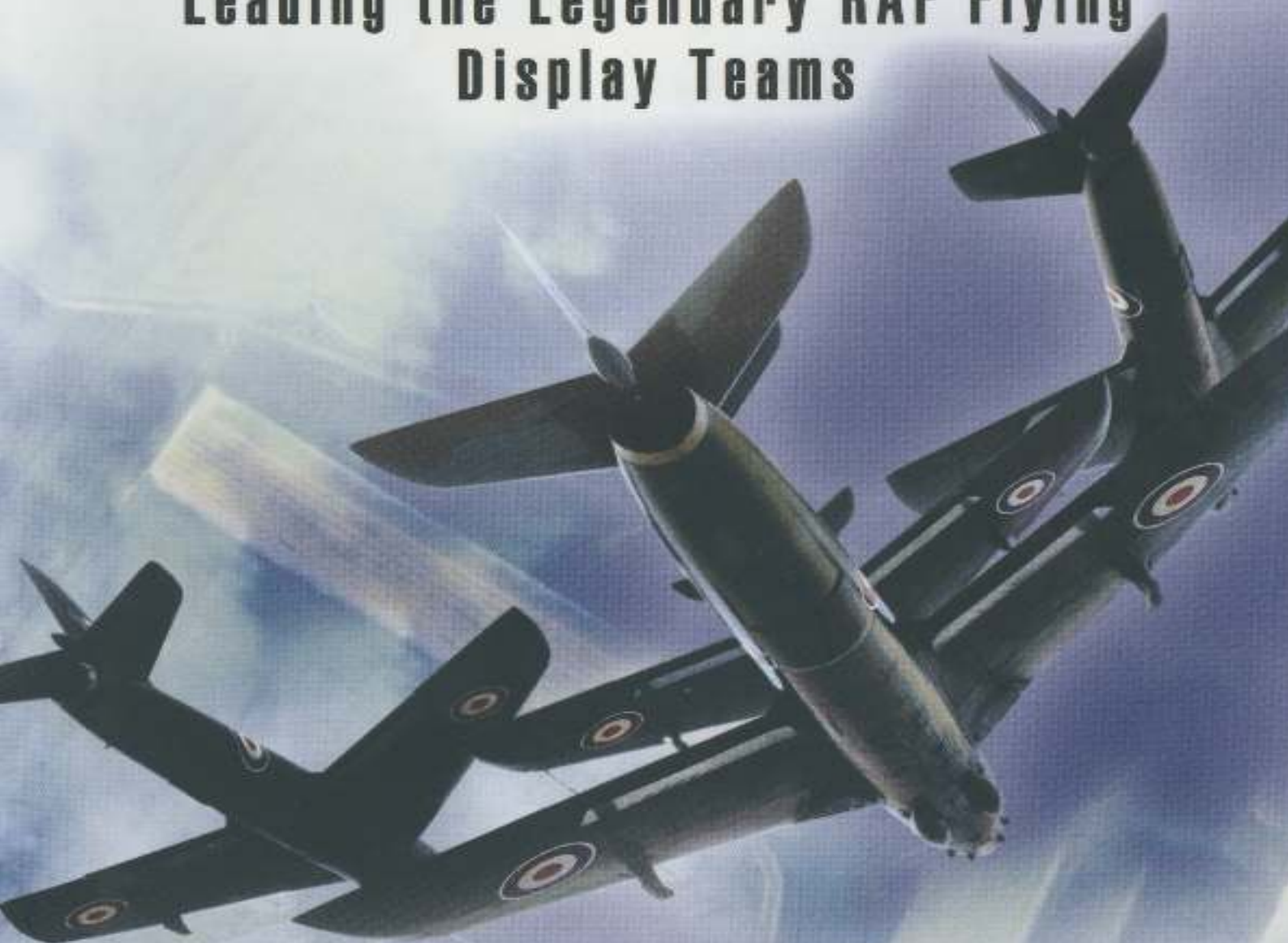


BLACK ARROW BLUE DIAMOND

Leading the Legendary RAF Flying
Display Teams



*Squadron Leader Brian Mercer, AFC**

**BLACK ARROW,
BLUE DIAMOND**

BLACK ARROW, BLUE DIAMOND

Squadron Leader Brian Mercer,
AFC*



First published in
Great Britain in 2006

By Pen & Sword Aviation
An imprint of Pen and Sword Books Ltd
47 Church Street
Barnsley
South Yorkshire
S70 2AS
England

Copyright © Brian Mercer 2006

ISBN 1 84415 392 4

The right of Brian Mercer to be identified as the Author of this Work has been asserted by him in accordance with the Copyright, Designs and Patents Act 1988.

A CIP record for this book is available from the British Library.

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopying, recording or by any information storage and retrieval system, without permission from the Publisher in writing.

Typeset in the UK by Mac Style, Nafferton, E. Yorkshire.
Printed and bound in the UK by CPI UK.

Pen & Sword Books Ltd incorporates the imprints of Pen & Sword Aviation, Pen & Sword Maritime, Pen & Sword Military, Wharncliffe Local History, Pen & Sword Select, Pen & Sword Military Classics and Leo Cooper.

For a complete list of Pen & Sword titles please contact

Pen & Sword Books Limited

47 Church Street, Barnsley, South Yorkshire, S70 2AS, England

E-mail: enquiries@pen-and-sword.co.uk

Website: www.pen-and-sword.co.uk

Contents

Explanation of Terms and Abbreviations

Foreword by Air Chief Marshal Sir Patrick Hine GCB, GBE, FRAeS

Introduction

- 1 Early Years
- 2 Initial Training
- 3 Advanced Training
- 4 Night Fighters
- 5 Day Fighters
- 6 Fighter Bombers
- 7 No. 111 Squadron and the Black Arrows
- 8 Schools Liaison
- 9 No. 92 Squadron and the Blue Diamonds
- 10 Military Twilight
- 11 Civil Aviation
- 12 Fini

Appendix A: List of Formation Aerobatic Displays Performed

Appendix B: 1962 Farnborough Display. The Blue Diamonds Team

Appendix C: Hong Kong and Kai Tak Airport

Index

Explanation of Terms and Abbreviations

ADF (Automatic Direction Finder)

A cockpit instrument that gives the bearing to a radio beacon or broadcast station. Also called a Radio Compass.

AOC

Air Officer Commanding

AI (Airborne Interception)

Radar set fitted to night fighters, eg A1 Mark 10, A1 Mark 21.

ASV (Air/Surface Vessel)

Radar set carried by Coastal Command aircraft to search for ships.

