

**PROCEEDINGS
OF THE ROYAL AIR FORCE HISTORICAL SOCIETY**

Issue No 5 – February 1989

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CONTENTS

	Page
1. Future Programme	4
2. Editor's Notes	6
3. The Royal Air Force and clandestine operations in north-west Europe	7
4. Book Reviews	46
5. Lord Balfour of Inchrye PC MC	54
6. More Committee profiles	59

FUTURE PROGRAMME

**All the following events will be held at the
Royal Aeronautical Society, 4 Hamilton Place, London W1
unless otherwise stated.**

Monday 13 March 1989. Annual General Meeting. The detailed programme is as follows:

1800 hrs Annual General Meeting

1830 hrs (approx) Lecture by Mr Denis Richards, official historian and biographer of Lord Portal, and Air Cdre Henry Probert, Head of the Air' Historical Branch (RAF):

'Portal, Harris and the Bomber Offensive'

The lecture will be divided into three parts -

1. Denis Richards - 'The Two Commanders and their views on the Offensive'.
2. Air Cdre Probert - 'The main controversies'.
3. Discussion.

Each of the speakers will talk for approximately 15 minutes and the remaining time will be devoted to discussion. The meeting will close at 2000 hours.

Wednesday 14 June,1989 (Please note the change from our more usual Monday meeting). Seminar: 'The Berlin Airlift 1948-1949'.

The following is a provisional programme and times, topics and speakers may be subject to alteration:

1500 hrs Introduction - Mr John Tusa, co-author of 'The Berlin Blockade'.

1515 hrs The Diplomatic Background - Sir Frank Roberts, then PPS to the Secretary of State for Foreign Affairs.

1530 hrs Outline of the operation - Mr Paul Wood, Air Historical Branch (RAF).

1545 hrs The view from the Air Ministry - Air Cdre F.F.

Rainsford, then Deputy Director of Air Support and Transport Operations.

1555 hrs A BAFO (British Air Forces of Occupation) perspective - Air Chief Marshal Sir Kenneth Cross, then Group Captain Operations.

1605 hrs The aircrew viewpoint - several of the participants are being invited.

1630 hrs Discussion period. 1700 hrs Tea.

1730 hrs The difficulties of mounting the airlift - Mr Paul Wood.

1745 hrs Could it be done today? - a present-day RAF speaker.

1800 hrs Discussion period

1845 hrs Chairman's summing up. 1900 hrs Close.

Monday 23 October 1989. All day seminar on 'The origins and development of the British Strategic Nuclear Forces 1945-1960'.

The Committee is very pleased to announce that this event is being organised in conjunction with the War Studies Department of King's College, London, and will be held in the Great Hall of King's College, The Strand, London WC2. This will be the first occasion on which the Society has co-operated with an academic institution in staging such a seminar, and we trust that members will make every effort to attend. Further details will be announced at the Annual General Meeting, and in the next issue of *Proceedings*.

The 1990 Programme

The Committee is hoping to stage at least one major event to mark the 50th Anniversary of the Battle of Britain; this will almost certainly be held in June.

EDITOR'S NOTES

Change of Editor

Given the high quality of previous issues of *Proceedings*, members of the Society will learn with regret that Peter Rolfe has resigned the Editorship of this journal. Judging from the evidence not only in the first four issues but also in the files behind each issue, the new Editor will have a masterly and meticulous act to follow.

In connection with Peter's retirement from office. Sir Frederick Sowrey writes:

What has made the Royal Air Force Historical Society a possibility is the voluntary effort provided by a number of our members. One of these, Peter Rolfe, has been the Editor from the beginning and the format and layout of these Proceedings are the result of his professional approach and background.

As he hands over to Brian Blancharde he has our thanks and best wishes.

RAF-WAAF Photograph collection

Eunice Wilson is making a collection of service-uniformed personnel photographs of RAF-WAAF members with the object of trying to identify the subjects. She would be grateful for any such photographs together with a note as to where bought or found. She may be contacted at: 143 Harbord Street, London, SW6 6PN.

Our History in other people's journals

The Editor would be grateful if members in receipt of other journals would let him know of any articles on RAF history which might fall within the Society's ambit. If the usual academic format could be used it would be most helpful – thus:

Author – Title of article – Title of Journal – Vol No, issue No, date of appearance, eg Killingray, D – A Swift Agent of Government: Air Power in British Colonial Africa – *Jnl Afr Hist* 25.4.1984.

THE ROYAL AIR FORCE AND CLANDESTINE OPERATIONS IN NORTH-WEST EUROPE

Introduction: Sir Frederick Sowrey

What a magnificent evening we have tonight. For the future, on the 13th March we have got our AGM and a look at the bomber offensive, Portal and Harris, which will be a contrast in personalities. One of the principles that we have set ourselves is that we should look at policy, operations and personalities; there are plenty of other organisations looking at the aircraft, weapons systems and the like. In June next year we will be doing the Berlin Airlift, and in October the development of the V-bombers.

This evening we have amongst our guests those who have participated in special operations in north-west Europe. It would be invidious of me to pull out the names of those great protagonists and gallant operators who took part, but perhaps I could just mention those who are *not* members of the Society, in no particular order except the way they are sitting in the front row – Brigadier Michael Calvert, starter of the SAS, great leader, SOE operator in north-west Germany; Robin Hooper, again involved, himself, to a very great degree; Sir Douglas Dodds-Parker, delighted to see him with us this evening, and Sir Brooks Richards who is also President of the Special Services Club. A very warm welcome to you, gentlemen, from the Royal Air Force Historical Society.

But to the team which we have on the platform, in the order in which they are going to speak - Professor Michael Foot, Group Captain R Hockey, Air Chief Marshal Sir Lewis Hodges, Group Captain Hugh Verity and Mr Tony Brooks, who was our man on the ground, despite in fact being put in from the air.

Professor Michael Foot will take the chair and there will be a short break before the discussion period, during which the panel will take questions, discussion and contributions, which we hope this magnificent audience will make towards an august and historic evening. It's all yours, Sir.

Professor Michael Foot

In Air Chief Marshal Sir Christopher Foxley-Norris's *Royal Air Force at War*, which the Benevolent Fund published in 1983, two chapters dealt with tonight's subject, and the author of each is here.

One of them, Bob Hodges, will talk about the business of parachute dropping in which he engaged and the other, Hugh Verity, will say something about what it was like manoeuvring a light aircraft; he went 29 times to France in 1943, landed, and came back. Before either of them speak, Ron Hockey will explain how the thing started up from scratch, and at the end, Tony Brooks, who was really at the sharp end, spending two years in France pretending to be French, will explain what that was like.

This was an odd corner of the war; among the oddest. It was not the first field into which somebody would put himself who was anxious for personal publicity or personal renown. It had to be kept well out of the public eye, though oddly enough the main airfield at Tempsford from which the Special Duties Squadrons operated was alongside the main line from Kings Cross to Edinburgh, and abutted on the Great North Road, so it was not all that private. Every wartime operation had to be secret until it took place (that was taken for granted) but the Special Duties Squadron did not enjoy the publicity that so often attached successively to fighter and to bomber squadrons because what they were doing had to remain secret as they were doing it for the Secret Services. In the earliest days it didn't seem that any of their work would ever be admitted and some of it may remain inadmissible even at the present day. It was an extra lonely kind of flying because outside one's own Flight hardly a soul in the country was aware of what one was doing. It also called for dedicated airmanship and, even for the Royal Air Force, an unusual degree of readiness to press on. For a few dizzy weeks in the summer of 1940 the Chiefs of Staff, believing they had no other offensive resources at all, looked to sabotage and subversion from inside the Nazi new order as their only available weapon. By the time the Special Operations Executive (SOE), the dirty tricks department, had been set up, hardly before time, in mid-July 1940, the Chiefs of Staff were already beginning to look for salvation elsewhere. SOE could, it turned out, do two main kinds of thing. It could organise sabotage, or it could help to organise secret armies. Each task required stores and agents to explain how to use them, who had to be put in, because there was no other way of getting them in that was practical in any quantity, by air.

It would be going too far to say that without the RAF's support

the resistance movements of north-west Europe could have done nothing, but they would certainly, without that support, have done a great deal less than they did. The first British clandestine air operation in this war, of which I have heard, is supposed to have involved the parachuting of a single man, near Paris, as early as 20th June 1940, two days before the French signed the Armistice, too secret to go into anybody's operational record book, but years later the man, who had become vain, talked. Phillip Schneidau, recruited into the Secret Services by J C Masterman on the international hockey field, parachuted into France in September 1940 and was brought out next month by Lysander. Both these operations were for SIS and they will remain unacknowledged. The first attempt for SOE was made on the night of the *Luftwaffe's* big raid on Coventry, 14th/15th November 1940. A Whitley got to the neighbourhood of Morlaix in north Brittany, the solitary agent took a long look through the hole in the floor and decided he wasn't going to jump. Before much more could happen, there was a stiff hedge to cross – Portal's opposition.

Gladwyn Jebb, now Lord Gladwyn, then SOE's Chief Executive Officer, sounded Portal out early in 1941 about an Air Ministry proposal to drop some Frenchmen into south Brittany to disrupt the *Luftwaffe's* Pathfinder Force by ambushing a busload of pilots. Portal replied on the same day, 'I think the dropping of men dressed in civilian clothes for the purpose of attempting to kill members of the opposing forces is not an operation with which the Royal Air Force should be associated. I think you will agree that there is a vast difference in ethics between the time-honoured operation of dropping a spy from the air and this entirely new scheme for dropping what one can only call assassins'. Jebb managed to talk Portal round. The RAF's first successful operation for SOE, a flight of more than a dozen hours in an unheated Whitley to Poland and back, dropping three men at the limit of the aircraft's range, took place on the 15th/16th February 1941. That French party dropped into Brittany after all in March, only to find their target already dispersed. The first party from the rival independent – that is, non-Gaullist – French section dropped into the centre of France in May. Thereafter, gradually, these flights, though always exciting for the agents taking part, became for the air crews something of a routine.

