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Royal Air Force Historical Society

THE PROCEEDINGS OFTHE ROYAL AIR FORCE HISTORICAL SOCIETY

Issue No 12

| President: | Marshal of the Royal Air Force Sir Michael Beetham GCB CBE DFC AFC | | | |
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EDITORIAL

Once again we are faced with the problem of squeezing a quart into a pint pot. As a result it has been decided to hold over publication of the papers on 'Indonesian Confrontation' until Proceedings 13.

Regular features such as book reviews and correspondence have their place in this issue and I am pleased that we have at last been able to include Sidney Goldberg's article on the 'Y' Service. This is a subject which deserves further coverage – if more information is forthcoming.

Following 'The RAF in Operation Overlord', we come to the last in the current series of World War II symposia, staged at Bracknell, with 'The Air War Against Japan', in March 1995. When published, this will complete the wartime Bracknell Papers.

Our thanks are due to two members for their assistance. First, Edgar Spridgeon, who set up and operated his recording equipment at various meetings. Without him, Proceedings would largely have consisted of blank pages. Second, Air Commodore M J Allisstone, who kindly agreed to join the proof reading team. He has a particular knack for ferreting out grammatical and factual errors. His help is greatly appreciated.

Derek Wood Editor

ROYAL AIR FORCE HISTORICAL SOCIETY

Minutes of the Seventh Annual General Meeting of the Society held in the Royal Air Force Club on Monday 21st June 1993.

Present: Air Marshal Sir Frederick Sowrey (in the Chair) and 73 other members.

APOLOGIES FOR ABSENCE

Apologies for absence were received from Sir Frank Cooper and Air Vice-Marshal Ian Macfadyen.

CHAIRMAN'S REPORT

The Chairman welcomed members to the Meeting. He said that since we last met the Society has continued to provide a varied programme, often at the invitation of the Service itself. Last autumn's seminar at RAF Brampton on Flying Training in War and Peace drew the lesson that if the light blue line is going to be thin, then it has to be flexible and of high quality. The fourth of our 50th Anniversary series of Bracknell Seminars, on the Strategic Bomber Offensive, under our President's chairmanship was an undoubted success but it pained him that so many members were disappointed when the ceiling in numbers was reached, virtually on the first day of application. To try to help Bracknell I offered the Commandant £1,000 from our funds if it would enable him to buy extra catering, closed circuit TV and the like to accommodate all who wanted to be there, but it was really shortage of Service manpower which was the limiting factor. The outcome was that, encouragingly, the numbers went up slightly and he didn't take our money! I mention this to show how strapped for resources the Services have become and how events we would have taken in our stride are now increasingly difficult.

This September a team from the Society goes to Washington to take part in a joint two-day seminar at the invitation of the United States Air Force Historical Foundation. A series of papers on policy making, aircraft procurement and crisis response will continue the study of post-war cooperation and will be published.

Our nearly 700 members carry considerable authority. They will be dismayed to hear that the attitude of the Ministry of Defence to its historic buildings appears to be Treasury driven. The RAF Museum has been concerned for five years about Listed buildings at Hendon but has been frustrated in all its efforts to acquire any for its own use.

In December last year details were announced of the agreement made

with the Hastings Publishing Co, owners of *Air Pictorial*, for them to print our Proceedings and hardback seminar books at no charge in return for exclusive commercial use of our published material. This has been a great success. I will leave the Treasurer to cover the financial aspects and also our recent application to the RAF Central Fund, but publication in *Air Pictorial* has brought Royal Air Force history and also the Society to the attention of a wider audience in a responsible and factual way. Our member Edward Bishop, who handled this as Editor, has now left but is confident that his successor will continue in the same mould. The Committee will consider the position later this month. With the consequent improvement in our finances we are now able to think of helping budding authors to publish material on RAF history.

The Society would not have prospered without the support and encouragement of Marshal of the Royal Air Force Sir Dermot Boyle who died recently. It was his letter, published in the *Times* and *Telegraph*, which produced the initial response. Lady Boyle has thanked the Society for their sympathy in her loss.

Sir Dermot would always have looked to the future, as we must now do. The Committee will be giving thought to our future programme and what we may develop as a theme to replace the Bracknell series after 1995.

Lastly, there is this dedicated team, the Committee, running the Society on a shoestring with strict financial control to the highest standards of the Royal Air Force. They have raised over \pounds 7,000, plus the *Air Pictorial* agreement, without claiming a penny for themselves. This has enabled us to produce at least one hardback and one copy of Proceedings each year and hold the subscription at £15 for you – you marvellously supporting members, and that can't be half bad!

GENERAL SECRETARY'S REPORT

The General Secretary, Group Captain Ainsworth, reported that a major concern this year had been to ensure that the Society, a Registered Charity, was run in total conformity with the requirements of the Charities Act 1992, which now had the force of law. He was happy to be able to assure members that all was in order.

TREASURER'S REPORT

The Treasurer, Mr Desmond Goch, reported that the Report and Accounts for the year ending 31st December 1992 showed the finances of the Society to be in a healthy state. There had been a continuing improvement this year, due largely to benefits accruing from the agreement with Hastings Publishing Co and the steadily growing membership. The Society had also received the handsome grant of $\pounds 2,500$ from the RAF Central Fund. (The cheque was handed over by Air Chief Marshal Sir Michael Graydon, Chief of the Air Staff, following the meeting).

REPORT AND ACCOUNTS FOR YEAR ENDING 31st DECEMBER 1992

The Chairman referred members to the Report & Accounts for the year ended 31st December 1992, sent to them with the notice of the Annual General meeting, and asked if there were any questions. There were no questions. It was proposed by Mr Tony Bennell and seconded by Mr Tony Furse that:

'The Report and Accounts for the year ended 31st December 1992 be received, approved and adopted.'

The Chairman put the motion to the Meeting and it was carried unanimously.

APPOINTMENT OF COMMITTEE

The Chairman said the Meeting had now to appoint members of the Committee to serve from the end of this AGM until the end of the 1994 AGM. Since the AGM in 1992 the Committee had co-opted two new members to replace members who had resigned. They were Group Captain Joe Ainsworth as General Secretary, replacing Tony Jutsum, and Dr Jack Dunham as Membership Secretary, replacing Commander Peter Montgomery. Wing Commander Hugh Griffiths, a temporarily co-opted member, has left the Committee and the name of Wing Commander Andrew Brookes, an existing member, was omitted in error from the list which accompanied your notice of the AGM. With these changes the existing members of the Committee (other than the ex-officio members), being eligible, offer themselves for re-election.

The Chairman pointed out that under the terms of the Charities Act 1992 all members of the Committee were trustees of the Society with legal duties and responsibilities. All members of the existing Committee offering themselves for election or re-election were aware of those responsibilities and duties.

In response to a request by the Chairman there were no other nominations for election to the Committee.

The Chairman said that, if the Meeting agreed, it would save time if the

appointments to the new Committee were dealt with en-bloc rather than individually. It was proposed by Mr John Burningham, seconded by Mr David Nutting:

'That the re-appointment en-bloc of the fourteen members of the existing Committee of the Society (other than the ex-officio members) be and is hereby approved.'

The Chairman put the motion to the Meeting and it was carried unanimously.

It was proposed by Mr John Burningham, seconded by Mr David Nutting:

'That the re-appointment of the existing fourteen members of the Executive Committee of the Society, other than the ex-officio members, as listed in the Note to the Notice of this AGM but excluding Wing Commander Griffiths and with the addition of Dr Dunham and Wing Commander Brookes, to hold office until the end of the AGM in 1994 be and is hereby approved.'

The Chairman put the motion to the Meeting and it was carried unanimously.

Members of the Committee (* = Ex-Officio Members)

| Air Marshal Sir Frederick Sowrey KCB CBE AFC | |
|--|--|
| Group Captain J C Ainsworth CEng MRAeS | |
| Dr Jack Dunham PhD CPsychol AMRAeS | |
| Desmond Goch Esq FCCA | |
| Air Commodore H A Probert MBE MA | |
| Air Vice-Marshal G P Black CB OBE AFC | |
| Air Vice-Marshal F D G Clark CBE BA | |
| T C G James Esq CMG MA | |
| *Group Captain Ian Madelin | |
| | |

| | Group Captain A R Thompson |
|---------|---------------------------------------|
| | MBE MPhil BA FBIM MIPM RAF |
| Members | A S Bennell Esq MA Blitt |
| | Wing Commander Andrew Brookes RAF |
| | *Dr Michael A Fopp MA PhD FMA FBIM |
| | Commander P O Montgomery VRD RNR |
| | A E F Richardson Esq RAF |
| | *Group Captain N E Taylor |
| | Derek H Wood Esq CRAeS |
| | |

REAPPOINTMENT OF AUDITORS

It was proposed by Mr Tony Bennell, seconded by Mr Tony Furse,

that:

'Messrs Pridie Brewster, Chartered Accountants, be and are hereby appointed Auditors of the Society and that the Committee be empowered to fix their remuneration.'

The Chairman put the motion to the Meeting and it was carried unanimously

Frederick Sowrey *Chairman*.

WORLD WAR I AND THE ROYAL AIR FORCE

Mr John Terraine

I feel extremely honoured to be speaking to you tonight. We are here to celebrate a 75th Anniversary which I don't need to explain to you. This three-quarter-century birthday of the RAF ought by rights to be an occasion for unhesitating congratulation and encouragement but I think that you will agree that to see it just like that today would require one to screw up one's eyes and block one's ears very firmly indeed. Every one of the three Services, from oldest to youngest, seems to me to be under threat of, at worst, abolition, and at best impotence. It is hard to find words of unmixed encouragement under a cloud like that.

It is at such moments that history comes bravely to the rescue. It reminds us that there have been some shocking situations before but we have managed to survive them somehow. We must remind ourselves that while in November 1918 the RAF was the largest air force in the world, with 293,532 of all ranks and 22,000 aircraft on its books, in March 1922 – only three years later – it had no more than three operational squadrons (less than 40 aircraft) with which to oppose a striking force of 300 bombers and 300 fighters just across the Channel, possessed by our recently warm allies but now distinctly distrustful neighbours, the French. Yet we survived.

