

BOOK REVIEWS

WOODEN CRATES AND GALLANT PILOTS, by Stuart E. Elliott. Dorrance & Co., 1617 J.F. Kennedy Blvd., Philadelphia, Penn. 275 pp., 6x9 inches. Price, \$7.95.

Stuart Elliott's recounting of his personal experiences as a WWI pilot of the 13th Aero Squadron, U.S.A.S., will perhaps soon be among the books listed as collector's items. Comparatively few books on the subject have been written by fliers who were pilots with actual front line combat experience, making this one of the last, in view especially of the rapid demise of WWI aviators, their ages mostly past four score years. A copy of it is a 'must' on every book shelf devoted to WWI history.

The vivid descriptions of each of the phases experienced by the author from the time he resigned from college to join the Air Service until his return home after the war ended, gives the reader full impression that he was "over there." Considering the information contained therein, it is rewarding reading as well as a tribute to the author.

J. J. Smith

Editor's note: The Author, now Colonel, USAF (Retired), began his memoirs prior to 1966 and finally decided to include only cartoon illustrations, especially since there are few photographs extant of the human interest variety. He said,

"Most WWI aviation photos tend to be rather on the dull side, and too often unimaginative reproductions of some plane on the ground with an unknown, shadowy looking guy standing next to it. What is needed would be some snap of good old Joe Doakes hoisting a beer after coming down from a hot patrol, or one of us taking on the part of locomotive driver for the camp railroad at Issoudon. Or the look on the medic sergeant when he stuck the needle into unpopular Major X.

Matthew Brady did a much better job during the Civil War in this respect than did WWI photographers."

THE DANGEROUS SKY: A History of Aviation Medicine, by Douglas H. Robinson, M.D. University of Washington Press, Seattle, Washington: 1973. 292 pages, illustrated, bibliography, index, 6x9 inches. Price \$15.00.

From the year 1783, when Physicist Jacques A.C. Charles suffered the first attack of aero-otitis media (earache) upon ascension to the height of 6,000 feet in a hydrogen balloon, to the complex medical problems encountered in flying the Mach 3 B-58 Hustler, Dr. Douglas H. Robinson has successfully portrayed the myriad fascinating developments necessary for aviation medicine to keep pace with the progress of flight.

Professor Charles' principles, based upon sound scientific research, are still utilized in balloon flight but possible asphyxiation and circulatory collapse from early experiments with hydrogen, as well as its combustibility, became evident, and to the eventual use of the more stable element, helium. The most significant medical phenomena encountered in ballooning is related to altitude sickness or anoxia. Only after years of trial and error was it shown that, in order for oxygen to sustain life at increased altitude, it must be under a certain pressure to enter the blood stream via the lung membranes. In May, 1961 Navy Commanders Ross and Prather set the lighter than air ascension record of 113,740 feet, a record which stands today as the greatest altitude attained by a manned balloon.

Medicine ignored the early development of heavier than air machines and made no contributions until World War One emphasized the increasing performance of aircraft and the physiological and psychological stresses placed on the crews. Thus aviation medicine was born.

Dogfights took place at altitudes where anoxia was a problem. The Germans used oxygen in their Zeppelin raids on London, as well as their Gotha bombers and the giant Staaken raiders (the largest aeroplane to bomb England in either World War.) From the medical experience of this era also came the first awareness of flying fatigue, and of the use of parachutes. A new medical specialist also appeared, the flight surgeon. A few better known heroes of the great air war probably would never have had the opportunity to participate had medical exams been more stringent; Mick Mannock, virtually blind in one eye; George Guynemer, T.B.; Frank Luke, deep psychiatric problems; Oswald Boelcke, asthma, and Bill Thaw of the Lafayette Escadrille, normal vision in only one eye.

