

THE RIGHT OF THE LINE

THE ROYAL AIR FORCE IN THE EUROPEAN WAR 1939~1945

John Terraine



British Library Cataloguing in Publication Data

Terraine, John

The right of the line: the Royal Air Force in the European War, 1939–45.

1. Great Britain. Royal Air Force

2. World War, 1939-1945 - Aerial operations,

British

I. Title

940.54'4941 D786

ISBN 0-340-26644-9

Copyright © 1985 by John Terraine. First printed 1985. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the publisher. Printed in Great Britain for Hodder and Stoughton Limited, Mill Road, Dunton Green, Sevenoaks, Kent by St Edmundsbury Press, Bury St Edmunds, Suffolk. Photoset by Rowland Phototypesetting Limited, Bury St Edmunds, Suffolk. Hodder and Stoughton Editorial Office: 47 Bedford Square, London WC1B 3DP.

FO	REWORD	Page xi
ABI	BREVIATIONS	xvi
	PART I:	
	THE PREPARATION	
	"Qui desiderat pacem, praeparet bellum"	
1	BEGINNINGS	3
2	DISARMERS AND BOMBERS	6
3	A MODERN AIR FORCE	15
4	EXPANSION	24
5	REARMAMENT UNDER WAY	36
6	THE KNOCK-OUT BLOW	45
7	MUNICH	53
8	COMING OF AGE, COMING OF WAR	70
	PART II:	
	THE TEST	
	"The battle is the pay-off"	
9	NORTH SEA TUTORIAL	95
10		111
11	,	115
12	CRISIS OF BATTLE: FIGHTER COVER, BOMBER	113
12	OFFENSIVE	118
13		147
14	DUNKIRK	152
15	1940 CATASTROPHE: THE RECKONING	158

PART III:

THE STRAIN
"The only plan is to persevere."

THE BATTLE OF BRITAIN "... a few thousand airmen..."

16	BRITAIN ALONE	169
17	THE DOWDING SYSTEM	173
18	"CONTACT PHASE"; SIR KEITH PARK	181
19	"ADLER TAG"; THE "NUMBERS GAME"	185
20	AUGUST, THE CRUNCH; BEAVERBROOK	188
21	THE "BIG WING"; LEIGH-MALLORY, BADER	194
22	BATTLE OF ATTRITION; THE CLIMAX	206
23	DEFEAT FOR DOWDING	213
24	VICTORY FOR FIGHTER COMMAND	217
25	BATTLE OF BRITAIN: ENVOI	220
	THE BATTLE OF THE ATLANTIC (I) "Anxiety supreme"	
26	COASTAL COMMAND: RÔLE AND EQUIPMENT; U-BOAT	
	WAR, WIRELESS WAR	223
27	THE U-BOAT ENEMY; BOMBS AND DEPTH-CHARGES	231
28	THE BATTLE BEGINS; THE DÖNITZ SYSTEM; ASV	
	RADAR	234
29	LORD BEAVERBROOK RUSHES IN	24 0
30	THE ATLANTIC GAP; "THE CROW AND THE MOLE";	
	WESTERN APPROACHES; FALSE DAWN; BISMARCK	
	AND OTHERS	244
	THE STRATEGIC AIR OFFENSIVE (I) "The leading element in bringing about our victory"	
31	NEWALL AND PORTAL; THE GROWING SERVICE;	
	THE EMPIRE TRAINING SCHEME	251
32	BOMBER OFFENSIVE RESUMED; GERMAN MORALE;	
	AREA BOMBING	259
33	PHOTOGRAPHIC RECONNAISSANCE	269
34	OIL; "DIVERSIONS"; HEAVY BOMBERS; THE MOSQUITO	275
35	NEW ALLIES; "RHUBARBS" AND "CIRCUSES";	
	COMPULSIONS OF ALLIANCE	282
36	FOUR THOUSAND BOMBERS; EUPHORIA AND	
	DESPONDENCY; THE BUTT REPORT; AIR POLICY DISPUTE	289

PART IV:

THE VICTORY
"The Air must hold the ring"

