

The History of Helicopter Instructors in the RAN

by Trevor Rieck



The evolution of helicopter instructor training in the RAN has taken place over the 53 years from 1960 to the present day. It has progressed from antiquated helicopters (by present day standards) to the most technologically advanced flying machines now in service.

In those 53 years, helicopter instructor training has moved from the United Kingdom (Royal Air Force's Central Flying School (Helicopters) – CFS(H)), to indigenous training at the Instructor Training Wing (ITW) at Canberra, then to ITW Oakey and now at ITW Nowra.

UK training started in 1960 and the majority of the RAN's involvement there finished in 1996. The RAN periodically still sends students to the UK QHI Course (now at RAF Shrewsbury) but without the accompanying exchange posting that traditionally followed the course. The last RAN member to attend undertook the course in 2018 (as at 2023).

Since 1960 several Australian Defence policy changes have necessitated changes of direction in helicopter instructor training, the transfer of helicopters and helicopter flying from the RAAF to the Army being probably the most significant.

United Kingdom Training

The first RAN pilot to undergo CFS(H) training was Lieutenant **David Orr** RAN. So one could say he is the grandfather of all QHIs in the RAN. He trained at RAF South Cerney at Cirencester on Sycamores. Strangely, he had many hours in the Sycamore, but had to undergo a left-hand-seat conversion for his QHI course. On completing the course, he returned to Australia to a training billet.

CFS(H) moved to RAF Rissington and then to RAF Tern Hill, where it remained until 1996 when the Defence Helicopter Flying School was established at RAF Shawbury, where it remains today.

Helicopters flown at CFS(H) over the years included the Bristol Sycamore, the Agusta-Bell Sioux, Westland Whirlwind Mk10 (turbine), Aerospatiale Gazelle, the Eurocopter Squirrel HT1 and the Airbus H135 Juno HT1.



To build the RAN's instructing expertise, an exchange program was initiated with the Royal Navy in 1964, whereby experienced RN QHIs were exchanged with newly qualified Australian QHIs. The RN exchange QHIs (known locally as RNers) were a great asset at HMAS Albatross over the years.

Lieutenant David Orr was the first RAN pilot to do CFS(H) training. Despite being an experienced Sycamore pilot, he was still required to do a conversion course to fly in the LH seat. ✦

The newly qualified Australian B2 QHIs were to spend two years on exchange at the RN Helicopter School at 705 Squadron, at HMS Seahawk, RNAS Culdrose in Cornwall. Over the course of 33 years, from 1963 until 1996, 22 RAN helicopter instructor pilots took part in this mutually beneficial exchange. At least 25 RN QHIs took part in the exchange at Nowra during that time, in an arrangement that still continues today. Some of the RN pilots, who served on exchange in Australia after returning to the home country, did migrate to Australia and continued flying in the RAN - could Nowra really have been that attractive?

In November 1962 the RAN posted the first pilot for the double-barreled helicopter instructor training and exchange posting at 705 Squadron. RAF Tern Hill, in the Midlands, housed CFS(H) and following the 4 months QHI course the lucky Australians took up residence in sunny Cornwall (sunny most of the time) for two years - the first pilots included **Pat Vickers** MID, (killed in combat in Vietnam) and **Rolly Waddell-Wood**, DFC.



About The Author

A Queenslander by birth, **Trevor Rieck** was set for a career as an industrial chemist, but caught the flying bug and in 1966 opted for the Navy instead.

He was one of the cohort sent to the US for his training (see the story in his co-authored book "Wings of Gold"), before returning to Australia to fly Wessex 31s.

Following a distinguished career, Trevor paid off in 1986 and entered the construction industry with a large company on the Gold Coast.

He retired to the UK in 2006 and enjoyed travelling in Europe and writing. He now lives in London. ✦



Above. Over the years the technology changed. Early courses were conducted on the Bristol Sycamore, which gave way to the Hiller 12E and Westland Whirlwind. They served the RN well but finally succumbed to the Aerospatiale Gazelle. This in turn was replaced by the Eurocopter Squirrel and finally the Airbus H135 Juno.

Below. The 22 RAN instructors who were posted to 705 Squadron after their QHI course. ✦



Over the course of 33 years, from 1963 until 1996, 22 RAN helicopter instructor pilots served on exchange with Royal Navy's basic helicopter training squadron, 705 Squadron, at RNAS Culdrose in Cornwall, UK.

