



# ARMCHAIR AVIATION

**We take a look at what's available for the aviation history enthusiast in the world of books and other literature, from hot-off-the-press publications to reissued classics**

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## **The British Aircraft Industry During the First World War: The Dope Scandal**

By Tim Jenkins; Bloomsbury Academic, 50 Bedford Square, London WC1B 3DP, 2024; 6½in x 9½in (165mm x 240mm); hardback; 214 pages, illustrated; £59.50. ISBN 978-1-350297-07-4

TO THE LAYMAN, “dope scandal” looks like something to do with using drugs to cheat in sports — but of course we aviation aficionados know better. It was during my couple of years as a (very) junior curator at the RAF Museum at Hendon in the early 1980s that I first discovered how the women aircraft-factory workers who brushed cellulose dope on to fabric surfaces during the First World War were often required to drink copious quantities of milk to mitigate the harmful effects of the solvent fumes. Clearly they had not been using the same stuff as the small tins of Humbrol dope that I spent my early years applying to the tissue covering of my model aeroplanes, which merely created a pleasantly heady pear-drop-scented fug in my workshop.

This interesting book describes just how dangerous early dopes were, and how that danger played a role in the two-part Dope Scandal.

Part One of the scandal arose from the use in dopes of the solvent tetrachloroethane (this book usually employs the synonym tetrachlorethane, lacking the second “o”), a decidedly more sinister substance than the acetone that is familiar to aeromodellers. Tetrachloroethane causes headaches, dizziness, nausea and liver damage, and even before the end of 1914 the UK had seen dozens of cases and several fatalities. That was enough in itself to create a scandal, which was exacerbated by a shortage of available alternative solvents and by slow government action. It was only in mid-1916 that the toxic substance was prohibited “unless non-poisonous dope cannot be obtained”, and it took until that autumn for its use effectively to end altogether.

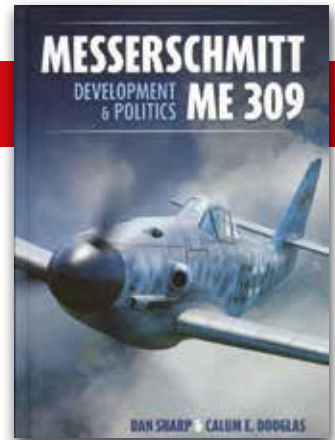
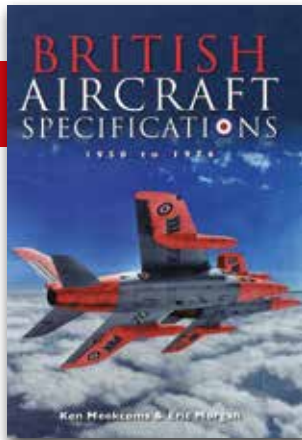
Part Two of the Dope Scandal related to

the government granting a monopoly in manufacturing cellulose acetate (an essential component of dope) to a new company, British Cellulose, which for a long time failed to deliver but which in the meantime offered shareholders an opportunity to profit astronomically.

Overall, the book presents an illuminating but depressing picture of Great War rivalry and jealousy between the aeronautical industry and the scientists at Farnborough’s Royal Aircraft Factory (later to become the Royal Aircraft Establishment); shortages of critical materials; and lack of joined-up thinking regarding the supply of aircraft to the nation’s military and naval air arms. The general mess prevailing in Britain’s defence procurement system at the time is summed up by the author as “a situation whereby costs continued to spiral out of control whilst delivery of the finished product remained unsatisfactory or, indeed, non-existent”. *Plus ça change . . .*

Written by a “heritage and conservation professional” rather than a through-and-through aviation specialist, the book falls into one or two bear-traps, with howlers such as synchronised machine-guns “firing through the propeller” (a sure way to end up with no prop-blades) rather than “propeller arc”. There is also a slightly comical cumulative error whereby the 50,000 inhabitants of Springfield, Illinois, are said to have been blankly indifferent to Wilbur Wright’s remarkable 24-mile flight of October 5, 1905, in the brothers’ Flyer III (a distance/endurance record which stood until 1908). Not really surprising when the flight actually happened more than 300 miles away on the Huffman Prairie at Dayton (which happens to be a few miles west of Springfield, *Ohio*). Such careless but compounded slips always tend to cast doubt on the accuracy of the rest of a book; but, despite that and the eye-watering academic-publisher price, this volume is a valuable addition to the history of British aviation during the First World War.

