

**O22222 GPCAPT MILTON JAMES COTTEE AFC MID Air Medal (US) psc qfi tp RAAF (Retd)
13 Oct 1926 – 1 May 2018**

Milton Cottee, always known as Milt among his Air Force friends, spent a brief period in the RAAF from 1944, after two years in the Air Training Corps from age 16. But he was discharged as the War ended. Three years later while at Sydney University he rejoined for pilot training on No 1 post-war flying course flying Tiger Moths at Point Cook, and he received his wings at the advanced training school at East Sale flying Wirraways in 1949. An unusual part of his pre-wings training was about 20 hours in the DC3 Dakota, including two flights as captain and 90 minutes at night.

Milt and fellow student Ray Trebilco decided to put test flying as their first employment preference, and this was accepted by CFS and forwarded to Air Force Headquarters. As a result, both of them were posted to Aircraft Research and Development Unit at Laverton, Victoria! There the rather perplexed CO Gel Cuming told them he would ask that they be sent to various squadrons on six month tours to get experience on a variety of aircraft types. He said: "After you've flown fighters, bombers, transports and others, then you can come back to ARDU and I'll be able to use you, and a test pilots' course should then follow." What a wonderful offer to two inexperienced 22 year-olds!

So following 18 hours of Mustang conversion at 21 Squadron Laverton, Milt and Ray were posted to 77 Squadron at Iwakuni Japan. Trebilco's previous experience as an Air Force Japanese linguist helped the transition. 77 Squadron was planned to soon return to Australia, but when war broke out in Korea some months later, Milt was No 2 on the first Mustang operational mission into South Korea. There were almost no other allied fighters in theatre at that time, because most US squadrons had been withdrawn to re-equip with early jet fighters. After some months F80 Shooting Star fighters arrived, and Milt recorded one problem:

"Our relaxation over protecting our rear changed dramatically later when we were occasionally attacked by the USAF F80s. Somehow the USAF jet pilots thought anything with a prop was fair game. Fortunately we always picked up the F80 attacks on our formations and called break turns in time to cause them to miss with their firing passes. Some of the radio calls Bay Adams made to those F80s are unrepeatable. They were too fast for us to do any effective reverse break on to their tails, and we just had to be continually alert..."

The challenges and difficulties faced by 77 Squadron during the Korean Campaign are well known. After 50 hazardous Mustang missions, during which his CO was killed and several other pilots were also lost, Milt returned to Australia by sea with his wife Ella, who had joined him in Japan just as the conflict broke out. He was posted back to East Sale for QFI training, and then to 22 Squadron at Schofields near Sydney, where he instructed on Wirraways and Mustangs, and later, his first jet experience, on the Vampire Mk 30, 33 and 35. He also managed to qualify in the Squadron's Sikorsky S51 Helicopter, and he found this machine initially quite challenging.

Then in 1954 he became a CFS instructor back at East Sale again on Tiger Moths, Wirraways, Dakotas and both Marks of Lincoln and Vampire, as well as occasional Mustang flights. CFS also provided a search and rescue service in southern Australia, and this led to some interesting long range Lincoln sorties.

But after only a year he was posted back to ARDU for pre-test pilot familiarisation - which included two flights in the prototype Sabre 901, his first experience of powered controls, and of generating sonic booms!

There was a shortage of RAAF test pilots at that time, so four trainees were selected to attend the 1955 Empire Test Pilots Course: Milt, Dick Wittman, Ken Murray and Fred Cousins, who was already in London. Milt provided Lincoln familiarisation and asymmetric training to the others.

Then Milt and Ken boarded an RAF Hastings transport from Mallala to the UK for the 1955 Empire Test Pilots School Course. Because the ETPS course was for just under 12 months students had to be separated from their families, although Dick Wittman accompanied his family by sea as he was to remain on exchange with the RAF. But Dick unfortunately had to leave the course due to an ulcer, and so Milt replaced him as an exchange test pilot to the primary UK flight test centre at Boscombe Down near Salisbury. Ella and the four young children sailed to join him - with considerable difficulty because Milt was refused permission to fly back by RAF transport to accompany them on the long voyage.