Governments apparently bent on national suicide have always been a bane of the British forces. Lord Avon (Anthony Eden) recorded his sense of 'grim foreboding in my heart' in March 1935 when Hitler informed him that Germany possessed air parity with Britain. The 'Ten-Year-Rule' (assisted by wilful blindness) had come home to roost. Much nearer to our own time, March 1982, only the ill-advised impetuosity of the Argentine Government prevented the Ministry of Defence from disposing of HMS *Invincible*, HMS *Hermes*, a number of other naval vessels and the Vulcan bombers in case they interfered with the Argentine plans for invading the Falkland Islands. But we did interfere nevertheless.

So history bids us not to despair. The relief column, headed by its regulation pipe band, may yet arrive in the nick of time or, if the relief column is too busy, perhaps the US Cavalry will come galloping to our rescue. Perhaps.

History, I think, finds firmer ground for encouragement when it recalls the achievements which stand on record, and in this respect we may take a good measure of comfort from the first 75 years of the RAF. Not for nothing did I give my book the title: *The Right Of The Line*.

That phrase seemed to me to sum up the performance of the combatant commands in World War II – but tonight I am billed to speak to you about World War I, a somewhat different matter, which nevertheless contains the date of your collective birth. Since the RAF, under that name, only spent 7 months and 11 days engaged in that war, since, also, to those engaged on its natal day, April 1, the action would have seemed indistinguishable from that of the day before and many days before that, I think I have to stretch a point and make the Royal Flying Corps our main business.

The trouble with all these exercises is to know where to begin, and in those early days of flight the novelties and new developments came crowding in at what seems to me to be amazing speed. It was December 17 1903 – 90 years ago – when Orville Wright's Flyer Mark 1 lifted off the ground for no less than 12 seconds to travel 120 feet and announce the miracle – man had taken to the air. And just to prove it, the Wright brothers made three more flights on that bitterly cold morning, the last of them producing the rather more convincing figures of 59 seconds duration across a distance of 852 feet.

There followed an understandable pause during which a more plausible flying machine was evolved and the inventors of engines and airframes swarmed in, and then the historic dates began to multiply. Military aviation is generally considered to have begun when the Wrights displayed their latest aircraft at Le Mans in 1908 and the French Army showed a marked interest. By 1911 upwards of 200 aircraft of one kind or another were available for the French annual Army manoeuvres, and we may note that British observers were particularly impressed with the display of liaison between the aeroplane and the artillery.

Already, in Mexico, in the course of one of those revolutions which seemed to come up as regularly as the grouse season, an airman had flown over fighting in progress and reported back on the ground situation. Later in the year – September 1911 – in the war between Italy and Turkey in Tripoli (now known as Libya) this activity became commonplace. Four Italian officers made an average of 78 flights each, mainly for purposes of reconnaissance and survey, and it was possible to draw certain conclusions from these, noted by the Military Correspondent of *The Times*:

'they discovered that it was unsafe to fly above enemy rifle fire in unarmoured machines at less than 3700 feet; that reconnaissance by an untrained observer was worse than useless; that dropping handgrenades over the side of the cockpit was futile; that aerial photography was extremely valuable.'

Not bad for 1911!

All these interesting occurrences were noted in Britain and an Air Committee was set up in January 1912 to advise on the creation of a 'British Aeronautical Service'. The chairman of its technical subcommittee was Colonel J E B Seely, soon to become Secretary of State for War. He told its members:

'At the present time in this country we have, as far as I know, of actual flying men in the Army about eleven and of actual flying men in the Navy about eight, and France has about 263, so we are what you might call behind.'

The Air Committee wasted very little time. On April 13 1912 the Royal Flying Corps was constituted by Royal Warrant. It consisted of a Naval Wing and a Military Wing; the Official Air History tells us, 'In the Naval Wing a certain centrifugal tendency very early made itself felt'. In fact the separate existence of the Royal Naval Air Service was officially recognised on 1 July 1914, and shortly after that it began to give, as the saying goes, 'every satisfaction', providing, among other things, the first air attacks on enemy soil. The most impressive of these was the attack on the birthplace of the famous Zeppelin airships, Friedrichshafen on Lake Constance. Three Avro 504s took off from Belfort in Alsace (a long way from the sea!) on 21 November 1914 to attack the Zeppelin sheds; they certainly destroyed one Zeppelin (some accounts say two) and did a lot of damage to the sheds. This raid, says Kenneth Poolman,

'struck right at the almost sacred heart of the whole great Zeppelin venture After the raid nothing seemed safe from British Naval bombs'.

The Military Wing of the RFC was part of the Army, and did not pretend to be anything else. As such it took part in the British Army manoeuvres of September 1912, which displayed a portent at least as significant as the French manoeuvres of 1911. The two sides were commanded by the two rising stars of the Army, Lieutenant-General Sir Douglas Haig and Lieutenant-General Sir James Grierson. In August 1914 these officers commanded the two army corps of the British Expeditionary Force; the 1912 manoeuvres were their first experience of the effect of air power on land battle. It was to be salutary for both, which suggests that this may be the true starting-point of our subject tonight.

The manoeuvres were scheduled to begin at 0600 on Monday 16 September. The first problem for both generals was to locate the enemy, and naturally – in 1912 – both turned to their cavalry for that purpose. Grierson's cavalry commander was Brigadier-General C J Briggs, who, says the Official History,

'told General Grierson that the forces were far apart, and he could not hope to bring in any definite information till Tuesday. General Grierson was then reminded by his chief staff officer that we had some aeroplanes. 'Do you think the aeroplane could do anything?' (Grierson) asked of Major Brooke-Popham, and on hearing that they could, ordered them to get out, 'and if you see anything, let us know'. Monday morning was fine and clear; the aeroplanes started at six o'clock; soon after nine o'clock they supplied General Grierson with complete, accurate and detailed information concerning the disposition of all the enemy troops. During the rest of the manoeuvres he based his plans on information from the air.'

The air component of each side was a squadron of seven aeroplanes and an airship. Haig's airship unfortunately broke down right at the beginning – they were very liable to do that – and so gave him no help. It would appear that he did not call on the aeroplanes, and no-one prompted him to do so. The result was that Grierson was the clear winner of the manoeuvres, thus supplying what the Air Historian called 'the first triumph of aerial reconnaissance in England'. Grierson, despite the initial advantage his aeroplanes had given him, said in his report:

'The airship, as long as she remained afloat, was of more use to me for strategical reconnaissance than the aeroplane, as being fitted with wireless telegraphy, I received her messages in a continuous stream and immediately after the observations had been made.'

A perfect result. Grierson had no doubt about the effectiveness of his air component; he added that, 'The impression left on my mind is that their use had revolutionised the art of war'. And in a lecture the following year he went even further, 'I think there is no doubt that before land fighting takes place, we shall have to fight the enemy's aircraft warfare will be impossible unless we have the mastery of the air'. Subsequent generations will confirm, while they may wonder at, this prescience. And since defeat is often a more valuable teacher than success, we may include Haig among those who profited from the lesson. His respect for the Air arm never faltered after 1912, and his relationship with Trenchard in the coming war was a model.

The first few weeks of the First World War witnessed a war of tremendous movement. Enormous armies were on the move on the eastern fronts in Poland and Galicia; equally enormous armies were moving in the west, either on foot or on horseback or horse-drawn – motor vehicles were present, but everywhere in short supply – presenting amazing spectacles for observation, though neither side possessed the equipment to attack them in 1914. It is one of the wonders of history that the French Air Force, with some 136 operational aircraft, completely missed the mass of about a million men, forming the right wing of the German Army advancing through Belgium in accordance with the Schlieffen Plan. The Germans equally completely missed the landing of the BEF and were surprised to meet it at Mons, and they missed the movement of a whole French Army from right to left to counter the Schlieffen Plan.

The Royal Flying Corps missed very little; it reported the German outflanking movement against the BEF at Mons; it watched the German advance after the battle, and together with the French airmen who had now caught on, it reported the fatal German swing to the south east which wrecked the Schlieffen Plan and made possible the Battle of the Marne. The RFC, we must remember, was only four squadrons strong, and only two of these even had uniform equipment (BE2s). This was perhaps less of a disadvantage than it sounds, because there was no such thing, in those very early days, as formation flying. As the Official History says, 'each machine did its work alone' – I think it would be fair to call that a 'pregnant Statement'.

When one also takes into account the circumstances of a continuous 13day retreat, with all the RFC's ground equipment loaded on lorries whose 'aerodromes' often had to be improvised, and were changed almost daily, one can see that the new Arm was 'in at the deep end'. But in the fine summer weather the pilots and observers carried out their daily reconnaissances, 'not knowing whether their aerodrome would be in British or enemy hands by the time they should return'. It strikes me as a very fine performance.

But almost immediately the scene would change; the great French

victory on the Marne was followed by the Battle of the Aisne, starting on 13 September, and that was when the unexpected phenomenon of trench warfare was encountered. The war of movement did not immediately end when the two sides dug in along the River Aisne; the natural reaction was to seek a flank and turn it, and the whole of the exercise misleadingly called 'the Race to the Sea' was an attempt to do that – resulting, as we know, in the precise opposite because when they reached the Channel coast there was no more flank to turn.

The BEF, however, did not take part in the 'Race' until the very end. Its move north to the famous battleground of Ypres did not begin until 3 October and was not completed until the 19th. The five weeks on the Aisne were very educational, because the style of war encountered there was going to be predominant for most of the next three years. It very quickly became apparent that trench warfare was also going to be 'artillery war', because only artillery could demolish the trenches where the armies had gone to ground. But to do so, of course, it had to be directed accurately on to proper targets. This proved to be easier said than done, but from the very first also proved to be a major concern of the RFC.