**MICK OAKEY**



## **British Aircraft Specifications: 1950 to 1976**

By Ken Meekcoms & Eric Morgan; Air-Britain ([www.air-britain.co.uk](http://www.air-britain.co.uk)), 2023; 8½in x 12in (216mm x 305mm); hardback, 184 pages, illustrated; Air-Britain members £52.50, non members £35. ISBN 978-0-851305-23-3

PUBLISHED 30 YEARS ago, Air-Britain's *The British Aircraft Specifications File* is probably the most dog-eared, well-thumbed and coffee-stained reference book in the entire *TAH* reference library. Covering the official Specifications issued by the Air Ministry's Research & Development, Technical (RDT) branch between 1920 and 1949, it quickly became the bible, the essential key matrix, of every British military aircraft project — RAF, Royal Navy and Army — from the immediate post-First World War period, through the technological advances of the inter-war years, into the Second World War and beyond. Indeed, the only drawback of this essential tome for the serious aviation historian has always been that it stops when the RDT's Specification designation system adopted a new method on January 1, 1950. (This important date in the story of British Specs has rather unfortunately fallen victim to finger trouble in this new book, the 5 in 1950 becoming a somewhat confusing 3 — page 2.) What about the remaining quarter-century of Specs between 1950 and 1976, during which Harold Wilson's "white heat of technology" was brought to bear on the aerospace industry to greater effect than any other sector? A period in which the entire nature of military aircraft procurement changed as the costs of developing state-of-the-art weapons systems spiralled skywards, becoming too steep for any one manufacturer to bear?

Happily, Air-Britain has finally filled this frustrating gap with the publication of this superb companion volume, which details every RDT Specification from ER.100 (Specs from January 1950 were given a number, starting at 100, prefixed with a letter or letters specifying

the intended role) — the Shorts S.B.5 research aircraft — to 291D&P (a pricing Spec for the Royal Navy's Scottish Aviation Jetstream T.2).

With much of the research legwork having been undertaken by the late Ken Meekcoms and Eric Morgan, this coherently laid-out hardback (on high-quality paper that will last) was completed by the eminently capable Phil Butler, Tony Jupp and Chris Gibson, the addition of the latter's three-views and line drawings adding a great deal of value to this indispensable volume. The historical overview of post-1950 Specs which sets the scene is a fascinating story in its own right, and the meat of the book — the listing of the Specs themselves — is clear and easy to follow, and accompanied by well-reproduced photographs of the relevant hardware.

So top marks and thanks to Air-Britain for another excellent addition to the *TAH* reference library — our copy is already rapidly accreting dog-ears, thumb marks and coffee stains.

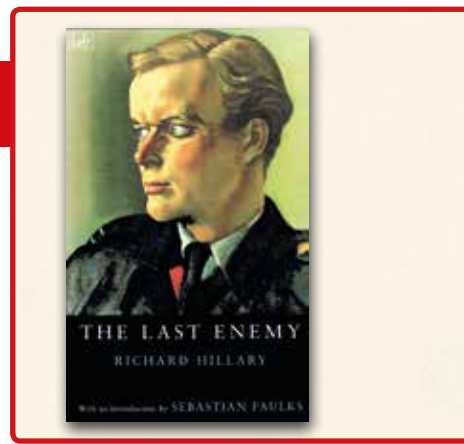
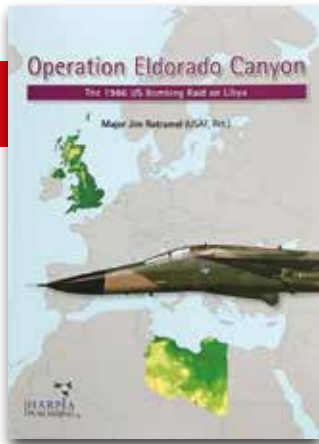
**NICK STROUD**