AVPIN (ISO-Propyl-Nitrate)

Used in the starting system on some military jet engines. This liquid is squirted into a combustion chamber and ignited. The resulting explosion then spins the engine

Balbo

A large formation named after the Italian General Balbo, famous for leading large formations of aircraft in the 1930s.

Battle Formation

A loose formation used by fighters in a combat area. Amazingly in the 1960s we still used the tactic first developed by the Luftwaffe Condor Legion during the Spanish Civil War. Hard lessons learned during the Battle of Britain caused the RAF to adopt the German system.

Bought The Farm

An American expression meaning to have crashed or met with disaster.

CRDF (Cathode Ray Direction Finder)

An instrument like a TV screen situated in the air traffic control tower which gives an instant bearing to an aircraft transmitting on VHF (very high frequency).

DME (Distance Measuring Equipment)

A cockpit instrument which gives the distance in nautical miles to which ever beacon is tuned in. had line of sight range and was reasonably reliable.

Dutch Roll

A combination of roll and yaw to which swept-wing aircraft are susceptible, particularly at high altitude. This phenomenon can become uncomfortable or even dangerous if allowed to persist. The corrective action is either to descend to a lower altitude or to apply a sharp aileron input against the rising wing. All modern swept-wing aircraft are fitted with a yaw damper which stops this from happening.

Forward Radar Control Post

Mobile radar station which could tell an aircraft flying at a known height and airspeed, when release its bombs to hit a target.

Finger Four

Tactical formation flown by four fighters, positioned like the fingertips of an outstretched hand.

GCA (Ground Controlled Approach)

Airfield radar which enables the controller to give radio instructions to a pilot to keep him lined-up with the runway and on the glideslope. The effectiveness of this aid was dependent on the skill of the controller and the pilot. It was out standard method of recovering fighters in bad weather and its use had proved vital during the Berlin Airlift.

GCI (Ground Controlled Interception)

The air defence radars were called GCI stations.

GEE

A navigation aid developed for Bomber Command during World War Two. Parabolic position line are superimposed on a chart and a navigator could determine his position by interpreting the signals from a master and two slave transmitting stations on a cathode-ray tube installed in the aircraft.

Hap Arnold Scheme

Name given to the scheme for training RAF pilots in the USA before America entered World War Two. Named after the commander of the US Army Air Corps.

ILS (Instrument Landing System)

Airfield radar that transmitted signals to an aircraft on the approach and allowed the pilot to make corrections to his flight path to stay on the glideslope and lined-up with the runway. The information was given to the pilot usually by a flight director instrument and a skilled pilot could follow the flight director commands down to about 100 ft. above the ground. It could be a demanding task on a wet and windy night at Kai Tak airport, Hong Kong, in conditions of bad turbulence and constantly changing drift.

Mach Number

Aircraft speed expressed as a percentage of the speed of sound. For example a Mach number of 0.8 equals eighty five per cent of the speed of sound.

QFI (Qualified Flying Instructor).

SBAC (Society of British Aircraft Constructors).

SSB (Single Side Board)

Efficient type of HF (high frequency) radar for long-range radio communications.

Telescramble

A direct land line from the radar station to the pilot in his cockpit. This line disconnects when the aircraft moves forward. A hunter pilot sitting in his cockpit on the operational readiness platform at the end of the runway with his engine off, could be airbourne sixty seconds after the order to scramble.

VOR (VHF Omni Range)

A radio beacon on very high frequency that gives the pilot a bearing to the beacon. Line-of-sight range and more accurate and reliable than ADF.

Wet Lease

The leasing of an aircraft complete with cockpit crew is a wet lease. A lease of an aircraft only, is dry lease.

Foreword

This eminently readable book will appeal to all those with a real interest in aviation. The author, Brian Mercer, has spent a lifetime flying both military and civil aircraft, and in the following pages he recounts his experiences in a style that transports the reader into the exciting and exhilarating environment of the air; appealing to young and old alike and reflecting the author's passion for flying and his innate sense of humour.

The book is essentially divided into two parts: the first focuses on Mercer's 18 years with the Royal Air Force, whilst the second covers his 30 years as an airline pilot. I knew him well during the first period when we served together three times, notably with the RAF's famous Hunter formation aerobatic teams of Nos 111 and 92 Squadrons (the Black Arrows and the Blue Diamonds). Brian was an outstanding fighter pilot and squadron commander, leading by example and with a flair that earned both respect and admiration. It is not surprising, therefore, that he sees the highlight of his aviation career as his time in command of No 92 Squadron.

The author gives a vivid and accurate account of life in the RAF in the early post World War II period. He describes how it took some time for the rather gung-ho, live-for-today wartime fighter pilot culture, which was partially to blame for the RAF's relatively high accident rate of the 1950s, to evolve into one that was more measured and responsible, and, in my view, more effective. A further reason for the RAF's poor flight safety record at that time was the lack of experience on jet aircraft of many of the more senior pilots and flying instructors; some indeed finding it difficult to transition from high-performance piston-engined fighters such as the Spitfire and Tempest to the jet-engine Meteor and Vampire.

Mercer explains why formation aerobatics is an inherently risky flying activity requiring skill, aptitude and a highly professional approach by pilots involved. They must have self-belief and total trust in their fellow team members; they take pride in their corporate achievements, and they enjoy the accolades and camaraderie. In essence, their "esprit de corps" is strong and tangible. The author successfully conveys all of this and, through a liberal smattering of amusing anecdotes, that life in such a tight-knit unit is above all fun.

The author's view that the RAF rather lost its edge after WW2 by lagging behind the Americans in swept-wing fighter development – the RAF's Hunter entered service some 4 years later than the American F-86 Sabre – is fair. He is also right to be highly critical of the UK Defence Minister's assumption in 1957 (the kernel of Duncan Sandys' Defence White Paper of that year) that manned fighter aircraft would soon give way to guided missiles. As a result, the Mach 2 Hunter replacement (the Hawker P1121) and other advanced aircraft programmes (the P1154 and TSR2) were cancelled. This macro policy change proved to be a disaster – manned fighters and fighter bombers are still indispensable today, viz the two recent Gulf Wars – and set the RAF back many years; indeed, some would argue that it has not yet fully recovered.

The reader can almost sense the agonizing that Brian Mercer must have gone through in making his decision to leave the RAF when a brilliant career still stretched before him. Like many other RAF officers at the time, and since, he clearly felt unable to come to terms with spending more time as a staff officer than in the cockpit and in command. He thus chose to swap a "mahogany bomber" (a staff desk) for an airline flight deck, which presented a different set of challenges but which, from a fighter pilot's point of view, could reasonably be described as driving a bus rather than a Formula One racing car! That the author was able to adjust very well is clear from his narrative, for he rose from junior First Officer to be Manager of Cathay Pacific's 747 fleet. While the adrenalin may have flowed less

often, the money and lifestyle were good, and most important, the buzz of performing to the highest standards in the air was still there. As this excellent book relates so well, I suspect that for Brian Mercer it always will be so; he is one of aviation's "elite".