	THE MEDITERRANEAN	
6	Air warfare in its own right	22

37	MIDDLE EAST COMMAND; THE TAKORADI ROUTE;	
	LONGMORE'S PROBLEMS	301
38	WAR WITH ITALY; WAR FOR AERODROMES;	
	OPERATION "COMPASS"	309
39	EAST AFRICA; AIR SUPPORT	318
40	THE GREEK FIASCO, 1941	325
41	THE AFRIKA KORPS ARRIVES; FIRST DESERT DEFEAT	334
42	TEDDER IN COMMAND; "COMBINED OPERATION	
	IN THE FULL SENSE"; A SYSTEM OF AIR SUPPORT	337
43	AIR SUPPORT/ARMY COOPERATION	347
44	CHURCHILL AND TEDDER; "CRUSADER"	352
45	AMERICA IN THE WAR; A NEW STRATEGY	362
46	MALTA	365
47	GAZALA: THE LOWEST EBB; "FIRST ALAMEIN"	369
48	MONTGOMERY AND CONINGHAM; ALAM HALFA	378
49	"SECOND ALAMEIN"; ADVANCE TO TUNISIA	383
50	OPERATION "TORCH"; THE CASABLANCA	
	CONFERENCE; VICTORY IN AFRICA	390
51	THE WAY FORWARD	400
	THE BATTLE OF THE ATLANTIC (II) " the dominating factor all through the war"	
52	SCIENCE AND INTELLIGENCE; THE LEIGH LIGHT;	
J L	TASKS OF COASTAL COMMAND	401
53	FALSE DAWN; DEFENSIVE AND OFFENSIVE	407
54	THE DARK NIGHT; ANTI-SHIPPING OPERATIONS;	707
JT	OIL SUPPLIES; "AN OBSTACLE TO VICTORY"	414
55	TURNING POINT; THE "GAP"; LIBERATORS; U-BOAT	717
33	REVERSES	427
56		436
50 57	ASV III AND H2S; ULTRA BREAKTHROUGH	430
31	THE LAST CONVOY BATTLES; NEW WEAPONS;	440
58	ATLANTIC VICTORY "PER ARDUA"	452
JŌ	PER ARDUA	432

	THE STRATEGIC AIR OFFENSIVE (II) " they are sowing the wind"	
59	BOMBER COMMAND PROBLEMS; AIRCRAFT AND	
	AIRCREW	459
60	HARRIS; THE AMERICANS ARRIVE; BOMBING AIDS;	
	INCENDIARIES	468
61	"MILLENNIUM"; PRECISION BOMBING IN 1942;	
	PATHFINDERS	481
62	"PRESCRIPTION FOR MASSACRE"; ANOTHER	
	STRATEGIC DEBATE	503
63	AIR "BATTLES" 1943; AIDS AND OPPOSITION; THE	
	RUHR	511
64	MORAL FIBRE	520
65	THE DAMS RAID; MASTER BOMBERS	537
66	THE GERMAN FIGHTER FORCE; "POINTBLANK"	542
67	HAMBURG FIRE-STORM; LUFTWAFFE VICTORY;	
	MUSTANGS; BOMBER COMMAND DEFEAT	545
68	<pre>VICTORY IN EUROPE " the highest degree of intimacy" COMBINED OPERATIONS, 1942–45: "COSSAC";</pre>	
00	LEIGH-MALLORY	559
69	COMBINED OPERATIONS: PANTELLERIA; LUFTWAFFE	337
0,	ECLIPSE; SICILY BLUEPRINT	566
70	COMBINED OPERATIONS: MAINLAND ITALY; SYSTEMS	
	OF AIR SUPPORT	580
71	COMBINED OPERATIONS: "OVERLORD";	
	COMMANDERS; MANPOWER; AIRCRAFT	599
72	"OVERLORD": COMMAND PROBLEMS; A QUESTION	
	OF AIRFIELDS	607
73	AIR SUPREMACY; INTERDICTION; TACTICAL AIR	
	FORCES; "BODYGUARD"	619
74	"OVERLORD": U-BOAT FIASCO; AIRBORNE ASSAULT;	
	AIR EFFORT	627
75	TACTICAL AIR SUPREMACY	632
76	COMMAND RELATIONS	637
77	"RACE-MEETINGS"; V-WEAPONS; "HAD FOR	
	SUCKERS"	647

78	MAKING AIR I	HISTORY; NORMANDY: TRIUMPH OF	
	AIR POWER		658
7 9	"BAGRATION	"; ADVANCE TO THE RHINE; ARNHEM	663
80	PORTAL AND	HARRIS; DRESDEN; THE FINAL ACTS	671
81	THE RIGHT O	F THE LINE	681
APPENDICES:		A. Western Air Plans, September 1, 1939 B. "Diversions" of Bomber	689
		Command	691
		C. The Crisis of the U-boat war:	091
	,		
		British, Allied and neutral	
		shipping sunk, January 1942–May 1943	692
		27 13	092
		D. Sinkings of U-boats, January 1942–May 1943	693
		E. A Mass Air Force	701
		F. Secretaries of State and Chiefs of	701
	,		702
		Staff, 1933–45	702
		G. Sir Charles Portal and the	702
		long-range fighter question	703
NOT	ES		705
BIBL	<i>IOGRAPHY</i>		793
GEN	ERAL INDE	X	801
RAF	INDEX		833
IND	EX OF AIRCI	RAFT	838