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## **Messerschmitt Me 309 — Development & Politics**

By Dan Sharp & Calum E. Douglas, Tempest Books, Media Centre, Morton Way, Horncastle, Lincolnshire, LN9 6JR, 2024; 8½ in x 11¼ in (215mm x 302mm); hardback, 192 pages, illustrated, £35. ISBN 978-1-911658-96-2

DAN SHARP and his co-author Calum Douglas have extended the subtitle concept used for Sharp's earlier study of the same company's Me 262 to this new account of the "Development & Politics" surrounding the intriguing Messerschmitt Me 309. It is a fascinating choice and it is a fascinating book. Intended as the successor to the company's tried-and-tested Bf 109, which in 1941 — the year that the planned successor was officially mooted — flew as the Luftwaffe's mainstay fighter, the Me 309 has



largely been, perhaps understandably, relegated to a “footnote” project in German aviation historiography.

Why a completely new fighter when the stalwart Bf 109 had proved itself such a success in Germany’s early air campaigns — albeit as a result of considerable design, mechanical and armament upgrades? The answers lay in taking advantage of new technologies, and responding to the operational lessons learned thus far. In March 1941 Willy Messerschmitt and his design and engineering teams set about loading the Me 309 with new elements such as a nosewheel and wide-track undercarriage; increased armament; a retractable radiator that provided improved aerodynamic efficiency; pressurised cockpit; an ejection-seat and, most importantly, the installation of the Daimler-Benz DB 603 or Junkers Jumo 213, both powerful new engines.

In lifting the lid on the development history of the Me 309, the authors have delved deep and diligently into archives in Germany, the UK and the USA. They have unearthed much engrossing new information: for example, that in the earlier Me 209 design, Messerschmitt advanced the notion of using smaller wings to maintain high wing-loading and of replacing a heavy conventional wheeled undercarriage with landing skids as standard, so as to allow higher airspeeds. The Me 209 became the Me 309 in May 1941 and such was the importance placed on the new fighter that in a memo to the head of his company’s project office on the 21st of that month, Messerschmitt emphasised that production of the Me 309 was to be undertaken with “special urgency”. Thus it was that first official *Baubeschreibung* (Build Description) was published in August 1941, presenting a clean, state-of-the-art aircraft, but whether it would be powered by the DB 603 or Jumo 213 was still under consideration.

By the end of 1941, however, problems had beset development; the Messerschmitt plant at Regensburg was selected to build the aircraft

but was already under strain from production of the Bf 109G fighter and the Me 210 twin-engined heavy fighter (a disaster). In December an official at Regensburg wrote to the Augsburg plant management “pleading” for “35–40 more workers skilled in jig construction for the 309 assembly work that arises”. Paradoxically, for all the initial enthusiasm about the project in the spring of 1941, within just a few months, as the authors describe it, the Me 309 “had become everything that Willy Messerschmitt personally disliked in a fighter: too big, too heavy, too complex and composed almost entirely of new bespoke components”.

The book is copiously illustrated with the fruits of the authors’ research: photographs, documents, and RLM and manufacturers’ drawings. In this regard it is good to see that compared to the earlier Me 262 title, in this book the publishers have set about improving the quality of reproduction on the many important document and drawing facsimiles that the authors have amassed.

It was ironic that on July 18, 1942, the same day that the Me 309 V1 made its maiden flight, at Leipheim the third prototype of another innovative Messerschmitt design, the Me 262 jet interceptor, flew for its first and generally successful purely jet-powered flight. In doing that, unknowingly at the time, Messerschmitt perhaps extinguished any real long-term hope of the serious evolution of the Me 309.

