



Instructional Techniques and Flight Testing

with Flight Test New Zealand



FROM A background in flying and flight operations management, Steve Kingsbury formed Flight Test New Zealand in 1998 to provide flight examination services as a Part 141 accredited organisation. Starting with three Examiners, the company quickly grew from these humble beginnings to what is now the largest such organisation in New Zealand, having 21 Flight Examiners covering all areas of the country. Over the years, Steve has taken opportunities to expand the company which now operates a TP200 turboprop simulator based on a Beechcraft King Air B200. Flight Test NZ also provides training for Aerobatic and GPS ratings, as well as conducting Instructional Techniques training courses to meet CAA requirements for new C and D category Instructor Rating issues.

KiwiFlyer recently spent some time talking to Steve about his company, and attending part of an Instructional Techniques course run by Ross Crawford.

Instructional Techniques

The Civil Aviation Authority requires new C and D category Instructors to have completed an Instructional Techniques Course prior to their Instructor rating issue flight test. This course runs over four days and has a credit that is valid for just 12 months, so candidates do need to ensure they sit their Instructor rating before the credit expires.

Flight Test New Zealand run a course somewhere in NZ about every 6 to 8 weeks. Attendee numbers are restricted to between 4 and 10 people, with about 240 people having undertaken the course to date. Groups typically involve about two thirds new CPL holders, with the remainder being more experienced pilots seeking a D Cat., some a C Cat., and occasionally ag. pilots preparing for an E Cat.

Although heavily aviation focused, Steve says that the course is not just for budding instructor/pilots and is also applicable to others in instructing roles. For example, Vincent Aviation send all of their Flight Attendant trainers on the course.

The course is taken by Ross Crawford, himself an A category Instructor. Ross also holds a B.Av. degree and has a broad background in both airline training and general aviation. The course covers the academic requirements and theory of instruction, but thanks to Ross' background, is loaded with the sharing of wisdom from Ross' practical experience of 45 years flight instruction. Ross says he deliberately orientates his training towards the practical as he believes the training experience should be pleasurable and memorable rather than one of immersion in theory books.

To teach Instructional Techniques, CAA require a NZ training qualification and some involvement with aviation, but there is no mandate to how much of the course is about 'theory of learning' and how much is about 'teaching aviation well'. In the past, some of the available courses have been biased to the former, and Steve and Ross are proud to quote students who have attended both and declared they wish they had come to one of Ross' courses the first time. Ross relates all aspects of the course to aviation

with examples and anecdotes. He ensures that there are practical illustrations of every part of learning theory and the principles required to be covered. In addition, participants receive workbooks and course notes on CD.

The four day course is structured around Principles of Learning, Training Aids, Human Factors, Air Exercise Training, and actual presentation experience and observation.

During the course, every participant undertakes three presentations to the group. A warm-up presentation on the first day is about themselves, plus the best Instructor or Teacher they have had and why. On the second day, each must give a 5 minute presentation on how an aircraft flies, aimed at someone with no

knowledge of aircraft, hence a requirement to teach within a time frame and without using any technical jargon. The last day of the course is devoted to 20 minute presentations from each participant on a subject of their choice related to aviation.

These presentations offer some a first experience of talking in front of a group and interacting with their audience, maintaining interest, recovering from a hole, etc. They provide an opportunity for all those

involved to pick up on issues such as good use of diagrams, colour, humour, style, etc., as well as less desirable traits such as talking to the board, nervous ties, being an unintended source of distraction from the lesson, and more.

Constructive criticism and debriefing skills are also developed, as the prior presenter must give a debrief to the current presenter's presentation which is then followed up with a group discussion and wrap up from Ross. There are always noticeable improvements to the presentations given on the first three days. Also noticeable on the last day is how each presenter picks up on the strengths of previous presentations and builds them into their own. (Hint to future attendees – go last!)

The format Ross follows provides plenty of take-away learnings, as all involved experience what works and what doesn't. The approach taken also helps to overcome presentation nerves and teach participants how to deal with these.

