

The Air Pilot's Manual **Series for Southern Africa**

## **Volume 4**

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# **The Aeroplane General Knowledge**

- Principles of Flight
- Aircraft General

*Reference material for the  
SACAA PPL Syllabus*



**POOLEY'S**  
Air Pilot Publishing

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*Tel: +44(0)20 8953 4870*

*Web: [www.pooleys.com](http://www.pooleys.com)*

*Email: [sales@pooleys.com](mailto:sales@pooleys.com)*

## **Volume 4**

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## Editorial Team

### **Louise Hahn**

Louise comes from an aviation family and spent many hours as a child in DC8's and 747's. Louise has 20 years' experience in Aviation in a wide range operations from light aircraft to humanitarian aid contracts and corporate jets. She has operated mainly in Africa but now lives in Dublin. As well as a pilot she has held many post-holder positions in safety, quality and flight operations. For the last 6 years she has owned and run an ATO specialising in advanced training and theoretical knowledge. During this period she wrote all her own training manuals and worked with many airlines training their foreign crews in the theoretical knowledge required for the South African validation process.

### **Dorothy Saul-Pooley LLB (Hons) FRAeS FRIN**

Dorothy held both an ATPL (A) and CPL (H) and was an instructor and examiner on aeroplanes and an instructor on helicopters for over 25 years. For 15 years she was Head of Training of a school dedicated to running Flight Instructor and examiner courses at Shoreham Airport. For 20 years Dorothy was also a CAA Flight Instructor Examiner (Senior Examiner).

Dorothy originally qualified as a solicitor in 1982 and acted for many years as a specialist dealing with aviation insurance liability issues and aircraft accident investigation work. She has lectured widely on aviation law and insurance matters. This highly unusual combination of qualifications and experience led to Dorothy's appointment as one of the Honorary Solicitors to the Guild of Air Pilots and Air Navigators (GAPAN).

Dorothy is a Fellow of the Royal Aeronautical Society and of the Royal Institute of Navigation. She is the Past Chairman of the GAPAN Instructor Committee, of which she was a founding member and she was the prime instigator of the Guild's biennial joint Forum with the Central Flying School at RAF Cranwell for Senior Flight Instructors, both civil and military. She is also Past Chairman of the Education and Training Committee. Dorothy was elected to the post of Master of the Honourable Company of Air Pilots (formerly GAPAN) for the year 2014-2015, the first woman to hold that post. Dorothy currently holds the post of Chairman of the Professional Flying Instructors Association and is the Governor of the British Section of the 99s, an international women pilots' organisation.

In 2003, Dorothy was awarded the Jean Lennox Bird Trophy for her contribution to aviation and support of Women in Aviation and the British Women Pilots Association (BWPA). In 2013, Dorothy was honoured to receive the prestigious award of a Master Air Pilot certificate from GAPAN. In 2015 she was awarded the Brabazon Cup by the BWPA for her outstanding achievements in aviation. In 2019 Dorothy was awarded the Pike Trophy by the Honourable Company of Air Pilots for her outstanding contribution to the maintenance of civil flying instruction standards.

As consulting editor for Air Pilot Manuals and for Pooleys Flight Equipment, Dorothy has written, edited and contributed to more than 30 training manuals and has published many articles in aviation magazines, legal journals and on-line publications.

## **Helena Hughes**

On leaving university in 1989 Helena obtained a PPL in America, converting to UK licence on her return. Shortly afterwards she started work in Air Traffic Control at London Luton Airport, earning her controller's licence in 1990. During her time at Luton she was involved in controller training as both an instructor and assessor. Helena continues to be an operational Air Traffic Control Officer and is currently posted to Thames Radar. She holds a CPL/IR and has been a flying instructor since 1998, teaching PPL and associated ratings. She is a Ground and R/T examiner and has written both PPL and ATPL Radiotelephony Training Manuals.

## **Philip Baxter BA (Hons) LLB (Hons)**

Philip held a UK ATPL (A), is an Instructor and has been a PPL Examiner. He began his working life in the Civil Service, having joined from school, and stayed for more years than he now cares to remember! He worked in a wide variety of (mostly) very interesting jobs, within several Departments, which included one period as Private Secretary to a government Minister, another (reflecting his long-standing interest in aviation matters) dealing with aircraft noise and ICAO 'Annex 16' issues as well as pollution from aircraft engines; and another as a technical author. Much of the remainder of his Civil Service career was related to telecommunications, ranging from international Treaties to technical standardisation. This included representing his departmental interests on Standards Committees in particular, both internationally and domestically. Both his Degrees, the first in Science and Technology, the second in Law (providing an unusual combination) were awarded following part-time study with the Open University. Since 'retiring' early from a senior middle-management grade, Philip worked for six years as a

full-time Flight Instructor and Flight Examiner, accruing some three and a half thousand instructional hours. Phil teaches ground school subjects for the Flying Instructor course and has also been Vice Chairman of the Professional Flight Instructors' Association (PFIA).

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### ***A Condensed History of the Air Pilots Manuals***

For over 30 years the Air Pilot Manuals have led the academic training of pilots in the United Kingdom and in many countries around the world.

I first met Trevor Thom, a professional pilot and natural teacher, in Melbourne during a visit to Australia in January 1985. He already had his series of PPL Manuals for the Australian market and I asked him to produce a series for the New Zealand market where we had a small aviation business. Having completed this task, Trevor immediately began writing the first of the Air Pilot Manuals for the United Kingdom market and this project began in earnest on 5<sup>th</sup> December 1985.

Both Trevor Thom and Robert Johnson commenced the task in my office at Felden, Hertfordshire. By the end of the following year, all four volumes were completed and were published in February 1987. By the end of that year, we estimated that 95% of all the UK Flying Schools were using our manuals. Volumes 5, 6 and 7 followed, so completing the full series which also now includes the Question & Answer Exam Books Volumes 1-9 and the Air Presentations series of PowerPoint Teaching Aids.

Unfortunately, Trevor Thom had a serious accident at home which prevented him from continuing with the editing of the manuals. His rights were eventually sold to David Robson, another experienced pilot and natural teacher, who progressively improved the drawings and brought colour into the manuals for the first time.

Over the years there have been many assistant editors, in particular Peter Godwin, whose help I first asked for in the very early days with Trevor Thom and which continued until quite recently. The rights in the Air Pilot Manuals are now vested with the Pooley family and they continue to be edited by Dorothy Saul-Pooley, with the assistance of Daljeet Gill who is responsible for the design and layout, and are published from our offices at Shoreham Airport.

The APM series of manuals are used in many countries around the world and have been used for many years in South Africa. We are delighted to have now published this new series of APMs specifically for the Southern African market and we are indebted to Louise Hahn for editing them.

The Air Pilot Manuals have an outstanding reputation for accuracy and are continuously updated. They are SACAA recommended reading material.

***Robert Pooley***

MBE CStJ FRIN FRAeS