The RAF CFS (H) Standards system defined four instructor categories which were adopted and maintained by the Royal Navy in compliance with Joint Services Publication (JSP) 318. The categories' definitions, in escalating order were: B2 (H) Probationary Instructor/Qualified to Instruct; B1 (H) Competent Pilot and Instructor; A2 (H) Above Average Pilot and Instructor; and, A1 (H) Exceptional Pilot and Instructor. Each re-categorisation involved increasingly higher degree of study and difficulty to attain. It is fair and accurate to say that only very few achieved (or aspired) to A1 Category.

Those who undertook the QHI course in the UK passed out as a B2 (H) category and advanced to B1 (H) after six to nine months at B2 (H) and a minimum of 120 hours instructional time. A2 (H) was achieved by extensive theory and flying instruction examinations conducted by senior staff from CFS (H) after a minimum of twelve months as B1 (H) and 250 hours instructional time. To obtain the pinnacle of instructional helicopter flying training, A1 (H) was by the highest recommendation/nomination to RAF CFS, whose acceptance for test and re-categorization involved examination by senior CFS (H) standards staff during which candidates were tested for a minimum of two days to exhibit extensive aviation knowledge and exceptional flying and instructing skills. A couple attained A1 (H) in Australia when CFS (H) sent their standards crew to visit Australia.

Most of the 22 Australian QHIs departed 705 with an A2 (H) qualification. There was one exceptional Australian pilot, LCDR **Max Speedy** DSC, who skipped A2 (H) and qualified as an A1 (H) instructor before departing for home.

The highest RAN rank achieved from 705-exchange group was a Rear Admiral (**Tony Dalton**) and a Commodore (**Vince Di Pietro**). One notable RN exchange QHI in 725 Squadron flying Wessex Mark 31A was **Ben Bathurst** who rose to the rank of Admiral, RN and First Sea Lord.

Most enjoyed their posting. There was only one "crash" (a fenestron stall in a Gazelle at very low level) and as in most learning and training environments and over many decades of flying, a few censures of varying gravity for incidents and misdemeanours. Exciting events included regular engine failures in the 25-year-old helicopters, Whirlwind Mk7s and Hillers in service at that time.

The RAN ceased sending pilots on the QHI Course and 705 SQN Exchange Program in 1996, when the British Armed Forces established a joint helicopter training school at RAF Shawbury, which resulted in 705 Squadron being transferred to this school.

The last RAN exchange instructor, as by that time only one pilot was involved in the process, was Lieutenant "**Harry**" **Butler**.

As well, during 1963 to 1993 some 25 RAN pilots came to RAF Tern Hill for their QHI training and returned directly to Australia for instructional duties without having the opportunity for an exchange posting in the UK.

The Navy set up a RAF CFS (H) agent in Australia, who was responsible for the standards of all practicing CFS (H) trained pilot instructors whether returning Australians from exchange or QHI Course, or RN exchange pilots serving with the RAN. Generally speaking, the agent supervised the qualified to instruct on type and was able to upgrade qualifications from B2 to B1 to A2. Upgrade from A2 to A1 could only be conducted by visiting RAF/RN staff of the CFS (H).

Separately from the instructor program, the RAN negotiated another exchange program with the Royal Navy in the Lynx Squadron at RNAS Yeovilton in 1993 with the first pilot being **Matt Shands** and the current one being **Samuel Taylor-Burton**. Most undertook the QHI course at CFS (H) at some time in their Lynx exchange before returning to Australia. The CFS (H) involvement started a long association with the Royal Navy, which continues today, albeit having evolved to suit and remain relevant to a growing and maturing operational rotary wing domain in the ADF.

Australian Tri-Service Indigenous QHI Training

In 1989 and amidst some controversy, the RAAF transferred all its helicopters to the Army. This led to the Australian Defence Force Helicopter School (ADFHS) being set up in 1990, in the existing facilities at RAAF 5 Squadron in Canberra, for Army and Navy ab-initio helicopter conversion training.

The Army commanded ADFHS, and its instructors were mainly Army supported by a few Navy instructors. Some RAAF QFIs (helicopter converted) were "lent" to the ADFHS in the transition. Consequently, the need for training of QHIs resulted in an Instructor Training Wing (ITW) being established in ADFHS in 1993. Both Army and Navy instructors manned it.

In January 1995 the Navy posted a Senior Naval Officer (SNO) to ADFHS and designated the SNO as the second in command (2IC) of the Instructor Training Wing (ITW), which, until 1997, used the Aerospatiale Squirrel as the training helicopter. **Chris Tutin** (LCDR?) was the first to be appointed. In 1997 Chris was appointed the RAF CFS(H) agent in Australia.