Artillery observation by powered aircraft had received very little attention before the war. This was not because no one had thought of it; it was because both aircraft and ammunition were in short supply and so was money. It was a situation very similar to Bomber Command's vain appeals for bombing ranges before World War II – what you might call a recurring blight.

It was fortunate indeed that two ex-Royal Engineer officers who had joined the RFC in 1913 had given a good deal of thought and effort to central matter of co-operation with artillery: air-to-ground communication, without which the thing could not exist. Lieutenant B T James and Lieutenant D S Lewis were both firm believers in the possibilities of wireless telegraphy. In June 1914, using the latest airborne transmitters (each set weighed about 75 lbs, so it was usually a matter of choosing between a wireless transmitter or an observer) and both flying BEs, they made a flight of about 35 miles, ten miles apart and in communication by radio all the way. It was a short step from that to air-to-ground signalling.

The Battle of the Aisne gave them their opportunity; Lewis devised a squared map to simplify the messages, and James shortly afterwards added the clock-code which the infantry used for aiming. This was the beginning of an intimate relationship between the Air and the guns which played a

decisive role in the artillery war. It was a bad day for the artillery when the airmen could not be its 'eye in the sky'. In fact, very early in January 1915, when he was making his first plans for the Battle of Neuve Chapelle, Haig, now commanding the First Army, was discussing the RFC role with Trenchard, and told him, 'If you can't fly I shall probably put off the attack'. When the battle did take place, on March 10, the plans drawn up were largely based on photographic reconnaissance, using cameras which were only delivered to the squadrons in February. This was the effective beginning of a long, distinguished and unfinished chapter of RAF history.

In general, 1915 was a miserable year for the BEF, with every kind of equipment in short supply. On the other hand, it was also a period of experiment and incubation of what, in some cases, turned out to be priceless new techniques.

One novelty breeds another; photo-recce, having appeared, was much in demand – and so, on both sides of the line, was prevention of enemy photography, leading quite naturally to air combat, in turn calling for specialised aircraft. The best of the fighters were still a long way off in the future (1917 was their hey day) but the necessity to seize and hold air supremacy was perceived in 1915.

There were various experiments designed to improve air-to-ground communication. No great success could really be expected until radio technology had advanced a considerable distance; the full answer would be radio-telephony, which did appear before the war ended, but as Desert Air Force veterans may confirm, still left a lot to be desired in the early 1940s, and the same was true in the Atlantic.

Interdiction, a tactic much practised in Italy and North West Europe in 1943 and 1944, was attempted in May 1915 – a total failure – and again in September, as an integral part of the plan for the Battle of Loos. This time the enemy's railways were the principal target (as they were in northern France before D-Day in 1944), and in spite of unhelpful weather conditions a small amount of damage was done, but never enough to delay the arrival of German reinforcements on the Loos battlefield. The truth was, as Mr John Cuneo said, that in 1915

'The bombing raids were excellent attempts to isolate the battlefield but insufficient aeroplanes nullified the theory'.

One might add that two other things were also lacking: real weightlifting aircraft (not present until 1918) and effective bombsights (on

which work had begun, but did not really come to fruition until 1942). As Mr Cuneo also says

'Throughout World War I the air services of all nations kept trying to accomplish too much with too little'.

Yet 1915, frustrating though that year was in so many respects, saw the first step taken towards the ultimate war-winner. In the artillery war, not surprisingly, this proved to be a matter of evolving new artillery techniques, and in the words of the two Royal Artillery brigadiers – Shelford Bidwell and Dominic Graham – who have researched fire-power with such authority, in the evolution of these techniques, the 'starting point and pivot was the Royal Flying Corps pilot.'

This is simply a thoroughly deserved tribute to what now became a regular, routine task of the RFC for the next three years. The artillery war was, from the first, almost entirely conducted by 'indirect fire', ie the gunners of all armies were normally shooting at invisible targets. This made possession of an accurate map essential – accurate, that is to say, to within 15 to 20 yards. No such thing existed in 1915, so the decision was taken to have one made by the newly formed Field Survey Companies of the Royal Engineers, working closely with the RFC. From this derived many hours of tedious but highly dangerous photographic flying for the RFC, but for the artillery the opportunity to restore surprise and precision to battle - which it duly did at Cambrai in November 1917. And this technique, in the hands of the Germans and Allies in 1918, supplied the key to unlock the trench-bound front. It could not have been done without the RFC, and in conjunction with the rest of its day-in, day-out co-operation with the Royal Artillery, this constituted in my opinion the most important contribution of the Royal Flying Corps to the winning of the war.

In 1917, however, it found another role of immediate importance and for its successor, the RAF, of great future significance. It was in 1917 that Germany made her formal declaration of Unrestricted Submarine Warfare, which very soon created as dangerous a situation for Britain as the threat of the Spanish Armada in 1588. The German U-boat campaign of 1917, unlike the Battle of the Atlantic between 1940 and 1943, was a mainly inshore action and therefore one in which the short-range aircraft of the period could fully participate. They were never U-boat killers; only one U-boat kill is now definitely attributed to aircraft – an H12 flying boat (the type called 'Large America') on 22 September 1917. But all types of

aircraft used by the RNAS – airships, flying boats, seaplanes and a variety of land-planes – were soon perceived to have excellent deterrent qualities. U-boats dived at the first sight or sound of aircraft overhead, and a submarine fully submerged could not attack. When convoys were instituted in April 1917, this property became even more noticeable, and it is recorded in the Air Historical Branch that 'down to the end of 1917 there was only one instance of a ship being lost from a convoy receiving air escort'.

The techniques of air escort for convoys were very fully worked out in 1918, and it is a great sorrow and a great foolishness that they were then very promptly forgotten, and had to be revived at great cost of life and effort in 1942. The anti-submarine war was a considerable part of the RAF's inheritance 75 years ago. At the end of the war the maritime element of the RAF in Home Waters consisted of 43 squadrons and seven independent flights, numbering 685 aeroplanes and 103 airships. Of these no fewer than 37 squadrons – 285 flying-boats and seaplanes and 272 landplanes, a total of 557 aircraft plus all the airships, were engaged on anti-U-boat duties. But by 1939 all that was forgotten, and the only role proposed for Coastal Command was North Sea reconnaissance, and even for that it was miserably equipped. A sorry tale.

I don't need to tell you that the most famous and influential part of the RFC's legacy to the RAF in 1918 was the long-range bomber force, designated the 41st Wing, in eastern France. This was one product of the German Gotha bomber attacks on England in the summer of 1917. The other product was the Smuts Report on Air Organisation in August that year, which fathered the Royal Air Force. The combination of the two – the Independent Air Service and the 41st Wing which was soon to be designated the 'Independent Force, RAF', under Major-General Hugh Trenchard – fathered Bomber Command.

Between the wars, Bomber Command became the centrepiece – you could say, the *raison d'être* – of the RAF, and in World War II the executive of the Strategic Air Offensive against Germany which is the subject of three admirable volumes of Official History by Sir Charles Webster and Dr Noble Frankland, and on which I have nothing more to say than I have already said in *The Right Of The Line*. Controversy still surrounds it, and seems to grow with distance in time, but no amount of time to date has offered any answer to the question: how else could we have waged effective war against Germany after the debacle in France in

1940?

In 1918, putting aside understandable emotions aroused by the German bomber operations against England, it was quite clear how effective war had to be waged. The Western Front was where Germany could most easily win the war, and from March to mid July she attempted to do precisely that. When the German attempt failed, this was also the place where the Allies could most readily do the job themselves. And very evidently, the Air Service, 'independent' or otherwise, would be required to play a large part in this all important achievement. So to the men in the squadrons, on the ground and in the air, their change of title meant little at the time: as Malcolm Smith says, accurately if somewhat bluntly,

'the Royal Air Force represented little more than old wine in new bottles, an organisational innovation which did little to alter the existing priorities of the British air effort'.

He spells out what this meant in brass tacks:

'the army's air contingent continued to command the lion's share of air resources'.

Both in the months of heavy defeat in the spring, and in the sequence of brilliant offensive successes in the summer and autumn, the air role, subject only (as always) to the iron rule of weather, grew steadily in importance. During 1918 air supply made its first appearances – naturally, on a small scale by later standards, but they were beginnings. Close support of the ground forces, by bombing and by machine-gun fire, became a standard procedure – and here we see precursors of the powerful Tactical Air Forces which played decisive parts in the Allied victories of 1943 and 1944. I think this feature has been appallingly neglected by historians, and I do not exonerate myself from some blame for this. It was Sir Maurice Dean who uttered the sad words, 'between 1918 and 1939 the RAF forgot how to support the Army'. This was a dangerous and costly omission.

That is a very tiny shell to hold a large nut, but I hope it is enough to show that when, 75 years ago, the magnificent men in their flying machines moved over, and made way for the 'Brylcreem Boys' of 1939 and 1940 and all their tousled successors in light blue, they handed over a definitely going concern. It has kept going for three quarters of a century, during which it has been amply proved that Britain's enemies change but they do not diminish – so let us keep our fingers crossed and look forward at least to scoring a century.

DISCUSSION

SIR FREDDIE SOWREY. Did the division between the Royal Naval Air Service and the Royal Flying Corps bring greater coverage of the whole aspect of air operations than would have happened had it been largely army directed up to the formation of the RAF? Both the RNAS and the RFC were looking at different objectives: the Navy were looking at longer range and longer term because of their natural affinity with large distances at sea whilst the Army were, perhaps, more provincial in their approach in that their objectives were land-locked and closer.

JOHN TERRAINE. That is quite a triple barrelled one! My feeling is, and I don't say this in any critical sense, that there was a lot of quite muddled thinking about various aircraft types and what they should do. It seems curious – as I believe it was to other people later on – that it was the RNAS that conducted the first glimmer of a bombing offensive and also constantly came into the picture of the land battles. They had some very good fighters and in 1917 when things were going rather badly for the RFC on the Western Front, they were very glad to have the help of the RNAS in the form of one if not two of their squadrons, just doing straightforward RFC work. It is very difficult to see any significant air co-operation with the Navy until the U-boats appeared on the scene and then, thank goodness, the aircraft were very effective. It was not something that had been professionally sorted out, to my way of thinking. Churchill in World War I had bad memories of this and was always worried about any kind of separation which would involve competition for scarce resources.