Air Chief Marshall Sir Patrick Hine GCB, GBE, FRAeS

Introduction

My life in aviation spanned the years from 1946 to 1996 and this book is about what happened to me and my friends during that period. We are the forgotten generation; just too young for World War Two and just too old for the Falklands. We were the Cold War warriors and whilst most never had to shoot guns in anger, some of us did have moments of drama in such places as Malaya, Suez, Aden, the Oman and of course the big one – Korea. Significantly, Korea is now referred to as the forgotten war.

The RAF's involvement in Korea was small, but useful lessons were learned by those who flew on attachment to the American squadrons and No 77(F) Squadron of the Royal Australian Air Force because only they had experience of Jet v Jet combat. Nevertheless, the F86s shot down the Mig 15s at the rate of twelve to one and their task did not compare with that of Johnny in his Spitfire or Hank in his Thunderbolt up against Fritz and Heinz in their Messerschmitts and FW190s. The German pilots were very good indeed, as were the Italians, despite what we were told at the time. But history is full of examples of brave and gallant men fighting for rotten causes.

Our main task in the fifties and sixties was to confront the projected mass assault on the United Kingdom by large numbers of Soviet bombers, some of which would be carrying atomic bombs. To counter this nightmare we would have to scramble a mass of fighters as rapidly as possible irrespective of the weather conditions. Training for this scenario in our jet fighters, which had very limited endurance and carried no worthwhile navigation aids, led to some very interesting moments. We had plenty of accidents and I find it amazing that we did not have more.

I thought that the life on a fighter squadron was wonderful. The squadron was like our family, it meant everything to us. The mess parties could get a bit wild particularly in the fifties but it should be noted that all our Station Commanders, Wing Leaders, Squadron Commanders and most Flight Commanders, were veterans of World War Two, so the wartime attitudes were still in vogue. The same attitude prevailed on the night fighter squadrons despite their "lone wolf" type of operation.

So for year after year we practised and trained; honing our skills at air combat and gunnery and took our turn at sitting in cold cockpits at the end of a runway, ready to scramble at the first sign of a mystery blip on the air defence radar. Scrambles were quite frequent but thankfully it was never the real thing.

For some time I was involved in international display flying as a leader or a member of a formation aerobatic team and that added considerable spice to life at the cost of extra stress. Display flying meant that we saw interesting places and now and again met exalted personages. I was glad that my parents were able to attend one of my investitures at Buckingham Palace to make up for the problem I gave them as a rather unhappy schoolboy. I was amazed by the Queen Mother when she gave me my first "gong". Despite the fact that I was about number three hundred in the queue, she knew exactly who I was and what I had done and she did not seem to have received any prior briefing.

There was a bit of fear now and then. When you are running out of fuel in bad weather and unsure where the hell you are, those icy fingers start to dance up your spine. My periods of greatest tension used to occur just before a big air display. I remember at Furstenfeldbruck having to steady my right hand with my left to push the starter button. The funny thing was that as soon as the engine was running, all the tension vanished and I felt completely calm and in control.

Originally I intended to write only about the Air Force but then decided that Civil Aviation, particularly Cathay Pacific, deserved a chapter. Flying airliners is a job but flying fighters is more of a vocation and I hardly ever met anyone I did not like in the fighter world. Alas, I cannot say the same about the civil flying game where life is governed by the two S's: Seniority and Salary. But at least

Cathay Pacific was more like the Air Force than any other airline I can think of.

~~I would like to thank my old friend and colleague Air Chief Marshall Sir Patrick (Paddy) Hine for~~
writing the Foreword to this book. My thanks also to David Watkins for his help and encouragement
and finally, to Sheila Moss for her typing and patience.

Brian P. W. Mercer
Araluen, Western Australia
200

Early Years

I think it all started about 1935 when as a small child I was taken to an airshow by my father. It was probably in the Manchester area and very likely Alan Cobham's flying circus. I must have been five or six years old and remember little except for the noise, but one memory stayed with me. A small reconnaissance biplane taxied very close to us and when the pilot climbed out of the cockpit, his leather jacket, white scarf and goggled helmet left a lasting impression.

I grew up during the depression of the 1930s in a small town in north-east Lancashire, Greavesend, near Harwood. The town had been the abode of John Mercer, the inventor of mercerised cotton, a process which gave to cotton some of the qualities of silk. Consequently the town meeting place was the Mercer Hall and the central square contained a clock tower called the Mercer Clock. However, neither fame nor fortune had filtered down to my father's branch of the family from this distant relative.

My father was one of nine children. They were English Protestant stock with some Huguenot blood. They were also very poor. My paternal grandmother was a remarkable woman, for in addition to bringing up nine children, she was, by all accounts, a very accomplished cotton weaver. Apparently she used to go to the mill at 6 a.m. and set up her looms; return home to give the children their breakfast, then return to the mill for a full day's work. I remember her as a large, kind woman with a very commanding presence and my father thought the world of her. He was the second youngest of the nine and the only one who went to university. My mother was an Irish Catholic from a town called Swinford in County Mayo. She came to England following the Great War, together with her sister Cissie. They were both teachers. Mother was apparently something of a beauty in her younger years with startling green eyes and jet black hair. Perhaps a distant ancestor had been a survivor of the Spanish Armada.

The mixed marriage meant that I was sent to a Catholic college and my sister, Aileen, to a girls' convent school. Mother was a staunch Catholic but father had a much more relaxed attitude towards religion and in general outlook was a true liberal. It seems that during the 'troubles' following the Great War, my Uncle Willie on my mother's side was a fringe member of the IRA whilst my Uncle Leonard, on my father's side, served for a while in Ireland as an auxiliary policeman, a 'Black and Tan'. Leonard had fought in Palestine as a trooper in the 11th Hussars and, unable to get a job after the war, had gone over to Ireland. Neither uncle seemed in the least bloodthirsty to me. Willie farmed in County Mayo and Leonard, after a variety of jobs, married a wealthy widow. Both of them lived to a ripe old age.

Father went to France in 1916 as a private in the Royal Engineers just in time for the Somme battles. He eventually became a staff sergeant and was the chief despatch rider at one of the army headquarters, I think General Plumer's Second Army. Father was pretty lucky. He was never wounded but was gassed near Ypres and had to be invalided home for a while. He was talked out of joining the Royal Flying Corps by his mother, if she had not done so, the chances are that I would never have been born. He told me that he became so sick of the squalor of the ground war that the thought of a comfortable bed every night and escape from the never-ending bully beef and plum jam made the risk worthwhile. However, becoming a pilot in 1916/17 was only just short of committing suicide. Father had a lot of his old maps from the war and I have clear memories of his stories of that awful conflict.