The period between the wars resulted in further research on anoxia, radial and linear acceleration, neuropsychiatry in aviation,

and protective and other safety equipment. The result being that World War II was fought with sound knowledge of the aeromedical problems confronting man and his conquest of the air. All of the major powers established Aero Medical Research Laboratories with varying degrees of enthusiasm. The U.S.A. pioneered the field with Germany, (though denied by the Versailles Treaty) and made astounding progress. Japan was hamstrung by Army and Navy controversy and England so sadly lagged that Bomber Command aircraft during World War II rarely exceeded 20,000 feet due to faulty life support systems and inadequate indoctrination.

Before V-E Day, aviation medicine was faced with a new challenge, the jet-age. The fantastic speed and altitude performance of the new aircraft imposed heretofore unknown stresses on their personnel; the fatigue factor; and bail out problems being most noteworthy initially. In post World War II years and the nearing and passing of Mach I necessitated the development of escape capsules and coping with noise factors fifteen times the intensity previously contended with.

Dr. Robinson has compiled not only an excellent evolution of aviation medicine, but a rather exceptional history of aviation in general. At times, though some of the medical terminology may be rather heavy for the layman, it is certainly well worth the time and effort any of us might spend understanding the complexities to which man has subjected himself while conquering the air.

Robert A. Rose, D.D.S.

AIRPLANES FROM THE DAWN OF FLIGHT TO THE PRESENT DAY, by Enzo Angelucci. New York: McGraw-Hill, 1973. 287 pp. About 1,000 drawings in color and black and white, several hundred plane views, tables, bibliography, index. 8 1/4 x 11 1/2 inches, hardbound. Price \$14.95.

As book prices and content go these days, there is a lot of useful reference information in this package for the price. But more importantly, this is one of the best overall histories of airplanes (not aviation — note that important distinction) to come along in some time. It is interesting reading and ready reference at the same time, and few books can offer that combination successfully.

The author is an executive with an Italian publishing firm (where his work was first published in 1971 and where this updated English edition was printed), and set out in this book to provide a readable overview of nearly 1,000 selected aircraft from the first dreams of flight (including balloons) right into 1973 developments. He divides his subject into logical chronological periods with a running text providing background of aviation developments, concentrating on men and the illustrated machines. The strength of the work is in its color and black and white drawings of aircraft (highly reminiscent of the work of Douglas Rolfe) which are combined with meaty paragraphs telling the importance of each — and leaving the technical specifications to some 40 pages of tables which detail the aircraft in the same order they appear in the main body of the book.

The color renderings (done by Marco Rota, who also designed the book) are uniformly excellent and include many squadron markings as well as military and civilian aircraft insignia past and present. Coverage is well balanced, with wartime sections evenly divided between allies and enemy, and good coverage of European and Russian aircraft of today. Well bound and printed on quality white stock, this is a book pleasant to look at and very useful to own.

Christopher H. Sterling

MILITARY AIRCRAFT OF THE WORLD, by John W.R. Taylor and Gordon Swanborough. New York: Charles Scribner's Sons; 1973. 240 pp., illus., 290 photographs, silhouette drawings, index, 6x8 inches. Price \$5.95.

Nearly every aircraft type known to be operational with the world's air forces is included in this excellent single volume reference. 140 first-line aircraft are presented in the familiar "spotter's guide" format with each aircraft represented by a photo, silhouette, specifications, and description. An additional 157 second-line types are described by photos and a brief text. Eight pages of color photos provide an additional bonus for the enthusiast.

Persons familiar with the 1971 edition of **MILITARY AIRCRAFT OF THE WORLD** will find that the 1973 edition presents all new photographs of operational aircraft rather than manufacturer's photos, updated text, and the inclusion of 30 completely new aircraft types. A high degree of accuracy is expected from the editors of **JANE'S ALL THE WORLD'S AIRCRAFT** and the reader

will not be disappointed. The 1973 edition of *MILITARY AIRCRAFT OF THE WORLD* can be recommended even for those who already own the 1971 edition.