Though Portal had been talked round, Harris, then his deputy, soon thereafter Commander-in-Chief of Bomber Command, remained hostile to SOE throughout the war. He had a sound, professional reason for this. Aircraft allotted solely to secret work were, from Bomber Command's point of view, part-wasted assets because they could only work for 10 or 12 days out of every 28. They had to have moonlight to see where they were going, just as the agents and reception committees to whom they worked had to have moonlight to see what they were doing. As Sir Robin Brook put it in retrospect, in SOE, 'for at least two years the moon was as much of a goddess as she ever was in a near-eastern religion'. This apparently lunatic line concealed some hardbitten airmanship. At a time when many aircraft in Bomber Command did well to know what country, let alone what county, they were flying over, aircraft on special duties had already begun, not only to find particular counties, but to find particular fields in them. This they could only do by meticulous map-reading both before and during the flight; much easier of course for the navigator of a multi-engined aircraft than for a Lysander pilot who had to do everything himself. Once SOE settled down to its sums, the requests it made for aircraft became, from Bomber Command's point of view, alarmingly large.

I might instance the 'Carte' organisation with which the SOE sections working into France were toying in the spring of 1942; that was going to require nearly 4,000 tons of stores to get armed. As it turned out, 'Carte' was purely notional; it was a complete illusion; it had no real existence at all, apart from one man with one bright idea, but the idea that it might be necessary to shift this quantity of stores, was one that SOE staff thus learnt to handle comparatively early. Portal remained sceptical. He used to describe Bomber Command as a gilt-edged investment certain to bring in a return, a steady return, while SOE was a gamble which might bring in a fortune or might bring in nothing at all. There were never anything like enough aircraft from SOE's point of view. Care was taken to slot their allocation and their use as carefully as possible into the general course of allied strategy and by the spring of 1944, though not till the spring of 1944, the United States Army Air Force had begun to lend its powerful support.

To satisfy the RAF's sense of the proprieties, SOE never actually

gave orders to operational units. A new sub-branch of the Air Intelligence Directorate, called AI2c, was set up to deal with SOE's operations staff. This staff requested AI2c to mount operations arranging them, if need be, in an order of priority; AI2c then directed Tempsford to carry them out. Harris is said, perhaps unfairly, to have picked on Tempsford for the special duty squadrons' base because it was the foggiest airfield in his command. Almost all the work that Tempsford did, about nine-tenths of it, was for SOE rather than for the intelligence, or the escape, services. But there is one escape operation that does command mention. A girl called Trix Terwindt, a former KLM air hostess, was dropped very late on the 13th February 1943, to an SOE reception in Holland and was handcuffed at the side of her dropping zone, for SOE's work in Holland at the time was entirely in the hands of the *Gestapo*. Her training as an air hostess stood her in excellent stead: she was trained to be used to sudden shocks. She, at least, of those fifty-odd unfortunate prisoners said nothing she should not have said, kept her head, kept quiet and survived. In the Netherlands, only, the loss rate on special duty operations went up to 18%, one aircraft in every six dispatched, so in June 1943 the Air Ministry imposed a temporary ban on special duty flights there.

At the same time in France, the Germans were often aware of Lysander and Hudson flights through the notorious Dericourt who was working for as many sides as would pay him. The Germans in France took care never to interfere, not wishing to kill the goose that laid a number of golden eggs for them. When, in November 1943, operational responsibility for special duties flights into north-west Europe was transferred from AI2c to Bomber Command, Harris moved at once. He did his best, in conjunction with several of SOE's many enemies in Whitehall, to get SOE wound up altogether and not until January 1944 when Lord Selbourne, the Minister in charge of SOE, managed to play the ace of trumps in the shape of Churchill's personal support, were both SOE and Special Duties Operations put firmly back on to the road. They are only just coming forward into respectable public gaze. Historians of international relations and historians of war usually omit what Andrew and Dilks have called 'the missing dimension', the problems of intelligence, security and subversion that can dominate so much of government policy.

Inevitably the question comes up – did these operations do any good? Or were they, as Harris always maintained, scandalous diversions from the proper task of the main force?

Some of SOE's main triumphs, and they did exist, were not in north-west Europe. That extraordinary series, for example of smuggling and black market deals in Chiang Kai Shek's China that netted £77M, about £950M at today's prices, and enabled SOE to wind up with its accounts in the black. But some were, Eisenhower reckoned, for instance, that resistance had been worth up to half a dozen divisions to him in the course of Operation OVERLORD, for which SOE had caused the RAF to deliver arms for about half a million men into France. As I have said elsewhere, arms were as indispensable to a successful resistance movement as rain is to a farmer; no arms – no armed struggle.

Before Eisenhower's armies landed in France, one of SOE's best agents there, Harry Ree, had invented a technique of blackmail-sabotage. The agent calls on a factory manager, carefully chosen of course, and explains that if the manager does not allow a little discreet sabotage, the whole plant may be laid flat by an air raid – a tremendous saver of casualties had it only been worked out sooner and much more widely applied. Of actual sabotage there was a good deal, especially in France and Denmark. I was able in my book on SOE in France to include a list, originally worked out by Tony Brooks, of 93 enterprises put out of action for various lengths of time with a total weight of plastic considerably smaller than the bomb-load of a single Mosquito. On the secret army front also, quite a lot got done. How much might be summarised in a table, not yet published on this side of the Channel, of the quantities of warlike stores parachuted on SOE's indent into various parts of Europe:

Yugoslavia	16,469 tons
France	11,333 tons
Italy	5,907 tons
Greece	4,205 tons
Albania	1,205 tons
Denmark	700 tons
Poland	600 tons
Rest of Europe	2,327 tons

Yugoslavia, you see, got much the most, the odd 469 tons were probably food, but all the rest were arms or explosives. France got 11,000 tons, Italy nearly 6,000, Greece 4,000, Albania just over 1,000; Denmark, which came rather late to the business of resistance, 700 tons; Poland only 600 tons, because it was so far away and aircraft going there were not allowed to land in Russia – they had to come back. The rest of Europe, Holland, Belgium, Norway and a few oddments such as Czechoslovakia thrown in.

In these operations the RAF forged a strong, though usually unnoticed, link between this country and the particular districts where they reached their climax of a parachute drop or a clandestine landing. That, during a world war, a local stretch of meadow or moorland could be picked out for individual attention sometimes seemed not much less than a miracle to members of reception committees. It did not suit the diplomats, either side of the Channel or the North Sea, to remember this later – it was too far outside the normal run of diplomacy. There are still many witnesses alive to testify to this fact and the well of affection for England arising from it has not quite dried up. It was also of supreme importance to all the occupied countries that their citizens should regain, if they could, the sense of national self-respect that they had lost at the time of occupation and defeat which through resistance, as it was armed and fostered by SOE, they could. And much can be forgiven the organisation that stymied Hitler's attempts to build an atomic bomb.

I am now going to hand you over to the man who dropped, himself, the two men trained by SOE who helped to get rid of hydrogen – Group Captain Hockey.

Group Captain Hockey

I have been asked to talk about the early days of the build-up of this unit and the days when we were trying to sort out what we had to do – tactics, procedures and all that sort of thing. The initial RAF unit which was known as 419 Flight, was formed at North Weald, north of London, on the 20th August 1940. Its original purpose was the aerial transport of SIS personnel and one of its early operations, of which you have heard, was the deposit and collection of the late Phillip Schneidau from France in 1940. Phillip's story of the eventual landing near Oban and the difficulty of identifying himself

and the pilot of the Lysander, Wally Farley, to the local Home Guard and police was a classic yarn and always of interest to his restricted circle, invariably told with his usual humorous anecdotes. Phillip was a great chap and we miss him very much.

I eventually joined 419 Flight from my previous unit at Stradishall in November 1940. The original aircraft establishment was two Whitley Vs and one Lysander. We had five pilots and all captains were very experienced for that era. Most had done much flying pre-war: 1,500 hours was laid down as the minimum requirement. At that time we carried co-pilots for navigation and map-reading purposes except in the Lysander. In those days, there was no separate navigator trade in the RAF and all pilots were trained in navigation up to a basic standard. Later, air observers, so called, were trained in navigation and bomb-aiming and eventually these specialities also became separated. Co-pilots continued to be used for the very long sorties, to help with the pedalling and also for training purposes, of course.

My initial briefing was to carry out a number of the longer Whitley sorties followed by a few shorter Lysander operations, depending upon operational requirements. This original policy was overtaken by events. Because of the formation of SOE, its expansion and its demand for our specialised services through an ever-widening area of Europe, the original policy never caught up with events until after 161 Squadron was formed.

The original unit was later renumbered 1419 Flight because of the advent of Canadian units, all of whom took the 400 sequence. We were flying from Newmarket racecourse and were raised to Squadron strength in late 1941. After a short return to Stradishall it moved to its final destination at Tempsford in March and April 1942.

I had the job of moving the Squadron from Stradishall and I think Professor Foot said it was picked because it was the foggiest aerodrome in Bomber Command. I think it was the *boggiest* aerodrome in Bomber Command, because when we moved in only the runways were just showing through the water and when I inspected the aircrew accommodation, most of it was a foot under water as well. Nissen huts and so forth. So the first job I had to do even before we unbogged one of the aircraft was to billet all the aircrew out – 80 of them anyway – in the local village that same

night. I must say that the police really reacted pretty swiftly and we got them all out that same evening.

Well now, by this time the expanded unit, now 138 Squadron, was operating over a wide area including Norway, Poland, I don't have to tell you where it is, Denmark, Czechoslovakia, as well as France, Belgium and Holland. Sorties were also flown into Yugoslavia on one or two occasions, staging through Malta. This, we found, was not very cost-effective, as our very few aircraft were away from base so long, often jeopardising other priority sorties, and so 148 Squadron, which was based on the Middle East, took over this area, operating initially from Derna in about 1942. A small number of Halifaxes, Mark I and Mark II aircraft, were made available in late 1941 for the longer sorties, although Whitleys had been used for the initial flights to Poland and Czechoslovakia. The latter, in October 1941, succeeded in inserting radio signals facilities, allowing the first direct contacts between the Czechs and London since the occupation. The first Halifax sortie from the unit in December 1941 was also to Czechoslovakia carrying the assassination squad which eventually eliminated Heydrich. The provision of larger aircraft allowed more load to be carried further. Packing facilities of SOE to provide the additional containers were sorely tried by the sudden increase of capacity. The aircrew naturally always wished to carry their maximum load, which could vary with range of sortie. When SOE packers caught up with the capacity available there were occasionally complaints from the field as the load was beyond the capacity of the transport available.

