 final approach radar.

In Butterworth, the STC, SLAC3 had separate screens for centreline and glidepath which were in the Approach Room and only a couple of metres from the Controller's crew room and dart board. Many a game was played by GCA controllers waiting for their next 'customer'.

SLA3C Console

Qualification as a GCA controller at Williamtown and Butterworth was a rewarding and challenging responsibility, as Mirages often recovered in bad weather with minimum fuel. To illustrate the precision possible, the controller would position one-third of the Mirage radar return (blip) above the glideslope to account for the high angle of incidence of the delta wing Mirage on final approach. Such was the accuracy that the controller could continue guidance beyond decision height right to touchdown. It was an intrepid pilot that said 'keep talking to 'touchdown' as the alternative of wasting the aircraft and banging out (ejecting) was not preferred. Many a Mirage

pilot bought the GCA Controller a few beers after using the service to get the wheels back on the runway.

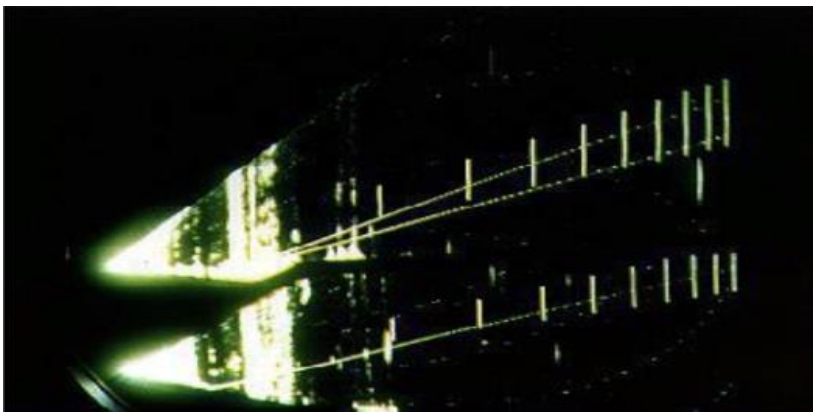
At East Sale, GCA was demanding of both controller and pilot, especially for the HS7-48 'draggies' that would often return from six hour navigation exercises when thick fog had set-in. Often the fog bank top was only 300 ft AGL, so the aircraft would only enter very low visibility conditions just prior to Decision Height (DH) and all would hope like hell that the pilot could see the high intensity approach lights to orientate for landing on the prepared surface. It was therefore critical for the controller to have the aircraft 'in the slot' positioned perfectly on glideslope and centreline at ½ mile to touchdown.

The School of Air Traffic Control, C Flight at Central Flying School (CFS) RAAF Base East Sale trained hundreds of controllers on the FPN-36. On graduation, the controllers would then undergo conversion training on the equipment installed at their home base. Operating the FPN-36 required the controller to manually refine the radar beam orientation and sensitivity and most controllers carried a small screwdriver in their pocket, as many of the 47 controls were 'tweaked' that way. The centreline cursor was orientated between two reflectors, one each side of the runway threshold, while the glideslope cursor was electronically set to three degrees, to give a descent rate of 300ft per mile.

FPN-36 Quadradar

The FPN-36 had search and elevation antennas. In search mode the horizontal surveillance antenna scan at 15 rpm and was initially used to position the aircraft close to centreline. Then the controller would select precision mode and the search antenna would scan 15 degrees left and right of centreline and the elevation antenna would scan vertically from -1 to +6 degrees. The controller would servo that antenna left and right to keep the aircraft within the radar beam. The standard GCA traffic pattern normally comprised a ten mile down wind leg during which the pilot was instructed to carry out landing checks. Downwind was followed by a 90-degree base leg, then a 30-degree intercept with the centreline. When close to centreline the controller would adjust the angle of closure, finally making very small, two-degree adjustments to aircraft heading until established on the centreline. Further small adjustments would be made depending on the crosswind. At six and a half miles the pilot would be advised one mile to glidepath and to prepare for descent. At six miles to touchdown the GCA controller would advise the tower controller on the hotline of the GCA traffic on final approach. Near to five and a half miles, the pilot would be instructed to commence descent to settle onto the glidepath. Small adjustments to centreline and glidepath were advised continuously to maintain the precision approach. At three miles to touchdown, the controller would again contact the Tower controller to obtain a landing clearance or other instructions which would then be relayed to the pilot with a final wheel check if landing or making touch and go.

At Decision Height the pilot would be instructed to 'look ahead and land visually'. If the runway was not visible, in fog or heavy rain, the pilot would go around. Often with the Mirage a missed approach would be followed by a minimum fuel GCA, a tight pattern at 1000 ft, a short and five-mile base leg and glidepath intercept at three and a half miles to touchdown. If the runway was still not visible at MDA, the controller would continue centreline and glidepath guidance to touchdown if requested; alternatively, the pilot would again go around or divert to a secondary airfield, fuel permitting.



Glidepath and centreline display

Two other types of approach to cater for degraded radar or aircraft systems were practiced and occasionally employed. One, termed a Surveillance Radar Approach (SRA) was used if the precision features of the PAR were degraded. In that situation, centreline tracking was derived from coarse Surveillance Radar returns, and glidepath was the pilot's responsibility with the controller giving advisory heights each half mile based on 300 ft per mile; for example, 'you're three miles to touchdown, you should be passing 900 ft now'. The other was a speechless approach practiced in case of facial injury or pilot microphone failure. In that case, the controller would give normal instructions and the pilot would answer by keying a carrier wave on the controlling radio frequency. One blip for Yes, two for No and three for Say Again.

FPN 802

In 1980 the CPN4s were phased out and replaced with a much-improved Raytheon FPN802 and the tactical version, TPN803 that featured a computer-controlled tracking capability to maintained a radar lock on the approaching aircraft for centreline and glide path guidance. The Raytheon equipment and the Quad radars, remained in service until 1990 when PAR was progressively phased out of RAAF service.