BILL BEAUMONT. You have concentrated rather on the Western Front and the Western Approaches; one tends to forget that we were conducting a war against Turkish forces and against Austria-Hungary, that which we now call the Balkans. Can you tell us about lessons learnt there, particularly in regard to army support?

JOHN TERRAINE. The main feature of the other fronts was that they were low in the priority list for any kind of equipment that was going, so their continuing story is one of shortage of actual aircraft – certainly modern ones – but that doesn't alter the fact that in 1918, in the final stages of the Palestine campaign, we saw an astonishing picture of army/air co-operation.

When the RFC and the RAF were helping to move Allenby's army forward absolutely to destroy, rather than defeat, the Turkish forces on the

ground, it was a very spectacular performance indeed but again one which tended to get dangerously lost to view between the wars.

AIR COMMODORE PROBERT. You have talked a lot this evening about lessons that were forgotten between the wars. Would you care to reflect on why it was that so many were lost, forgotten or just ignored? Was it in part because of a lack of resources for the military, or was it that the three services were poorly led in some way, or were they just obsessed with trying to guard their own positions and therefore not looking hard enough at the lessons of history which were already there to be learnt. There must be many reasons for this but I think it is an important subject for those who are running things today and are concerned to learn from the lessons of the past.

JOHN TERRAINE. I think that then as now, and by that I mean the 1920s and '30s, a very depressing mixture of motives was at work hampering any Service's attempt to make our forces match the threats which they faced. There was perhaps a psychological element in it. There was an enormous national revulsion against the First World War, which was seen simply as a bloodbath and a meaningless one at that. This was a foolish way of looking at things. It's like a surgeon faced with a serious operation he has to conduct; it's not a very nice job but he had better find out everything that he can and get on with it. It really is no good throwing up one's hands and lamenting that there is not a policy. There were a lot of false doctrines being put around. One of the most dangerous stories – and you do hear it repeated – was 'never again'! It was constantly repeated: never again, never again, and above all never again a war on the continent of Europe.

All our military preparations were in terms that fitted in naturally with Lord Trenchard's view that the bomber was the thing that was going to decide the next war and you find right up to 1941 – Winston Churchill saying to the Americans: 'We don't want a mass American army over here; we can't use it, it's not that kind of war. Give us the tools and we will finish the job'. It tends to make one's blood run cold when one comes up against some of these things; of course, they were all wrong, the whole lot were proved wrong. You get the extraordinary paradox that, whereas the independent air service was dedicating itself to a bomber role which obviously hit the enemy very hard indeed but remains a controversial matter to this day, its one absolutely undoubted achievement, which would have been impossible without its independence as far as I can see, was the victory of Fighter Command in the Battle of Britain.

TONY FURSE. Between about 1922 and 1937 Fleet aircraft were manned by the RAF. I don't think it unfair to say that the performance of carrier aircraft in the early stages of the war was not as good as the American and Japanese carrier aircraft. Would you comment on that?

JOHN TERRAINE. It was the notion of a split command that offends all my sense of how military affairs should be conducted. Granted that it was a fundamentally false position, I think it was made to work by the chaps that had to do it, and to quite a surprising extent. If you take the very sad story of the *Glorious*, within it ;here were some truly amazing achievements and one has to remember a very simple thing which we all took for granted: like Fleet Air Arm operating from a carrier in the midst of a battle or an operation was an achievement in itself and dates from those days. In the end, however, it all comes down to equipment. The Japanese were better equipped with the famous Zero which gave us such a bad time, and the American carrier fleet came into existence later than most with more up-todate vessels and more up-to-date aircraft. This probably accounts for a great deal of what you say.

HUMPHREY WYNN. There is one aspect of the air war in the First World War that we should bear in mind, namely the phenomenal effort made by the Home Defence squadrons against the German bomber offensive. When one considers the small open-cockpit biplanes that they were flying in unpleasant weather and at the heights they had to reach and with inadequate armament, one appreciates that so much depended on the skill and bravery of the pilots. It was not until the Second World War that the key was given to our fighter defences in the form of radar; before that it was a matter of the keen human eye coupled with this skill and bravery.

JOHN TERRAINE. I would agree with that. Just a word on air defence; like everything else it had its startling features. In 1918 a very able army officer took command of the air defence of London and thanks to the predecessors of the Royal Observer Corps and a very admirable communications network, he was able when the RAF mounted an air exercise in 1918 to test the air defences. We were getting fighters airborne, I think, within 30 seconds of the reports starting to come through – difficult to beat that!

FRANK DIAMOND. It came out at the Bracknell seminars on the Battle of Britain and Bomber Command that there was a lamentable lack of co-

operation between the *Luftwaffe* and equipment manufacturers. I had this reinforced again recently at a Mildenhall reunion at which we had an ex*Luftwaffe* pilot. He said they were just given the equipment and told to get on with it and at no time were they asked if or how it could be improved. Now during the Second World War the co-operation between the scientists, the manufacturers and the Royal Air Force was really quite remarkable; would you comment on the situation as it was in the first war and say whether there was the same level of co-operation?

JOHN TERRAINE. I don't think I can throw any light on this one. Again, it was a period of innovation. As regards the Royal Artillery, in 1917 there was a phase when the old professional gunners – men who prided themselves on their ability to gallop into action and get their guns going in no time at all, preferably over open sights – were suddenly amazed to find fellows with beards and funny sorts of coats holding cases with strange sorts of equipment. If anyone explained to them that the equipment was an Electro Cardiograph with which it was intended to identify the position of enemy batteries, their basic attitude was that this was a form of treason and at the very least should be stopped because it was taking all the fun out of war! Nevertheless the new technique was being handled very ably indeed and was one of the first ventures of science into the front line; naturally this was reflected back into industry which had to provide the equipment and on the right scale too.

Then you get a case like Professor Lindemann, who played quite a considerable part – not quite the part he said he played but a very useful part nevertheless – in correcting the fatal tendency of all aircraft of that period to spin, which was virtually impossible to correct once it had taken a grip unless you knew exactly how to do it. Lindemann was one of the ones who found out how it should be done. These were the beginnings of operational research in which, in World War II, scientists played such a tremendous part.

WING COMMANDER BROOKES. You made the very valid point that we forgot after 1918 how to support the Army and failed to re-learn it until the Desert Campaign of 1942 and onwards. Some people might say that this was because we had stopped working very closely with the Army after 1918; maybe an army man would say that we should have stayed part and parcel. Would you like to comment on what you would have seen in the future had we not formed an independent Air Force in 1918? **JOHN TERRAINE.** Once again I can hardly blind you with prescience, but it seems to me to stand perfectly clear to reason. The RFC was part of the Army in 1914, it behaved as part of the Army for the whole of its existence, and in my view it could not have been damaged by remaining part of the Army. As it was it was something that had to be re-created, set up once again against strenuous opposition and with great difficulty, lacking all the usual things; equipment, personnel, resources. But when recreated in World War II it played a very, very important part.

REFLECTIONS ON AIR POWER HISTORY SYMPOSIUM.

Cecil James

The 1993 Air Power History Symposium was held in Washington D.C. on the 9th/10th September. This was a return match with the USAF Historical Foundation, after their visit to the Royal Air Force Historical Society in October 1990 when the emphasis was on the joint co-operation between the two air forces in World War II. This time it was on post-war matters of mutual interest, with a similar emphasis on co-operation during the cold war, eleven papers were read during the two days before a 200-strong audience.

The Foundation intend to produce a book on the symposium during 1994, so no attempt will be made here to give an account of the ground covered beyond the list of speakers and subjects below. What was remarkable, however, was the complementary nature of many of the papers from alternately American and British speakers although there had been no detailed consultation. Additional to the formal programme were talks by Air Vice-Marshal Ron Dick and General Charles A Horner. For some of us these two distinguished officers stole the picture, each talking expertly and with immense authority - Air Vice-Marshal Dick on UK/US co-operation before and during the Falklands campaign when he was Defence Attaché in Washington, and General Horner on Desert Shield/Desert Storm, when he was Air Component Commander. Each provided an appetising Trailer' for what will no doubt be major productions in our future programme. The symposium was held in the Officers' Club at Bolling Air Force Base; the organisation and facilities were superb, as was the hospitality at the base and in private homes. Altogether a memorable experience, not least due to the genial joint chairmanship of General Bryce Poe II and Air Marshal Sir Freddie Sowrey.

1st Day

| An initial response to the cold war: The | Dr Patrick Murray, |
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| build up of the USAF in the United | Command Historian, Third |
| Kingdom 1948-1956. | Air Force |
| The Role of Missiles in British Concepts | Cecil James, |
| of Defence – the influence of Duncan | Royal Air Force Historical |
| Sandys | Society |
| | |

| Royal Air Force Strike Command during the 1970s | Air Chief Marshal Sir Denis Smallwood |
|---|--|
| The Deployment of Ground Launched Cruise Missiles to RAF Greenham Common | Lt Colonel D Kirkland, Military Doctrine Analyst, Air Power Research Institute, Maxwell AFB, Alabama |
| RAF Aircraft Procurement 1950-1965: The US Involvement. | Robert Jackson, Royal Air Force Historical Society |
| The Transfer of B-29s to the RAF under the Military Defence Assistance Programme Cmd | Dr William Suit, Air Force Materiel History Office, Wright-Patterson AFB, Ohio |
| The Origins of the Skybolt Controversy in the Eisenhower Administration | Dr Ronald D Landa, Office of the Secretary of Defence Historical Office, The Pentagon |
| <u>2nd Day</u> Air Support in the Malayan Emergency | Michael Postgate, Royal Air Force Historical Society |
| The Anglo/American Origins of Overflying the Soviet Union: The Case of the Invisible Aircraft | Donald Witzenbach, Former Historian, CIA Historical Office, Arlington Va |
| Anglo/American Air Force Collaboration and the Cuban Missile Crisis – British Perspective | Dr Stephen Twigge, Department of International Politics, University College of Wales |
| Eldorado Canyon, the USAF Raid on Libya from UK Bases: The Political and Public Aftermath | Jerome E Schroeder, North American Aerospace Defence Command History Office, Peterson AFB, Colorado |

A MONOGRAPH

Squadron Leader Philip H. Saxon

In his talk to the Society on 'World War One and the Royal Air Force', John Terraine raised the intriguing question of the almost total failure of the Service's leaders in the early years of the Second World War to apply the lessons of the quite recent conflict. For they had all been directly involved in the development of air power during those dramatic four years. Why did they appear so ill-prepared to meet the challenges of 1939?