A few experienced ex-bomber crews from the Polish Air Force joined 138 Squadron in early 1942. These were trained on Halifaxes with the squadron and were mad keen to fly to their homeland. They were a great acquisition to the unit and performed excellently. In 1942 further expansion took place by the formation of a further squadron. 161 Squadron was formed from B Flight of 138 as a nucleus. Most of the Whitley and all of the Lysander aircraft moved to 161, leaving 138 to specialise in the longer sorties. Other aircraft were considered from time to time and in 1941 extensive trials were conducted during the period we were at Newmarket and Stradishall with a Martin Maryland to determine whether the season of the longer sorties could be extended with a faster aircraft, up to 300 mph,

particularly to Poland etc. Unfortunately the Maryland proved unsuitable due to fouling of the tailplane by parachutes causing unacceptable damage. Also the windscreen reflections at night were confusing and could not be improved without major fuselage modification. I don't think the Americans ever flew them at night actually. The Curtiss electrical constant speed propellers were also prone to run away without warning and rather liable to give a noisy greeting at an inopportune moment. So we had to scrub that one. It was an ex-French Maryland, actually, originally ordered by the French and so of course the first thing we had to do was to change the throttle direction otherwise we'd be in problems there. All our French aircraft opened their throttles by pulling them back for some reason – I suppose that's because they drive on the right hand side of the road.

The Halifax, I think, was a sturdy aircraft with enough redundant structure to keep it flying if damaged in action – this is very important, I tell you, with military aircraft; it was also good for servicing repair, with the structure subdivided for component replacement. The Liberator for example is all in one piece, you can't take the wings off without taking the rivets out, so if you have to repair it you've got to put it back in the building jig. A Merlin-engined version of the Halifax was used because of its better fuel consumption and longer range. The later Bristol-engined ones were rather thirstier of course, so we kept the Merlin ones. The fuel carried for maximum range was 2,732 gallons, if anyone is interested; I can always remember it. With more recent machines an additional wing-tip tank gave 2,982 gallons, so that would keep your car going for a little while! The later Merlin 20 and 22 engines in the Halifax had a coolant mixture of 70/30 water/glycol which was a great improvement on the Merlin 10 or the Whitley which had 100% glycol and so if you had an engine fire and you got to the flash point of glycol – it of course added to the conflagration, which was quite dangerous for the Whitley. In May 1944, after my time in the unit, Stirling aircraft replaced Halifaxes when the Stirling proved inadequate for main-force bombing due to height limitations. By that time the longer sorties to Poland, etc, were being organised from Foggia in Italy.

Now just a few points about some of the problems. There were a

few problems, particularly with the longer sorties in the early days but we tried to anticipate as many as possible. One of the major problems was weather reporting. For our targets in eastern Europe there was little information and generally you had to assess and find out. The Group Met Offices were generally concerned about Main Force operations, and naturally could not give priority to a few odd places on the weather map, particularly with no reports in the area. There was also the problem of security, and going to the Met Office and saying we want to know what the weather is 'there' was a breach of security right away, of course. Nearer sorties were easier and often results of Met Flight sorties were available which could confirm probably local synoptic changes. The service certainly improved when we arrived at Tempsford with our own Met Office.

It was the long jobs which presented the problems, as conditions may be suitable over the target area and yet be bad en route. Remember, we were still in the era of icing problems so there were often abortive operations, and it was very frustrating for a crew to go time after time on the same operation and have to bring the whole load back, knowing that they or another crew would have to repeat the same trip again shortly. This required a special type of crew on these long operations, often 10 to 12 hours, who were really dedicated to the job, because there were no alternative targets in this sort of work.

To deduce the weather pattern whilst in flight, analysis of wind vectors could help. One requirement is to set the altimeter, at the correct datum of course, to monitor the height above ground in the target area. There were no radar altimeters in those times. The operating height for parachuting was generally about 500 ft. This datum setting could vary considerably from one's starting datum and 30 millibars lower would indicate about 1,000 ft over-reading. Rather like Russian roulette of course, always hoping you're on the right side. Having lost two trailing aerials in the trees in Czechoslovakia, I have some sympathy with it. The associated navigation on the long sorties was right back to basics. As electronic boxes were developed so they could be used when within range (for example Gee, also equipment like Rebecca/Eureka and S-phone which were developed later) but these could not be dropped in some countries because of compromising equipment, or where ground

facilities for secure transport of such loads were not available in difficult terrain. There were some enemy DF stations (which needed decoding) but were generally too inaccurate at the range required. So if the target was out of range of sophisticated nav aids one had to navigate, above clouds, successive star sights, more wind vectors, reset the altimeter, decrease height near the target, hoping to identify a ground feature and be able to map-read to the dropping zone. It was often difficult on a dark night, even with some moon to tell when you broke cloud if the ground was snow-covered, especially if the cloud was also snowing. Anyway we had a certain amount of success which relieved the monotony of course.

Undoubtedly the most difficult country in which we operated was Czechoslovakia – a long flight, all over enemy territory, much high ground (the Tatras and associated ranges), flights only in the winter to benefit from the long nights, so terrain was often snowbound, and no reception facilities in Czechoslovakia.

Although Poland was also a long flight the terrain was fairly flat and by routing over the North Sea and Denmark intermediate checkpoints were obtainable. There were also reception committees. There was also a very large river throughout Poland, the Vistula. Unfortunately target areas in southern Poland were out of range until operations from Foggia started. After serving continuously on this unit in its formative years (419, 1419 Flight, 138 Squadron) from November 1940 until February 1943 I was posted to Mediterranean Air Command to build up a similar facility to operate from that theatre into Europe. After forming 334 Wing which subsequently moved to Foggia, I returned to the UK in early 1944 and found myself operating 38 Group squadrons in support of SOE's build-up for D-Day. This proved effective training for the units which were subsequently to land the Sixth Airborne Division in Normandy on 6th June 1944.

In conclusion, I should add, as one of the planning staff for Overlord, Neptune, Mallard, etc, that I was very pleased to include my old squadron, 138, in the spoof raids over the Pas de Calais. They carried out this operation, whose timing was critical, in the manner to be expected, which certainly helped to delay the enemy armour and movements towards the real battle.

Air Chief Marshal Sir Lewis Hodges

Group Captain Hockey has described the beginnings of the Special Duties Squadrons supporting the work of the clandestine services, SOE and SIS. He has explained the vast area over which we were required to operate from Norway, through Poland, Denmark, Holland, Belgium, France, Czechoslovakia, and of course at the same time parallel operations were going on in the Mediterranean covering the countries there, Greece, Yugoslavia, Albania and Italy.

To be able to do an efficient and effective job we needed the right aircraft, with the necessary payload and range, and it was the arrival of the Halifax that made this all possible. As Group Captain Hockey has explained, the Whitley in the early days was all we had for the job and we had to make the best use of it, but its performance did restrict very much indeed what we were able to do. I personally only did one operational sortie in a Whitley, in fact my first operation on the squadron, 161 Squadron, when I joined it in November 1942, and that was to take two agents to France and to drop them in the Loire valley to a reception committee, and by that I mean agents on the ground who were trained specially to lay out the lights, a pattern of torches, and then they would flash a pre-arranged code signal so that the air crew could identify that the right people were on the ground.

These operations were all arranged by coded radio signals between the agents in the field and London, and then the final clearance on the night, to say that the operation was on for that night, would be given by a pre-arranged personal message over the BBC after the news bulletin.

If I could just digress and say a word on how I came to join 161 Squadron at Tempsford. I had been in Bomber Command since the beginning of the war with 49 Squadron, bombing targets in Germany up until the spring of 1942. Then I went to a Whitley operational conversion unit training crews for bomber squadrons. At that time Wing Commander Charles Pickard was the CO of 161 Squadron, having just taken over that squadron at Tempsford. I knew Pickard and we had both been serving on the same station in Bomber Command previously, and he asked me if I would be interested in joining this special squadron as he was looking for a Flight Commander and having already done a tour of operations in Bomber

Command, I had a lot of experience of night flying, night experience, and having been at a Whitley OCU, I knew that aircraft well and so in November 1942 I was posted to 161 Squadron at Tempsford to command a Whitley flight. that is to say the parachuting job. Now I mention this just to illustrate the point that the crews that we had in the Special Duty Squadrons were normally selected on the old boy network. They were personally selected by the Squadron Commander so that we were sure that we had people with really good experience and that they would fit in to these special units for this special type of work. It was done very much on a personal basis.

When I joined the squadron, there were two flights, the Whitley flight, later replaced with Halifaxes, and the other was the Lysander flight augmented later by Hudsons. 138 Squadron was the other squadron at Tempsford, as Group Captain Hockey has mentioned, and he was commanding it at that time and they had already been re-equipped with Halifaxes. As the Chairman mentioned in his introductory remarks, as special squadrons undertaking this highly-specialised role, we were not in the early days working under the operational control of Bomber Command at High Wycombe, as were of course the Main Force bomber squadrons, and we were regarded certainly with considerable suspicion, as is usually the case I think with special units and we were certainly not popular with the boss, Sir Arthur Harris. He looked upon us as a diversion of effort from the main task of bombing Germany, and hence the reluctance to give us priority for the newer type of aircraft which were of course in great demand for the bomber squadrons.

In fact this sort of tussle went on throughout the war, not only in Europe but also in the Far East where I went later on to command a Special Duties Squadron. We had exactly the same experience in south-east Asia.

And so I started operations on Whitleys and shortly after my arrival at Tempsford we were re-equipped with the Halifaxes and we set out to convert the crews to the new aircraft and to start navigation training and parachute training, dropping dummy loads to simulate operational conditions. Dropping was normally from 500-600 ft and we carried the normal Halifax crew, except that we had in addition a despatcher, whose job it was to look after the parachuting side of the business, and to see to the dropping of agents and stores carried

internally in the fuselage. The lower turret of the Halifax had been removed and doors were fitted in the hole and it was through this aperture that agents, personnel and stores were dropped. Heavy containers for arms and ammunition were carried on bomb racks in the bomb bay. Thus from the beginning of 1943 with a full complement of Halifaxes we were poised to carry out our job for SOE and the other clandestine services, delivering people and stores to the various resistance groups in north-west Europe. We ranged over all the countries, but the largest effort in north-west Europe was directed to the resistance groups in France. 1943 saw the introduction of radar for navigation in the form of Gee, which transformed the whole picture for us and enabled us to get much greater accuracy in penetrating enemy territory, particularly in bad weather.