He spent several years in the heavy aircraft B Squadron at Boscombe during a massive aeronautical technology development period at the height of the Cold War. After a first year primarily spent on bomb-aiming and autopilot systems development testing, Milt became heavily involved in more challenging development work on the four-jet Valiant, Victor and Vulcan bombers, including nuclear weapon carriage and release trials and also hot weather testing in Libya.

During one trial in the prototype Valiant, involving a rocket-assisted take-off at 170,000 lbs all-up-weight, 3000 above the current clearance and using water tanks as ballast, as Milt recorded it:

"...there was a colossal explosive bang. At the same time, a tremendous shock went through the aircraft. Roll increased to the right, this being instinctively corrected by aileron. I exclaimed over the intercom saying "We've had a mid-air. The Meteor must have hit us. Be ready to get out." "I called on the radio...and the Meteor chase pilot replied: "I'm OK - what's up?"

But the chase pilot could see nothing of concern, so Milt proceeded to jettison the water ballast and the take-off rocket canisters as planned, and then landed very carefully.

They soon found that the main wing spar had completely separated, leaving the entire left wing supported only by its skin! The Vickers engineers were amazed that the Valiant had survived, and Milt always believed his three-man crew were the only living survivors of a complete main spar failure in flight.

After carrying out a wide range of Vulcan bomber weapons clearances, including several releases of 10,000 lb dummy nuclear bombs, another very close shave occurred as Milt was handing over his role as chief of Vulcan weapons testing. As they were maneuvering near to limiting Mach number in a steep dive for a bomb release limiting flight envelope point, the replacement pilot exceeded the limits of the Mach trimmer, and their dive steepened out of control to near vertical. Milt extended the air brakes at well over the placarded limit, and saw 1.04 indicated Mach number as they slowly recovered, with only minor airframe damage. A

similar incident in a Boscombe Victor B2 a year later led to the aircraft breaking up, and the loss of the crew.

Milt and his family were posted back to ARDU in late 1957, travelling by sea. He left with a rare Exceptional test pilot endorsement from his CO, and later an Australian AFC that was recommended by the RAF for his V-Bomber flight test work. He was appointed as OC Research and Development Squadron at ARDU as a newly promoted squadron leader, succeeding WgCdr Jim Rowland, and was soon heavily involved in a wide range of flight test tasks. These included a special ARDU rain-making detachment at Richmond with the CSIRO. Milt was fascinated in practicing the special skills involved in selecting suitable cloud formations to seed for successful rainmaking.

He was also accredited to the Government Aircraft Factories for Canberra and Sabre testing in those years, and of course maintained currency in all ARDU aircraft types.

In 1960-61 Milt was attached to 2 Air Trials Unit at Edinburgh to assist with some flying problems, and to carry out instrument ratings for the V-Bomber Pilots engaged in nuclear weapon trials at Woomera and Maralinga. He also carried out lengthy long-range low altitude Dakota photographic surveys over thousands of miles northwest of Woomera for Range instrumentation, involving the famous ground surveyor grader operator Len Beadell.

During his final period at ARDU Milt became well-known for his public Canberra displays at the enormously popular Laverton Airshows. His spectacular double roll after take-off at light weight from the 5000ft runway made a big impression on this newly graduated trainee fighter pilot in 1962, but an attempt by an experienced USAF B57 crew to emulate it on the following day was unfortunately fatally unsuccessful.

Milt left ARDU for RAAF Staff College in 1965 as new wing commander, and then took command of 36 Squadron, flying C130As to Malaysia, Thailand and Vietnam. Air Marshal Funnell will speak about his later notable career.

I will close by paying tribute to Milt's strong support over many years until his passing, for the Australian Flight Test Society that Ron Green and I founded nearly 40 years ago. He especially assisted us in recording oral histories from early test pilots, and I'm hopeful that we'll be able to find his final digital records of these interviews shortly. He assured me about ten days ago that "they're there, I'm just not sure exactly where!"

Milton Cottee will be greatly missed, and especially by his many Air Force friends.....

Farewell, old friend, and thank you.