The subject was not ignored. *The Strategic Air Offensive* (Vol. 1) tells us that as early as 1923 a number of meetings, presided over by the CAS, were held to discuss, among other items, the interpretation of the experiences of 1914-18. In the context of the times the discussions were naturally concerned with the safeguarding of the independence of the RAF, and stress was thereby laid on the building up of the bomber squadrons. In the light of the events of 1939 it is interesting to note that some present insisted that unescorted day bombers would be liable to suffer heavy casualties. But the discussions were dominated by Trenchard, and his belief in the inviolability of the bomber aircraft persisted.

In the decade after 1918 the RAF, under the determined leadership of Trenchard, fought a long drawn-out battle against the other two more senior Services, and particularly the Royal Navy, for its continued existence as an independent force. The inter-war years, therefore, imbued its marshals with a suspicion of the motives of both Army and Navy which militated against close liaison of any sort. It was not altogether surprising then that 1939 saw no suitable aircraft, or tactics, which would ensure effective co-operation with either land or sea forces.

In fact, the RAF ensured its independent existence by developing a role in the colonial conflicts which prevailed in the Twenties and Thirties, in which it was able to operate almost entirely without the involvement of the other Services. When the Army was reluctant to provide armoured cars for the attendant land operations, the RAF provided its own and established its Native Levies in such regions as Iraq and Aden. In India, where the Indian Army dominated, the RAF played a lesser role. Even so these regional conflicts provided little experience that was relevant to a world war situation; so that the tactics that were developed served merely to hinder the development of strategies that might be applied effectively in the event of a major conflagration. This applied to the main strategic thinking in RAF circles in the interwar years relating to its bombing role, which dominated the work of the Planning staff. Indeed Slessor, one of the more thoughtful senior officers, when the head of the Plans Branch of the Air Staff in a memorandum of April, 1938, wrote (*The Central Blue*) 'the Air Staff are faced with a peculiar difficulty, in the absence of any real experience of air warfare between first-class Powers'. So that in some influential minds 1939-1945 was the first air war, when everything had to be re-learnt and the experiences of 1914-1918 were discounted. If that was so, then how did it come about?

We are aware of the problems posed by the approach of the Treasury towards defence expenditure, and the iniquitous Ten Year Rule, until only a few years before the outbreak of the Second World War. The biplane era survived well into that war. But, in the late thirties, there was a dramatic improvement in the design of combat aircraft; initially affecting the fighter. Since fighters were so much cheaper to produce than bombers the Treasury, playing the numbers game, gave precedence to their production. Thanks also to the perception of Dowding, who was heading the Air Defence of Great Britain, and the timely development of radar, the Battle of Britain was won – just – and we were given precious time to develop the offensive capability of the RAF.

Bomber Command's record early in the War was a good deal less impressive. The marked disparity in performance between the bomber and the fighter, as compared with 1918, put the former at a great disadvantage in daylight operations. In addition, we failed to credit the Germans with any of our own technological ingenuity; and the fact that they also had a radar system of sorts came as a shock to the staff at Bomber Command. Hence the fiascos of December, 1939, aptly described by John Terraine as 'the North Sea Tutorial'. Although in the immediate aftermath of those disasters Bomber Command blamed inadequate formation flying, night raids were to become the norm for the rest of the War. This posed problems of navigation, which took time and remarkable advances in applied technology to overcome.

Again, Slessor is quite illuminating. He writes: 'A legitimate criticism of the Air Staff before the war is that we paid insufficient attention to the technique of bombing. I have already drawn attention to our inexperience of air warfare, but that is not sufficient explanation. And it is in no attempt to excuse, though it may partly explain, what I think in retrospect was a serious shortcoming; that we were then in a difficult and almost revolutionary stage of transition in the whole technique of military aviation. Those of us who were concerned with these problems had been brought up in the days of the old FE2B and DH 9A; the bomber aircraft of our own recent experience with which, in 1937, the RAF was still largely equipped were still the short-range biplanes (Hart/Wapiti). The new longer-range monoplanes were quite new, and it must be admitted that our imagination was not sufficiently active and our experience too limited to comprehend – the very far-reaching technical requirements of a modern striking-force, capable of operating – of finding and hitting its targets – at long ranges in bad weather, lacking which capacity an air striking-force is virtually useless'.

Slessor goes on: 'We in Plans were too optimistic on many counts on the ability of the offensive to reduce the enemy air attack at its source; on our ability to bomb unescorted by day, or to find and hit targets at night; on the bombing accuracy to be expected; on the effects of a hit by the small bombs of the day and on the numbers required to ensure a hit; and on the results both moral and material to be expected from the bombing of industrial objectives. We had no Bomber Development Unit until 1939'. Yet these very topics had been the subject of detailed study by the splendid Lieutenant Lord Tiverton, RNVR, between 1915 and 1918. His application of scientific method to such problems anticipated by many years the Operational Research of the Second World War. But Tiverton's work came to an abrupt end in 1918, when he was merely required to write a brief history of long-distance bombing operations for the War Cabinet. The scientific approach to the problems of air warfare had to be re-invented only when a further major conflict was upon us.

The lessons of the First War may not have been properly evaluated – if at all – in the inter-war years, and it was probably 1942 before we came to terms with many of the facets of modern air warfare. Nevertheless, the Royal Air Force surely cannot be faulted over its capacity to learn quickly and apply those lessons once the real air battles had commenced. In the House of Commons on 22 September, 1943, Churchill stated: 'As between the different Services, while avoiding invidious comparisons, I should certainly say that the outlook of the Royal Air Force upon this war was more closely attuned to the circumstances and conditions as they emerged by painful experience than those of either of the other two Services'. That at least is some consolation!

THE OTHER STORY OF THE RAF 'Y' SERVICE

Sidney Goldberg

The only work on R/T interception by the RAF 'Y' Service is *The Enemy Is Listening*, the story of the 'Y' Service by the late Aileen Clayton published in 1981. Based for a long time in Cairo, her narrative of events in other areas is slightly flawed, and contains minor inaccuracies. Edward Thomas, a co-author of the official history, is on record as saying that the work contains a lot of hearsay.

The official history is *British Intelligence In The Second World War*, by, as he now is, Professor Sir Harry Hinsley and three collaborators. Contrary to his own ground rules, spelt out in the foreword to every volume, he devotes an entire article, Appendix 18 to Volume 2, *Sigint Arrangements during the Tunisian Campaign*, specifically mentioning 381 and the parent unit 380 WU. Regrettably this also contains errors.

Those referred to by Aileen Clayton as 'Palestinians,' and in one place as 'Refugees,' were, like myself, Germans born in Germany, some with Polish passports as a technicality. There were about six on 381 WU and many more in other Field Units. These had served variously in the Western Desert, Malta, on airborne interception with the 15th USAAF, including the Ploesti raid, and the abortive operation to the Dodecanese in September 1943. This multi-ethnic mix, long before it became generally fashionable, and the imbalance of officers and NCOs to ORs led to some hilarious incidents.

I have been repeatedly told there is still 'a story to be told,' but because of what has been written elsewhere, and the decline of the *Luftwaffe* day fighter force after July 1943 I came to the conclusion that there was not enough material to fill another book.

Resident in the UK since 1934, I volunteered for the RAFVR as soon as I turned 18. Rejected by an eye test as a WOp/AG, and remustered as ACH/GD, I was posted to a number of operational Bomber and Fighter Stations, ending up in South Wales.

Answering a request for personnel with German language qualifications to come forward, in August 1942 I reported to No 50 Signals Depot, Newbold Revel, under command of 26 Group Bomber Command, where I met other airmen with background similar to mine plus a few British-born, making up some 15 German linguists in total, and 15 Italian linguists. These were mainly UK-born descendants of Italian cafe owners from Soho to Glasgow, plus some Maltese. By profession they varied from music hall artists to bankers. Together we became part of 381 Wireless Unit, officially formed in November 1942. The other occupants of Newbold Revel were largely operators under training to intercept Japanese W/T.

381 WU landed in Bone, Algeria on 7 December, and was operational at Air Draham, Tunisia from 31 December. Our principal task was to intercept German and Italian aircraft R/T on VHF, and to operate forward units and D/F detachments.

VHF was then coming into common use by *Luftwaffe* fighters, and at an early stage I was provided for my own use with a German Type FuGe 16 VHF receiver taken from a captured aircraft.

Subsidiary tasks in W/T on M/F and H/F bands were to intercept (a) German and Italian bomber traffic, (b) GAF communications, including, in January only, ENIGMA traffic, after which that was left to our parent unit 380 WU, a W/T intercept unit stationed outside Algiers. 380 WU was networking with the Bletchley Park outstations at Chicksands in Bedfordshire and Cheadle in Staffordshire.

Our location, Air Draham, was a little village, about 900m up in the Medjerda mountains, 22 miles north of the airfield complex at Souk-el-Arba, base of our principal client, 242 Group, commanded by the then Group Capt K B B Cross.¹ It was an ideal spot, within 150-170 miles VHF range of traffic we needed to intercept, from Sardinia through the Sicilian Channel to the east of Tunisia. In freak conditions we received signals from 250 miles away in the south, Ben Gardane and Medenine whilst they were still in German hands.