Each different area had its own problems. In Poland, Denmark and Holland, for example, we had to penetrate the main defences protecting the Ruhr and north-west Germany, the fighter and anti-aircraft belt, a particularly lethal area. In Norway we had extremely difficult terrain, making parachuting in the mountains very hazardous both for the agents and for the air crews. And then Czechoslovakia, as Group Captain Hockey has said, involved a very long penetration across enemy territory, right across south Germany, a very long way out and a long way back. We carried out our operations and this was usually when there was a special urgency. We sometimes dropped agents in the dark period with no moon, and these were often what we call blind drops – there was no reception committee on the ground and this method had security advantages, but then there was always the risk of injury in the parachute landing. But it was the moon period which dominated our lives, the moon period was all-important to us and we were very conscious of it all the time.

The tactics we used were to fly to the enemy coast at low level to avoid radar detection and then to pull up to about 1,000-2,000 ft crossing the coast to be able to identify one's position accurately by visual means, but with Gee if one was getting a good signal we could penetrate at low level. Once over enemy territory we usually kept fairly low, 500-1,000 ft depending on the terrain, to avoid radar detection. Routing was always very carefully planned to avoid all known defended areas, such as enemy airfields, and very accurate map-reading was essential and this needed a great deal of training

and practice and close co-operation between the captain, the navigator and the bomb-aimer in the nose of the aircraft.

All through 1943 the intensity of operations increased and then in early 1944 the American squadrons arrived on the scene, part of the Eighth Air Force, similarly engaged on special operations for SOE and also for the Office of Strategic Services, the OSS, the American equivalent of SOE. They were based at Harrington, near Bedford, not far from Tempsford and we worked very closely together and in the early months they came over to Tempsford quite a lot and learned from our experiences. They were flying B-24 Liberators which were ideally suited to the task and they had an excellent range and payload, and the addition of the American squadrons more than doubled the available resources, and so you can see that the build-up was gradually taking place to support our eventual return to the continent.

The Main Force bomber squadrons of Bomber Command by this time were fully equipped with four-engined aircraft, Halifaxes, Lancasters and Stirlings but the Stirlings were not capable of climbing to high altitude with a full bomb load and suffered heavy losses, and as a result they were largely withdrawn from main force bombing operations and became available for low level work, parachuting arms and ammunition in the period immediately prior to D-Day. And by using Stirlings en masse and often in daylight in the latter stages, very large quantities of weapons were supplied to the *Maquis* groups, particularly in France. And so a whole effort in support of the resistance especially in France reached a peak in preparation for the Normandy landings in June 1944.

To conclude, I would just like to say a word on security which Professor Foot touched on. These operations demanded a very high degree of security as you can imagine. The risks were very high and could involve whole networks of agents in the occupied countries. When we parachuted agents into the field we never, or very rarely, knew who they were. We perhaps knew their codenames but that was all. They were brought to Tempsford at the last moment from a special holding unit, a country house in the vicinity, and they were brought on to the airfield with as much secrecy as possible. They were taken to a special building where their clothing was thoroughly and finally checked for any incriminating evidence such as English

markings, rail tickets, cigarette packets and so on. And then they were given their false identity papers and finally fitted with their parachutes with the RAF despatcher present. And they were then taken to the aircraft dispersal where the Halifax was waiting ready to start engines.

It is remarkable, I think, the degree of security that was achieved on the station amongst the aircrews and the ground staff. It is only since the war that we have got to know many of these people who we dropped into occupied countries and we have established many friendships which have endured for the last forty years, right up to the present time.

Group Captain Verity

Between October 1940 and September 1944, 400 people were picked up by moonlight from France alone. A handful of pilots in half a squadron landed their Lysanders or Hudsons secretly on rough fields marked by a few torches. Now this was a very small commitment of aircraft and aircrew which returned a major contribution to the success of the French Resistance. Other Lysanders based in Italy did pick-ups in northern Italy, Greece and Yugoslavia between May 1944 and April 1945. Dakotas did them in Yugoslavia and Poland. Now all this started, as you have heard, when the British spy, if I may use that word, Pilot Officer Phillip Schneidau, was picked up near Fontainebleau in October 1940 in a modified Lysander. Ron Hockey told us that this flight ended in Oban in western Scotland and you may be wondering why. They had together designed a flare path of three torches (they actually worked this one out on the tablecloth at Oddenino's) but the flare path was three torches tied to sticks, 150 yards long and 50 yards wide – an inverted L. The Lysander was modified by the removal of all armament and the fitting of a fixed permanent ladder on the port fuselage, so that the agent could climb into the cockpit. Well now, what went wrong? I'll tell you what went wrong. First of all, on taking off, a German sentry's bullet went through the compass. The next thing was that, to make it easier for Phillip to climb in, Wally Farley had taken off the roof and it was pouring with rain, so the radio set had got soaking wet and wouldn't work; then they had cloud all the way up to about 16,000 ft where it was very cold, and

the only way they could let down was to wait for a gap in the cloud and that didn't happen until they were over Scotland.

In 1941, the Special Duties Flight based at Newmarket racecourse used airfields near the south coast for staging pick-ups, much closer to the target areas in France. In that year Gordon Scotter did two pick-ups and Squadron Leader John Nesbitt-Dufort did three including the first for SOE. In December 1941 when the flight had grown into 138 Squadron, Flight Lieutenant Alan Murphy, known as 'Sticky', attempted the only pick-up ever in Belgium. He was ambushed, as a result of treachery in the network, and managed to bring his Lysander back to Tangmere with 30 bullet holes through the aircraft and one through his neck.

In February 1942, when 161 Squadron was formed, it took over the Lysander Flight. This new Squadron was commanded by Wing Commander 'Mouse' Fielden who had been the King's Pilot and Captain of the King's Flight. Nesbitt-Dufort was hiding in France, having failed to penetrate heavy icing in cloud on the way home from a pick-up. A month later Murphy rescued him and his passengers in a borrowed Anson. By June 1942, Murphy had completed five successful pick-ups and he was replaced as CO of the Lysander Flight by Squadron Leader Guy Lockhart who had done his first pick-up as a flying officer in March. Just work it out – flying officer in March, squadron leader in June! In August his flare path was laid over a ditch by an agent who later seemed to be drunk, and that finished off that Lysander. Lockhart himself was picked up off a beach by a felucca from Gibraltar, crewed by a rather strange part of the Royal Navy. He, Guy, flew back to Tempsford a fortnight after his crash. The third pilot to leave a Lysander in France in 1942 was John Mott who was bogged in the mud near Bourges. He was imprisoned but he later escaped. In October 1942, Group Captain Fielden took command of Tempsford and, as you have heard, Wing Commander Pickard took over 161 Squadron.

It was these two who pioneered the use of Hudsons for pickups, twin-engined Hudsons weighing 11 tons, and one of these was the King's personal aircraft, which 'Mouse' Fielden had kept by him.

Now, while Lysanders could squeeze in three passengers, the Hudson could take ten. They needed strips 1,000 yards long, compared with the 500 yards which was enough for the Lysander.

The Hudson's so-called flare path was 450 yards long and it consisted of four bicycle lamps, plus a fifth to the right to show how wide the strip was. 'Pick' did the first successful Hudson pick-up in February 1943. With a navigator, a wireless operator, Gee, and a radio loop for bearings, it is obvious that the navigation of the Hudson was easier than the pilot's task in a Lysander – he had to hold a map in one hand and fly the aircraft with another and I am going to go into this in more detail before I sit down if you'll permit me. But of course landing a Hudson was a very much more difficult task than landing a much more manoeuvrable Lysander, and this was particularly difficult on a dirty night. In 1943, 161 Squadron's Lysander Flight had a very busy and a very lucky year, at least until November. Over half the successful landings in France from 1940 to 1944 were completed in 1943 – that is 104 out of 183 Lysanders and 19 out of 36 Hudson landings. Six of these Hudson landings were by Wing Commander Hodges, who commanded the squadron from May 1943 to March 1944, after commanding the Halifax Flight of that squadron.

Now to the ground side in France. In spite of heavy losses during the summer, the networks of agents in France were building up during 1943 and needing more and more pick-ups as well as parachute drops. They worked for various intelligence organisations, co-ordinated by MI6, for General De Gaulle's resistance, whose air operations were laid on by SOE, for SOE's own French section and for MI9's escape and evasion lines. The agents responsible for finding fields and receiving aircraft, most of whom had been trained by pick-up pilots at Tempsford, included Paul Reviere, who handled 144 passengers on 14 operations, mainly near the Saone, and Henri Dericourt, of whom you have heard, the double agent, who handled 87 passengers on 15 operations, mainly near the Loire. One didn't know at the time that, because Dericourt's security was important to the Germans, we had a safe conduct from the *Luftwaffe* for those flights! It would have been rather helpful if we had known that!

Losses of RAF pilots and aircraft were surprisingly light, and due more to fog and mud than to enemy action. Although two Hudsons were bogged for hours in mud, not one was lost. Thirteen Lysanders were lost, four were shot down over France, four crashed on landing in France for various reasons, three crashed in fog on returning to

England and two were inextricably bogged in mud. Seven of these 13 pilots survived, including one who is sitting in the front row, and only six were killed on pick-up operations. On the other hand, the reception teams and the farmers and their wives who sheltered the agents and their passengers had heavy losses, and many of them died in concentration camps in Germany.

The RAF's operational control of Special Operations was streamlined as you have already heard – I would just like to say a word about Air Ministry approval of the fields we landed on. The details of each field were sent to Air Ministry AI2c by the air liaison sections of MI6 and SOE. Fields for landings were then specially photographed by a photographic reconnaissance unit – high flying Spitfires from Benson – and stereo pairs were scrutinised to see whether the fields were acceptable for landings. And then the decision about whether the op was on on a particular night or not was made at Tempsford in the light of the rather ropery weather forecasts that were available in those days.

So much for a thumbnail sketch of the history of pick-ups. But I have been asked to go into some detail in answer to a question which I am often asked – How did we find the fields? There are several Lysander pick-up pilots in the audience who may well give you different answers, but this is my answer, because we did generally find them.

