The Air Pilot's Manual

Volume 4

Helicopter Manual

- Principles of Flight (H)
- Aircraft General Knowledge (H)
 plus Q&A Sections
- Operational Procedures (H)
- Flight Performance & Planning (H)
- Including Turbine Engines



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He also authored Climatology for Airline Pilots–Blackwells 2001 and Cranfield Aviation Studies, Home Study Courses for JAR PPL(A) & (H). Roy Quantick taught for over 25 years at the Cranfield Institute of Technology and from 1985 was an approved CAA instructor at training schools on the campus of Cranfield University teaching ATPL students. Roy retired in 2010 and died on 9th June 2015. He will be sorely missed.

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He flies 10 types of helicopter and, at the time of writing, has a total of some 25,000 flying hours, including 18,000 instructional hours. He holds UK CAA/EASA FI, FE (PPL & CPL), FIE and SE ratings and approvals.

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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.

Dave Lewins

Dave holds an ATPL(A) and a CPL(H) and is an instructor on both helicopters and aeroplanes.

Dave has a lifetime of experience in aviation since solo gliding with the Air Cadets at 15, an RAF Flying Scholarship at 16, PPL at 17, RAF flying training in Jet Provosts, then on to Hawks, Hunters and Phantoms.

His second tour of RAF duty was the start of his career as an instructor and instrument rating examiner on the Phantom Operational Conversion Unit.

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Dave's last four years of 19 in RAF service were spent as an instructor and examiner back on the Hawk on the Tactical Weapons squadrons in Devon and Anglesey, after which he spent fifteen years with the airlines flying the Boeing 757/767 and Airbus 320/321 on short, medium and long haul routes across Europe, Asia, Africa and USA, gaining his Command in 2005.

Dave's love of instructing has developed throughout his 40-year career and his conversion to helicopters opened a whole new aspect of flying and instructing culminating in him setting up a groundschool and examination facility at Gloucestershire Staverton Airport.

Daljeet Gill BA(Hons)

Daljeet is the Head of Design & Development for Pooleys Flight Equipment and editor of the Air Pilot's Manuals, Pre-flight Briefing and R/T Communications as well as many other publications. Daljeet has been involved with the editing, typesetting and designing of all Pooleys publications and products since she joined us in 2001. Graduating in 1999 with a BA(Hons) in Graphic Design, she deals with marketing, advertising, exhibition design and technical design of our manufactured products in the UK. She maintains our website and produces our Pooleys Catalogue. Daljeet's design skills and imaginative approach have brought a new level of clarity and readability to the projects she has touched.

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The Civil Aviation Authority, David Patterson, Ron Jenkins, Ian MacGregor, Ken Bannister, David Evans, Paul White and many other instructors whose comments and help have been invaluable.

AIR PILOT'S MANUAL 4 (H) The Helicopter - Technical

SECTION 1 – Principles of Flight (H)

SECTION 2 – Aircraft General Knowledge (H)

SECTION 3 – Operational Procedures (H)

SECTION 4 – Flight Performance and Planning (H)

This manual is intended to provide PPL students with comprehensive study material to cover the EASA Part-FCL & UK CAA Part-FCL syllabus for the four helicopter-specific examinations at PPL level: 'Aircraft General Knowledge', 'Principles of Flight', 'Operational Procedures', 'Flight Performance & Planning', and the alternative engines paper in 'Aircraft General Knowledge' covering Turbine Engines.

The manual covers all subjects as required by the EASA Acceptable Means of Compliance (AMC), in accordance with the Annex to ED Decision 2011/016/R, which has now been imported into UK law by the EU Withdrawal Act 2018 and knowledge of all subjects herein can be tested either as part of the written examination process, or orally during a PPL Skill Test.

Flying as a Private Pilot is a challenging, but extremely, rewarding hobby. There is a large volume of extremely important material to learn. For the sake of safety of the pilot and their passengers, this learning task must not be underestimated or skimped. Accordingly, we highly recommend that student pilots read each manual in full before attempting each PPL examination to ensure understanding and depth of knowledge. Alternatively, we recommend they seek a dedicated PPL Groundschool service which offers either one-on-one tuition or group study/refresher sessions on the entire syllabus in each subject prior to sitting each examination.

Practice sample questions and answers are included at the end of each section to help students to complete their studies.