G. R. Markgraf

FLYING THE OLD PLANES, by Frank Tallman. New York: Doubleday & Co., 255 pages, illus., 8x11 inches. Price, \$14.95

Frank Tallman, as one of the pilots with the widest flight experience in the world, brings authority to a book of flight characteristics for a cross section of antique aircraft from the Tallmantz collection. Writing well, he explains that some have more modern engines (to meet his movie commitments), but specifies the original engine which was used in the text. The book format, one chapter for each aircraft type (Bleriot 11 through World War II) makes for easy stop and go reading, with a few good incidents connected with each. This is not an aeronautical history book, but it may get a lot of people interested in historical aircraft. It is certainly not a rehash of other people's work but, an honest recounting of some of Frank's experiences.

There are a few text and historical errors, such as the photo caption on page 16 calling a Fokker a Pfalz. The color photo reproductions in the review copy were disappointing. There were crisp, but with an overall pink blush. These should not keep one from enjoying the book and aircraft history from Frank's unique viewpoint.

Dave R. Fox

FIGHT FOR THE SKY — The Story of the Spitfire and Hurricane, by Douglas Bader, Group Captain, RAF (Ret) Sidgwick and Jackson Ltd, 1 Tavistock Chamber, Bloomsbury Way, London WC1A 2SF; 1973. 192 pages, illus., 141 photos plus 28 in color, 7x10 inches, index, Price \$8.95 (Canada) approx. \$9.25 U.S.

What more is left to say about the Spitfire and the Hurricane, which has not already been said? So many books have been written about these two fighters. But the enthusiast never tires to read and reread about them. Picking up the book one senses — "I've read this before." True! Nevertheless the book is enjoyable reading. In it the author retells of his adventures, with contributions and help from his fellow fighter aces many of whom became high ranking officers in the post-war RAF. No long-lost war diaries or little known exploits are presented to the reader.

In short chapters the book covers the birth of the two designs, followed by a short history of their activities in all theatres of operations — from Scotland to Java, from North Africa to Russia. If most of the black and white photos have been often reproduced, most of those in color are, to this reviewer, seen for the first time. Unfortunately many of the better pictures are spread across two pages with a cut in the middle.

Gerry Beauchamp

A DICTIONARY OF AVIATION, compiled by David W. Wragg. London: Osprey Publishing Limited, 1973. 286 pages, 6x9 inches, hard cover. Price: L4.45, approx. \$11.00.

The language of aviation, like aviation itself, ranges from the most familiar and obvious to the most specialized and obscure. It is a language which can be referential, or precise: "P-26, Boeing: the U.S.A.A.C.'s first all-metal fighter;" and yet it can accommodate the lyrical: "the P-26 was an elegant little machine." Like any other language, aviation's has its history, its rules of usage, and its nuances of meaning. *A Dictionary of Aviation* is attractive; Wragg moves from A to Z, compressing an enormous amount of information about aircraft, airmen, special terms and abbreviations and the considerable like into a book of just under 300 pages. It is also unpretentious, for as Wragg observes in his introduction:

"The prime purpose of *A Dictionary of Aviation* is to provide a guide to the more important events and personalities in aviation history, as well as to the more commonly used terms and concepts, and to the major airlines, guided weapons, aircraft, and aircraft manufacturers. It is considered that the specialist involved in any particular field of aviation activity does not require such a book to deal with his own interest in depth since he will be either fully conversant with all aspects of his work, or at least know of suitably specialised publications which can assist."

The purpose is well served, and Wragg's consideration of the specialist is well taken. There are no illustrations; and for the beginner or generalist who wants to see as well as be told, there is only verbal description. Three dimensional views such as those on recognition cards would enrich Wragg's economical categories of description. Moreover, the selection is often cranky in its own eclecticism.