Two-thirds of all pick-ups attempted were successful, and failures were often because of fog or very low cloud, and sometimes because the agents couldn't make the rendezvous. Very few pick-ups failed because of enemy action or errors in pilot navigation. With only a voice back-bearing over the Channel, a map, a compass, a clock and blind flying instruments, how was it done? Well, there were six things one had to do, and four of them before taking off.

The first was to plan a route avoiding *Flak*, with a good landmark at the end of each leg. Second, cut half-million maps to cover 50 miles on each side of the planned track, and fold it like a concertina. Now this is an actual operational map from 1944, not one of mine, I was too security-minded to keep target information like this, but another pilot's widow was kind enough to send it to me, and you will see that entry point here near Caen, and the track marked down here past Blois, down to near Issoudun, the gen card here with the

navigational detail for each leg, there and back. And then in the target area (that was a half-million map), a quarter-million map like this giving you the detail on the approach to the actual target. Having prepared the map, the third thing to do was to study it for an hour or two before take-off, memorising the shapes and the compass bearings of major landmarks. Fourthly, one had to calculate the gen card in the light of forecast wind, and then, fifthly, and this was the first thing you had to do after taking off, you had to fly the planned headings and speeds very accurately until the error in the forecast wind showed up because you had drifted off your planned track. Then you had to do a bit of mental geometry in the light of the different wind, and adjust your heading and of course, the sixth thing, very obviously, map-reading when weather permitted. I mean, very often you couldn't see the ground on the way to the target, so you couldn't do any map-reading, but when there was a clear bit and you could see the ground, that obviously was vital. And for this water was the best landmark, coast, rivers or lakes, and, after that, forests and railways, and the last leg, which could only be a couple of minutes long, really, had to be from a really certain visual fix, a particular village or stream, or railway crossing or something like that which you could be certain you were identifying and from there do an accurate timed run of two or three minutes when, lo and behold, you would see the agreed Morse letter flashing up from the dark ground and that was really quite a thrill.

Chairman

This is the man who delayed a German armoured division for ten days on its way to Normandy.

Tony Brooks

A lot of what I was going to say to you about the 'other end', as it were, has already been hinted at, but I think it is worth repeating in some ways.

I was dropped 'blind' by parachute from a Halifax on the 1st July 1942 near Limoges, and I operated in France until overrun by the Allied armies, the French First Army and the American Seventh Army, in October 1944. My organisation was a clandestine one, as opposed to a paramilitary guerrilla type of organisation – as opposed to a *Maquis*. The men and women who worked for me lived ordinary

lives every day, worked in the factories, were doctors, farmers, railwaymen, quite a lot of railwaymen, and after they had done their work, in the evening, they had to return home and carry on with their ordinary daily activities. Now my mission in France, the Pimento mission as it was called, and any aircrew may remember doing drops to Pimento, was firstly to attack specific targets such as supplies of sulphuric acid to the submarine bases on the Atlantic coast in 1942, superchargers for aero-engines being made by Pensavia, which I see today is going to be taken over by Lucas, and reinforcements to Italy during the Anzio and Salerno landings when we had to muck about with Hermann Goering's armoured division going through the Mont Cenis tunnel. And then, more importantly at the end, on London's orders, or Eisenhower's orders, to paralyse – that's what it said on my brief – the French railway network in support of D-Day. A small task, I was only 20 at the time, but nevertheless it was very enjoyable. Derailing trains comes naturally. I used to put chewing gum on our toy railway to derail my brother's steam engine when a small boy.

To do this task we obviously needed a lot of demolition stores. We had a very small requirement for weapons, ie the complete reverse of a secret army. A clandestine organisation with the task of preparing for D-Day was absolutely useless unless we could get out demolition stores, of various sorts, not just explosives, but also incendiaries and a thing called abrasive grease, which is a way of improving the movement of railway trains! We had to get these stores as near as possible to the targets that we were to deal with on D-Day. The only way we liked to do this was to get the RAF to come along and drop them as near as possible, and by as near as possible – I mean say 100 km. But (I don't mean an error of 100 km) I mean within 100 km of our target we would have a dropping zone where we could get at the stores. But in the earlier part of the war, when Whitleys were dropping to us in October and November 1942, my first two drops, they would drop north of Lyon; but my targets for dealing with sulphuric acid were down near the Pyrenees. This meant that we had to shift the explosives across France, a very difficult task, and a task, if you were caught, carrying the death penalty. The major casualties in my organisation, 72 people in all, were caught shifting explosives from A to B.

Now, in the early days, the south-west of France, down near Toulouse, was where the *Das Reich* SS Division was located, and this was one of my top targets in 1944, the drops by parachute of stores down to that area only began right at the end of the winter of 1943 and then the spring of 1944. You've already heard about the way the system worked – there was a BBC message on the radio, listened to after the news through the jamming – that terrible racket! – at 21.15 and then, if the message came through, the reception committee, who only knew their own dropping zones, perhaps three or four, and the messages for those particular drops, would hear this and they would go out on foot, or on bicycles after curfew to the field, which, when we could, we tried to make 400m by 400m. If the operation was successful they would have to pick up the containers, in the early days only three or four: in 1944 sometimes 72 containers on the ground – that is quite a lot of stores to shift. After having picked up all the equipment and hidden it away they then had to go home and then clean up and then go to work without looking too excited the next day.

When an operation was successful, the fact that the powers that be in the UK thought it worthwhile risking a valuable aircraft and a highly-trained crew to fly 750 km to drop to us – a scruffy bunch of terrorists on the ground – 150 kilos of stores – it was a terrific boost to their morale.

The early light pattern was a triangle with pocket torches, *les piles vindaires* as they were called, with red sweet papers on them. I consumed a terrific number of lousy sweets to get the red sweet papers, but the RAF complained about this after a bit, and we went over to white lights and the L formation. Now the light pattern was laid out in the field, indicating, as it was an inverted L, indicating to the pilot the direction of the wind, and the speed of the wind indicated where we put the lights in relation to the dimensions of the field. Windspeed was calculated by a lady's stocking with the heel cut off and held up in the wind on a stick or by hand, and depending on the angle we knew that if it was 45 degrees it was 30 km an hour and it was pretty dicey.

It was very rare that we had in the early days containers outside the DZ: occasionally they did, but they never landed in the middle where we always had the cart, the wheelbarrows or whatever to shift

the stuff, but nevertheless, the early drops were very accurate. The fact that the RAF could find our small field and actually drop on four of these piddling little torches, completely foxed the French, and still foxes me. But the trouble was when there was a 'no show' and the message had come out perhaps two or three times during the moon period, morale would go absolutely right down into their boots, and the fact that these people risked their lives, moon period after moon period, to go out or sit by and wait for a BBC message and then go out to the field. I might tell you in the better weather we used to poach crayfish in the streams, and have a portable radio, but nevertheless we used to sit around waiting for this, which used to put their morale down very much indeed. And it was very difficult to explain to them that over the UK there might be fog, although it was a beautiful clear moonlit night where they were, or that the low ground mist was hiding our torches from the pilot, although we could see the Halifax circling around in a great big sort of S looking for the DZ.

But also we had a difficulty when a drop was delayed. Contrary to most clandestine networks or contrary to most networks, I was fortunate in not having a wireless operator. I had a very rapid courier system through Switzerland, where I had been brought up as a kid. thanks to French customs men who are after all part-time smugglers, or the other way round, I never quite know, and the railwaymen, it only used to take five days from my headquarters in Lyon to Head Office and back again for me to get my instructions, which was a jolly sight quicker than by WT, ciphering and skeds and moving the radio set and so on. And so, one of our problems was that we would have to have a method of telling London that the chap had sown or ploughed the field that we were going to use as a DZ and this meant that each team had to have an alternative field in case the peasant would say, 'Look, you can do it till the end of the month but then I've got to sow,' and of course if it was all nicely smooth and harrowed there would be a hell of a lot of round holes where the containers had gone and if we'd driven a cart across it, he took a dim view. That was all right when the peasant was on our side; sometimes of course the best fields we had were ones where the peasant was on the other side and was hostile, because then we didn't really worry much what we did to his field.

In late 1943 SOE decided to standardise, and it has already been mentioned, the preparation of the build-up to D-Day, the increase in the need for containers and stores, headquarters decided to make standardised loads, ie a 15 container load on a Halifax would be so much weapons, so much ammunition, so many rifles, so many dressings, food, tobacco and possibly a tiny amount of explosive, which meant that we were continually getting vast quantities of weaponry which we didn't want and we had to go and hide away somewhere. And it meant also that we had to organise an unnecessary number of drops to get the stores we wanted, therefore aircraft were being put at risk unnecessarily and so were we on the ground, and so, if ever there is a third war, which I hope there never is, anyway not in my time, that this should be very carefully looked at. We've worked out on the ground – I was over in France only a month ago with one of my most successful reception committee operators, Henri Mander – we worked out we could have had all the stores we needed and all the weapons we needed with 30 drops instead of the 100 successful drops we did have.

Now the next point which I would like to make is also the way stores were packed, or delivered rather. There were two types of containers. The C-Type, which was like a long tubular suitcase which had three 50-gallon drums in it and was all held together – nice and solid – very heavy. The other type was an H-Type, which was five canisters which were held together by two rods from the cushion at the bottom to the parachute box at the top with two rods on each side. If the ground was at all hard, either rocky or frozen, on contact with the ground they broke open. That didn't matter if you were in guerrilla country because the chaps could pick up these smaller units, which had webbing straps on them, put them on their backs, and scarp. *They* didn't worry about leaving a few Whitworth-threaded bolts lying about in a French field. But our dropping zones, some of them were football fields, things of that sort, were very near a town. I was working just before I came out, I was looking at it, and we had about 30 dropping zones which were within 25 km of the second biggest city in France. So to *us*, leaving a bit of hardware in the middle of a field was absolute death. So we loathed the H-Type. And again, I think, from our point of view, it was much easier to get four men to lift a C-Type container or dump it

into a cesspit and then come back the next day and collect it. and sort it out if we were a bit rushed on the ground.

We noticed, of course, at the end, with the terrific build-up for D-Day, that the standard of dropping accuracy did drop off. And this I think is fairly obvious; it was because of 38 Group, wasn't it? – which were not of the same skill and training as the Special Duties Squadrons.