Two instructor courses were conducted per year, limited mainly by staffing numbers at ITW. Generally there was only one member per course. Staff numbers at ITW varied from a maximum of four to, at times, only instructor. With the grounding of the Squirrel in late May 1997, (Starflex failure due ground resonance), the ITW course was continued utilising the Kiowa, as the two ITW staff members were previously instructor qualified on that helicopter. They were **Chris Tutin** and a Helitech civilian instructor, who was ex-Army. The ITW course was restarted in late 1997.

In 2001 the ITW was moved to Oakey, within the Army Aviation Training Centre.

Musical Uniforms

In August 2003 **Chris Tutin** was head-hunted by the Army. Having served for 26 years in the Navy, he held out for promotion to Lt Col for a 5 years short service commission. At ITW Oakey, he taught QHIs on the Kiowa and the UH-1H Iroquois.

Chris was the second pilot to fly the Iroquois in each of the three services' colours, the other being **John (Fast Eddy) Edwards**. The UH-1H was phased out of service in late 2007 so the ITW continued to use the Kiowa as the trainer.

At about the time the Army started a new civil helicopter training contract at Oakey with Boeing Defence Australia,

Chris Tutin was recruited by Boeing and he remained at Oakey as a civilian instructor flying the Kiowa at ITW until he was made redundant in December 2017 after nearly 11 years with Boeing and 21 years with ITW in two military uniforms (Navy and Army) and one civilian contractor's uniform.

John (Fast Eddy) Edwards is worth a mention here. He was a Navy helicopter pilot, was posted to RAAF East Sale for QFI course, then joined the Air Force, instructing on helicopters at 5 and 35 Squadron. Later he re-joined the Navy, became CO 817 Squadron, and again left the Navy. After studying at university, John came back as a civilian instructor at the ADF Helicopter School, Canberra, then transferred to the Army and instructed in 162 Reconnaissance Squadron at Townsville and finally left the services in 2004. As mentioned, he flew the Iroquois in all three services.

Ian Sangston also swapped services to take account of the different flying training requirements in each of the services. When the Air Force gave up their helicopters to the Army, the Army had to madly scramble for personnel to operate their huge increase in airframes. Ian saw greater opportunities in the Army and transferred in 2001 as a Major, fully expecting to fly multi-engine types. But it was not to be – back to instructing. He re-educated and had several major desk jobs before retiring as a Lieutenant Colonel.

AIR 9000 Phase 7 HATS 2014 beginning

In 2014, the AIR 9000 Phase 7 Helicopter Aircrew Training Systems (HATS) acquisition program began, incorporating both live and synthetic training elements to consolidate Navy and Army helicopter training into a single joint helicopter aircrew training system.

The standing-up of the Joint Helicopter School (JHS) came as ADF fixed-wing pilot training had undergone a generational change in re-equipping and consolidation under the AIR5428 Pilot Training System (PTS). It was hard fought to establish the Joint Helicopter School at a suitable and scalable site for future growth and infrastructure development. Nowra was chosen as the most suitable site over Oakey, which was being reduced considerably in size and airspace access. The presence and construction of Wellcamp Airport immediately to the north of Oakey further reduced the growth capacity of Oakey. The second and most important argument to be had was to retain the Joint Helicopter School within the architecture and governance of a Squadron. It was agreed that the history and heritage of 723 Squadron was well-suited and historically no stranger to joint training having hosted Army helicopter training and conversion from the first days of Army rotary aviation in the early 1960s.

The Joint Helicopter School now resides within 723 Squadron at RANAS Nowra, is manned by Army, Navy and contractor (Boeing) instructors and enjoys rotational command by Navy and Army O-5 officer (Commander/Lieutenant Colonel) QHIs. Also, the Squadron has two buildings – the Squirrel Building and the Kiowa Building as its training and administrative headquarters. The names were carefully selected and proposed by the COMFAA in recognition of the training roles of both helicopters – Squirrel for RAN, Army (and RAAF), and Kiowa for both Navy and Army.