We should have been as close as possible to the Fighter Control we were serving, but if we had been nearer to Souk-el-Arba we risked being screened by the mountains to the north of us. Forced to communicate by land line with the 242 Group Controller and Intelligence, the natives, having discovered the value of the wire, were constantly dismantling it, leading to frequent delays in reporting our intercepts.

Among recipients of our reports were Group Capt D F W Atcherley, one of the famous 'Batchy' twins, Flt Lt Eric J Ackermann, a scientist working for Prof R V Jones, Dr Roxbee Cox from the Telecom Research Establishment in Malvern, and the DDI(4) at Air Ministry; no doubt reports reached Winterbotham.

¹ Now Air Chief Marshal Sir Kenneth Cross.

The transport consisted of a huge trailer used as an Intelligence Office/Operations Room, two intercept trucks, D/F vans, plus an assortment of three tonners and 15 cwts. Personnel consisted of something like eight officers, 38 Senior NCO's, between us with knowledge of 10 languages. There were only 43 junior NCO's and OR's making up less than half the Unit, wireless operators, MT and wireless mechanics, cooks, etc.

No less than four officers and four NCOs were engaged on inter-Service Code & Cypher work. These I never saw at work, everything was done on a 'need to know' basis, and no member of my family knew how I was engaged. The Signal Interpreters kept eight hour watches, in the early days of January/February 1943 we had bursts of activity interspersed with quiet spells, during which we wrote up fair copies of the intercept logs, every word heard, plus times, call signs, and other relevant information.

By March and April the intensity of traffic was such that we could only intercept it, at the end of the shift we would have a meal and return to the intelligence office and spend up to two-three hours more writing up the log.

This was the highlight of my RAF service. When it came to the crunch only three operators felt comfortable with the speed and intensity of the German traffic. Before the war I had learned Pitman's shorthand which was phonetic and which I adapted to take down German. The other two were Czechs who had mastered the Gabelsberger system of German shorthand.

The tally of worthwhile operational intercepts ranged from about 360 in February, reaching a peak of 16/1700 in April, and tailing off to 400 for the last 10 days of the campaign in May.

We established the GAF Order of Battle, we knew who we were facing and exactly where they came from. ACM Sir Kenneth Cross tells me that the late Air Marshal Sir Ronnie Lees, who was SASO 242 Group, made a particular study of our intelligence and at the end of the Tunisian campaign, Lt Gen Spaatz, commanding NWAAF, gave our Unit a glowing commendation. Our work must have had some value.

We are credited in particular with helping to destroy the German air transport fleet, some 342 type Me 323, the six engined 'Gigant,' and Ju 52, which had at first tried to reinforce and supply the Tunisian bridgehead, even with petrol, and then to evacuate it.

Some light relief was provided by 'Matoni,' who flew using his own name and not a call-sign. He turned up again later in NW Europe and, after the war, was identified as Walter Matoni who had acquired a reputation for leading Me 109 formations with a Fw 190. Trying to probe his background, in 1985 I wrote to the office in Berlin holding *Luftwaffe* personnel records. They provided details which showed that, at the operative times, he had served only with JG26 which had never served in Africa or Sicily, so German records are also flawed. However, the *Geschwader* history of JG27 shows that of 44 victories credited to him, four had been whilst serving with III./JG27, probably based in Trapani, with escort to transport aircraft as their main role, occasionally landing on Tunisian airfields. Curiously, his name appears only in the league table of victories, there is no mention of him in the text.

I have mentioned that we had operators whose duty it was to intercept Italian R/T traffic, which proved to be nothing more than daily tuning. There is considerable evidence from German and British sources that the *Regia Aeronautica* played no significant part in the Tunisian campaign.

Somewhat surprisingly Hinsley, in the official History alleges that we were 'not equipped to intercept and exploit Italian traffic, another omission which turned out to be serious as the campaign developed and Italian forces played an increasingly serious part in it.'

He throws doubt on the competence of 380 WU personnel in Algiers, and alleges that we became effective only after we 'began to have help of 'Y' experts from the Middle East.' I strongly refute all these allegations.

Soon after the fall of Tunis and our arrival at La Marsa on 14 May 1943, we set up a training facility for American airmen – we rigged up a vehicle with a radio, two of us would sit in the driving cabin simulating German fighter R/T and the trainees sat at their sets in the back of the vehicle.

On 5 June my Field Unit moved to Cap Bon to cover the invasion of Sicily reporting to the nearby airbase of Korba and to HQ V Corps. The main unit at La Marsa continued to intercept and pass messages to the airfield at Le Sebala and HQ NATAF.

In July our Units were formed into 329 Wing and although we subsequently moved to Catania, we faced an anti-climax. The interceptable traffic lessened considerably with the steep decline of the German day fighter force, and the disastrous decline in its morale, and what traffic there was was dealt with by personnel from 276 Wing, moving up from the Middle East. In January 1944 some 30 of us, about half from the Western Mediterranean 329 Wing, which was then dissolved, and half from the ex-Desert and Middle East 276 Wing, assembled at Fort de L'Eau, Algiers, to sail back to the UK for 'Overlord.'

On arrival in the UK we were assigned to the three 'Y' units of 2nd

Tactical Air Force, but mainly to my 383 Wireless Unit, to serve with 84 Group. The other two were 382 WU with 83 Group, and 365 WU, a W/T intercept unit of which no records survive, although at the time of writing I am waiting to hear from a member of that unit with whom I have been put in touch.

383 WU was to cover 1st Canadian Army. Scheduled to land only shortly before the break-out at Falaise, this unit detached its Signal Interpreters to Combined Operations for seaborne duties in Operation 'Neptune,' the naval assault. We reported to HQ Force 'J' at HMS *Vectis* (a shore establishment at Cowes, IoW) and were split up among three Fighter Direction Tenders (specially converted LSTs to serve as floating operations rooms).

At around mid-day on 5 June 1944 I was told to get my kit together and was transferred to HMS *Hilary*, HQ Ship of Force J. Shortly after my arrival on board I was summoned to a briefing by the CO of the RAF contingent, who explained that we were part of the Normandy invasion fleet, scheduled to cover the landing of 3rd Canadian Infantry Division on 'Juno,' near Courseulles-sur-Mer. I was the only representative of my branch aboard any of the five HQ ships, and a few days after D-Day visited the battleship HMS *Rodney* to counsel a naval officer in difficulties with his 'Headache' (naval 'Y') watch.

German daytime air activity over Normandy in the days following the invasion was minimal, the three *Gruppen* of JG26 had been widely dispersed in France for training exercises, only the *Geschwaderkommodore* and his wingman flew a well-documented recce on D-Day itself.

I re-joined my unit which landed at Arromanches on 8 August, and commenced operations the following day, moving from site to site as the battle progressed. With the continuing decline of the *Luftwaffe*, the air war erupted only spasmodically.

Our work was a dull grind reflected in the Operations Record Book describing activity as 'slight,' 'poor,' 'bad day,' and 'scrappy,' with 'little to report.' Our opposition were JG26 and 27. Around the time of the Arnhem operation there was a slight change in our working practices, henceforth we would have a representative in the 84 GCC Ops Room sitting to the immediate left of the fighter controller, and I did this duty as one of the more experienced operators.

The first mention of jets, Me 262s operating as bombers and anxious to avoid combat, came on 4 October, and on 12 November the unit opened

watch on W/T for 'Elgar' traffic. This was on a frequency used by the *Luftwaffe* to warn its *Flak* Regiments of aircraft movements and impending operations.

On the two occasions when this information might have been invaluable, at the start of the Ardennes operation, it was wrongly interpreted and at midnight preceding the operation the code was changed. At midnight preceding the attack on the Allied airfields on 1 January 1945 the code was changed again, but it transpired later that, for reasons of secrecy no message had been sent, resulting in some 200 German aircraft being shot down by their own anti-aircraft guns.

84 GCC gave us credit for 'kills' resulting from our information, 83 GCC were more generous to 382 WU, crediting them with assistance in destroying some 232 German aircraft. At the conclusion of hostilities the unit moved to Lingen in Germany, and watches ceased on 16 May. The Signals Interpreters became Interpreters with Air Disarmament Wings and 383 Wireless Unit was finally disbanded on 1 August 1945.

BOOK REVIEWS

Combat and Competition by David Ince DFC BSc. Newton Publishers (1992) POB 236, Swindon SN3 6QZ. 262pp, glossary and index. Soft covers £15.95.

From the outset of World War II there were many who wanted to fly in the RAF and were turned down on medical grounds. David Ince was one such; he made three attempts and succeeded at the third having, as a field artillery officer, also found a loophole in KRs which got him onto flying, via army co-operation.

After training in Canada he returned to the UK to fly Hurricanes, Mustangs and then Typhoons – on the last mentioned completing nearly 150 sorties. He took the first post-war course at the Empire Test Pilots School only to find his ambitions then thwarted by yet another medical board. He returned to University and completed an engineering degree.

Armed with this, David Ince went to Elliotts (now GEC Marconi Avionics) on flight controls and instruments, subsequently taking a major role in international marketing. He has interesting comments to make on the interference of politicians in the British aviation scene post-World War II. We are still living with the effects of this interference.

His other flying interest, gliding, is also covered in detail. It provides a potted history of British gliding efforts over the past 40 years. David Ince is the right man to write about it as he holds a Gold C Certificate with three diamonds and was at one time National Aerobatic Champion. Altogether a very good read.

DW

The Green Eagles of Calshot by Group Captain Edwin Shipley MA CEng RAF (Rtd). Published by W J Ray, Walsall.