From the Mouths of Children

While working for 'Meals on Wheels' delivering lunches to elderly shut-ins, I used to take my four year old daughter on my afternoon rounds. She was unfailingly intrigued by the various appliances of old age, particularly the canes, walkers and wheelchairs. One day I found her staring at a pair of false teeth soaking in a glass. As I braced myself for the inevitable barrage of questions, she merely turned and whispered, 'The tooth fairy will never believe this!'

WWII Pilots Awarded After 80 Years

Reprinted with permission from CONTACT magazine

Story by Squadron Leader Eamon Hamilton

Eighty years after their service in the skies of occupied Europe, two Royal Australian Air Force aviators have been posthumously awarded the Commendation for Gallantry. Pilot Officer Justin Mulligan and Warrant Officer Billy Kinloch flew Mosquito fighter bombers together on 60 missions with 464 Squadron. This included the daring daylight raid on October 31, 1944, that destroyed the Gestapo headquarters in the Danish town of Aarhus.

From left, Pilot Officer Justin Mulligan and Warrant Officer William Kinloch with a DeHavilland Mosquito fighter bomber in 1944

Flying a 1900km round-trip at wave-top height across the North Sea, allied Mosquitos delivered bombs with such precision that 464 Squadron was nicknamed 'the Gestapo Hunters'. Tragically, Pilot Officer Mulligan and Warrant Officer Kinloch would not survive the war to see their loved ones and tell their story. Early on January 13, 1945, their Mosquito crashed near the German border with Belgium. Both men were 22 years old.

A lifetime after the war's end, relatives of the pair accepted posthumous Commendations for Gallantry on their behalf at Government House in Sydney. Anne Burton is the niece of Warrant Officer Kinloch, and accepted his award on May 21, 2024. Justin Newberry is the nephew of Pilot Officer Mulligan, and accepted his uncle's award on September 24, 2024. The commendations recognised acts of gallantry in action over two tours of operational service with 464 Squadron.

Before the war, the men grew up in distant corners of regional New South Wales – Justin Mulligan in Guyra, and William 'Billy' Kinloch in Leeton. 'Billy was a keen cricketer and swimmer in Leeton growing up, and after primary school in Leeton he attended The Scots College in Sydney for five years,' Mrs Burton said. 'He returned home after the Leaving Certificate and joined the family business 'Kinloch Bros Hardware'. It was the intention that Billy would assume leadership of the business in the ensuing years.' Mr Newberry said his uncle, Justin Mulligan, worked as a wool classer and grazier. Both men enlisted in 1942 – Kinloch in April, and Mulligan in June. 'On 16 December 1942, [Justin Mulligan] enjoyed embarkation leave and Christmas with

his family in Guyra, and that was the last time they saw him,' Mr Newberry said. 'He left on Christmas Day.'

Members of 464 Squadron with relatives of Warrant Officer William Kinloch during an investiture ceremony at Government House in Sydney

In 1943 they each sailed to Canada for advanced training in the Empire Air Training Scheme – Mulligan as a pilot, and Kinloch as a navigator. The pair first met in England in early 1944 when they began training to fly the DeHavilland Mosquito. In mid-1944 they joined 464 Squadron at RAF Thorney Island on the English Channel. The squadron mostly flew night-time attack missions against German transport vehicles and supply areas, supporting the Allied liberation of France.

Powered by two Rolls Royce Merlin engines, the Mosquito was a perfect aircraft for long-range precision attacks on high-value targets such as headquarters, barracks and train yards. 'Justin went from putting around the farm on a tractor to flying dangerous missions at low level in one of the fastest planes in the world,' Mr Newberry said. 'Not bad for a bloke from Guyra.'

Allied Mosquito crews who bombed the Gestapo Headquarters in Aarhus were later gifted gold cufflinks by the King of Denmark in gratitude. After completing a flying tour of 50 missions, Mulligan and Kinloch had the choice of becoming instructors or flying another tour. They both stayed. At 3.15am on January 13, 1945, they left on a mission to strike German ground forces withdrawing from the Allied advance through Belgium. Their Mosquito never returned, likely shot down by an enemy night fighter aircraft. Three years later, their bodies were found and interred in a war cemetery at Rheinberg in Germany.

Justin Newberry, centre, holds the Commendation for Gallantry awarded to his uncle, Pilot Officer Justin Mulligan.

Mrs Burton was born after the war, and said she was always aware of the impact her uncle's death had on her grandparents. 'They lived for three years after the war hoping and wishing their only son was interned or alive somewhere in Europe,' Mrs Burton said. 'Alas it was not to be, and grandma and grandpa were forever sad over this fact. Although it was always a sombre occasion on Anzac Day, my grandma and my parents were always very proud and humbled for what Billy did in World War 2.'

Several 464 Squadron aviators received Imperial Awards such as the Distinguished Flying Cross (DFC) for their service. Mr Newberry believes the

squadron's relocation to France in February 1945, followed by the war's end, led to Mulligan and Kinloch's service not being likewise awarded. 'I started to ask questions in 2017 of the Honours and Awards Directorate about the possibility of having Justin Mulligan and Bill Kinloch awarded the DFC, which their families were told they had earned,' Mr Newberry said. The Directorate of Honours and Awards researched the pair's service, and recommended the Commendation for Gallantry be awarded. 'I was elated that after all those years, they were to be recognised,' Mr Newberry said. 'I know that Justin Mulligan would have appreciated being recognised, [and] I am proud to have achieved this outcome for him. I am also very grateful for the work of the Honours and Awards Directorate who helped make this award possible.'

Air Force's Fuel Station of the Skies

From www.defence.gov.au, 25 July 2024, By Flight Lieutenant Greg Hinks, photos by Leading Aircraftwoman Taylor Anderson

While cruising at an altitude of 23,000 feet, sitting in a comfortable over-wing seat of a modified Airbus A330, you could be forgiven for thinking you're flying on a commercial airline, until a Japan Air Self-Defense Force Mitsubishi F-2 fighter jet appears metres from the left wing tip requesting a 'tank of gas'. This is the reality for the crew of a 33 Squadron KC-30A multi-role tanker transport aircraft during a refuelling mission on Exercise Pitch Black 2024.