At the age of eight or nine, I knew about places like Ypres, Messines Ridge, the Menin Road and Passchendaele.

After the war my father obtained a BSc in Chemistry from Liverpool University and no doubt enjoyed a few years of batchelorhood in the 'roaring twenties'. He had a rich friend, the scion of a cotton family, who owned an Hispano Suiza car. He told me that the two of them once averaged a speed of 60 mph from Blackpool to home, a distance of some 40 miles, and a remarkable feat in the early 1920s.

Our part of Lancashire was a pretty good place to grow up. We lived right on the edge of town just beyond the really affluent street, naturally called Park Lane. This was the area of the cotton barons and the successful businessmen and professionals. Between our home and my elementary school there were areas of terrible poverty during the years of the Depression and I remember one night watching a large gathering of unemployed men holding a meeting in the town square. We were in my Uncle Claud's flat over his insurance broker's office. There were speeches and banners, a lot of noise, but no violence, and when they dispersed the sound of the clogs which most of them wore made a deafening noise. Martin Cruz Smith, accurately described this sound as 'like a river of stones'.

Uncle Claud was nicknamed Bogie, I never knew why but suspect it was because he could never manage a par on any golf hole. Father was a keen golfer and I often went around with him and his Scottish friend, George Robson, a local doctor. From my bedroom window I had an uninterrupted view of Pendle Hill, made famous by the Lancashire witches of the seventeenth century. The western foothills of the Pennines are really very beautiful, and in my view compare very well with the Yorkshire Dales. I have happy memories of cycling all over the area with my friends and swimming in the River Ribble at Mitton and Sawley. This is the area of Whalley Abbey, Clitheroe Castle, Stonyhurst College, Ribchester (a Roman cavalry outpost) and the Forest of Bowland, which stretches north up to the Lake District. I also remember bonfire nights; that old terrorist Guy Fawkes bequeathed a lot of fun to the boys of my generation, like raiding other bonfires to pinch their wood and ambushing rivals with little red firecrackers called demons. Great fun, but I suppose that is now forbidden.

Six days after bonfire night was Remembrance Day. I well recall the sombre looks, the cripples, the men with missing limbs and disfigured faces in the crowd gathered around the war memorial. We lived in an area of the 'pals' battalions'. In the small town of Accrington, not far away, there was a street after street with no young men left after the First World War. The park in my home town of about 8,000 souls has a war memorial containing hundreds of names, most of them from the Great War. Every Australian knows about Anzac Cove in Gallipoli, but how many British people know of Lancashire Landing just a few miles further south, where the Lancashire Fusiliers suffered 53 per cent casualties before they even reached the beach. The survivors still drove the Turks from the beach and established themselves ashore. British reticence has done a great disservice to the memory of our soldiers. A few years ago I had a discussion with an Australian about Gallipoli. He had no idea that any British soldiers had been there. I told him that the British lost 21,000 men, the French 10,000, the Australians 9,000, the New Zealanders 3,000 and the Indian Army 3,000. I didn't think he believed me. The British 29th Division, a first-rate division of regulars with Lancashire, Hampshire and Irish battalions was mathematically wiped out twice in the ill fated Gallipoli campaign.

On 3rd September 1939 the world changed. At the age of ten I listened to Neville Chamberlain's speech with my parents and could not understand why they looked so worried. In my ignorance and innocence I thought it was all terribly exciting and no thought that we could possibly lose the war entered my mind. To the children of my age it was all the Empire, 'Land of Hope and Glory', 'Rule Britannia' and that ludicrous song, 'We're going to Hang Out the Washing on the Siegfried Line'.

never heard my father sing that song. He and his generation knew just how hard it was to beat the Germans.

Our politicians had done it again. The army was small and badly equipped. The navy had no effective way to counter the inevitable U-boat offensive. Only in the air force was there a glimmer of hope, but even in the air we had a lot of catching up to do. But I was just a schoolboy trudging on foot and by bus to school every day. I did not really enjoy my schooldays. I was taught by Marist fathers, some of whom did not spare the rod. They certainly did not generate any enthusiasm for learning. The only subject I really enjoyed was history which was taught by a Mr Earnshaw, our only lay teacher. The school's sporting facilities were poor; it was soccer or nothing. To my mind there was too much religion including an annual period of retreat; days of prayer and meditation – sheer torture for the average schoolboy. At the age of eleven I was told that to skip Mass on Sunday was a mortal sin and should I die before going to confession, then I would burn in hell forever. My mother actually believed this rubbish.

One day, amorous advances were made to me by a priest. He did not succeed, and he was not a member of the school faculty. I did not tell my parents; it would have devastated my mother. But my scepticism towards organized religion began to grow from that day. However, I am not anti-Catholic. The service padres I met later were mostly good men and the Catholic ones seemed more human and relaxed than their Protestant counterparts. In his autobiographical book on the Great War, *Goodbye To All That*, Robert Graves says that the only padres one saw where the bullets were flying, were the RC.

School was accompanied by the blackout, sirens and air raids. We had great excitement one day. The siren sounded and off we jogged to the school air-raid shelter when right over our heads came a German bomber flying extremely low – so low in fact that I could clearly see a helmeted German face in the nose, which seemed to be staring right at me. The next moment two Hurricanes came flashing over, and they shot him down in the Rossendale Valley just a few miles away. One night my mother stuck my sister and me under the heavy kitchen table when a stick of bombs went off fairly close. There was a factory that made Bristol aero engines not far away and if that was the target then they missed. This factory was surrounded by barrage balloons which were all destroyed in spectacular fashion one day by an electrical storm.

My father was teaching mathematics and science at a local grammar school during the war and also served as a special constable. Mother was doing some supply teaching and my sister was at her convent school. She did not enjoy it much but was more academically inclined than me and eventually obtained a degree from Leeds University.

I clearly remember standing on a hill one night with my father, listening to the sound of the German bomber engines and watching the glow of the fires from a raid on Liverpool. Cousin Donald was a fighter pilot, and flew Spitfires and other types over Europe and Burma. His brother Joe was in the Western Desert. He was an RAF radio apprentice and after a pretty exciting and uncomfortable war ended up as a squadron leader signals officer. Cousin Arnie was in the USA learning to fly under the 'Hap' Arnold scheme. He ended up flying Mustangs and Spitfires but did not survive. Cousin Ed was a corporal in the WAAF at Biggin Hill and Uncle Arthur, who had been the radio officer on the White Star liner, was a radio instructor in the RAF. I could not wait to join them. Arnie was like the big brother I never had. He gave me my first ride on a motor cycle, his Scott Flying Squirrel, and also my first drive at the wheel of a car, on Southport Sands in his ancient Talbot. His father, my Uncle Fred, was rather cross about that because I was only ten at the time.