Notwithstanding these various problems we did have 100 successful drops and received 140 tons of stores. And we had 122 dropping zones marked out and registered in London and all they needed to do was to broadcast a codeword at the beginning of the moon period and I knew which DZs were going to be operating that month, and then teams were alerted and then they listened for their individual messages each night.

I haven't included in those figures the drops that we had on what we used to call in 1944 – I think it was about February or March 1944 – we were asked to provide 'dump grounds', ie grounds that would be manned throughout the moon period so that if the RAF could not find them, because of low cloud or no show-up of the team, the reception committee, they didn't fly all the way home with their stores as they could drop them to someone who could use them and on one occasion we had over 100 containers but, thank goodness, that was in August 1944 down in the south-west and we were pretty well, at least a chap called Colonel Starge (Hilaire) was pretty well in command of the area by then, and so there was no disaster. But we did have several drops of 72 containers and that needs an awful lot of manpower on the ground to actually shift it.

Questions:-

Jonathan Moyle: I would be interested to know, if anybody does know, what percentage of stores that you dropped actually went into the right hands and what percentage were picked up by the Germans, because I gather that they were able to equip some of their own forces with stuff that we dropped to people on the ground.

Professor Michael Foot: There has never been any means of working this out for certain, but the Chiefs of Staff asked the same question of SOE from time to time. SOE normally responded that, so far as it knew, about four-fifths of what went down fell into the right hands, from which it might in some circumstances very rapidly fall into the wrong. It depended entirely what country this was in; you can't give a routine answer to this question. The early stores, most of them went to the right people, there were one or two horrible awkwardnesses, the Netherlands is much the best known when for about 18 months the *Gestapo* collected everything. There was one area in France where, by accident, an operator was caught with his organiser a couple of days after they had arrived and before they had started work, and he was caught with his set and his codes and just in case he forgot them he broke orders and had jotted down on the back of his codes what his security checks were and they ran the whole thing for nine months, getting quite a lot of stores, and quite a lot of money and four perfectly good chaps, but this was not normal. Normally they went to the people for whom they were intended.

Group Captain Ken Batchelor: I must declare my interest because I took over from Ron Hockey in the beginning of 1943, and having been in Bomber Command practically all the war. One of the features of course of Bomber Command operations was you knew what the purpose of the raid was and afterwards whether you had been successful or had failed, individually or collectively. With SOE operations, and SIS operations, you never knew the purpose of them and it was only after post-war researches that so much came to light and I think my colleagues on the platform will agree with that. But there was one occasion in November 1943, and I will just tell this story quickly, that John Corby, an old friend of mine, was Wing Commander Ops at SOE in Baker Street, came down to see me to tell

me – and this was most unexpected – that the Germans were after an explosive a thousand times as powerful as anything yet known. There was no mention of course of nuclear fission, atomic bombs or even heavy water and this was of course the Norsk Hydro in southern Norway which was producing about 2 tons a year of heavy water, which was a moderator of nuclear fission and controls nuclear fission, and as a result of this we dropped a team of six, who, thank God, are still alive today, who managed to destroy the stills in Norsk Hydro and the residual stock.

Now this is one of the most, if not the most, significant sabotage efforts of the war because the Germans were beavering away and the Allies were very worried before the war on whether they would get nuclear fission before we did. I think you would confirm that.

Professor Michael Foot: Certainly.

Group Captain Ken Batchelor: And this effort stopped them in their tracks but they rebuilt the stills and got cracking again and the Americans subsequently dropped 700 bombs from Fortresses, only two of which hit Norsk Hydro. Then they were on and a year later the Germans, realising that we were after the place, started to ship stuff to the residual stocks, and they were going to transfer everything to Germany and the marvellous chaps succeeded in (most of you have seen or read the story) mining the ferry on the way. It was estimated the Germans would have had atomic bombs by 1944, about the same time as we did, and this effectively stopped them in their tracks because they lost their stock and they were unable to restart in Germany again.

Professor Michael Foot: I must put in one caveat, that American research indicated that the way to the atomic bomb through heavy water was a blind alley, but the impact of the operations mounted with the RAF's help against the German atomic bomb in Norway was such that the German scientists were called off. Hitler got bored and sent them off to work on something quite different instead. If it hadn't been for that raid the Germans might have got, might have discovered that heavy water was a blind alley and got it right second shot, it would have been extremely awkward.

Anon: I recently have been in touch with a veteran Belgian; they had

their fortieth anniversary in 1984 and I had the pleasure of being invited to meet them. They tell me that all their drops were by Lancasters (there was an abortive Stirling airlift in 1944/45, I believe). I can assure you they are very Royal Air Force orientated. The other observation is that in your original list of tons dropped, I noticed that Yugoslavia was the highest on the list, probably a third higher than the whole of France. I was interested in that. Was there some reason for that? There was mention that they used Derna, I think, for droppings, but surely Foggia may have been involved in that as well? Interesting to think that with the mountainous country of Yugoslavia there were a lot of abortive drops there. Was that the reason why the tonnage was so high?

Professor Michael Foot: The bulk of the dropping into Yugoslavia was from airfields round Foggia rather than from places as far afield as Derna. I might add that there were also about 10,000 tons of stores put into Yugoslavia by boat so the Yugoslavs got substantially more in the way of warlike stores than other people, for an excellent reason. They were busy killing Germans. There was a major guerrilla war in process in Yugoslavia to which air supply could make an important contribution. And a lot of this was done by daylight. I revert for a moment to your Belgians. My belief is that parachute drops for resistance purposes by Lancaster are a myth. Is there anybody present who can contradict me? Is there anybody present who has flown in a Lancaster and dropped to the Resistance?

Flight Lieutenant Chappell: I was on detachment to Tempsford from 3 Group and we were flying Stirlings but at the same time there were several crews from 617 Squadron using Lancasters. I was a navigator with 214 Squadron. In fact, we had very little training in what was required because my first operation was in a Stirling from Tempsford.

Professor Michael Foot: 617 Squadron, we all know. Did they use their Lancasters for drops to the Resistance?

Chappell: Yes.

Reg Lewis: I can confirm that. I was at Tempsford and I do remember 617 sending Lancasters down ...

Professor Michael Foot: For purposes of dropping to the Resistance? I'm much interested by that and take note, and this I trust will appear in the Proceedings.

Reg Lewis: I must say that I understood that all the operations were really along the Normandy and Brittany coastal areas – I wasn't aware that they were going down into Belgium.

Fisher: I was with 148 Squadron in Brindisi, through the autumn and spring of 1944 and 1945 and at that particular time the squadron had been virtually decimated following the uprising in Krakow and Warsaw. The aircraft involved, the Halifaxes, had been shot at by the Russians all the way up from crossing the border right up until Warsaw, which is not generally known, I think.

Professor Michael Foot: Alas, I can confirm it having been told by a man who assured me he was the sole surviving pilot of the squadron.

Fisher: Yes, there were very few people around when I joined them.

Potter: Can I introduce a personal thing into this? We were shot down on an operation to Tony Brooks and with such an exalted audience I have been trying to find something out. My crew are much bigger than me and if I don't ask tonight, they'll be on to me, I tell you that! We had an armed guard on our aircraft the night we took off and we had two Intelligence Officers. Now, I don't know what we were carrying (you don't know what we were carrying, Tony, do you?) and I wondered if anybody here had ever done an operation where there was an armed guard on the aircraft before take-off.

Professor Michael Foot: I'm sorry to say there were only too many.

Wing Commander David Annand: I was based at Newmarket on the ... Gallops. We had to fly Tomahawks. But I knew Pickard and Murphy quite well at that time. I knew Nesbitt-Dufort, he relieved me in 10 Group in 1944, but my question is this – Pickard, did this raid with three Whitleys on the station near Calais, they dropped the parachutes and were brought back by boat. They were collected – yes, the Bruneval raid – what good did it do because they got some secret equipment back, didn't they?

Professor Michael Foot: It did a great deal of good. We got a fairly new German radar set and found out how it worked.

Wing Commander David Annand: I think one person only was killed in that raid.

Professor Michael Foot: The casualties were very slight and the intelligence return was enormous. See on this of course R V Jones' *Most Secret War* and General Frost's *A Drop Too Many*.

Leonard Dixon: I would like to ask Professor Foot, because the name has been mentioned twice, about Henri Dericourt; his history is an extraordinary one and the implication is that he was guilty. After the war, I think the French cleared him, although his history during the war was decidedly odd. I think in his defence in France, he was defended by Norman Boddington, who had been very closely connected with SOE. In the light of hindsight, some forty years after the war, would the press still say he was guilty or not guilty, ultimately, to the detriment of the Allied cause?

Professor Michael Foot: He was told by the French that he was under deep suspicion and in fact was arrested and told that he was going to be charged with treason to the French cause during the war against Hitler, but because he was an officer he was offered the choice of a civil trial or a military trial. If he had a civil trial either side could appeal from the verdict, it would go right to the High Court. If he had a military trial the verdict would be decisive, there would be no appeal. Which would he have? He said the military trial. And he got hold of Nick Boddington with whom he had been doing important business deals in Paris in the summer of 1943, much to Boddington's advantage. It was therefore necessary for Boddington to do anything that Dericourt asked him to do. Boddington turned up in court, ostensibly as the emissary of the British Secret Services, none of whom had anything to do with his appearance there at all, and swore that Dericourt was white as the driven snow. He was therefore acquitted. Boddington and he are both now dead.

I have no doubt at all that he was working both for the British and for the Germans. He was working for whoever would pay him. He was strictly – *il était bon Dericourtiste* – he was in it for himself. His wife is now dead and since his wife died a lot more has come out

about him. You needn't take any notice of the cover story that he gave to a girl he was trying to seduce that he was a spy who had been planted in SOE by SIS. This made an excellent story, but I did once tackle the head of the French section of SIS who told me categorically that it was not true. Like so many of these stories, it is a good tale, therefore everybody thinks it must be true. but the very best stories are not always the true ones.

Tony Brooks: There have been a lot of books and films and what-have-you about the Dericourt saga. Although he was a traitor, I don't think it is fair – if one can be fair to a traitor – to blame him for the widespread casualties of some of the networks the *Gestapo* and the *Abwehr* were able to penetrate because of his treachery. Those circuits were wound up because they were hellishly insecure themselves and their main leaders knew each other by their names, where they lived and they met in black market restaurants.