Two Japan Air Self-Defense Force Mitsubishi F-2 aircraft fly in formation during a sortie for Exercise Pitch Black.

After taking off from RAAF Base Amberley in south-east Queensland, the aircraft holding 90 tonnes of fuel headed north to the Exercise Pitch Black training area where the crew could be refuelling any one of the 140 aircraft from the 20 nations taking part in the exercise. Air mobility officer, Flying Officer Ethan Tattersall, is behind the fuel delivery system controls in the cockpit with a virtual-reality setup any gamer would be thrilled to operate. 'We use a 3D vision system which helps with depth perception, making it look like real life even though we are seeing it through a camera,' Flying Officer Tattersall said. 'We manipulate the boom using two joysticks and once we attach to the receiver aircraft we can pump the fuel.'

As part of the exercise, the crew refuelled Indonesian Air Force F-16 Fighting Falcons and Japan Air Self-Defense Force Mitsubishi F-2 fighter aircraft from the rear refuelling boom, showing that RAAF aviators can integrate and work together with Australia's allies anywhere and anytime, which is the essence of Exercise Pitch Black. 'We can refuel most types of aircraft the RAAF and

our international partners have here on the exercise, either from the rear boom or the drogues which deploy from under each wing,' Flying Officer Tattersall said.

After a mission lasting 10 hours, with a number of aircraft refuelled, the KC-30A itself needed a top-up for the journey home. In a spectacular sight amidst a setting sun, a multi-role tanker transport from the French Air Force moved overhead, lowered the boom and delivered fuel into the KC-30A via a receptacle above and behind the cockpit. 'Within 15 minutes of offloading fuel to the Japanese and Indonesian aircraft, we were reconfigured to receive fuel from the French tanker,' Flying Officer Tattersall said. 'This training with other Defence Forces from around the world on exercises like Pitch Black is invaluable and shows how well we can seamlessly work together.'

After a long and successful mission providing essential fuel for RAAF and allied partner aircraft, the 33 Squadron KC-30A crew safely landed back at RAAF Base Amberley, debriefed and prepared to do it again the next day on Pitch Black.

A RAAF KC-30A multi-role tanker transport (MRTT) pilot's view of a French Airbus A330 MRTT as they attempt to connect for air-to-air refuelling during Exercise Pitch Black 24

Blasting in from the Past

From www.defence.gov.au

Photos by Leading Aircraftwoman Paris Rigney

The skies of Temora echoed with aviation from the past and present, with the Air Force supporting the Warbirds Downunder Air Show from October 19 to 20. The Temora Aviation Museum celebrated its long-standing connection with the ADF, with the return of one of the nation's biggest gatherings of historic military aircraft.

Showcasing 40 aircraft over the two-day event, the air show highlighted the then, now and everlasting in Australian aviation. Executive Officer 100 Squadron, Squadron Leader Samuel da Graca Costa, said the participation of the heritage fleet was a way the Air Force could pay

homage to the past while inspiring future generations. 'The air show provides an opportunity to honour Air Force's heritage and showcase the great breadth of Australian aviation,' Squadron Leader da Graca Costa said. 'It's about keeping those emotional connections alive with our past, continuing our national pride for what we were able to achieve previously and demonstrating what we can achieve into the future with our current aircraft. It's an opportunity to honour the Air Force's 80-year connection with the Riverina community. Temora remains an integral part of Air Force's history, and 100 Squadron is grateful to continue our presence here with our heritage fleet. The air show provides an opportunity to honour Air Force's heritage and showcase the great breadth of Australian aviation.'

A 100 Squadron Supermarine Spitfire MK XVI and Roulette Pilatus PC-21 on show at the Warbirds Downunder Air Show

Air Force planes first took to the Temora sky in 1941 with the establishment of 10 Elementary Flying Training School. At its peak, the unit managed 97 de Havilland Tiger Moth aircraft, graduating 2400 pilots during its five years of operation.

The Temora Aviation Museum was opened in 1999, with the Air Force taking ownership of 11 of the museum's heritage aircraft in 2019. The Warbirds Downunder Air Show is just one of the opportunities for the Air Force to put its heritage fleet on show – flying platforms such as the CT4A, Spitfire Mk VIII, CAC Winjeel, Lockheed Hudson, Ryan STM-S2 and Tiger Moth in varying formations, in an ode to Australian aviation history. Also putting on a spectacle for the 15,000-strong crowd were fan favourites including the Roulettes aerobatic display team, C-130J Hercules and F-35A Lightning II. The Air Force band was also in attendance, as were interactive demonstrations from the RAAF Balloon and ADF Recruiting.

A civilian Beechcraft D18S and two civilian T-6 Harvards fly in formation at Warbirds Downunder in Temora, NSW.

Riverina resident Jack Knight, who attended the event alongside his grandson, Cooper, had the event marked in his calendar since the first tickets were released. 'I came to the last show in 2018. This time around I enjoyed the trainer formation with Winjeels and CT4s the most,' Mr Knight said. 'It's been great to share the weekend with

Cooper, who has had a few runs on the flying simulators.'

100 Squadron operates Air Force's fleet of heritage aircraft out of RAAF Base Point Cook and Temora Aviation Museum. The squadron maintains artefacts of Australia's national heritage and conducts flying displays to commemorate those who have fallen in service of the country, to promote the Royal Australian Air Force and inspire future generations.

A Determination to Serve and Defend

From www.defence.gov.au, 17 September 2024

In a speech to the House of Commons in August 1940, then Prime Minister Winston Churchill defined the fierce battle being waged in the skies over Britain at the time with the immortal words: "Never in the field of human conflict was so much owed by so many to so few." Eighty-four years later on September 15, 2024, the Royal Australian Air Force, RAAF Association – Tasmania Division, and the Hobart community, paused to commemorate the anniversary of the Battle of Britain and remember 'the few'.