One day the Americans arrived, to the delight of the young women in our locality. The John Schlesinger film *Yanks* caught the atmosphere perfectly: trucks, jeeps and soldiers with a seemingly inexhaustible supply of chocolate bars and chewing gum. I arrived home one day with an American

soldier I had met on the bus from school. He was a big, polite young chap from Michigan. I hope I survived Omaha Beach and Normandy.

At about this time I realized that if I wanted to get anywhere in my life then I had better get cracking with my school work. In my final year, instead of hovering round the bottom of the class, I moved up to about second. At the school prizegiving following matriculation, the headmaster wore a rather bemused expression as he presented me with a prize. Out of ten subjects, I had done very well in nine but had failed Latin. I could never see the relevance of this subject. I objected to being rapped over the back of my fingers with the edge of a ruler by the Latin teacher – a very painful experience that came my way often. Nevertheless, I can still say in Latin, ‘These things having been done, the legions of Caesar crossed the river’! *Julius Caesar* was our Shakespeare piece for the final English literature examination, and to this day I can rattle off great chunks of the speeches of Caesar, Mark Antony, Brutus and Cassius.

With the war over, to everyone’s surprise I was accepted at the School of Architecture at Manchester University, four months before my seventeenth birthday. I thought the freedom of University life was marvellous after the stultifying atmosphere of school. I was actually allowed to talk to girls and drink beer in the students’ union. Two friends of mine were Dutch and in their room was a large swastika flag which one of them had pinched from the roof of the Gestapo Headquarters in Rotterdam. Meanwhile I was learning all about the finer points of classical Greek architecture: Doric, Ionic and Corinthian columns, and pseudo-peripheral temples. At this stage one learned about form and design; the engineering bits were to come later. Before too long however, it became clear to me that I was not a very good draughtsman. I had recently joined the University Air Squadron (UAS) and passed the medical and aptitude tests and was attending lectures on navigation, meteorology and aerodynamics in the evenings. Then one morning in January 1946, when I had just turned seventeen, I had my first flying lesson in a Tiger Moth at Barton Airfield. By the time we had climbed above the purple industrial haze into the clear blue sky, I was hooked. It was magic. Never mind that it was extremely cold (the rear cockpit of a Tiger Moth in the English winter is definitely not hot), this was what I wanted to do. I could not have known that I was going to spend the next forty-seven years doing little else.

I spent two weeks at an RAF Flying School near Wolverhampton in 1946. It was the annual summer camp of the UAS but I was not allowed to fly solo because of my age, which was a great disappointment. Shortly thereafter, following a rather disastrous attempt to design a public toilet for the town centre of Bolton, a project given to the students of my year, I went to see my professor and told him I wanted to join the RAF. Unsurprisingly, he thought that was a jolly good idea. There followed a frustrating delay, for the RAF did not want many new pilots at this stage. The Russians, however, were being increasingly difficult in Europe and Churchill had already made his famous ‘Iron Curtain’ speech in Fulton, Missouri. Eventually I was called for and had to go through the same medical and aptitude tests all over again. Finally I found myself pounding a drill square at Wilmslow as an aircraftsman second class, wondering when I would next see an aeroplane. Then someone remembered me and I was posted to the Aircrew Holding Centre at South Cerney, Gloucestershire.

It was an extraordinary period in the RAF which was still trying to reorganize itself following the post-war run-down. We were a diverse group at South Cerney. While most of us were little more than schoolboys, we also had an ex-Ghurka officer, an ex-Royal Navy deck officer and an ex-Seafire pilot who had been in the Pacific Fleet late in the war. There were two Australians and a Canadian who had worked their passage to England and an ex-warrant officer. In the group ahead of us there was even an ex-major from the Parachute Regiment. It did not matter who you were or what you had done or what rank you had held. All of us were lumped together as aircrew cadets living in barrack blocks and

subject to the same discipline.

Eventually we were sent to a flying grading school at Shellingford, near Oxford, and for me this was a delightful interlude, flying Tiger Moths around the beautiful English countryside. Taffy Watkins Jones, the ex-Seafire pilot, was excused this duty but Digger Ryde, who had got his wings with the Royal Australian Air Force (RAAF) at the end of the war, was not. My instructor was very impressed until I told him that I had done quite a few hours already with Manchester UAS. They let me fly solo and for the rest of the period at Shellingford my instructor seemed to concentrate on aerobatics and low flying which suited me fine.

After about three weeks we were back at South Cerney awaiting our fate, for depending on our performance at the flying grading school, we were to be trained as pilots, navigators or signallers. Our future was disclosed to us in a rather cold-blooded fashion. We were formed up on parade and in alphabetical order, were told our grading. There were some very disappointed faces on that parade. Young 'Rusty' Steele-Morgan was quite heartbroken to be told he was to be a navigator. We were to meet again. The RAF had reactivated the Rhodesian Air Training Group and we future pilots were to go to Southern Rhodesia and form No. 7 Course at Heany, just outside Bulawayo.

Initial Training

One winter's day, early in 1948, my companions and I boarded a Union Castle liner at Southampton and for the next three weeks lived the 'life of Riley' despite our miserable pay. We were in tourist class, but that seemed pretty luxurious after a military barrack block. There was an officer in charge of us but he was in first class, and as we all behaved ourselves, we hardly ever saw him. My Canadian pal, George Baldwin from North Bay Ontario, did not enjoy it much. He suffered dreadfully from seasickness despite the fact that he was one of the toughest young men I had ever met. He came back to life for a few hours when we called in at Madeira, a most delightful and picturesque island, but soon as we set sail again, he resumed his quiet, pale-faced demeanour. (Poor George was to die four years later in the flaming wreckage of a Meteor.) The rest of us thoroughly enjoyed ourselves with deck games, fancy dress parties, dances, all the usual shipboard pastimes. Also on board was a group of young men going out to join the British South African Police, as the Rhodesian police force was known in those days, and a group of young nurses who were going to work in the hospitals at Salisbury and Bulawayo.

Other pals of mine in the group were Frank Wilson from Bolton, a classical music enthusiast and champion beer drinker, Bob Cook and Bob Jacobs (who all eventually became BOAC captains); Vic Morgan, ex-Royal Marines, Neil Crighton-Smith, ex-Ghurkas, David Smith from the Royal Navy and Eric Gage, an ex-warrant officer. Eric was a lovely, even-tempered man. He must have been about twenty-eight and seemed very old to most of us. There was also Ralph Hancock from London. Years later I heard that he had been badly hurt in the crash of a Wellington trainer at advanced flying school.