In 1930, my last year as a Flight Cadet at the Royal Air Force College, Cranwell, I was happily pursuing my pilot training in the then equivalent of today's 'fast jet stream', flying the post-WWI fighter-type 'Siskin' aircraft, and looking forward to a posting to a fighter squadron. That idea was immediately forgotten when, by chance, I attended a voluntary evening lecture by Squadron Leader Andrew Carnegie, extolling the romance and adventure of a life in flying boats. I was completely hooked! Next day I fell in before my Flight Commander and requested transfer to the stream for 'boats'. He was disgusted, but I have never regretted the switch. Edwin Shipley's excellent book on the history of Calshot, 'the mother of flying boat work in the RAF' as he puts it, has given me two delightful hours of wallowing in happy nostalgia, roaming through the story of the technical development of those magnificent aircraft and tales about the colourful characters who flew them. *The Green Eagles of Calshot* is essential reading for all aging (alas!) members of the 'Flying Boat Union' and even for those other wheel-addicted aviators who have often wondered what on earth the flying boat 'mystique' was all about.

The book sets out to be a history of Calshot, on the corner of Southampton Water and the Solent, from its inception as one of Henry VIII's coast defence castles to its final closure as a Royal Air Force base some four hundred years later. En route it touches very interestingly on smuggling, armament development in the 19th Century, the early days of naval aviation, the Zeppelin threat in 1914 and the steady evolution of water-borne aircraft from 1913 to 1960; but most of the book is a collection of fascinating anecdotes about people, aircraft and the enterprising exploratory flights which opened up the whole world to aviation.

'Old timers' will enjoy the account of pilot training on floatplanes and flying boats and it is good to see the respect given to majestic, larger-thanlife characters such as P D Robertson ('Robbie') and others.

One must admit that the author does tend to jump about from one topic to another; but he has researched his subject thoroughly and has produced a lot of fascinating untold history, some of which was new to me – much to my surprise, as I had thought I knew it all. Not so!

The book is attractively presented and well illustrated with some sixty black and white photographs. It will appeal strongly to all interested in the history of the flying boat and would look well on the coffee-table at Christmastime.

WEO

Biggles: The life story of Captain W E Johns by P B Ellis & J Schofield. Published by Veloce Publishing PLC, Price £12.99.

This well researched book brings out an interesting man. Occasional hints of a bit of deviousness makes him all the more interesting and there are some fascinating items such as when as an RAF Recruiting Officer in the twenties Johns was involved in the enlistment of Aircraftman Ross, aka Shaw and Lawrence of Arabia. It also appears that Aircraftman Ross was not quite so lost at the bottom of the pile that we have been led to believe. Unfortunately there have been included some bits of nonsense amongst the rich veins, such as Battle of Britain pilots claiming to have been helped by reading of *Biggles*; and written with a straight face! The book is really better than this.

AEFR

Angel Visits: From Biplane to Jets by Group captain Frank Griffiths. Thomas Harmsworth Publishing. Price 13.95.

To have been commissioned as a pilot in the golden age of flying in 1936, makes Frank Griffiths a man to be envied. A collection of good stories and interesting photographs. Nit picking, I couldn't understand radio silence in 1946 and some repetition could have been avoided by careful editing but I enjoyed reading it for all that.

AEFR

Each Tenacious: A History of 99 Squadron 1917-1976. Compiled by Squadron Leader A G Edgerley. Published by Square One. Price £18.

A very modest claim by Bert Edgerley to have 'compiled' this truly fascinating history of an RAF squadron. I suppose in the scale of things generally 99 Squadron was just another ordinary squadron fulfilling as routine a job as nearly every other squadron in the RAF but, and here is the big but, the tale is well told with real live people interwoven which seems to manage to bring the squadron alive and quite real so that in the end you find that it was far from ordinary and you begin to appreciate the price of those who served in it. The detail is considerable and can be wearing but never dull and future historians may be grateful to have it all presented in one solid volume. Deserves to be widely read.

AEFR

The Thousand Plan: The story of the first thousand bomber raid on Cologne by Ralph Barker.

First published in hardback 1965. Now in paperback by Airlife Publishing.

... And We Thought The War Was Over: by David Lee. Thomas Harmsworth Publishing.

Air Chief Marshal Sir David Lee GBE CB claims that his book is not a history but a reminiscence of experiences of a group captain posted to the Far East immediately after VE Day. Names and dialogue are fictitious but communicate the situation and events encountered by servicemen posted to the East Indies during 1945-46. Sir David's book may be seen not only as a recollection of the massive humanitarian endeavour to bring out the internees and prisoners of war but also as a tribute to airmen and soldiers who served and gave their lives. The opposition from Indonesian nationalists was intense and made the task of evacuating the camps and repatriation of prisoners and internees extremely difficult. David Lee's intimate knowledge and skilful narrative bring these events alive. It is interesting that he should turn his undoubted skills as a war historian to writing a novel which appears to mirror his own experiences of command. This is, indeed, a story which had to be told, and it is told well.

D Shaw

Memoirs of an Accidental Airman: by Fred Rainsford. Thomas Harmsworth Publishing.

Air Commodore Fred Rainsford gives us a good account of his outstanding career as a serving officer both during the war and post war period and later within the Diplomatic Service. With him we move through his earlier experiences of growing up in Ireland and Kenya, towards his taking command of bomber squadrons in North Africa and over Europe. His service commanding a Wellington squadron bombing targets in Libya and, particularly, on the 'Mail Run' to Benghazi was lengthy and intense. A second tour, with Lancasters operating over Europe, in which few of his friends survived, leads him to look back in sadness at their loss. Whilst not attempting any analysis of the policies pursued by Bomber Command under Harris, he leaves us with a conviction that the airmen involved made a definite and considerable contribution towards ultimate victory in Europe. He is, none the less, deeply aware of the appalling human sacrifice and wastage of war which continues to threaten the total destruction of the human race.

In antithesis, the writer outlines the humanitarian involvement of the Royal Air Force in the execution of the Berlin Airlift of 1948/49. In this he played an important role within Transport Command. With the rank of group captain he was effectively the senior staff officer in the Air Ministry responsible for the day to day implementation of the Government policy for maintaining British supplies to Berlin. This he regards as the apex of his career which extended into further commands in Germany and the Far East. After twenty-six year's service and with the rank of air commodore, he transferred as a late entry into the Diplomatic Service in 1972. Fred

Rainsford goes on to provide us with a humorous account of his life as a somewhat unconventional diplomat in India, Korea and finally as Deputy Consul General in New York. When one considers the breadth of his service solely in postings abroad and at the hub of international events, one cannot help but consider that there is an opportunity here for another great book.

D Shaw

CORRESPONDENCE

I would like to have been at the Bomber Command Seminar recently, but am prevented from attending because of a disabling hip problem. On reading the papers in the current *Proceedings*, I would like to have asked how long it has been since criticising contributors and members have looked at the F540 ORBs at the Public Record Office or their equivalents elsewhere?

Whilst being fully aware that many speakers were present as wartime air crew and that I was not anywhere near present at the time in WW2, being a young and humble civilian on the ground, I am an accredited researcher into RAF records. My clients are mainly those seeking their own record of activities or those of kin and friends.

I was not even in the RAF at that time, but it is plainly clear to me that the critics are picking holes from the vantage point of hindsight, the development of sophisticated equipment and information, and judging the RAF of those days against the crews of today. No one, then or now, can be totally accurate, much is still a matter of opinion, but I would have liked an answer to my question – how often are the ORBs read today?

It is well known, but very evident in the ORBs, that crews were young, inexperienced, had come for the most part from jobs totally unrelated to the jobs they were expected to do. They had had short and inadequate training, there being no time to give them the detailed knowledge now expected of, and given to, modern crews.

Most modern crews understand that and have nothing but admiration for their predecessors – I am the archivist of a fighter squadron, and have heard them say so and make comparisons. The modern crew has avionics undreamed of then, every aid to accuracy, and a much longer and more deeply satisfactory training than even the best of the regulars could obtain in the 1940s. The Americans had even less, as they had had no battle experience whilst the RAF had had at least two years of home defence. It is both unfair to give credit in the wrong direction, and even more unfair to criticise the crews of those days for inaccuracy. It was the best training available, and the best instruments of the time were used. We have come a long way since those days when we were only learning about modern warfare. It is remarkable there were not more deaths than there are already accounted for in terrifying numbers

As well, the age of the crews must be taken into consideration. As someone said, young men 'like to fight and go to war'. True, they do, then

and now. But in the 1940s those young men were only 19 or so, they did not think very far and they had few if any responsibilities. They had only courage and patriotism.

Today a crewman aged 40 is quite commonplace. An age that would have been consigned to the rear, considered 'over the hill' in those days, certainly such a man would not have been a pilot of a deadly machine. Today's crewman has had longer experience of life; he has a wife and family, possibly elderly parents to care for. He does not rush into things, he makes the best use of his training which has been long, arduous and detailed. The two are totally separate breeds of men and should not be compared, nor blamed for their failures.

Too many people, like myself who were not there, some not even born, are too willing to say what was wrong, too willing to see only mistakes and to add up the faults. It makes one wonder how we won the war with only failures to rely on!

If these ORBs were read in more close detail, with an open mind and heart, as I read them daily, one would see and marvel yet again at the courage with which these young men paved the way so that the modern RAF can condense war into a few weeks instead of long dreary, suffering years.

I am not the kind of researcher who romanticises and ignores the truth, and I have to admit that I have no knowledge of the tactics of war – but it is not possible to ignore the facts in the F540s even if they are not exactly the fine and detailed truths that computers and electronic recording might have given them. It is time the RAF got the praise it deserves from its own people, and not the self destruction in which some of its seniors and critics like to indulge. My research job is mainly about people, not aircraft and other artefacts. I would like people to be treated with the same value that one applies to an aircraft costing millions of pounds. It often seems to me that critics imply, even if they do not actually say, that the aircraft are the more important part of the combination.

My squadron was a fighter team, not bombers, and something else of which I am constantly reminded when reading the F540s, is that the Battle of Britain was won in aircraft that cost less than my car does now.

