

POOLEYS

Private Pilots Guide

Understanding Weather for Sport Pilots

David Cockburn

Nothing in this book supersedes any legislation, rules, regulations or procedures contained in any operational document issued by Her Majesty's Stationery Office, the Civil Aviation Authority, the European Aviation Safety Agency, ICAO, the manufacturers of aircraft, engines and systems, or by the operators of aircraft throughout the world.

Understanding Weather for Sport Pilots - David Cockburn

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Preface

This book has been produced primarily to assist microlight pilots by giving them a document to which they can refer in order to achieve safe and practical flights. It is as relevant to those flying modern, fast, light aeroplanes as to those with weight-shift machines, and should be useful for any sport aviator, whatever he or she may fly.

Aircraft handling skills can be learned, and pilots are (or ought to be) in control over how they use these skills. However, no-one has control at all over what Nature may produce, and as many have found, it is easy for the weather to gain the better of a pilot. For that reason, the book contains a certain amount of basic theory as a background to its important guidance on obtaining and using the available meteorological information. It also contains much practical advice on how to recognise and avoid potential weather hazards.

It is sometimes said that a butterfly flapping its wings in the Amazon rainforest will eventually affect the weather in the British Isles. The atmosphere will very seldom act exactly as this or any book suggests, and pilots are unlikely to see any weather feature exactly as the descriptions, but the general trends and principles will nearly always apply. Modern meteorological forecasts are produced by computer with guidance from highly trained and qualified scientists, but these forecasts can never be completely accurate, and are certainly not tailored to the requirements of an individual pilot. To enjoy our flying to the maximum while retaining a reasonable level of safety, we need to learn as much about the weather as possible. We should make an effort to interpret published forecasts, and then compare these forecasts and our interpretations with what actually happens later.

This book of course can only act as an introduction to the subject of meteorology. Hopefully, it will encourage readers to consult more detailed books on the subject to improve their knowledge

The author is grateful for the assistance of the UK Met Office, with whose permission many of the charts have been reproduced.

In this document, the male pronoun 'he' is often used to refer to both genders. This is no slight on the ladies who fly, merely a space saving and readability measure.

Editorial Team

AUTHOR David Cockburn

David Cockburn has been flying light aircraft since 1965. While serving in the Royal Air Force as a pilot and flying instructor, much of his spare time was taken up with the sport of gliding. He became a gliding instructor in 1967, and served several times as club Chief Instructor. He has competed in gliding competitions in the UK and Europe and obtained the FAI Diamond gliding badge in 1976. Towards the end of his RAF career, he amassed over 1000 hours flying and instructing on Chipmunk aircraft and currently instructs at flying clubs on a variety of light aircraft, as well as writing books on aviation subjects, including all the PPL ground subjects.

While talking to pilots of microlight and other light sport aircraft, it seemed that many had a limited knowledge of weather, despite its considerable effect on them. This may have been because the available books on the subject were either too sketchy or too oriented towards examinations. He therefore decided to make use of his gliding and instructional experience to write this book, which leads the reader in a logical fashion through the aspects of the subject most relevant to them.

Daljeet Gill

Daljeet is Head of Design & Development for Pooleys Flight Equipment and editor of the Pooleys Private Pilots Guides, Pre-flight Briefing, R/T Communications, Pooleys ATPL Manuals and Air Presentation, Ground School Training Transparencies plus many others. Daljeet has been involved with editing, typesetting and design for all these publications. Graduated in 1999 with a BA (hons) in Graphic Design, she deals with marketing, advertising & design of our new products. She maintains our website and produces our Pooleys Catalogue annually.

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