In January 2019 1Flying Training School (FTS) was reformed at RAAF East Sale, where all ADF trainee pilots – RAAF, RAN and Army - undertake initial training flying the new Pilatus PC-21. Navy's requirement is for aircraft captaincy and competence to fly single pilot and aircraft Captain from completion of Operational Flying Training. This requires as much investment in airmanship and thinking capacity as is possible to attain on high performance, glass cockpit aircraft. For these reasons Navy trainees remain with the RAAF trainees through advanced and applied phases of flying training on the PC21. This is currently flown at one of two 2FTS locations – either remaining in RAAF East Sale or posting to RAAF Pearce. After Basic Flying Training at 1FTS, the Army pilots continue directly to 723 Squadron from RAAF East Sale for helicopter conversion training, before proceeding to the army flight training



Chris Tutin

system. This latter situation is currently under review and scrutiny as Army seeks to not train in the PC21 preferring to return to its former training pipeline model of minimal fixed wing and mostly basis rotary wing training. This assessment of pilot training is predicated mostly as Army requires a co-pilot standard off training course but is contentious among many experienced trainers and leaders.

The Army's Bell 206 Kiowa and Navy's AS350 Squirrels have been replaced by the twin-engine EC135T+, equipped with glass cockpit filling a significant gap in technology between the training in PC9 and latterly PC21, which the Squirrel was unable to achieve. For the RAN Fleet Air Arm, then under the Command of a former 705 RAN QHI Exchange and A1 (H) pilot, was the most intense period of recapitalisation the FAA's history, which saw 29 aircraft retired and 39, introduced with no change to operational tempo or personnel numbers.

In all the RAN had thirteen Squirrel aircraft in inventory – six Navy (since acquisition in 1984) and seven ex RAAF/Army aircraft. That same year was the progressive swap over/decommissioning of 16 Seahawk S70B-2 acquired in 1988 to be replaced by the new and much upgraded maritime combat helicopter, the MH60-R Seahawk. It is a true credit to the RAN for having had the honour to decommission and retire each and every Squirrel (six aircraft) and Seahawk S70B-2 (16 aircraft) not having lost a single aircraft of either type during their service life. This is even more astounding and worthy of celebration as the service of both aircraft occurred involved the very difficult and challenging transition from a carrier based Navy to a multiple frigate, destroyer and support ship Navy. Apart from the very small and specialised group who operated Bell 206 from HMAS *Moresby*, and officers who had been recruited laterally into the RAN there was almost no small ships flight experience. From this austere base of knowledge, the Squirrel blazed the trail followed by the Seahawk to survive the challenging environment of operating from numerous sprightly frigate and destroyer decks in all weather and sea states. Under diligent command, the QHI, the test community and the Standards expected of both should be afforded due recognition for their respective parts in this extraordinary achievement in aviation and operational maritime helicopter history

QHI Female Pilots

At about this time female Navy pilots were qualifying as QHIs. The first was **Natalee McDougall** who qualified at CFS(H) RAF Shawbury in 2005. Natalee was also the first female pilot in the RAN. More female helicopter instructors have been trained, some in UK and some at the ITW at HMAS Albatross.

Natalee "changed" her name to Johnstone after meeting **Gavin Johnstone** who was on Course 326 at CFS(H) at RAF Shawbury. A romance blossomed and later Gavin volunteered for Exercise LONGLOOK exchange to 723 SQN at Nowra, where Natalee was then working. They even got to go flying together once.

Natalee then accompanied Gavin back to the UK where they married in 2008. Gavin did some flying for the RN and then migrated to Australia in 2009 and began the first of many postings to 723 SQN to teach on Squirrel, Bell 429 and finally EC135. He is now in FAA headquarters, responsible for overseeing flying Instructor standards. A unique part of this story is that Gavin and Natalee have produced not one but two future QHIs. Natalee has retired and does consulting work while attending to the young budding QHIs

There had been a stream for some time of naval aviators going to the Army Instructor Training Wing (ITW) at Oakey, flying the Kiowa (B206) for their QHI training and basic MRH-90 conversion. By then instructors were being designated QFI/QHI, interchangeably.

In 2019 QHI training transferred to the Navy under the ADF Helicopter Aircrew Training System (HATS) in 723 SQN at HMAS Albatross. This new capability and consists of the ADF Helicopter Training School and the Instructor Training Wing, all flying EC135T2+ (not H135).

From this point on, all RAN rotary QFI training would go through ITW at HMAS Albatross. **Tammielee Hunter** and **Ryan Cross** were the first to do the QHI course at 723SQN on EC135, taught by **David "Bill" Oddy** who was then an Army Major before transferring to the Navy as a Lieutenant Commander.