Foreword

At the Battle of Crécy, on August 26, 1346, the English Army under King Edward III faced apparently hopeless odds. A hard fight, with every possibility of disaster, was at hand. When the king drew up his army, it was to his eldest son, the 16-year-old Black Prince, that Edward "gave the place of honour and greatest danger, commanding the vanguard on the right of the line".* The battle was hard indeed, with the Black Prince's division bearing the brunt of it throughout. The English won, and the boy prince won his spurs, the supreme accolade of chivalry. It is from those distant times that "the right of the line" has come to mean, in battle, "the place of greatest danger" - "the vanguard" - and in ceremony "the place of honour". Thus, when the Army is on parade, it is the Cavalry (whose traditions go back to the age of chivalry) which forms on the right – unless the Royal Horse Artillery is present, in which case the horse Gunners claim the post of honour. When the three Services parade together, the Royal Navy, as the senior Service, takes the right, and the Royal Air Force, as the junior, takes the left. But in this book it is argued that in the war in Europe between 1939 and 1945 the RAF was, in effect, "the vanguard", holding for much of the time the place of honour on the right of the line, as the Black Prince and his men did at Crécy.

This argument will no doubt be considered odd by a number of people, because even now, in the 1980s, so much modern military history continues to be written two-dimensionally, that is to say, from the point of view of the land and sea forces only. And indeed, in World War I, when air warfare made its début, it was the armies and navies which continued to play the overwhelmingly larger part. In World War II the terms of reference were quite different; the Air rôle was always significant, often dominant. In the first half of 1940 the German Air Force ruled the skies of Europe; it is possible that its ten *Panzer* divisions would have enabled the Army to win the Battle of France without the aid of the *Luftwaffe* – possible but, I would suggest, not very likely, because it was the Air arm that produced the fatal demoralization of the Allies, leading to successive surrenders. Thereafter, it can

^{*}The Black Prince by Hubert Cole, p. 49, Hart-Davis, MacGibbon, 1976.

certainly be argued that the decline of Germany may be measured by the decline of the *Luftwaffe*. So the importance of the Air arm in Germany's effort is very clear. Meanwhile, as I shall hope to show, on the other side, the Royal Air Force found itself without option shouldering the burden of the war when the Army was in eclipse and the Royal Navy strained to its limits.

That is one of the main threads of this story; the second is my intention, throughout, to place both the war itself and the RAF's part in it firmly in the perspectives to which they truly belong. I do not subscribe to the notion that World War II was a thing apart, without resemblance to anything that had gone before. On the contrary, I see it as belonging to a sequence of great wars (that is, wars of great powers for survival) in the period whose technology was dominated by the First Industrial Revolution. These are: the American Civil War (this connection became very clear indeed in 1942–43), the First World War (so many of whose lessons had to be painfully relearned in the Second) and finally the great conflict of 1939–45. In all three the prime war material was steel, and the prime motive force was steam; but by 1939 a second revolution was well advanced, and it is to that, with its dependence on light metals and the internal combustion engine, that the RAF evidently belongs. From this standpoint it was soon obvious that any narrative of the RAF's war which did not dwell considerably on the products of the technology – the aircraft themselves – would probably be wide of the mark. The RAF, like the Navy, fights entirely with machines; they are of the essence.

The outstanding human aspect of the three great wars of this period is the mobilization of the masses. In World War I this was a totally unfamiliar procedure in Britain (though not in America or Europe), and having raised and maintained a mass army for the first time in their history by splendid and heroic efforts, the British then recoiled from the whole feat with disastrous results when war loomed again. The RAF profited from this recoil by presenting itself as an alternative to mass warfare. How amazed its founders and its champions must have been when they saw the mass air force of nearly one-and-a-quarter million men and women which the war brought forth! 1939–45 was the time of the vast air fleets, the big aircraft with large specialized crews, and the host of people on the ground required to direct and service them. The 1939–45 RAF was not, in other words, by any means the air force that it had expected to be.

The British are notoriously equivocal in their attitudes towards their armed forces. Grudging and parsimonious in peacetime, they try as far as possible to ignore the Services (or, indeed, abuse them), and then as

Foreword

war approaches to see them through the rose-tinted lenses of sentimentality and military ignorance. It came as a great shock in World War I that the Royal Navy, Britain's pride, not only failed to produce another Trafalgar, but suffered grievous losses, and at one stage looked like losing the war at sea. No attempt was made between the wars to strengthen the Navy so that this should not happen again; in 1939 it was far weaker than it had been in 1914 – yet it was expected to "rule the waves" as though nothing had happened since Nelson's famous victory. When the Army met defeat and disaster in 1940, the national instinct was to pretend that no such thing had occurred, and to elevate the Dunkirk débâcle into some kind of "miracle" victory. But the grim fact was that for the next two years the British Army was never able to engage more than four weak German divisions in battle – a hopeless situation.