Regarded as the first military campaign fought entirely by air forces, the Battle of Britain took place between July 10 and October 31, 1940, with the Royal Air Force (RAF), supported by Australian and other allied aviators, countering relentless air attacks by the German Luftwaffe. The battle reached a turning point on September 15, 1940, when RAF Fighter Command intercepted large formations of German bombers and fighter escorts with 300 Hurricanes and Spitfires. Fierce aerial combat throughout the day, and strategic miscalculations by the Germans, ultimately resulted in Britain and its allies' triumph.

At the Hobart Cenotaph, dignitaries representing former allies and foes joined Air Force to lay wreaths and pay respect to those who fought, including more than 30 Australians who flew combat operations during the campaign, 10 of whom were killed in action.

Chief of Air Force Air Marshal Stephen Chappell paid tribute to the brave men and women involved. 'Whether in the cockpit, in the hangar, or at the plotting tables, everyone involved fought the battle with tenacity, courage and devotion to their duty,' Air Marshal Chappell said. 'Their dedication to the job at hand serves as an example for those who followed. In reflecting upon these brave individuals, I consider our modern-day air force, our people and their purpose. While 84 years later we have very different aircraft and technology, at the heart of each aviator remains the same determination to serve and defend our nation.'

During the ceremony, a spectacular aerial display by the Air Force Roulettes, and flypasts of two Hawk 127s and a P-8A Poseidon, showcased Air Force's modern capabilities.

The Air Force Roulettes conduct a flypast at the wreath-laying ceremony at the Hobart Cenotaph

Retired Flight Lieutenant Brian Winspear, at 104 years of age, is the last surviving aircrew member from the Pacific Theatre during World War 2, at the Battle of Britain National Commemoration service.

The weekend commemoration, which also included a remembrance service at St David's Cathedral, was organised by the RAAF Association – Tasmania Division. Ceremonial support was provided by Number 29 (City of Hobart) Squadron, the Air Force Band and Air Force Cadets.

Aircrew Behaving Badly – An Occasional Series

From WGCDR Ian B. Gibson (Ret'd)

This material is compiled from various sources including the History and Heritage Branch–Air Force, the RAAF Museum, the Australian War Memorial, ADF Serials and www.ozatwar.com. The History and Heritage Branch–Air Force is not responsible for pre-1921 items. Whilst every effort is made to confirm the accuracy of the entries, any discrepancies are solely the responsibility of the originator. As I am not a member of History and Heritage Branch-Air Force, all Air Force history or heritage queries should be directed, in the first instance, to airforce.history@defence.gov.au

Japs Surrender to 'Ned Kelly'

Townsville was the Headquarters of RAAF North Eastern Area during World War II. RAAF 35 Transport Squadron was also based there. Lloyd Mortlock of Ocean Shores, NSW, who was Squadron Navigation Officer with 35 Squadron around the time of the official Japanese surrender, has provided us with some details of a most extraordinary happening - 'The Galela Incident' - which had some rather unexpected repercussions. Lloyd continues:

Though I was not a participant in the actual operation I was aware of an unauthorised Japanese surrender to some of our chaps on Galela Island that caused a major 'flap' at Townsville as evidenced by the large number of signals about it which I saw passing through the base. I knew that in August 1945, 35 Squadron had a detachment at Morotai, just a couple of degrees off the equator, and that crews there were well aware of tiny Galela Island about twelve miles to their north with an airstrip and a Japanese garrison but which, weeks after the Japanese surrender had not yet been taken over by Allied Forces. Accordingly, it was 'off limits' to our

personnel. However, one of our planes did make an unauthorised visit there, triggering not only the Townsville 'flap' but also giving rise to many vague and extraordinary stories, half-truths and exaggerations.

But what really did happen on Galela Island? The central figure in these events said nothing for over fifty years - until he finally agreed to tell the full story for the first time in this book. He is Mick Murphy, now of Maddington, WA, who at the time was a pilot on 35 Squadron flying C-47 Transports. This is Mick's own amazing story.

35 SQN in WWII

Why does a pilot decide to do silly things? What makes him take unnecessary risks? After fifty odd years I can't answer those questions. Most pilots in the area knew the history of the Japanese. Stationed at Galela Island, only about twelve miles off Morotai and virtually in our circuit area, they had tried to bring us in on their beacon when we were returning from missions. I was aware of this beacon on my return from the invasion of Tarakan in Borneo.

Since the Japanese Government had surrendered and there was no sign of any official surrender party, I thought it would be worthwhile to fly over and pay them a visit and see what war spoils we could collect. I think one thing that motivated me was that I had missed out on all the interesting booty which invariably turned up on these occasions. I was always at the wrong place at the wrong time. The Galela visit was just a spur-of-the-moment decision. I felt I could bluff my way through, and tell the Japs, 'I have been sent over to collect your arms; there will be another visit in the near future', and so on. Bluff, bluff, bluff!

I shared my plans with twelve colleagues including my crew and we set about acquiring machine guns and ammunition and other arms in case the visit backfired. As additional precautions some of the chaps also altered their uniforms and badges to confuse the Japs. One wore an old army jacket that still had its badges on it and another chap added some unofficial decorative badges plus extra pips and stripes tacked on. They fixed these up to make it difficult for anyone to give accurate descriptions of who they were if there was an investigation later. I wore some jungle greens and my normal officer's cap but we certainly looked a motley crew.

We arranged for an air test on a C-47 that had been recently serviced and took this opportunity to put the plan into operation. After completing the normal tests, the chaps changed into their specially altered 'uniforms'. Then the tension and anxiety started to increase. On arrival over the Galela strip I did several low-level runs to survey the situation, with all twelve of us looking out to spot gun positions and any sign at all of hostility. To our amazement, quite a few Japanese ran out to the side of the strip waving. They seemed excited to see us in our RAAF Dakota. The strip looked long enough to get down and off again.