The RAN periodically sends students to the UK QHI Course (now at RAF Shrawbury) without an accompanying exchange posting. The last RAN member attended in 2018.



Natalee McDougall, the RAN's first female QHI



Today, both QHIs and students enjoy cutting edge technology in the EC135

The New Aircrew Training Compliance Assurance and Standards

HATS adopted a seriously professional organisation for compliance assurance and standards, although under the umbrella of the Central Flying School RAAF.

Headquarters Fleet Air Arm's (HQFAA) aircrew quality control structure is headed up by the Staff Officer1 (SO1) – Compliance Assurance and Standards (SO1 CAS). Working for the SO1 CAS is the SO2 Pilot Standards, SO2 AvWO Standards and SO4 Aircrewman Standards. These are the respective Chief Examiners.

The RAN gradually wound down its ties to the RAF CFS agent about this time and instructor standards are now maintained through the RAAF CFS and the standards section at *Albatross*.

RAAF CFS is the gatekeeper for instructor assessment. At HMAS *Albatross* there is a position that until recently was called Chief Pilot Examiner, now called SO2 Pilot Standards. He/she is the CFS agent and typically is the person who will conduct category upgrades and Authority to Instruct assessment.

The SO2 Pilot Standards is assessed by and operates under a delegation from RAAF CFS as a 'Flying Instructor Category Assessor' (FICA). He/she is responsible for instructional standards across all Fleet Air Arm flying instructors (QHIs, Aviation Warfare Instructors, and Qualified Aircrewman Instructors). The FICA qualification may be held by more than one member within the FAA.

The JHS grades of qualifications for helicopter instructors start at D Category (D Cat) on completion of instructor training. Next is a C Cat, an upgrade and comes with experience. It is awarded to a regular instructor who is able to deliver the full range of normal instruction and is recommended for upgrade by the Unit CO in consultation with the staff within CAS.

The next level is B Cat, which involves more testing and remediation training. This instructor is then qualified to deliver the full range of normal instruction, deliver remediation training to a student who is having difficulties, and perform summative assessments.

The Cat A instructor is able to deliver Cat C and B instruction, and also is qualified to 'train-the-trainer'. Thus, a Cat A instructor will normally deliver 'Competent to Instruct' (or C2I) training (when an instructor joins a new unit/aircraft type he or she receives around 10 sorties of C2I to ensure they can apply their instruction in the unit and type that is new to them).

An Authority to Instruct (A to I) is granted at the various categorisations. The Competent to Instruct (C to I) is done per aircraft type.

The Instructor Training Wing (ITW) has a Senior Instructor (A Cat QFI), 2 additional A Cat QFIs (1 x Army and 1 x Navy).



Above. Tony Reyne, centre, is congratulated on achieving 10,000 hours of flying in the Navy. He retired after almost 48 years of service. Fittingly, his last flight was to ferry an AS359B Squirrel to the Army's Aviation Museum at Oakey. ✦

Specialist Aircrew

The Specialist Aircrew system was initiated by the RAAF (around 2009) modelled on the RAF system and adopted by the RAN and Army. This was mainly to keep experienced people in the service and especially in flying positions. The first contracts were allocated for 10 years, retaining present rank, posting to a "permanent" flying position, and a higher pay scale with annual increases, as the participants had opted out of the promotion system.

The Navy quickly modified the system to shorter contracts (3-5 years). Lieutenant was the standard rank (reversion applied if the applicant was a Lieutenant Commander) and involved posting to any aviation related billet as required by the FAA. **Tony Reyne** was the first to sign the contract and luckily, he completed 7.75 years of the contracted 10 years before he retired at 65, which is some feat.

Tony retired at 65 after almost 48 years service, and flying as a line instructor on 723 Squadron teaching ab-initio students. The annual IRT (instrument Rating Test) was not that enjoyable. Tony spent his last 13 years on 723 Squadron, flying the AS 350BA Squirrel which the Navy retired after 34 years' service and he retired with it, taking it on its final flight from Nowra to Oakey to the Army's Aviation Museum.

It is worthy of mention that when Tony retired he had accumulated a total of 10,109 hours, having being qualified on five different helicopter types. Most hours were flown on the AS350BA Squirrel, 5353 hours including 3334 instructional hours on type, and total instructional hours were 4561. Tony's CO wrote on his final assessment; "Congratulations on an excellent flying career, that has trained the current generation of Navy Aircrew – BZ". He had been a student of Tony's when he had been Senior Pilot of 723 Squadron. ✦