Ross' presentation style is to raise issues with bullet points which are then discussed interactively with the class who can take notes in workbooks which are provided. As an example, a bullet point of 'Instruction in the cockpit' will involve a discussion covering; When and when not to speak; Coordinating pattern with the brief; Relating instruction to ground and previous lessons; Knowing when to be reassuring; Knowing when to stop a lesson early; Determining the correct pace for the exercise; and Keeping calm, structured, and focused. The discussion, note taking, and anecdotes involved make for memorable (and often entertaining) teaching.

Ross also offers good advice for when the time comes to sit the C cat issue test. He says one of the most important issues is that candidates are confidently prepared to simply explain the considerations involved in any exercise. They need to be able to



A class photo from the October 2011 Instructional Techniques Course run by Ross Crawford from Flight Test New Zealand and held at the Auckland Aero Club.

get up on the whiteboard and demonstrate Principles of Flight concepts based on notes they have prepared themselves, rather than from another Instructor's notes or PowerPoint presentation. This is a common reason for C Cat. exam failure, with those who have learned Principles of Flight purely from a text without practicing explanations and diagrams at the whiteboard themselves, often exposing deficiencies in their knowledge and teaching techniques.

Ross also reminds potential Instructors of the responsibility of the task; "You are not teaching someone to fly – you are training a pilot." Young students will often put their Instructor on something of a pedestal (deserved or undeserved) and learn and later mimic the behaviours they have observed. Instructors owe it to their students, and our aviation industry, to do the best job they can and ensure that all the habits they pass on are good ones.

Participant Feedback

After the course at Ardmore in October, KiwiFlyer spoke to Michael Thompson and Brent Foreman who had both attended, but with quite different experience and ambitions. Michael is a new CPL with an instrument rating, taking the next step in his career. Brent is a successful businessman, aviation enthusiast and pilot who wants to give something back to the industry.

Both say they initially saw the requirement as being a 4 day course that had to be done, rather than the enjoyable opportunity it became to learn and improve instructional techniques. Brent says he thought it would be heavy going theory and jargon, but by the second day was thinking "this is great – I'm starting to learn something here and enjoy it". He says that Ross made the course very interesting and put a lot of effort into building up all course participants throughout the programme, also noting how important the small things can be during instruction. He was pleased that the course was kept relevant to aviation and says that others have told him he was lucky to be on a course run by Ross.

Michael says that for him, the course emphasised how students learn in different ways, and how to teach to suit. He says he knows that a bad Instructor can negatively influence the student and notes that Ross drove in the obligation Instructors have to motivate students and teach in the right way.

Brent and Michael both highly recommend the Flight Test NZ course with Ross to future C and D cat candidates, and are looking forward to applying their newly learned skills.

Flight Examiners and Flight Testing

Steve explains the Flight Test NZ examining philosophy as being not just to check the pilot, but to make the flight check an enjoyable and learning experience by also sharing some of the Examiners wisdom with the candidate during the flight. Flight Test NZ Flight Examiners have a wealth of knowledge and skills, with backgrounds ranging from Airline Captains to Topdressing Pilots (many have been both). Steve emphasises that students should see their flight test as a valued part of their training, as all Examiners are enthusiastic about aviation and gain satisfaction from sharing their knowledge.

The company presently offers flight testing services to more than 45 organisations throughout NZ. These services include:

- Instrument rating continued competence;
- Endorsement removal for additional navigation aids, multi engine instrument rating;
- Private pilot licence issue – aeroplane;
- Instructor rating continued competence for B and C category instructors aeroplane and helicopter;
- Instructor rating additional privileges aerobatic, night and spinning;
- Aerobatic rating issue and continued competence;
- GPS rating issue and continued competence;
- Operational competency IFR and VFR for Part 125 and 135 aeroplane or helicopter organisations; and,
- Special purpose checks for ski and float planes.

Flight Test NZ Flight Examiners are based in Northland, Ardmore, Hamilton, Tauranga, Napier, Wanganui, Wellington, Blenheim, Nelson, Christchurch and Dunedin. Steve says they welcome enquiries from Examiners not presently involved with the company and are currently seeking helicopter Examiners. They are also mentoring some new A Cats into the role and providing associations for them with the rest of the team.

For more information

Check the Flight Test NZ website www.flighttestnz.co.nz for future course schedules and locations or phone Steve Kingsbury on 07 866 5623, email: steve.kingsbury@flighttestnz.co.nz