

THE JOBS' MARKET

WORDS JONATHAN RYAN



Pic Master Sergeant Ken Hammond US Army

ADVANCED PILOT COURSE

2FTS RAAF BASE PEARCE

In previous articles we have discussed the pilot selection process and also detailed the process to the end of Basic Flight Training School (BFTS) where 99 hours are completed on the CT4 Air Trainer at Tamworth.

Phases 1 and 2 of the 'wings' course for RAAF and RAN trainee pilots are completed during BFTS at Tamworth. So, in this article we will detail the rest of the training process that will take these pilots through to being awarded their wings.

After Tamworth, both the RAAF and RAN students head to 2FTS at RAAF Base Pearce in WA to complete the Advanced Pilot Course (APC). The course lasts for 37 weeks and comprises 135 hours of flying in the Pilatus PC-9, with RAAF and RAN candidates completing an identical course.

Advanced flying training has been conducted at RAAF Pearce for more than 30 years. The base is located 30km north of Perth. The function of 2FTS is to produce high-quality graduates for all the operational squadrons of the Air Force and Navy.

The school runs four courses per year, each comprising 22 students tackling an appropriate mix of theory, computer-based training and practical flying in the PC-9.

There are usually three or four Navy students on each course.

The course does change and evolve and, over recent years has been trimmed slightly – in part to assist to reduce a backlog of students from BFTS.

Once students arrive at 2FTS they complete a four-week ground school where they learn the technical aspects of the PC9 – engine, airframe, avionics systems and so on – in detail. All checklists and emergency procedures are committed to memory before the actual flying commences. There is also further instruction on advanced aerodynamics, airmanship and air-traffic control procedures before the training sorties commence.

Ground school has also been trimmed over recent years – reduced from six weeks to four – and there are currently eight lectures per day.

Flying training commences with phase three, which is also known as the conversion phase and involves approximately 45 hours of flying.

Students are expected to make a quick transition to solo, with sortie six being the check ride to go solo.

Pic ADF



Further training flights are done to satellite airfields such as Gingin.

Another key element of the conversion phase is instrument flying (IF), where the student sits in the rear of the aircraft with the canopy covered by a canvas shroud, using only instruments to guide his flying. The majority of instrument flying training at 2FTS is conducted during this phase.

The other main component of phase three is general flying (GF) – circuits, forced landings, stalls and aerobatics, as well as low flying. There is also a small amount of night flying (NF) involved in phase three – about three hours. IF and GF account for around 20 hours each.

Phase three culminates with a basic handling test (BHT) and, once a student passes this, it is on to phase four.

One of the key challenges for new arrivals at 2FTS is adapting to the PC-9. It is a significantly faster, heavier and more complex aircraft than the CT-4 at Tamworth.

The PC-9 can cruise at 300 knots (compared to the CT-4s 130 knots), is more than twice as heavy and can climb well into the flight levels, with a ceiling of 25,000 feet.

PC-9s began arriving in the RAAF in the late 1980s with 2FTS being fully equipped with these aircraft from the early 1990s – taking over from the 1960's era Macchi MB-326 jets.

RAAF Base Pearce is also home to the Republic of Singapore Air Force (RSAF) Basic Wings Course on the newer Pilatus PC-21. This newer aircraft has significant avionic and aerodynamic improvements over the PC-9 and is touted as a possible replacement.

But, back to business – the standards at 2FTS are very high, but remember, the objective is to get as many students as possible to the graduation ceremony. If a student encounters difficulties they are given remedial training with a very experienced instructor to assist them. However, if they still can't meet the standard, it is likely they will be terminated from the training course. But even then, it's not necessarily all over, as

some candidates who have been terminated at 2FTS have switched to the Army as pilots.

Life is also busy for the qualified flying instructors (QFIs) at RAAF Base Pearce. Over recent years, there has been a shortage of QFIs who are both qualified and experienced on the PC-9. A key reason for this was significant recruitment of ADF pilots by the major commercial airlines over recent years, particularly pre-GFC. Australian Defence QFIs have also been keenly sought by Middle Eastern countries offering lucrative contracts. This shortage resulted in often six- to 12-month delays for student pilots who have completed BFTS at Tamworth before they could commence training at RAAF Pearce.

The QFIs are all highly experienced ADF pilots and come from all parts of the ADF pilot family, including fast jets, transport and maritime patrol. Typically, an ADF pilot will do a tour as a QFI at RAAF Pearce on a second or third posting, bringing significant experience to the job.

So, after some more background about RAAF Base Pearce and 2FTS, we move back to the flying training program. We are now at phase four, which is also known as the advanced phase, and is the longest of the three training phases at 2FTS, comprising approximately 65 flying hours.

GF still accounts for a significant portion of phase four, but the aerobatics is more advanced and maximum-performance turns are introduced. The two other key components of phase four are navigation (NAV) and formation flying (FORM). GF, NAV, and FORM flying roughly split the 65-hour allocation by three. There is also, as in phase three, a relatively small component of night flying of approximately three hours.

The navigation starts at high level (1800 feet) and progresses to low level navigation – down to 250 feet above the ground – at 250 knots. Some of the navigation exercises have both a high then a low component where the student is also required to be over a target with an allowable error of 15 seconds – quite a challenge.

There are three tests during phase four – NAV, FORM and advanced-handling tests. Passes are required in all three to proceed to phase five.

Now the candidate commences the final and also the shortest component of the 'wings' course – phase five, also known as the applied phase.

The graduation ceremony is not far away but now is no time to celebrate as 2FTS has failed and subsequently terminated many candidates in the last weeks of phase five, which comprises about 20 hours of flying.

It is in phase five where candidates are expected to bring together all skills learnt during his or her pilot training. That is why in phase five there are a number of combination sorties where all elements of the training course such as formation flying, navigation and instrument flying are demonstrated to a high standard. The combination sorties also involve multiple missions and deploying to airfields as far away as Albany or Geraldton. More complex night flights, partial-panel instrument flying and advanced GF emergencies are also practiced in phase five.

By mid-way through phase five, the instructors now have a fair idea which candidates are likely to go to fast jets.

A final three-hour 'wings' test at the end of phase five also earns the graduates the right to complete a 'thunderbird formation' over the Perth coastline.

Next issue we will detail aircraft type conversion in the RAAF – including lead-in training for those streamed to fly Hornets, as well as all aspects of helicopter conversion basic and advanced in both the Army and Navy.

**Jonathan Ryan works for
Pilot Aptitude Training Systems
Email: info@pilotaptitude.com
Web: www.pilotaptitude.com**