So I called out to the crew and others, who included some other officers, 'Will we give it a go? The strip looks OK.' We had a quick discussion and one by one they nodded, so now for the test, friend or foe? The big question was whether they had been told the war was over and had been instructed to be nice to us. At this stage I was anything but relaxed.

Amazingly we landed without incident - no obstructions, no gunfire. We taxied back to put the aircraft in the best possible position for a quick take off. Once on the ground our plan was for us all to disembark. I would make initial contact with a small party, then signal if everything was OK and for the others to come over except for a guard party which was to remain with the aircraft and have their machine guns at the ready. It seemed a very long walk across that strip to make first contact and we went most apprehensively, but I was astounded to see a small party of Japanese coming towards us carrying a makeshift white flag on a stick, led by the Japanese Commanding Officer and the doctor, (who acted as interpreter), together with two or three of their officers. Much to our surprise they were waiting for us, obviously expecting that any day somebody would be along.

The party stopped in front of us, bowed and saluted. I cannot remember the initial discussions but the Japs were very humble, respectful and more than willing to help us, making it easier for me to carry out the biggest bluff I ever pulled off in my life! Our fellows quickly caught on to the situation, kept straight faces and we went through the charade of accepting the 'surrender'. I introduced myself as 'Flight Lieutenant Ned Kelly' and presented 'Flying Officer Don Bradman' and 'Major Billy Hughes' and so on, according to the dummy names they had agreed to use. We were then escorted to the Japanese Officers' Mess. They showed us every courtesy, even serving us a meal and went to the trouble of preparing special bamboo cutlery for us. Now confident and cocky as 'Flight Lieutenant Ned Kelly', I requested the Japanese to hand over all ceremonial swords, also numerous other interesting items such as cameras, money, knives, binoculars and twelve revolvers. They also insisted that we take back souvenirs of sake jugs and bowls, cigarettes, and chickens - which were a real treat after our bully beef, baked beans and goldfish (herrings).

These trophies were all laid out on a table near one of their huts adjoining the strip. The doctor suggested to me that I should take the Commanding Officer's personal sword, rather than offend by selecting another. This I did and it was presented to me with an elaborate gesture which made him happy. We duly signed and exchanged 'documents of surrender' and after all the bowing, farewells, thanks, etc departed as soon as we decently could. Back in the air our relief was enormous; that feeling I will never forget. It was agreed that I would take control of all the booty until the dust had settled, then I would distribute it amongst all who had participated in the venture. Arriving back at Morotai, we knew we were overdue and there was some concern

as fuel is limited on an air test. Someone might have worked out that we could not have been flying all that time. But we thought we covered up pretty well by saying we had given the plane a very extensive air test. So far so good!

The days ticked by; can't remember how long, but we got to the stage when we thought it was safe to distribute the spoils. I thought no one knew about it. However, a couple of weeks later when an official party led by high-ranking officers did land on Galela Island to formally take the surrender they were told by the Japanese Commanding Officer, to their utter amazement, embarrassment and disbelief, that he and his forces had already surrendered to 'Fright Reftennant Ned Kelly' and his officers. The sheer insolence of this deed immediately started a witch-hunt for the culprits, but not having any correct names or descriptions, they had no immediate success.

35SQN C-47

Then a little later back at Morotai, out of the blue came the request: 'Send Murphy up to see Area Officer Commanding Transport, Wing Commander Harry Purvis'. It seemed I was really on the mat. He began, 'Why would you do such a mad thing? We were just ready to mount a search for you'. Somehow the word had leaked out. He more or less knew some of the story but wanted to know where we had been and what we had done. He did seem rather intrigued by the escapade. I pleaded that I had all along missed out on picking up any booty on such occasions because of my junior rank, that senior officers had taken all the good trips; I had missed out right back since 1942. This seemed to strike a slightly sympathetic ear. However, he did hand out a nominal penalty for 'exceeding the time on an air test'. He also promised to put in a good word for me without guaranteeing anything.

'Thank you, Sir'; and it was all over. I really thought that that we could at last relax. But then it happened! Days later a signal arrived from Townsville saying:
SEND MURPHY BACK TO BASE AS A PASSENGER STOP REPEAT AS A PASSENGER. Why would they write a signal like that: 'AS A PASSENGER'? Perhaps I was being called for discharge? I had over five years service up. You can believe anything when you really want to. On arrival in Townsville 'as a passenger' I was marched into the Commanding Officer's office. He was furious and proceeded to tear strips off me right, left and centre. 'Why, why would you do such a foolish thing? You've disgraced the squadron, embarrassed some high-ranking officers, broken the Geneva Convention, endangered one of His Majesty's aeroplanes and one of His Majesty's crews! You're grounded! You'll never fly another aeroplane while you are in my squadron.' And much more. 'Be prepared for a court martial within the next three weeks. Dismissed.'

The Commanding Officer, Squadron Leader Roy Brown, was a well-built, swarthy-skinned fellow with dark brown eyes. This particular day I swear they turned black! I was demoted to Duty Pilot and for the rest of my time on 35 Squadron at Townsville, was relegated to the Operations Room, wielding a stick of chalk and a blackboard. Some weeks later, with no news of my court martial and when things appeared to be gradually getting back to normal, headquarters phoned me to

prepare an aircraft for Perth, my home town. Rather cheekily I listed myself as second pilot and was amazed when this was allowed to stand. Not only that, once on the aircraft I was moved over to the left seat as No 1 pilot! We had a great trip to Perth and on arrival back in Townsville I was told I would resume normal flying duties. The court martial had been dropped, we all kept our spoils and nothing further was heard on the incident. For a further four months I flew, evacuating many who had been POWs for years, including nurses, and even flew a courier trip to Japan. In April 1946 I was discharged after six and a half years' service.

