

BOOK Reviews

de Havilland Canada DHC-1 Chipmunk: the poor man's Spitfire

By Hugh Shields, Rod Brown, José Gonçalves and Rod Bliers

Published by SBGB Publishing at £39.95.
ISBN 978-0-9812544-0-1. Hardback,
440 pp, illustrated with many colour and
black and white photographs,
reproductions and cut-away drawings.

The DH Chipmunk is an aircraft that holds a huge affection with those who have flown this remarkable two-seat trainer, and it is not surprising that its history has been recounted in a book that is authoritative and detailed. In such a large book, this can produce reader fatigue, but not in this case due to the quality of the written word which holds the reader's attention throughout.

It is divided into sections covering the history of the design, manufacture and operation in Canada, its introduction and parallel activity in the UK, these two forming the bulk of the contents. Also covered are likewise but smaller scale activity in Portugal and operations in Australia. The four authors are mainly responsible for the four sections respectively. With a book of this size, it is impossible to mention all the aspects covered in the 21 chapters comprising the first two sections, but every stage of the Chipmunk's history from requirements through design in Canada to flight testing with subsequent modifications is covered. Over two hundred airframes were built at Downsview in Canada, of which half were exported, although few of the latter now survive. More than a thousand aircraft were constructed in the UK at the de Havilland factory at Chester, and sixty six under licence by Oficinas Gerais de Material Aeronautico (OGMA) in Portugal, following the assembly of a number of airframes shipped out from the UK. The production list is shown in tables for each constructor, with brief notes and current status where known. The survivors are on the civilian registers of a great many countries all over the world.

As an aircraft designed to meet military requirements, it is unsurprising that the much history centres around the needs and utilisation by the various military flight training units. I was particularly interested in research carried out in Canada as to the suitability of the Chipmunk as an early trainer compared with the Harvard before progression onto jet trainers, and even more interested to discover that ab initio training on the Harvard was not such a good idea after all. But what a disappointment to discover, after the separate service elements in Canada were unified into the single Canadian Armed Forces (CAF), that the Chipmunk was finally replaced in 1971 by the pedestrian Beech Musketeer.

This book is clearly an essential item on the bookshelf of every Chipmunk owner and aficionado, but for anyone interested in how an aircraft design develops successfully from conception to the draughtsman's table to the hangar floor and into operation, I give it my highest recommendation. – *George Done*

Robbie: The Robinson helicopter experience

Eye in the Sky Publishing
<http://www.eyeinthesky.com.au>
£29.99 plus p&p. 232 pages, beautifully
illustrated. Available via
www.robby-europe.com/buy-now

This is a stonking book and it ought to be on the coffee table of everyone who's ever owned or flown a Robinson helicopter. It's largely made up of fabulous photographs of Robinson R22s and R44s at work across the world – in the high mountains of Alaska, over the Great Barrier Reef, in jungles and deserts and cities. It's the quality of the photography that make it worth the money – it really does capture the extraordinary world that Frank Robinson's machines opened up for a new breed of helicopter owner. The book is the work of Jon Davison, who is clearly a world-leading air-to-air photographer; some of the pictures are so good you'd almost think he'd Photoshopped helicopters into stunning landscapes. But they're all for real. Davison has gone around the world tapping up Robinson operators – he's even come to England, where Russell Harrison, the property-developing owner of G-RUZZ, showed him the delights of Oxfordshire and the Cotswolds. The book includes a brief interview with Frank Robinson about the genesis and development of the type, together with some shots of helicopters being assembled in Torrance.

You have to buy it for the pictures, because the text is often wanting. Disjointed grammar, occasionally random spelling and lack of facility with punctuation regularly jar the reader. Four mistakes in a single caption is four too many. This book has been around for a year or so but it's only just landed on my desk – I'm told a similar book is in the making. If so, let's hope the photography is as beautiful but the writing and editing is good enough to stand alongside the pictures. – *Pat Malone*

Sunderland Over Far Eastern Seas Group Captain Derek Empson MBE

Pen and Sword, £25, 270 pages,
many atmospheric b&w pictures

The Shorts Sunderland was an unlikely-looking flying thing, but much loved by its crews in war and peace; this book tells the story of a young navigator sent to the type in the early 1950s and contains many interesting and informative tales. But its real value to the modern pilot lies in its description of the work of the navigator of the day, his tools and how he used them. I have to confess I had no idea just how hard-worked the aerial navigator was in olden times. I suppose I thought that on a long overwater leg he'd just take a few sun shots and sit back

and drink tea. Was I in for a shock!

The most interesting section of all is Appendix 3, 'Dead Reckoning Navigation Techniques used by Far East Sunderland Flying Boat Crews in the 1950s'. (You can always rely on Pen & Sword for a snappy title.) Some of the instruments the poor chap had to work with would have been familiar to Vasco da Gama. In the Far East, of course, they were out of range of mod cons like Gee, Rebecca, Eureka and so forth, so dead reckoning it was. We're not just talking sun sights and celestial navigation. The navigator would start with a well-calibrated direct reading compass. Then he'd have his drift recorder, a downward pointing periscope through which he could follow the speed and direction of the waves. This had some bells and whistles which helped him gauge his groundspeed with the help of his Dalton computer, the 'whizz-wheel' we know and love. Then he had his flame floats – these were chucked out of the plane and ignited on contact with the water, producing smoke and flames which the navigator could track and compare with a back-bearing he would simultaneously take with his astro compass. As a refinement, the rear gunner could train his weapon on the float and read its azimuth angle on his calibrated turret ring. If they were low enough, the navigator could mount his astro compass in the astrodome in the Sunderland's roof and sight a back-bearing on the prop wash on the sea. Wind lanes and 'white horses' were tools of the navigator's trade. The 'woofer' or

Wind Finding Attachment was a thing that allowed you to use a timed 360 degree turn over a marked point to calculate drift. What'll they think of next? There's a whole section on three-drift and two-drift winds, for which the pilot was called on to make a course change of 60 degrees; drift measurements would be taken before he altered course 120 degrees the other way, then more drift measurements would add up to a complete picture of which direction the plane was heading in. Didn't tell you where you were, though. For that you needed the bubble sextant Mk 1XA, the Nautical Almanac or the Air Almanac and the Admiralty Tables, and a trustworthy clock. There's a diagram of 'The St Hilaire or Intercept method of plotting celestial position lines' and it looks like a nasty train crash. The medium frequency DF loop, when it came along, was a Great Leap Forward, as was the Air Position Indicator and the Air Mileage Unit, then when they fitted the Mk V Sunderland with the ASV Mk VIC search radar you could even pick up a coastline on it. There's pages and pages of this stuff, all of it utterly fascinating. I think of it whenever I push the 'Direct To' button on the Garmin 430. Here was the poor navigator is down in the bowels of the aircraft working like a galley slave while the pilot sat up top with his own picture window, puffing on his pipe and poling the plane whichever way the navigator told him to. And now, 50 years on, all that carefully acquired knowledge, all that expensive high-tech equipment, is utterly redundant. We don't know we're born, really. Worth getting this book solely for Appendix 3, but there's lots more entertaining pilot stuff in it, too. – *Pat Malone* ■