ROBERT FORSYTH

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### **Operation Eldorado Canyon — The 1986 US Bombing Raid on Libya**

*By Jim Rotramel; Harpia Publishing (www.harpia-publishing.com), 2024; 8½in x 10¾in (210mm x 273mm); softback, 256 pages, illustrated; £43.50, ISBN 978-1-950394-12-8*

AT THE TIME, the USA’s April 1986 strikes

# Flyleaves / Classic aviation books revisited

*The Last Enemy*; Richard Hillary, Pimlico, 1997; 5¾in x 8½in (135mm x 205mm); paperback; 178 pages; £3-£20



ORIGINALLY PUBLISHED in June 1942, Richard Hillary's memoirs of his experiences as a Second World War fighter pilot is also a journey of the author's self-examination under the severest conditions. After training at Montrose, Hillary was transferred with No 603 Sqn to Hornchurch, where "the losing of pilots was somehow extremely impersonal; nobody, I think, felt any great emotion — there simply wasn't time for it". Hillary was shot down over the North Sea on September 3, 1940, sustaining severe burns to hands and face, the subsequent deaths of colleagues meaning "that left only me — the last of the long-haired boys". Through numerous skin grafts under the care of reconstructive surgeon Archibald McIndoe, Hillary was able to leave the hospital, but remained emotionally detached from the war until he witnessed at first hand the effects of German bombing on civilians in London. "Much that is untrue and misleading has been written on the pilot in this war", he notes. Hillary's personal insights of the men he flew with make this "not quite like any other book", as Sebastian Faulks states in the introduction, death itself being "the last enemy". **BRIAN RIDDLE** (former Chief Librarian, RAeS)

against Libya merited but a few days' headlines in British newspapers and were soon forgotten, overshadowed by subsequent events. Former General Dynamics F-111 Weapon System Officer Major Jim Rotramel provides a fascinating insight to the background, build-up, execution and aftermath of Operation *Eldorado Canyon*.

In a very readable style, Rotramel outlines the geopolitical climate that led to *Eldorado Canyon* and clarifies the motivation for the operation, the complexities of dealing with various governments and the rationale behind the strike on Libya. Interestingly, while the operation was by most accounts a rather hurriedly-put-together event, the preparations for such a mission had been under way for a couple of years. The planning for *Eldorado Canyon* and the operations in the Gulf of Sidra — *Attain Document* and *Prairie Fire* — which preceded it, are described here in unprecedented detail.

The US Navy's major role in the operation is not overlooked in Rotramel's account, but for this reviewer, highlighting the importance of USAF tankers to the success of the operation, specifically the McDonnell Douglas KC-10 Extender, is of particular interest. Other USAF and US Navy assets such as airborne early warning (AEW), electronic intelligence (ELINT) and reconnaissance, and their role in the operation, are described in detail.

The objective of *Eldorado Canyon* was to put ordnance on target, and Rotramel expertly describes not only the weapons and guidance systems used against the Libyan targets, but also the weapons used by the Libyan defences. The reasons for a particular weapon selection and why some systems failed on the night are described in depth.

The implementation of the operation itself is related from accounts by the personnel involved, combined with the operations records of the various units. These accounts provide a remarkable insight into how such a complex operation was conducted and how the many

problems that were encountered in the planning and execution of the operation were overcome.

Lavishly illustrated with a wide range of images and maps, all of which are most comprehensively captioned — something sadly missing from many books of late — this volume is well designed (something else missing from many books lately) and produced on quality paper, and may be summed up with one word — detail. It can be thoroughly recommended and I look forward to seeing Major Rotramel's next volume.

**CHRIS GIBSON**

## *Churchill's Eagles: The RAF's Leading Air Marshals of the Second World War*

By Richard Mead; Pen & Sword Air World, 47 Church Street, Barnsley, South Yorkshire SA70 2AS; 2024; 6in x 9¼in (155mm x 234mm); hardback, 304 pages, illustrated; £25, ISBN 978-1-036104-13-9

THE AUTHOR, the creator of several important military biographies, has here turned his hand to writing up some 30 representative RAF officers ranking from Air Vice-Marshal to Marshal of the Royal Air Force. The selection is an intelligent one and embraces the well-known and thus well-documented, as well as several officers about whom little has hitherto been written.

*Churchill's Eagles* is finely written and the text is complemented by a summary of the careers of 30 more RAF leaders mentioned in the main text, a reasonable photograph selection and a solid bibliography. Your reviewer, in preparing a presentation on air control, wanted to know which of the subjects had served in Iraq between the wars. This brought to light the one omission in the book — an index! Nevertheless, this is a valuable addition to the bookshelves.

**VIC FLINTHAM**