From the photographs of the audience it is clear that it was mainly male. That is only to be expected, so I therefore expect too that this further criticism will be written off as mere female sentimentality. I assure you I lost the sentiment a long time ago, though one cannot read ORBs without reflection on the courage and sacrifice therein. Of the Germans too.

When Trenchard declared that the 'bomber will always get through', that may have been and may be still true. But was it not true of the other side's bombers also? And where would we have been without fighters then?

Eunice Wilson London SW6

FUTURE EVENTS

4 July 1994: Following the Annual General Meeting, to be held at the RAF Club, Professor Sir Michael Howard will speak on 'Ethics, Deterrence and Strategic Bombing: Reflection Over Half a Century'. This lecture will start at about 6.30 pm and be followed by questions and discussion.

7 November 1994: This year's autumn seminar, to be held at the RAF Museum starting at 10.30 am, will be devoted to the history of the Royal Air Force Regiment. Several retired senior officers from the Regiment will speak, covering between them the whole story from the inter-war years up to the present day, and Air Chief Marshal Sir Michael Knight will take the chair. To assist in structuring the discussions, members of the Society, who either served in the Regiment or had close connections with it are asked to send a brief note beforehand to Air Commodore Probert, 88 King's Road, Henley-on-Thames, Oxon, RG9 2DQ. Application forms are enclosed with these Proceedings; they should be addressed to the Secretary.

24 March 1995: The last of the series of 50th Anniversary seminars held in conjunction with the RAF Staff College, Bracknell, will cover the history of the RAF in the War against Japan. While some time will be devoted to the disaster of 1941/42, most of the attention will be concentrated on the campaigns of 1943/45 in Burma. Air Chief Marshal Sir Lewis Hodges will be in the chair. Fuller details, together with application forms, will be circulated with the next issue of Proceedings towards the end of this year. Meanwhile, members who served in the Far Eastern War are asked to send a brief note to Air Commodore Probert, indicating the work they did.

BACK ISSUES OF 'PROCEEDINGS'

The Membership Secretary has stocks of Issues Nos 6, 7, 9, 10 and 11, Price £3.00 Each, post free. Some issues are very limited in quantity.

In addition, the three hard bound issues are available as under, Price 10.00 Each, post free.

The Battle Re-thought (Battle of Britain)

Seek and Sink (Battle of the Atlantic)

The End of the Beginning (North Africa)

Order from: Dr Jack Dunham, Silverhill House, Coombe, Wooton under Edge, Glos GL12 7ND.

ADDRESS AT THE THANKSGIVING SERVICEFOR THE LIFE OF MARSHAL OF THE RAF SIR DERMOT BOYLE GIVEN BY MARSHAL OF THE RAF SIR DENIS SPOTSWOOD AT ST CLEMENT DANE'S CHURCH ON 23RD JUNE, 1993

'We are here today to offer our thanks for having had amongst us one who was a truly whole man – a complete person. And in the vernacular, such men do not come along very often:- Marshal of the Royal Air Force Sir Dermot Boyle.

It would be impossible to put into one address the fullness of his life and his service to others over some seventy years. His upbringing in Southern Ireland during what he termed 'The Troubles', his brilliant career in the Royal Air Force, his obedience to God, his care and attention to his much loved and loving family, and to his many acts of kindness, influence and thought to, and for his colleagues, subordinates and friends.

A record of each could fill a book - as indeed could the lovely stories which he often told so amusingly.

However I believe that the over-riding characteristic throughout his life was his humaneness, and his will to put more into life than he sought to take from it.

I hope this will show through in what I have to say here.

But first to Cranwell – in 1922. This after telling his mother some two years earlier that he wished to join (I quote) 'This new thing they had in England – the Royal Air Force'.

There was some family opposition. One uncle said that there could be only one of two ends to it – 'Either he will be killed flying or he'll die of drink'.

Fortunately his mother (she sounds to have been a delightful lady) was made of sterner stuff, disagreed, and fostered Dermot's ambition, with the success we know.

He himself has said often that the grounding he had at Cranwell was of vital importance to him: and he never forgot that he learnt there that service was the essence of being a Royal Air Force officer.

However, even then he was game for a bit of fun. When his Entry's photograph was taken (with one of those old cameras that motored across the assembly) the young D A Boyle managed to scamper from one end to the other and so was photographed twice.

As he proved later to be larger than life, this was perhaps an omen - and I do hope that the photograph remains in existence.

Later he returned to the College as its Chief Flying Instructor when I am sure he inculcated in the Flight Cadets of the time his own beliefs, example and enthusiasm – all of which continued to the end.

And, as an example of his humaneness, I would record that before leaving in 1939 to join the Advanced Air Striking Force in France, he initiated, through the Old Cranwellian Association, a Pension Fund for batmen and civilian stewards serving the Cadet Wing.

How thoughtful in all the turmoil of the time – and that fund continues to this day. His interest and concern for the College, and all it meant for the Service, never faltered.

I wrote to him a short while before he died, giving him a résumé of a briefing on Service matters some of us had had recently from CAS, I included in my letter some references to Cranwell. I had a lengthy and very clear reply from him, although he was then in hospital and physically very weak, giving a super view of his own.

He was never hidebound. always looking forward.

And I cannot resist here giving an example of his prescience. In 1937 he wrote for the RUSI Journal an article on the merits of air refuelling, showing the advantages and the technical capability available to carry it out. And that some twenty odd years before we really got round to what is now an integral part of Air Power.

I mention this because I think that sometimes Dermot's foresight is overlooked.

I should add, too, that in that last letter I had from him, he told me of his joy that his grandson was at the College (at which his elder son, Tony, had been Sword of Honour winner in 1956). And I'm sure that we all are glad that the Boyle name is to continue in the Royal Air Force.

As you know, Sir Dermot was the first Cranwellian to become CAS – a day which Lord Trenchard had set as a milestone in the Service's development (even despite the speeding up of that development by World War II) and I'm confident that 'Boom!' would not have chosen any other for this 'First'. Nor would we!

I've no intention of cataloguing his many appointments but I do think that one or two others deserve mention, if only to show the man.

Once, before the war, he was given a 'P' staff appointment in India, and after it another – this time as Director of Planning and Personnel. This was a time of run-down in service strength and of National Service. I doubt if these jobs were to his liking at the time with their distance from aircraft and the front line. But I am sure that there are many who, unknowingly perhaps, have cause to thank him for his concern with their welfare – as can many in the AASF for his success in getting them all back to England after the fall of France.

In war, he grasped every opportunity to go on operations. And it was to his disappointment that these were limited to two short tours because of his very strong abilities in so many fields as Portal and others made clear to him (notably on his appointment as Air Secretary to the Cabinet Offices when he worked closely with the great men of the day).

As I have said, he was a whole man – with a wide variety of abilities, most of which were put to good use in the Nation's interest.

I would mention too the outstanding success of his leadership of the first tour of South America by jet aircraft – four Canberras –and even more, perhaps, the huge Coronation Review, with no less than six hundred aircraft in the flypast, for each of these events he received a knighthood – one in the direct gift of The Queen.

And so to CAS, an appointment he held for four years. Here, in addition to the usual problems of the office, including what in current terms might be known as 'a little local difficulty' with Mountbatten, he had to deal with the Suez operation and Sandys.

Well, he dealt with the first in a proper professional manner and with success – avoiding the politics involved.

Sandys' 1957 White Paper was a different matter. It proposed the virtual elimination of manned military aircraft in this country and obviously this would have led to disaster for the future of Air Power – and could have meant disaster for the Royal Air Force. It was Dermot's imaginative concept, great moral courage, tenacity and diplomatic skill in going public with Exercise Prospect in such a way as to counter his political master that has to be remembered.

He knew he risked being sacked: but was undeterred in his determination to counter what was shown as a very dangerous intention. There are a number of us here today who were with him during this troubled period and know full well that it was indeed largely due to him that the danger was averted. The country and the Service owe him a debt of gratitude for this alone.

I suggest, too. that we should extend that gratitude for his part in the creation of this lovely Church.

A memorial Church for the Royal Air Force was the concept, I think, of

Sir John Slessor – but it was Sir Dermot who raised much of the money to enable its creation as you see it now – a difficult task in the 1950s when money was hard to come by, particularly if one wore uniform.

But overlying all his great achievements throughout his devoted service, there is the man himself.

He was the most loved and admired of our senior officers and one who provided for generations of others an inspiration.

He understood people and always fought for them, and with great generosity of spirit. He was wise and was prepared always to share his wisdom, and with a light touch, and he was a jolly good pilot.

Many of us have cause to be grateful for what he did for us and are proud to have served under him.

Marshals never retire – and Dermot certainly did not. He became Vice-Chairman of the, then, British Aircraft Corporation and also, with BAC's full agreement, devoted his attention to the creation of a Royal Air Force Museum of which he became the Chairman of the Trustees.

I was one of the Trustees and I can assure you that there would not be this fitting Memorial of the Service without his driving force. All this didn't prevent him from being very active in such diverse affairs as the RAF Benevolent Fund, the Club, the Guild of Air Pilots and Navigators, the Old Cranwellian Association, the CFS Association, Mill Hill School, the rearing of 2,000 chickens – and even sailing as a venture. And that's not an exhaustive list!

Within all this stupendous record, he was the head of a devoted family. He wrote some 62 years ago, when Una and he were married, that that was the best thing he ever did. Una was always a great support to him in all he did. And it is very sad that she may not be with us today as she herself has been very ill for some time. We miss her here. She was a great Air Force wife.

Here again Dermot's fine feelings have been shown for he insisted, until he became very ill himself that he, and he alone should look after her.

To Penny, Tony and Patrick, and to his grandchildren, we offer our great sympathy. But they must know, and I hope it will be a comfort to them, that they had a great man as their father or grandfather, whose influence will guide many to better things.

Dermot truly lived as a man who showed unswerving allegiance to God, Sovereign, Country, the Royal Air Force and his friends.

His family motto says it all: 'God's Providence is Mine Inheritance'