Finally we arrived at Cape Town, tanned and fit, if several pounds heavier. The vista of Table Mountain before us was even more impressive than its photographs. The life of luxury was now behind us and we climbed aboard a train for the long journey up to Bulawayo. Many of our shipboard companions were on the same train. The journey lasted about three days and there were frequent stops to pick up fuel and water. At the night-refuelling stops there was usually a bonfire, surrounded by a group of Africans singing. This was the first time I heard the unique African harmony and I found it to be quite moving. We passed through Beaufort West, Kimberley, Mafeking and finally crossed over the Limpopo River into Rhodesia. After de-training at Bulawayo station we were transported to Heany by bus and shown into our barrack huts, which were very basic indeed and housed about twenty cadets. On that first evening in Rhodesia I became conscious of the particular smell of the African high country. Heany was about 4,500 ft above sea level. That African aroma was a faint and subtle mixture of woodsmoke and dust, and the memory stays with me today. For the next six months it was the same stuff again: navigation, meteorology, aero engines, aerodynamics, machine-guns, shooting rifles and pistols on the range – and drill, lots and lots of drill. We also had to play soldiers sometimes and march reasonable distances equipped with Lee Enfield rifles, tin hats and entrenching tools. We would dig a trench, jump into it, then jump out, fill in the trench and march home again. Meanwhile above us was the continuous drone of the Gypsy Major engines of the Tiger Moths and the snarling rasp of the Pratt and Whitney engines of the Harvards. The Harvards were referred to as the 'aluminum personalities' by the cadets.

We were all longing to get back into the air. The initial training went on for about six months and

felt like years. However, we had a good swimming pool and some tennis courts and I was fitter than any other time in my life. The food was basic – plentiful but not good. We had a cadets' mess where we could buy beer and tastier, if less healthy, snacks. Some of the instructors would visit our little mess occasionally and entertain us with Second World War songs around the piano. I particularly remember Johnny Smith-Carrington and Phil Clay being good at this.

Finally the initial training phase was over and we were given two weeks' leave. Neil Crighton-Smith and I went to stay with a Rhodesian farmer and his wife on their tobacco farm near Salisbury. A lot of the farmers took in cadets, and their hospitality was much appreciated. One night Neil and I helped some farmers and their workers to put out a forest fire, so we were able to do something in return for the hospitality. On another day I went shooting with a farmer called Eric Martin and shot a buck, but I felt so unhappy watching this beautiful creature die that I vowed never to shoot an animal again.

At last, back at Heany, it was time to go flying in the dear old Tiger Moth. I was introduced to my instructor, Flight Lieutenant 'Timber' Wood. I was told that he had flown Lysanders into French fields at night during the war, flying in secret agents and arms for the French Resistance fighters – a fairly hazardous operation. He had an unusual medal ribbon which was probably the Croix De Guerre. He and I got on very well. For several weeks it was circuits and landings, cross-countries, aerobatics, basic instrument flying, low flying and, now and again, illegal dog fights against other cadets, and I have happy memories of this period. Sometimes at weekends we would go into Bulawayo, where the rendezvous was the bar of the Grand Hotel and we would sometimes meet our instructors. They of course could afford to eat there, but we could not. However, at the bus stop was the famous Fritz with his food wagon. I can hear his voice now – 'Vun chicken roll und vun egg roll, Ja!' He was a great institution. Poor Neil Crighton-Smith had fallen by the wayside on his Tiger Moth flying. He just could not land the thing properly. Fifty or 5 ft above the ground seemed the same to him. He was given extra time but it was no good and the poor chap was packed off home.

I came across him in Malaya some years later in an incredible coincidence. One night in 1956, I was telephoned to go immediately to the Tengah operations Room. Some communist terrorists were attacking a police post in north-east Johore and I had to lead a strike with four Venom fighter bombers to blast the area with rockets and cannon fire at dawn. Off we went at first light and did the job. That night I was at the cinema in Singapore and who should I run into but Neil Crighton-Smith, who was now not only an officer in the Malayan Police, but also the commander of the police post that had been under attack.

At the end of the Tiger Moth elementary flying stage, I went down to Johannesburg to stay with David Smith and his family. He had managed to get a transfer to the South African Air Force. He was a South African and being an ex-naval officer, had found the spartan living conditions at Heany a bit rough after a naval ward room. Jan Smuts and his Unionist Party had only just been voted out by Malan's Nationalists and South Africa was entering its unhappy time. However I had a very pleasant two weeks there and met some very nice people, one of whom lent me his BMW motorcycle.

Back at Heany it was time to fly the Harvard, A much more 'grown-up' machine, with its 550 horse-power engine, constant-speed propeller, flaps, retractable undercarriage and a cockpit full of instruments and switches. The ubiquitous Harvard was a very successful training machine. It was a delight to fly, but had a couple of vices that were enough to keep one on one's toes. It would swing into a 'ground loop' on landing if you were not careful and would flick into a stall if the airspeed got too slow during a turn. Anyone who could fly a Harvard should have no problem flying a Spitfire or a Mustang. The Australians built a version, which they called the Wirraway, and even made a stop-gap fighter out of it. One shudders to think of the poor devils who had to fight the Japanese Zeros in

Wirraway. The RAAF had a song full of black humour about this situation. The only part I remember describes the required action should you get a Zero on your tail: 'Do not hesitate, shove the throttle through the gate and blind the bastard with oil.'

My new instructor was Flight Lieutenant Jimmy Whitwick. He looked like a bank manager and was very precise and conscientious. There would be no low flying and chasing ostriches across the African plain with Jimmy. He was a very good instructor and taught me well. During my first solo in the Harvard I remember feeling that at last I was becoming a proper pilot. I was of course, quite mistaken about that.

At this stage of our training we were upgraded from the barrack huts to smaller buildings with just two cadets to a room, so life became a little more comfortable. I had also been introduced to a wealthy family who owned some large department stores in Rhodesia. One particular free weekend I was due to be picked up at the camp gate and taken out to the family farm for a couple of nights. For the first and only time, however, I was put on a charge for being thirty seconds late for a lecture. That seemed to be the end of the weekend, but I hatched a plot with my friend Ralph Hancock. For the princely sum of 10 shillings, he agreed to attend the compulsory defaulters' parade at the guardroom for the orderlies' roll call. When the name 'Mercer' was called out, he was to shout 'Sir' in the approved military fashion. Unfortunately the orderly officer decided to inspect the defaulters' parade and Ralph earned me two extra days' 'jankers' for having dirty buttons. It was worth it but I was a bit cross about the 10 shillings.