Delusions about the RAF were – not unnaturally – similar. Even serious students of air power were misled by the prevailing optimistic sentiment. Thus J. M. Spaight, who rightly perceived and stated in 1945 that the Air Force had held the right of the line (as quoted on my title page) in the same passage echoed the national credo. Mistaken pre-war policies, he wrote,

were reprehensible, but they were atoned for by one great service which was rendered to the nation and indeed to civilization in those years of gathering storm-clouds. The standard of the Royal Air Force was not lowered. The Force was too small in 1939, but for all that it was the finest air force in the world. It was a superb arm of war.***

I leave it to readers to assess that judgment against the condition of the RAF at its "coming of age", as reported by its responsible commanders, Air Chief Marshals Sir Edgar Ludlow-Hewitt and Sir Hugh Dowding, and related in Chapter 8. For the nation, the five and a half years of the war against Hitler were a painful time of awakening from superstition; for the RAF they were equally painful – a time of awakening from false dogma, and learning the practicalities of war. The fact that this was such hard going only makes the achievement greater, the post of honour that much more deserved.

These, then, are the threads that I try to follow. I am conscious of many omissions, and I am sorry about them. Originally, I had intended to include the war against Japan in this account, but as I proceeded I realized that to do so would require another volume and another title, because the texture of the air war in the Far East was (for Britain, at any

^{**}AHB/II/116/17, p. 38.

rate) a very different matter from that in Europe. Yet I regret this gap, because that story is full of interest and drama. I regret the gaps in the Western narrative also – the Commands and functions which here receive bare mention or none at all. To all those who feel left out, I make sincere apologies now. And in addition there are individuals who do not receive their full deserts: members of the Air Council and the Air Staff, Group Commanders, "back-room boys", aircrew and ground-crew. To them, too, I can only apologize – and point to the already great length of the book, uncomplainingly accepted by the publishers.

It will be seen that in writing it I have leaned heavily on the material which exists in the Air Historical Branch of the Ministry of Defence. All this is, of course, also available in the Public Record Office, but it will be understood that great benefit accrues from having one's researches guided - as mine were - by the friendly and knowledgeable members of the Branch. To Air Commodore (rtd) H. A. Probert, the Head of the Branch, for his unfailing encouragement, to Mr Humphrey Wynn, its Senior Historian, for much enlightening discourse, to Mr J. P. Macdonald (now also retired) who went to much trouble on my behalf, to Mr Denis Bateman, Mr Eric Munday and all their obliging colleagues, I wish now to say how deeply grateful I am, and how much I valued their advice and cooperation. I could not have written this book without their aid. I must also add that this was at all times given without any attempt to influence my thoughts or conclusions beyond correcting palpable errors. This is *not* in any way an "official" history; it expresses my personal view, and the Air Historical Branch gave me invaluable assistance in forming it.

Group Captain (rtd) E. B. Haslam, the ex-Head of the Branch, has given me immense support throughout, and I can scarcely express the debt that I owe to him for his careful reading and re-reading of the manuscript, his wise suggestions and his great fund of information. Others on the Air side to whom I owe sincere thanks are Group Captain (rtd) T. P. Gleave, ex-Battle of Britain pilot and an Official Historian with great knowledge and wisdom, Mr Denis Richards, also an Official Historian, whose words are much quoted on the following pages, and Dr Noble Frankland, not merely for his contribution to the three volumes of the Official History of *The Strategic Air Offensive Against Germany*, but also for the penetrating and illuminating lectures which he delivered to the Royal United Services Institute in the wake of that publication. Robert Wright, biographer of Dowding and Sholto Douglas, is an old friend whose support I also value. Two other old friends to whom I owe a debt are Stewart Rodgers and Laurence

Foreword

Perkins, through whom I have been able to feel a certain intimacy with the ground-crew of the wartime RAF. Mr Tom Potts, though not an ex-airman but an ex-soldier, has been a mine of information on the technical aspects of the air war, and very kindly supplied me with a number of most useful items from his own library. Other soldiers have also been most helpful: Field-Marshal Lord Carver paid me the great compliment of reading the whole manuscript and making valuable comments on it; Major-General J. M. McNeill CB, CBE (rtd) supplied additional information on the important subject of Air Support; it was my friend Brigadier Shelford Bidwell (rtd) who led me to him in the course of some of our consultations which are by now a regular feature of my composition of military history. To all of these, and to others who, perhaps without realizing it, have helped to illuminate these pages, let me now say "Thank you". Finally, I must also thank Ion Trewin, my editor at Hodder & Stoughton, who has been unfailingly encouraging and supportive, Stephanie Darnill, the meticulous copyeditor, and Mary-Lou Nesbitt, who obtained the illustrations.

> John Terraine July 1984