SKYLARKS - THE LIGHTER SIDE OF LIFE IN THE RAAF IN WORLD WAR II, edited by Eric Brown, Air Power Studies Centre, 1998.

Why we need punctuation…

From John Clarkson

During our recent and enjoyable cruise from Brisbane to Perth, stopping along the way at Cairns, Darwin and Broome, we attended a briefing prior to each landing point. During the briefing at Darwin, the fellow showed us a photograph of a sign mounted next to a flowing river not far out of Darwin. The sign read:

CROCODILES
DO NOT SWIM IN THIS RIVER

More Mirage Adventures

From Phil Frawley

I had many adventures flying the Mirage, mostly due to my own screw ups. My first was while in 77 Squadron, I was detailed to help Mike Tardent, the new squadron XO, with his refresher training by being the adversary in a 2 versus 1 air combat manoeuvring mission. My jet had a configuration of RPK-10 external tanks, these tanks had mounts for 500lb bombs on them and were much more 'draggy' than the normal supersonic tanks. I had never flown with these tanks before.

I was briefed by the mission lead, Dave Pietsch, to come to the merge and fight reasonably hard but not too hard. I came to the merge at Mach 1.2 and 32,000 feet, as briefed, with tally on both fighters. At this point I should point out that when the Mirage slowed back from supersonic flight it would 'tuck' and increase 'G' by about 2 'G', so you had to be careful not to overstress the jet as this happened. Back to the fight, I entered a left turn with about 4 'G' allowing for the 'tuck', whereupon I saw the lead of the pair starting to threaten me, so I rolled down to meet him and felt the 'tuck' (I thought) and having assumed that I was now subsonic, I believed that I had the full 6 'G' available to me. With this in mind I pulled hard into the lead fighter only to have my aircraft pitch and roll violently to the right and after some impressive gyrations proceeded to enter a pitch oscillatory spin. What I thought was the 'tuck' was actually the aircraft stalling; it had slowed significantly quicker than I expected due to the 'draggy' RPK-10s.

The outside observers saw a large flame exit the rear of the aircraft as the engine compressor stalled and were alarmed to see the aircraft gyrate/tumble and enter the spin. Dave recalled thinking 'we are going to lose a jet here' and waited for the ejection.

Meanwhile the 'loose nut behind the stick' was going through some confused thoughts as the aircraft went through its pitch oscillations. Basically, on every rotation the aircraft would stop at

the straight and level attitude for a second and then violently flick again into another rotation. The first time it did this I thought the jet had recovered itself, only to be disappointed as it entered the next rotation. I finally realised what was happening and went through the spin recovery procedure which was eventually successful. As the aircraft recovered, I was quite disorientated and I thought that I was at about 12,000 feet (2000 feet above mandatory ejection for loss of control in a Mirage) however, I was actually at about 22,000 feet. Had I not recovered, I might well have misread the altimeter passing 20,000 feet and ejected. In any case all good, except for one important fact, I was still dropping like a brick and upon moving the throttle forward from idle I was rather dismayed to find a lack of commensurate noise increase. The engine had flamed out, so some pretty quick relight actions were needed to restart the engine; this was also successful and I was able to arrest the rate of descent. I was now down to about 14,000 feet.

Another gratuitous Mirage photo

The indignant Dave Pietsch was suitably underwhelmed by my performance and ordered me to 'GO HOME'. Incidentally, intentional spinning the Mirage was prohibited and no one had spun one with RPK-10s on it, so I had briefly entered the realms of a test pilot.

You Had One Job!

From Chris Beazley

'Operational heart' of RAAF Celebrates 75 years

Reprinted with permission from CONTACT magazine

The 'operational heart' of the Royal Australian Air Force celebrated its 75th birthday on October 10 with special events, a flypast by a C-130J Hercules and a RAAF hot air balloon display.

A C-130J Hercules from 37 Squadron flies over the assembled guests and visitors at RAAF Base Glenbrook during 75th anniversary celebrations.

Story by Flight Lieutenant Robert Cochran. Photos by Sergeant David Gibbs.

Nestled in the idyllic lower Blue Mountains about 60km west of Sydney, RAAF Base Glenbrook occupies the site of the former Lapstone Hill Hotel – a grand establishment sprawled over 40 hectares with manicured grounds, acquired by the federal government in 1949. Back then, the newly born RAAF Base Glenbrook became home to Headquarters Eastern Area Command under Air Officer Commanding Air Vice-Marshal John McCauley.

Today, Glenbrook is the home of Headquarters Air Command with Air Commander Australia Air Vice-Marshal Glen Braz at the helm. "Glenbrook is a beautiful base that's steeped in history," Air Vice-Marshal Braz said. 'While fairly unassuming at first glance, it's very much the operational heart of the Royal Australian Air Force, and there's a lot of important work and decision-making that occurs behind its walls. We're very proud of the history of Glenbrook, and so it's important that we mark its 75th anniversary to honour the efforts of those who came before us, and to inspire the next generation.'

While Glenbrook has witnessed many changes since 1949, a constant throughout the decades has been its strong connection with the local community. 'The Blue Mountains is a wonderful community that's always embraced the air force and its ongoing presence at Glenbrook,' Air Vice-Marshal Braz said. 'Local residents and business owners in this delightful part of the world have been the most gracious hosts, and I want to express my deepest thanks and appreciation for their ongoing support.'

Air Command Warrant Officer Stephen Weaver said the work done and the decisions made in Glenbrook have been instrumental in building the Royal Australian Air Force's readiness and preparedness. 'For 75 years, dedicated individuals have supported the Australian people through peacekeeping, conflict, humanitarian assistance and disaster relief, both at home and abroad,' Warrant Officer Weaver said. 'The legacy of Air Command is not merely a history written in records, but a living testament to the efforts and sacrifices of each person who has served in this headquarters.'