Wing Commander Guy Gibson, the "dam buster," gets his just due, yet Brigadier General Ira Eaker does not even get honorable mention. While such types as the P-61 Black Widow and the TBF Avenger receive descriptions, it takes some digging: both appear in the sections considering Northrop and Grumman aircraft companies. In spite of these reservations, however, *A Dictionary of Aviation* is a necessary and useful book. Its price, in American currency, may inhibit the generalist audience for which the book is intended. Finally, while one would be reluctant to say that *A Dictionary of Aviation* will become a classic in the language of aviation, it is a beginning, and a fine one.

Lawrence Noriega

AMPHIBIAN: THE STORY OF THE LOENING BIPLANE, by Grover Loening. Greenwich, Conn.: New York Graphic Society, Ltd., 1973. 196 pp., 252 photographs, maps and diagrams, appendix and index. 10 x 10 inches, hardbound. Price \$14.95.

To know that 85 year old Grover Loening, one of the pioneering figures in aviation (and aviation writing) is still around, and turning out useful analyses of aviation is both comforting — and illustrative of that oft-noted feature of mechanical flight: its relatively short history. In this his eighth book (his first was in 1910!), Loening turns to a detailed study of a single airplane — the Amphibian he designed in 1922 and which was manufactured well into the 1930s, with several hundred eventually made and flown by civilians, the military, airlines, and a number of research expeditions.

The book is thus a two-pronged story: development and refinement of the plane itself, and (most of the book) its many applications in the golden years between the wars. Chapters are devoted to early uses by both Navy and Army (which used the plane on the 22 nation Pan-American flight of 1926-27), expeditions to both Alaska (several times), and the Arctic (with Byrd in 1925), attempts to sell the "Air Yacht" in Europe just before the depression, and early airline use (several in the Mid-West and Far West — and a notable experiment in China). Final chapters relate the changes wrought in the design by Keystone and later Grumman as those firms took over the Loening design and production teams while retaining the integral hull and float notion of Loening's on which the fame and dependability of the 200 plus Amphibians had been built.

Amphibian is roughly half text and half pictures. Loening writes informally and in the third person which gives a good feel for the men and planes of the time without becoming overly bogged down in detail (though a detailed production list with model numbers, date of shipment, and description for most of the Amphibians is in the appendix supplementing the text). There are no sources listed or noted (save in the acknowledgements) for with the exception of the chapter on Chinese use of the Amphibian, Loening wrote this book from his own files and memory. The photographs are nearly all new in that most have not been published before and reproduction quality is uniformly excellent (as one might expect from a publisher of this name). The result is a fascinating view of an important period seen through the development and use of a single family of aircraft.

Christopher H. Sterling

THE RISE OF THE LUFTWAFFE: Forging the Secret German Air Weapon 1918-1940, by Herbert Molly Mason, Jr. New York: Dial Press; 1973, 402 pages, photos, index, 6x9 inches. Price \$10.

When the Versailles Treaty was signed following World War I, thus rendering a complete emasculation of the German military, the far-sighted British Prime Minister David Lloyd George, prophesied, "Well, we shall have to do the same thing all over again in twenty five years, and at three times the cost."

True to the prophecy Germany did rise from the ashes of defeat. All Europe shook before the threat of Hitler's might. The new Luftwaffe without a doubt was the most feared of the frightening scourge. How then was this presumably invincible air arm developed within a matter of a few short years, starting from scratch after some fifteen thousand World War I airplanes were scrapped — how? How did Germany bamboozle Allied inspection teams who were supposed to prevent rearmament — how?

Thanks to author Mason's extensive study from many sources, we have a fantastic story of how Germany at first duped the Allied Control Commission, and after achieving some might openly defied the World. Glider clubs became a nucleus for a new crop of youths who in turn completed pilot training secretly within Russia. Factories having a front for turning out baby carriages and the like, were used to build Junkers, Messerschmitts, and Heinkels. The feeble Lufthansa Airline trained scores of bomber pilots. All of this clandestine development must be credited to the organizational efforts of General Hans Von Seeckt and his General Staff. Author Mason brings his story to a close just short of the Battle of Britain. Of the recent spate of Luftwaffe accounts, Mason's book is by far the best.

Martin Cole