

The Air Pilot's **Manual**

Volume 6

Human Performance & Limitations and Operational Procedures

'Recommended reading'

Civil Aviation Authority



POOLEY'S
Air Pilot Publishing

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Operational Procedures

Editorial Team

Dorothy Saul-Pooley LLB(Hons) FRAeS

Dorothy holds an ATPL (A) and a CPL (H), and is both an instructor and examiner on aeroplanes and an instructor on helicopters. She is Head of Training for a school dedicated to running Flight Instructor courses at Shoreham. She is also a CAA Flight Instructor Examiner. In addition, having qualified as a solicitor in 1982, Dorothy acted for many years as a consultant specialising in aviation and insurance liability issues, and has lectured widely on air law and insurance issues. This highly unusual combination of qualifications led to her appointment as Honorary Solicitor to the Guild of Air Pilots and Navigators (GAPAN). Dorothy is a Fellow of the Royal Aeronautical Society, first Chairman of the GAPAN Instructor Committee, and past Chairman of the Education & Training Committee. She has just completed her term of office as the Master for the year 2014–15 of the Honourable Company of Air Pilots (formerly GAPAN). She is also Chairman of the Professional Flying Instructors Association. In 2003 she was awarded the Jean Lennox Bird Trophy for her contribution to aviation and support of Women in Aviation and the BWPA (British Women Pilots Association). In 2013 Dorothy was awarded the prestigious Master Air Pilots Certificate by GAPAN. A regular contributor to seminars, conferences and aviation publications. Dorothy is the author and editor of a number of flying training books and has published articles in legal and insurance journals.

Gary Hutchinson

Gary caught the aviation ‘bug’ at an early age, since plane-spotting at London Gatwick as a boy. He has since held a variety of aviation roles, from airport check-in desks and passenger profiling to operational roles in air cargo involving Health and Safety improvements. He has also travelled extensively worldwide using his airline staff travel privileges.

After gaining a CPL (A) Multi IR, and operating local charters and calibration flights, he won a GAPAN Flight Instructor Scholarship and now instructs at Shoreham.

He studied Psychology at London University, including Ergonomics and Cockpit Resource Management (CRM). As a member of the British Psychological Society, GAPAN and the Air League, he has been published in Psychological journals and since then has sought to combine these interests into a career as a ‘Human Factors in Aviation’ specialist. His aim is to increase safety, quality and efficiency in aviation, primarily through reducing human error and improving decision making.

He loves flying and would ultimately like to be an airline training captain/Human Factors Psychologist.

On a lighter note, he dreams of one day flying a P 51 Mustang, but at 6'10" fears his height may preclude this!

Jenny Dodman

Jenny inherited her passion for aviation from her father and happy childhood memories of being in and around aircraft at Nottingham Airport. She studied medicine at the University of St Andrews, where she gained a BSc in Medical Science in 2003, followed by clinical training and medical degree from the University of Manchester in 2006.

After junior rotations in acute medicine, surgery, general practice and A+E, followed by a brief dabble in orthopaedic surgery; Jenny was appointed as the only Academic Clinical Fellow in Occupational Medicine in the UK, in 2009. During this 3 year post, she undertook specialist training in Occupational Medicine, alongside study for the MSc in Occupational Medicine and research work into safety critical work at the Centre for Occupational and Environmental Health at The University of Manchester.

Jenny completed the Basic Aviation Medicine Course at King's College, London, in 2008, followed by the Advanced Course in 2011, which was funded by the Mobbs Travelling Fellowship Award from Corporate Health and The Faculty of Occupational Medicine. She aims to complete specialist training in Occupational Medicine and to apply to become appointed as an Aviation Medical Examiner in due course, as well as to further her research work and clinical practice in Occupational and Aviation Medicine.

Jenny was awarded a Swire Charitable Trust Flying Scholarship (Air League) in 2005, which funded some flying while at University, and went on to complete a PPL in 2009. She has a share in a PA28 with her father and enjoys flying this regularly. She was awarded a Flying Bursary from the Air League in 2011; funded by the British Women Pilots' Association. This enabled her to undertake aerobatic training; She wanted to gain an appreciation for the effect of G on the human body, but it also started a new obsession!