Professor Michael Foot: Where they talked English.

Tony Brooks: Well, I don't know about that, I wasn't there ... but those circuits would have been probably penetrated and wound up without Dericourt, but as he organised my pick-up (I was flown out by Bob Hodges), I can't be too hard against him!

Professor Michael Foot: The absolutely fatal thing that Dericourt did as far as those circuits were concerned was that he made all their mail available to the Germans. So that when the German interrogators were interrogating members of these captured circuits, they had recently been reading what their own wives had been saying to them, and what they had been saying to their own wives. They therefore had intimate understanding of who the men were and what they were worried about and this gave them an enormous interrogator's advantage. This, I think, is an aspect of the *Affaire Dericourt* which those who seek to support him don't perhaps lay as much stress on as they should. He was a flight lieutenant in the RAF among other things, he was also an officer in the French Air Force, he was a *very* competent pilot, he had 4,500 hours trick flying in a circus before the war started.

Anon: He was *dressed* as a flight lieutenant in the Royal Air Force for a short time – dressed by SOE.

Professor Michael Foot: But he didn't appear on the Air Force list?

Anon: No.

Professor Michael Foot: I must, if I may, throw in a remark that Hugh Verity made to me when my book came out, on SOE in France – 'Can't, think why you say Dericourt didn't get a DSO. I've seen him wearing one!'

Faulkner: How much official effort was made to determine the fate of special duties air crews who went missing on operations, and is there any reason for concealing information on this now?

Sir Lewis Hodges: Well I have been personally involved in researching quite a lot of these cases and there certainly is no reason for withholding any information. The difficulty is, it is very, very hard to track down what became of aircraft. For example on Norwegian operations where you have very difficult terrain. We lost crews in Norway, not through enemy action, but due to weather conditions and mountains and I regret to say that some of those crews were never found. You can never be sure whether they actually came down in the mountains or whether they came down in the sea. I think in many cases where crews have been untraceable the aircraft must have crashed in the sea, either in the Channel or North Sea. Several of my own personal friends disappeared in that way and we have never been able to track them down.

We have naturally tended to concentrate on operations in France because that is the area where the biggest amount of work was done, but I would like just to mention Norway. The loads of stores that we dropped in Norway were very, very small indeed comparatively speaking, but the Norwegian agents did a marvellous job. I can remember flying into the Norwegian mountains and dropping chaps with skis in packages blind into the hills where they had to get themselves sorted out and ski off to their target. They were a pretty tough lot and they did a marvellous job under the most difficult conditions throughout the war years and I think we owe a great deal to the Norwegian resistance for that. I remember one operation which was to take place in the north of Norway in the Narvik area. The Germans were getting iron ore from Sweden, coming through on the railway – there was a big viaduct leading to Narvik – and the

target was the Narvik viaduct which had to be destroyed and we were to drop a team into north Norway, in fact right on the border of Sweden where they were to ski across country to Narvik. We stood by for this operation for many weeks and although we made two attempts the weather was against us and we never did succeed, but that would have been a marvellous achievement if we had been able to do it.

Sir Douglas Dodds-Parker: May I make two quick points? The first is the early days of operations even before the war: I know there is practically no record of them left but it might be worth trying to research some of them. Flight Lieutenant MacPhail, generally known as ‘Balbo’ in the Middle East, who flew a Hudson photographing the Caucasus in the winter of 1939-40. There must have been operations being flown in those days, they were probably SIS and therefore we’re not allowed to talk about them, but there must be some record. Of course people didn’t keep records in those days.

Charles was the first pilot who flew 14 hours to Poland and back in a two-engined Whitley – all he’s got in his log book is ‘Operation successfully completed’. The same with Ron Hockey – I think he and John are the only two survivor’s from Newmarket when I first came back from that Middle East campaign where I’d served under Wingate, that extraordinary chap that Mike Calvert served under later. He flew into Ethiopia, and was picked up, I think the second pick-up with the one that Wally Farley did in enemy-occupied territory, but there doesn’t seem to be any interest anywhere in those operations that went on in those early days, largely because there was so little record kept about them.

I always understood that Rebecca/Eureka was invented by our boffins and the Polish boffins to save the aircraft’s getting to Poland and only having 15 minutes to find a couple of hand torches before they came back. Is this so and is this the forerunner of all the equipment that you find in modern airfields all over the world? And the S-phone, I don’t think it was Nick Boddington, I think it was Tom Kadett of *The Times* came back from France saying, ‘My God, I’ve talked to somebody, I can recognise his voice – he is all right’. What happened to this equipment? There is very little record kept of them.

The second point is that SOE was not very welcome, and still isn't in certain circles (in Whitehall more than Westminster), but it has left behind it a most extraordinary liaison all over the world. People who served in Burma still get letters from the Karens and Kachins who are hoping that somebody will drop them some more supplies one day. I went to Poland with the London Chamber of Commerce ten years ago and in the middle of a reception by the President, somebody came up, clicked his heels and said, 'Sir, my Rebecca's still working. When are you going to let me have some more arms?' And only eighteen months ago we had an extraordinarily successful meeting in Bologna in north Italy. The oldest university in Europe gave the Prince of Wales an honorary degree. He was there for the reason that his grandfather used to lend us his Hudson, provided people like Bob Hodges didn't prang it. About fifteen of the British liaison officers in the field, who had been there, were entertained by the so-called Communist government of Emilio-Romagna which of course in policy is well to the right of Louis XIV and based on Fascist legislation, but the goodwill that is left throughout Europe is a political residue of all these efforts that have been made. People say – 'What did SOE do? All these people who were resisting and looking for support from outside.' – I think that they knew. They probably didn't meet the pilots that dropped things to them – how could they? They probably saw the face of Hugh Verity, or Bob Hodges, or Ron Hockey for a few seconds getting in or out of the aircraft. It was only recently that the French in particular tried to find the list of passengers who went in and out but it is a pity that the RAF hasn't had the wider acclaim that it should have had, I think, throughout the free world, for the courage and the skill of the pilots who went in and dropped things to these people.

Philip Saxon: I want to thank Hugh Verity for his six principles of navigation. I wish that, as a navigator, I had known them and that it was quite as easy as he made it sound! But the other comment I would like to make, not altogether irrelevant I hope, an historical note, that tonight I don't think we should let it pass without reminding ourselves of Captain Mulcahy Morgan, originally of the Royal Irish Fusiliers, who flew over to France with 4 Squadron in 1914 and on the 13th September 1915 was the first RFC pilot to land

an agent behind the lines. The idea was to find a field with a nearby wood for the agent's escape. Unfortunately the field was rather small, they hit a tree and were both severely injured. But before the Germans reached the aircraft, I think it was an FE2B, all the paper and the pigeons had disappeared (local populace!). Anyway, it is nice to know that 138 and 161 Squadrons had some forebears. I may say the first successful landing was made three weeks later.

Tony Brooks: Well, at the end of the war my father, who had served in the RAF (well he'd served in the Royal Flying Corps in the 1914-18 war, and then in the RAF in the Middle East in World War II), came back to England and I thought, with my brother who served in the Fleet Air Arm, we'd try and impress the old man, who we hadn't seen since before the war, and I told him that I'd been dropped into France and so on, and I explained that Bob Hodges had brought me back in a Hudson, and I thought it was absolutely terrific and he said, 'Oh well, he didn't have any problems at all, after all he'd got self starters on the aircraft – I landed near Metz in an RE8 in a stubble field in later 1917 to pick up a British agent and he didn't turn up for an hour and a half, and when he did he was so sawn-off, he couldn't swing the prop.' So the agent climbed in, and to use my father's expression, 'I wedged the throttle with my flying gloves, 'sucked in' (or whatever the revolting term is) with the propeller, gave her a twirl and she started like a bird. I dived under the wing, and just managed to get my feet on to the edge of the wing, and get into the cockpit, otherwise he'd have flown home on his own.'

Humphrey Wynn: We have listened this evening to four absolute heroes and their matter-of-fact accounts make one feel very humble. I'd like to direct one question to one of them, that is Hugh Verity, who gave a very careful reckoning of the Lysanders which were lost and what happened to them. I seem to remember that his colleague, John Nesbitt-Dufort, in his wonderful book *Black Lysander*, describes how he couldn't get back because of a looming warm front to the north of him and after trying and trying he force-landed his Lysander and destroyed it. Set it on fire. Was this correct in your recollection; I don't seem to remember it in your notes, but I might have missed it?

Hugh Verity: Yes, that was perfectly correct. Perhaps I didn't go into enough detail, but I was over-running my time as it was. Funnily enough, when I was in France three weeks ago, I was shown an American magazine with a photograph of a Lysander in a wartime German museum in France, and this was John Mott's, that had been left there when he got stuck in the mud. The funny thing about John Mott, who is still alive, is that his agent who saw him in was Colonel Antic and because John Mott didn't have any false papers, and then without any false papers, being near the aeroplane in the mud, he was picked up by the local French militia and thrown into prison; they thought he was the pilot.

Michael Tomlin: After these stories of great gallantry, this perhaps seems a rather puerile question. But I wanted to ask a simple question – when operating in occupied France it would be interesting to know what sort of percentage he felt amongst the French population could be relied upon, and what sort of percentage did he feel would be likely to be collaborating?

Tony Brooks: Are there any Frenchmen in the room? Well, in 1941, when I was working as a sort of local recruiter for an escape organisation, I would have said probably 1% were prepared to even contemplate doing anything. Helping escaped prisoners they felt was less dangerous, I think probably very erroneously, but they felt they could justify it, that they were being sort of humanitarian. In 1942 probably about 10% of the population, in August 1944, or end of August 1944 probably 110% rather like east European election results! It varied with the areas, the social class, the background of the person, and it may sound rather conceited to say this, I think on the personality of either the British officer or the French officer who had been parachuted in to lead them. It was personal loyalty, we had no rings on our arms, no pips on our shoulders and, as I mentioned, I was very young. I was able to inspire one or two young girls in their teens to do some very effective work on the French railways with abrasive grease, but when talking to their parents and the head of the French civil service, or head of the French trade union movement, a man of nearly 70 at the time, it was fairly tricky, and because one could summon stores from the air, and I don't know, Michael Foot says because I was a diplomat, but I don't think I was, I think I was

just crafty, and I was able to persuade them that it was worthwhile doing something.