A few of the ex-ground crew chaps had bought an old car which they rebuilt. It was an American Graham from 1934 or 1935 and four of us drove up to the Victoria Falls for a long weekend. We shared the driving because it was quite hard work driving on the dirt roads, which had two tarmac strips on which you kept your wheels. I found the Victoria Falls simply awesome. We were paddled across the Zambesi by a couple of locals and the angle of drift in the current was rather disturbing. The roar of the falls was very loud from just a little way downstream. The thought that the boatmen could lose their paddles was quickly banished from my mind. I remember standing within a few feet of a part of the falls called the Devil's Cataract. To have this vast quantity of water rushing down 400 ft very close to one's face was quite disturbing and the noise was deafening. We enjoyed two days of luxury at the Victoria Falls Hotel, then filled the car's fuel tank and set off for home, flat broke. Of course we ran out of petrol a few miles short of Bulawayo but were rescued by a Rhodesian farmer who kindly topped us up from a jerry can he had in his truck. The Rhodesians were all like that those days and I never noticed the slightest hint of racial tension. I feel angry and sad about the situation today in what is now Zimbabwe.

We were coming to the end of the academic part of the flying training before moving to the final stage, which would involve night flying, formation flying, aerial gunnery, dive bombing and low-level bombing. There was one exercise which I remember as very sick-making. It was the closest I ever came to being airsick. Squadron Leader Joe Bodien, DSO, was in the front cockpit and I was in the rear under a hood and could not see out. The exercise was recovery from spins and unusual attitudes on instruments. After about half an hour of this, Squadron Leader Bodien flew back towards Heanville doing a series of barrel rolls. Eventually I had to call him over the intercom. 'Sir, one more barrel roll and I'm afraid I shall be sick all over the cockpit.' To my relief, straight and level flight was resumed.

For the advanced stage of training my instructors were Flying Officer Bell and Flying Officer Philip Clay, DFC. An ex-Spitfire pilot, Clay maintained the fighter pilot attitude and should one of my manoeuvres displease him, he would unfasten the control column from the rear cockpit and poke me in the back of the head with it. I enjoyed the dive bombing and low-level bombing which we did at the range at Mielbo up the railway line towards Gwelo, where there was an RAF navigators' school.

Between Mielbo and Gwelo was a small place called Myasa. One cadet somehow got lost one day on a bombing exercise and flew too far up the railway line. This led to his dreadful pun. 'I obviously don't know Myasa from Mielbo.' Night flying was fun, although it was very dark on moonless nights over the African bush. Sometimes junior cadets hung about the holding point and cadged a night ride around the circuit in the back seat of a Harvard. I think there would have been a big fuss if the instructors had ever found out.

Finally it was all over. The last handling test, instrument flying test and navigation test were completed and those of us who had made it received our wings from Sir Godfrey Huggins, the Prime Minister of Southern Rhodesia. We were all very pleased with ourselves. My final flight at Heany was with Wing Commander Rump, the Chief Flying Instructor, on 15 September 1949, when he led a massed formation of Harvards over Bulawayo for the Battle of Britain anniversary. Then it was away down the railway line again for a glorious week off in Cape Town before boarding the *Edinburgh Castle* for another fun-filled ocean cruise back to Southampton. Home again after a year and a half fit, bronzed and happy to be home – even in rationed, socialist Britain.

Advanced Training

Following leave and a nasty bout of flu, I found myself back at South Cerney for a short bad-weather flying course on Harvards again. It was now December 1949. I was what was then called a P4 and on my sleeve wore a laurel device with one star in it. The Air Ministry had made a couple of strange decisions in that period. One was to get rid of the NCO's aircrew ranks of sergeant, flight sergeant and warrant officer. Instead they were P4, P3, P2, P1 or master aircrew. The more senior they were, the more stars they had in the laurel leaf. It was very unpopular and ground crew NCOs never knew who outranked whom in the sergeants' mess. Luckily this daft system did not last long and we reverted to the old ranks. The Air Ministry also changed the officers' uniform. The patch pockets disappeared and the tunic became plain-fronted, like a guardsman's parade dress. The classic RAF wings were replaced by a smaller version in gold thread. The whole ensemble looked wrong and was universally detested. This unpopular change was also reversed after a while.

At South Cerney I spent most of December in the back cockpit of a Harvard doing instrument flying and beam approaches at an airfield called Blakehill Farm. Just before Christmas I was given my White Card Instrument Rating and was allowed to take a Harvard up solo on my last flight and 'blow away the cobwebs' with a good session of aerobatics. Following a short break, I rejoined Vin Morgan at the Officers' Training School (OTS) at Spitalgate near Grantham. Out of twenty-eight of us who got our wings on the No. 7 Course at Heany, Vin and I were the only two who went to OTS, although several of the others were commissioned later.

Things were hotting up in Europe and elsewhere. The Berlin Airlift had already happened and before long the North Koreans were to attack the South and things became serious. Meanwhile for me it was lectures and more lectures, examinations and drill, drill, drill. How we all hated being screamed at by drill instructors! Finally it was over and I held the Kings Commission and was, officially at least, a gentleman.

At the end of April 1950, I found myself, together with Vin Morgan, at the Mosquito advanced flying school (AFS) at Brize Norton. I was about to enter a period of personal underconfidence, the only one I recall in my flying career. I have never understood why the RAF insisted that we had to switch off our engines and feather the propellers, or flame-out an engine, on a twin jet, in order to practise approaches and landings on one engine in a two-engined aircraft. Why not simply throttle back one engine? We killed far more expensively trained young men by this rule than were ever killed by the real event. In my view, it was a stupid rule for new pilots under training. Vin Morgan and I had been at Brize Norton for only a matter of minutes and were in conversation with a fellow No. 7 Course pilot who told us that Ron Lawson, a colleague from Rhodesia, had just been killed doing single-engined flying. He had got a bit too low and slow in his Mosquito with one propeller feathered and that was the end of him. The accident rate at Driffield, the Meteor AFS, was too high. Later there was an amazing accident at Middleton St George, another Meteor AFS. A young student pilot tried to overshoot on one engine with too low an airspeed and smashed through a car park, destroying his own car and demolishing his own room in the officers' mess. This building is now part of Teesside airport and locals say his ghost still haunts the corridors.