She enjoys teaching and has taught undergraduate students as well as MSc level Toxicology. She hopes to extend this to flying instruction and intend to gain an FI rating in the future. She is passionate about improving, promoting and maintaining safety in aviation and hope that my clinical training, academic work and flight training will enable me to achieve this. She is keen member of the BWPA, 99's and Women in Aviation and supporting the advancement of women in all sections of aviation, around the world.

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The Civil Aviation Authority, British Aerospace, Boeing and McDonnell Douglas; Graeme Dennerstein, Daryl Guest, Frank Horwill, Michael Leahy and Peter Loughnan for medical comments; Robert Seaman, Captain R. W. K. Snell, Ian Swan, Thomas Syburra & Robert Pooley.

A Condensed History of the Air Pilot Manuals

For over 25 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 5th December 1985.

Both Trevor Thom and Robert Johnson commenced the task in my office at Feldon. By the end of the following year, all four volumes were complete and were published in February 1987. At that time, 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.

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 and published from our offices and the school at Shoreham Airport.

The Air Pilot Manuals have an outstanding reputation for accuracy and are continuously updated. They are recommended CAA reading material and are referred to extensively in the CAA examination answer booklet.

Robert Pooley

CStJ FRIN FRAeS

EASA Operational Procedures

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Editorial Team

Jonathan Shooter

Jonathan had his first trial lesson on his twelfth birthday before going on to gain his PPL with the help of an RAF flying scholarship. He went on to fly with the University Air Squadron before gaining airline sponsorship in conjunction with one of Europe's largest flying schools. He taught the PPL and associated ratings at Elstree aerodrome before gaining an internal promotion to teach the CPL and Instrument Rating at the commercial college at Cranfield aerodrome. In 2004 he was awarded a flying bursary from The Air League. After two years he joined his sponsoring airline and flew the Dash 8 Q400 throughout Europe. In 2005 he joined Europe's largest tour operator and flew the Boeing 757, 767, A320 & A321 both on short and long haul operations. He currently flies the 737NG and has over 7000 hrs with 1500 hrs instructional experience on commercial courses. He holds European, Canadian and American airline transport licences and is an authorised PPL examiner for both single and multi-engine aeroplanes.

Dorothy Saul-Pooley LLB(Hons) FRAeS

Dorothy holds an ATPL (A) and a CPL (H), and is both an instructor and examiner on aeroplanes and an instructor on helicopters. She is Head of Training for a school dedicated to running Flight Instructor courses at Shoreham. She is also a CAA Flight Instructor Examiner. In addition, having qualified as a solicitor in 1982, Dorothy acted for many years as a consultant specialising in aviation and insurance liability issues, and has lectured widely on air law and insurance issues. This highly unusual combination of qualifications led to her appointment as Honorary Solicitor to the Guild of Air Pilots and Navigators (GAPAN). Dorothy is a Fellow of the Royal Aeronautical Society, first Chairman of the GAPAN Instructor Committee, and past Chairman of the Education & Training Committee. She has just completed her term of office as the Master for the year 2014-15 of the Honourable Company of Air Pilots (formerly GAPAN). She is also Chairman of the Professional Flying Instructors Association. In 2003 she was awarded the Jean Lennox Bird Trophy for her contribution to aviation and support of Women in Aviation and the BWPA (British Women Pilots Association). In 2013 Dorothy was awarded the prestigious Master Air Pilots Certificate by GAPAN.

A regular contributor to seminars, conferences and aviation publications. Dorothy is the author and editor of a number of flying training books and has published articles in legal and insurance journals.

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Acknowledgements

Thanks to Jo Shooter and all of my flying colleagues for helping to proof read this book.

Preamble

EASA Part-FCL.120 & 215 requires that applicants for the LAPL(A) and PPL(A) study a course of theoretical knowledge training and pass a theoretical knowledge examination in nine subjects, which is an increase on previous legislation.

The aim of this manual is to provide the required material to study for, and pass, the EASA Part-FCL LAPL(A) and PPL(A) Operational Procedures theoretical knowledge examination. The subject matter covered in Operational Procedures is common to other subjects in both the LAPL(A) and PPL(A) syllabus; therefore, it is recommended that this exam be taken once all of the other series of Air Pilot Manuals have been studied.

The EU Commission has implemented Regulation 923/2012 introducing the Standardised European Rules of the Air into the UK and as a result, UK Rules of the Air have been substantially modified (see Rules of the Air Regulations 2015).