Air Commander Australia Air Vice-Marshal Glen Braz prepares to plant a commemorative tree at RAAF Base Glenbrook.

344 Musicians Flight: October 2024 Musicians Course

From FLTLT Ben Simon, Australian Air Force Cadets, Flight Commander 344 Musicians Flight

The 344 Musicians Flight recently held their October 2024 Musicians Course at RAAF Base Richmond from 29 September to 7 October. This event was a resounding success, featuring a total of 88 cadets and 17 staff members across four distinct courses:

Level 1 (Basic) Drums Course: This course introduced 20 cadets to the fundamentals of drumming and basic music theory, transforming novices into budding percussionists.

Level 2 (Intermediate) Drums Course: A new addition to 344FLT, this course saw 10 cadets who had previously completed the Level 1 course tackle more advanced drumming techniques. The goal was to create a complex drum routine, which you can view here.

String Course: Another first for 344 Musicians Flight, this course brought together 12 enthusiastic cadets to

form a new ensemble for violins, violas, cellos, and basses. They prepared five pieces for the major performance, "From Renaissance to Rock." To the best of our knowledge, this is the first formed string group in the Australian Air Force Cadets

Band Course: This course included 46 cadets who worked diligently to prepare for the grand performance titled From Renaissance to Rock, as well as spending several hours a day refining their skills as a marching band.

Both the band and string courses culminated in a spectacular performance at the Windsor Function Centre on the evening of October 6. The event, "From Renaissance to Rock", drew nearly 200 attendees and featured a diverse repertoire, from the military march "Gibraltar" to classical pieces like "Allegretto" and "1812 Overture", and even rock hits such as "Highway to Hell", "I Feel Good", and "Like A Prayer".

Sir Winston Churchill Quotes

Politics is almost as exciting as war, and quite as dangerous. In war, you can only be killed once, but in politics, many times.

Aircrew Rescue Training – Nearly a Disaster

From John Clarkson

Late in 1966, the RAF helicopter Air Sea Rescue squadron suggested they attempt a rescue of a RAAF Sabre pilot from one of our Sabres at the end of the runway. A scenario was set up, with our pilot taxiing a serviceable Sabre down almost to the end of the runway and turned into a little used taxiway prior to shutting down the engine.

In order for the rescue helicopter and its crew to simulate a genuine situation, 77SQN ground crew were instructed to manually remove the canopy prior to the helicopter initiating the rescue. The rescue crew's instructions were to lower a man down the hoist, insert the two primary safety pins into the ejection seat, unstrap the pilot and hoist him up into the helicopter. That was the plan.

On arrival, the helicopter crew came straight over the top of the Sabre and did not wait for the ground crew to completely remove the canopy. Their first mistake! This resulted in the canopy being picked up out of the hands of the ground crew by the down draft of the helicopter; it then fell point first right on to the main spar of the port wing. Then the crewman from the helicopter was lowered to fetch the Sabre pilot. The rescue crewman forgot about the ejection seat safety pins, unfastened the pilot's seat harness and attached him to the hoist strap. The pilot was then quickly lifted up from the Sabre into the helicopter.

RAAF Sabre on the flightline

It was pure luck that no part of the pilot's clothing caught on the ejection seat firing handles, (The Sabre ejection seat was a North American seat with a firing handle on each arm rest). After the botched rescue attempt, the Sabre was towed back to the maintenance hangar for repair. The squadron Commanding Officer was furious. This little exercise very nearly cost a pilot's life, plus the entire crew of the helicopter, if the ejection seat had fired. The Sabre aircraft now had a cracked main spar of the port wing from the canopy falling on it. The maintenance squadron was instructed to cost the entire project, for both parts and labour, for the repair of the aircraft. This cost was then forwarded to the RAF.

13 December 1978 - Santa Claus survived CT-4 crash at East Sale

From WGCDR Ian B. Gibson (Ret'd)

This material is compiled from various sources including the History and Heritage Branch–Air Force, the RAAF Museum, the Australian War Memorial, ADF Serials and www.ozatwar.com. The History and Heritage Branch–Air Force is not responsible for pre-1921 items. Whilst every effort is made to confirm the accuracy of the entries, any discrepancies are solely the responsibility of the originator. As I am not a member of History and Heritage Branch-Air Force, all Air Force history or heritage queries should be directed, in the first instance, to airforce.history@defence.gov.au

On this day, some 300 children attending the annual Christmas Treat at RAAF Base East Sale, Victoria, were horrified to witness a crash involving the CT-4 Airtrainer bringing Santa Claus. The aircraft had been circling the base oval where the event was being held, with Santa waving to the kids below, when it clipped a 10-metre pine tree and fell to the ground, then slid for about 30 metres before bursting into flames near an accommodation block for airwomen.

The pilot was unhurt, but Santa suffered a fractured right leg and had to be helped out of the wreckage before being taken to the Gippsland Base Hospital. The man behind the beard, Warrant Officer Tom Baker, had been playing Santa on the base for about 16 years. The aircraft, A19-057, was the first Airtrainer 'written off' since the type joined the RAAF in 1975.

10 Squadron Annual Awards Dinner

From Peter Dowling, Pres Sunderland NSW Branch and Sue Alexander, Secretary AFA Ballarat

On Friday night 29th November, 10 SQN located at Edinburgh, SA, conducted its awards night. This night marked the 55th Sunderland Awards (sponsored by the NSW Sunderland Branch AFA), marked by the Dudley Marrows Trophy which was awarded for the 5th time. The Dudley Marrows Award focuses on the qualities of courage, integrity and compassion. It recognises 10 SQN members for their devotion to duty, inspiring leadership and determination to get the job done. This year's winner was FLTLT Samuel King.

FLTLT Dudley Marrows DSO, DFC, Chev. LH was a notable WWII Sunderland Captain who, in July 1943, participated in an attack against three German U-boats. Flying low, he attacked and was successful in sinking U-461 – an odd coincidence given his squadron number. Seeing the German survivors struggling in the water, FLTLT Marrows decided to drop a dinghy from the plane. This was done and the German sailors were later collected by allied corvettes. A month later, FLTLT Marrows and his crew were shot down over the Atlantic. They managed to survive crammed into the single lifeboat left undamaged after the attack.