One morning I found myself walking towards a Mosquito with my instructor, Flight Lieutenant

Charlie Watkinson. He was a kind soul and could sense my apprehension. I had never been in a twin-engine aircraft. I had not flown at all for months and in front of me was a 3,000 horse-power machine which I was going to have to master. At first all went well. The Mosquito was a delight to fly; it was much, much faster than a Harvard and turned out not to be too complex after all. But Charlie left after only two flights and I found myself in far less sympathetic hands. Frankly I found the instructors at No. 204 AFS generally aloof and unsympathetic. The Commander seemed all right. He was Wing Commander Mike Hunt, a Beaufighter and Mosquito ace from the Burma campaign. Vin Morgan, I know, felt the same way I did. After only four hours on the aeroplane I was doing single-engine approaches and landings with one propeller feathered. After six hours I was flying solo. After eight hours they gave me a navigator, Hamish Dewhurst from Manchester. I think Hamish was part-camel because he could drink vast quantities of beer and never seemed to need to go to the toilet.

‘I was on Mossies during the War you know,’ he said, adding, ‘I was up at Charter Hall. We used to call it Slaughter Hall.’

Thanks Hamish I thought, that’s made me feel a lot better!

On 4 May 1950, Hamish joined me in Mosquito Mark 6, No. 669. We were up for a session of practice circuits and landings. On about the fourth landing this aircraft really swung on me, the first and last time this ever happened. Following a normal ‘tail-down wheeler’ landing, the tail wheel touched down and the aircraft tried its usual trick of trying to go gently sideways. I corrected with the rudder and the aircraft swung violently to the right – to this day I do not know why. Had I accidentally applied some right brake? Had the right tyre burst? I have absolutely no idea. We slid along the runway for a while with the left undercarriage collapsed and the left wing and propeller wrecked. The tower told us to get out as there was some fire. Hamish was quicker than me and accidentally kicked me in the head escaping through the top hatch whilst I turned off the magneto switches and fuel cocks. The Mosquito was a write-off but they were quite nice about it and got me into another one as soon as they could.

There was no more drama after that. The course proceeded normally: navigation exercises, lots of circuit practice and instrument flying, and plenty of single-engine approaches and landings. The Mosquito was a delightful machine, with wheels and flaps tucked away either on one or two engines. But in the circuit on one engine, it was a different story. As soon as you selected wheels down on the downwind leg, that big undercarriage slowly ground its way down because there was only one hydraulic pump working with one engine shut down. The wheels were like two big dive brakes and you slowly lost height with them extended. The flaps were also slow to extend or retract with only one hydraulic pump in action. The recommended minimum height for executing a missed approach on one engine was 800 ft. With full power on one engine and a dead engine on the other side, the minimum control speed on a Mosquito was about 140 knots, the same as the Meteor jet fighter. Below this speed the rudder authority was insufficient to maintain control. In the RAF this was known as the ‘critical speed’. (In civil aviation it is called V_{mCA} .) Steep climbs immediately after take-off were not recommended in a Mosquito because should you lose an engine before achieving 140 knots, then quite simply you were going to crash. It was a good idea to keep the initial climb very shallow until 160 knots, which was designated the ‘safety speed’. The critical period was only a few seconds, but these were important seconds.

My ex-Rhodesia colleague Jimmy Dolittle lost an engine on a Mosquito night fighter just after take-off one night from Church Fenton and managed to survive by reducing the power on the live engine a little. He went for miles down the Vale of York just above the roof tops as his airspeed slowly built up. There was no rudder-boost system on the Mosquito or the Meteor and the effort required to hold in full rudder was enormous; after a while your knee would begin to tremble.

uncontrollably. All multi-engined civil airliners have a rudder-boost system and should it be found to be faulty during the pre take-off checks, then you cannot go until it is fixed. It is a mandatory item.

Towards the end of the Mosquito course, No. 204 AFS moved to Swinderby in Lincolnshire and we finished off our night flying using a satellite field at Wigsley. Wing Commander Mike Hunt did my final handling test and passed me, although I cannot believe he was very impressed by my flying. My next stop was the night fighter operational training unit (OTU) at Leeming in North Yorkshire.

One of the first things that happened at No. 228 OTU, was the crewing up of the pilots and navigator/radar operators (nav/rads). My nav/rad picked me, I suspect, because he thought I was the most socially acceptable of the available pilots. He was Flight Lieutenant Basil d'longh a former Second World War Liberator navigator. I invited him to come with me to Cousin Donald's wedding in Lancashire; all my female relatives thought he was gorgeous and declared he looked just like the Duke of Edinburgh. We got on well and for the next three months we were busy doing lots of practice interceptions using the Mark 10 Airborne Interception Radar, mostly at night, over the North Sea. We also did a lot of air-to-air firing against towed sleeve targets and I was glad to discover that I was good at that, because I was still not a confident Mosquito pilot.

Two rather dramatic events occurred at Leeming during this period. A young pilot who was, I understand, a former Sword of Honour winner at Cranwell, got a bit low on the approach and hit a bread van on the Great North Road. Apparently there were loaves scattered all over the place. However, it was not a bit funny because the poor pilot lost a leg. A flight lieutenant navigator who had been crewed with a young sergeant pilot approached the powers-that-be and said he refused to fly with him any more because he did not think he was safe. There was a big fuss and a court martial was threatened. I do not know what happened about that, but perhaps the navigator had a valid point, as I will explain later in the book.

At last the long, long training was over, after the best part of three years. Basil and I were posted to No. 29 Night Fighter Squadron based at West Malling in Kent.

- **[Electrical Engineering: Concepts and Applications here](#)**
- [A Guide for the Perplexed: A Novel here](#)
- [download online Great Issues in American History, Volume 1: From Settlement to Revolution, 1584-1776 pdf, azw \(kindle\), epub](#)
- [read online The Mystery of the Icy Paw Prints \(Greetings from Somewhere, Book 9\)](#)
- [read online Statism and Anarchy \(Cambridge Texts in the History of Political Thought\)](#)
- [Sovereign \(Matthew Shardlake Mysteries\) pdf, azw \(kindle\), epub](#)

- <http://schroff.de/books/The-Lies-of-Sarah-Palin--The-Untold-Story-Behind-Her-Relentless-Quest-for-Power.pdf>
- <http://econtact.webschaefer.com/?books/Crabs--The-Human-Sacrifice.pdf>
- <http://nexson.arzamashev.com/library/Child-of-the-Prophecy--Sevenwaters--Book-3-.pdf>
- <http://rodrigocaporal.com/library/The-Mystery-of-the-Icy-Paw-Prints--Greetings-from-Somewhere--Book-9-.pdf>
- <http://musor.ruspb.info/?library/Statism-and-Anarchy--Cambridge-Texts-in-the-History-of-Political-Thought-.pdf>
- <http://www.experienceolvera.co.uk/library/Against-the-Current--Essays-in-the-History-of-Ideas--2nd-Edition-.pdf>