L-R: Peter Dowling (Sunderland President NSW Branch), FLTLT Samuel King, SQNLDR Daniel Beurich (CO 10 SQN)

FLTLT Marrows and U-461's captain, Wolfgang Stiebler, were introduced to each other 40 years later. The two men maintained a friendship until the captain's death in 1991.

Descendants of 10/461 Sunderland crew members L-R: Pam Urquart, Sue Alexander, Peter Dowling (NSW Sunderland Branch President), Kel Voullaire, Marilyn Marrows-Voullaire, John Mackellar, Joy Mackellar, FLTLT Samuel King (Award Recipient), Mim Hattam, Rick Hattam (VIC Sunderland Branch President), Tim Jensen, Prue Anthony

Aviators Remember 'significant moment' in Peacekeeping

Reprinted with permission from CONTACT magazine

In September of 1999, the world's attention was firmly fixed on East Timor as it sought to restore its independence.

Then Flying Officer Harvey Reynolds, second from left, during his INTERFET deployment with 2 Airfield Defence Squadron on a routine patrol of Atauro Island, East Timor.

Story by John Noble.

Australia led the deployment of the International Force East Timor (INTERFET), a multinational peacekeeping task force that restored peace and stability in East Timor in the aftermath of the independence referendum. The Royal Australian Air Force played a significant role in supporting operations, with C-130 Hercules flights evacuating United Nations staff, foreign nationals and refugees from Dili to Darwin and Townsville.

Looking back on his involvement in the international effort to support the United Nations personnel already there, and facilitate humanitarian assistance operations in Dili some 25 years ago, Deputy Chief of Air Force Air Vice-Marshal Harvey Reynolds, said it was a privilege to have been part of such an important multinational force, assisting a near neighbour restore its independence. 'The ability to see Timor-Leste become its own independent sovereign country and develop over the past two decades has been very rewarding,' Air Vice-Marshal Reynolds said. 'INTERFET was a watershed moment for the ADF given that Australia hadn't deployed forces offshore to that scale since Vietnam. It was a significant moment in everybody's lives who were involved because it was quite unprecedented in our collective periods of service. Our air contingent had a range of important roles including security and running the main airfield, air traffic control, coordinating the checking and identification processes there, and helping screen and secure air terminal services, enabling the movement of people in and out of Dili to effectively re-populate areas that had been displaced during the previous period of upheaval.'

Air Commodore Sandy Turner served in East Timor both in an Air Force capacity and also with the United Nations. As a young flight lieutenant at the time, Air Commodore Turner spent six months in East Timor from December 1999 and reflects proudly on the lasting impact INTERFET

and the Australian-led effort has had on East Timor. 'There's been an incredible change in the country and it's so pleasing to see the difference that we made and a lot of my peers made in that time,' Air Commodore Turner said. 'I was lucky enough to go back over there in 2019 for the 20th anniversary so I got to see a fully functioning capital in Dili with people going about their daily business, seeing businesses that were open, and very importantly observing children going to school. 'Being able to see a young democracy develop out of such a situation and that we had a role in helping that happen, was really quite profound for me. Australia leading the effort to help shape the future of East Timor was an incredible experience to be a part of.'

Then Flight Lieutenant Sandy Turner during her six-month assignment in Dili on deployment with INTERFET.

Long after INTERFET began helping restore peace and security to East Timor, Air Force was able to continue supporting Australia's deployment to the region through its involvement with Operation Astute in the 2006 security crisis. A largely peacekeeping mission, Operation Astute involved Air Force maintaining the all-important air bridge from Dili to Darwin and Townsville in order to help transport troops and supplies into East Timor, as well as to evacuate civilians.

Warrant Officer Chris Watkins remembers his involvement in the intervention well. Just 21 when he arrived in Dili, he said helping to restore peace in the country as violence erupted again between the East Timor police and military was the primary focus. 'Once we got on the ground in Dili, it was obvious the place was very heavily damaged and there had been a substantial loss of life,' Warrant Officer Watkins said. 'The team of originally eight people that I went in with, we received pretty much every aircraft that came into Comoro Airfield in Dili, now known as President Nicolau Lobato International Airport, which were Australian C-130 Hercules, Royal New Zealand Air Force C-130s and 757s, Malaysian aircraft and US Navy aircraft. 'This saw us help offload cargo and passengers and then turn those aircraft around pretty quickly. We were also conducting a non-combatant evacuation operation for Australian citizens and foreign nationals who chose to leave East Timor, plus air and medical evacuation patients. In just the first week alone, we managed to evacuate about 600 people. An average of one flight every 45 minutes, 24 hours a day is what we were facing. My experience in East Timor really reinforced

why we have the skills and capabilities in Air Force needed to get very difficult tasks like East Timor done.'

Then Leading Aircraftman Chris Watkins at the Port of Dili during his deployment with Operation Astute in 2006.

Air Vice-Marshal Reynolds added: 'INTERFET clearly showed that when the ADF and Air Force take something very seriously, such as East Timor, how quickly we can respond and what scale we can deliver incredibly effective air power to help people in need. It's often a matter of luck and timing if you're in the right unit in the right place at the right time to get to participate in these sorts of missions, so I and others in Air Force were very fortunate in 1999 and beyond.'

A Loadmaster's Worst Nightmare!

from the Facebook page of Col Coyne, President 37 SQN (RAAF) Association.

The true size of the C-5M Super Galaxy, an aircraft that is capable of carrying the fuselage of a C-130 Hercules. Although designed to do it, in practice it would be a challenging exercise!

Seasons Greetings to all our readers and contributors! I look forward to receiving lots of interesting, informative, entertaining contributions in 2025.