But going back to the other part of your question, of how many we could rely on, I didn't rely on any Frenchman, and I think perhaps that's why I lasted longer than anyone else in France in the sense that everybody was hostile until proved the opposite. We only recruited people that the man I was talking to knew and he could rely on, so school chums, regimental chums, colleagues at work and relatives, it went on like that and I think that is the reason why, even when we had arrests, the breakages were none. I mean, we changed passwords, but after several arrests, one of whom was my second-in-command in Lyon, two days later I was fully operational again. I just went to ground until I found out to what extent they were searching – he never talked, he was shot, executed by a firing squad.

Professor Michael Foot: Perhaps you would allow an historical note to that. The proportion of people who were prepared to help didn't only vary with time, it varied with place. In the Netherlands about one in eight of the population, from the start, decided they didn't like the occupation and weren't going to play. In Poland about 99 in 100 of the population, from the start, decided they didn't like the occupation and weren't going to play. The Poles are very proud of having had no Polish Quisling, no co-operation at all with the occupying enemy. The Dutch are very proud of having had as many as one in eight who were against it, but they can't get over the unfortunate fact that they had the largest proportion of their population in the *Waffen SS*. It was a very dicey business in occupied Europe, knowing which side one ought to think of backing. The obvious, rational, straightforward thing to do was to go in with this beastly occupation and do what one was told to do and those who held out right from the start against it were extremely precious and in France extremely few. It was largely thanks to the Royal Air Force that in the end some of them were able to come out gun-in-hand and see the back of their occupiers.

Anon: The strength of the *Maquis*, up in the mountains, was enormously increased after compulsory work in Germany was introduced at the end of 1942. Early in 1943 a lot of young men preferred to go up into the mountains as boy scouts and join up with

the *Maquis* there rather than be shipped off to war factories in Germany.

Mark Seaman: We have talked quite a lot about Lysanders and it has been mentioned that the casualty rate of the pilots was rather low. I would like to ask Ron Hockey if he would comment about the casualty rates for the four-engined bomber crews, given the fact that we have also mentioned that so much of the weight of support given to resistance resulted from the supplies being dropped. Could you make any comment about the casualty rates incurred by 138?

Ron Hockey: Well yes, I did make a few investigations a year or two ago and I reckon we lost about 135 aircraft and crews from the time we started until 138 and 161 were taken off that sort of job. 38 Group were beginning to operate before D-Day, they lost about 35 in that period of time, and of course there were six or seven people in a crew.

Professor Michael Foot: I am very grateful to you all, Ladies and Gentlemen, for your attention and I shall now hand you back to Sir Frederick.

Sir Frederick Sowrey: What a saga of endeavour and achievement! As has been made clear, this would not have been possible without the involvement of air forces and particularly the Royal Air Force. The numbers on the ground and in the air were small; the results to the war effort were incalculable. We have heard tonight another page in addition to history. This will be recorded in the *Proceedings of the Royal Air Force Historical Society* and adds to the colour and to the background of all that has gone before. I can do no more than thank Professor Michael Foot and his team for what has been a superb evening. Thank you very much indeed, Gentlemen.

Book Reviews

ARCTIC AIRMEN

By Ernest Schofield and Roy Conyers-Nesbit.
William Kimber, 1988, £13.50 ISBN 0-7183-0660-0.

As AOC No 18 Group and as President of the Aries Association, I was delighted to be invited to review this interesting book about maritime operations in the Arctic. It tells the story of a Catalina crew of No 210 Squadron of Coastal Command who, in 1942, were selected to carry out long-range operations to support a Norwegian expedition tasked with denying the use of Spitzbergen to the enemy. The book is written in a very readable style in the first person by Ernest Schofield, the crew's navigator, in conjunction with Roy Conyers-Nesbit.

The authors provide an insight into the joint operations to support a small party on Spitzbergen and illustrate the way in which remarkable, but largely unsung, crews operated their equally remarkable aircraft. Twenty-four hour sorties without fixing were not unusual! My only regret is that Ernest Schofield, probably out of modesty, has made light of the many considerable difficulties facing them. The book also records the first attempt by the Royal Air Force to fly to the North Pole.

Since much of the value of the book lies in its treatment of navigation problems and practices in the early 1940s I invited my fellow Aries Committee member Gp Capt F C (Dickie) Richardson to contribute to the review. (Dickie Richardson was the author of AP1234 (1941), CO of No 502 (GR) Squadron of Coastal Command (1941-42), CNavO Coastal Command (1942-44) and Deputy Commandant of the Empire Navigation School (1944-45).

JBD

Flight Lieutenant Schofield's painful progress from the pre-war problems of a Cambridge graduate over many invidious obstacles to a commission as an air observer in 1940 recalls the abysmal introduction of that aircrew category into the RAF and its inevitable reliance upon mariners recalled from retirement (*faute de mieux*) for teaching the unknown mysteries of air navigation without the help of

an adequate manual, only then in hasty preparation. Schofield's dedication to his subject was exceptional and he achieved a remarkable grasp of the underlying sciences by dint of burning the midnight oil.

Fortunately, once his talents were recognised, the Service selection system seems to have functioned properly and in September 1941 he joined a squadron of enthusiastic young men flying Consolidated Catalinas from Oban to protect convoys in the east Atlantic. Shortly afterwards they all moved 300 miles further north to the Nissen-hutted station of Sullom Voe, set in the windswept desolation of the Shetlands, there to start flying into the Arctic and around the islands of Iceland, Jan Mayen, Spitzbergen and Bear, in support of maritime operations which were now to include reconnaissance of the ice cap to facilitate the planning of convoy routes to and from Russia.

Sorties to Spitzbergen, then partly occupied by the enemy, required great daring as well as high professional skill, not to mention enormous physical endurance. Not counting the time and effort involved in briefing and de-briefing, Schofield and his crew, led so ably by Flight Lieutenant D E Healy DSO, to whom this book is dedicated, were asked to fly for 45 hours in the space of 120 hours, during which they had to endure intense cold, noise and cramped space, not to mention anxieties during their passage to and from enemy-held territory. Luckily they were able to brew themselves fresh tea and a fry-up when time permitted. But it was very hard going.

Catalinas flew slowly and thus had limited range in spite of their long endurance. Navigation depended necessarily upon observations of the sea surface for drifts and on astro sights, all of which were interrupted by cloud and sea fog. They were fitted with ASV Mk I which gave help on the approach to a coast-line but which had mediocre – and thus unreliable – serviceability.

It must not be forgotten that in 1942 there were no radio aids, no Decca, no Gee, no Loran, no Consol, no Doppler, no inertial navigation and of course no satellite navigation. Dead reckoning was subject to at least 10% error per hour and this could only be contained by terrestrial contacts or by astro, when available. The ability to use a marine-type, rather than a bubble sextant from a

Catalina flying low over the sea was a small but significant advantage in favourable cloud conditions. But, by and large, the navigation methods remained basic and primitive, and the results were often unsatisfactory and unacceptable to those in authority, who frequently had to answer to the Admiralty for not meeting convoys in passage through U-Boat packs. Schofield did not have abortive sorties, because most of his duties seem to have taken him to large identifiable chunks of land

What emerges over and over again are the excessive spells of duty imposed upon the navigator who gallantly seems not to have complained. After all, two pilots also had 'George', the automatic pilot, to help them spend the time; but the navigator had to cope all by himself without any let-up. Fortunately the navigation did not come to grief through fatigue; with some justification Schofield seems to ascribe the Captain's final disaster to this cause. The entire crew were tired when they were attacked.

The plight of the single-handed navigator was finally recognised by the Air Ministry and a second navigator was added to all crews undertaking sorties in excess of 10 hours' duration. Too many wrecked aircraft littered the coasts and hills of the British isles to be ignored. Unfortunately this change came in 1943, too late for Schofield.

The highlight of the book lies, of course, in the somewhat clandestine plan to fly to the North Pole as a spin-off from one the more northerly bases in the operational area. The RAF prides itself on its innumerable successes in pushing aircraft beyond the accepted limits of experience, but even with the help Professor Frank Debenham (who had the Chair of Geography at Cambridge and had done so much to foster navigation in the University Air Squadron) and of the Scott Polar Research Institute, not to mention the Royal Greenwich Observatory (and probably its Dr Sadler), a somewhat surreptitious attempt to reach the Pole with so ill-equipped aircraft now seems to have been asking for trouble. It must not be forgotten that at this time the resources of Coastal Command were more than fully stretched in the war against U-Boats. In the event, bad visibility dictated failure, a sad blow to the young aspirants. The plan had to be shelved and was revived when the Empire Air Navigation School was established at Shawbury where a properly-equipped, high-flying,

high speed, long range Lancaster called *Aries* accomplished three trans-polar flights in May 1945.

As first Deputy Commandant and Director of Studies of EANS, the reviewer regrets that Flt Lt Schofield's application to join the staff at Shawbury never reached his desk. As Schofield so truly observes, polar navigation demands a new philosophy regarding direction, for at the North Pole all ways point south. Wg Cdr Kenneth Maclure, RCAF, conceived the answer and in the flights of *Aries* he not only proved his theory but also won the Air Force Cross.

FCR/JBD

FLY FOR THEIR LIVES,

by John Chartres,

Airlife, £12.95.

ISBN 0-906393-93-0.

John Chartres has made a name for himself in recent years with a number of fascinating books on search and rescue, including the work of helicopters and maritime patrol aircraft. His latest volume, *Fly For Their Lives*, tells the story of the countless rescue operations in which British aircraft of all three Services have been involved over the past 70 years. Drawing extensively on personal accounts from both rescuers and survivors, he relates many tales of heroism – some already well known, others less so – and explains how the techniques of rescue have been improved, not least through the development of specialised survival equipment such as Lindholme Gear and the Airborne Lifeboat. There are also accounts of other forms of rescue operation stretching from the supply drops at Kut el Amara in 1916 to Operation Bushel in Ethiopia in 1985; in one well-described incident during this famine relief operation, a bird strike caused a situation from which the Hercules pilot recovered despite subsequent computer simulation demonstrating that he should have died.

While there is, as would be expected, much material on the Second World War, when rescues were usually carried out by flying boats and amphibians, often co-operating with surface vessels, the post-war story is also covered in detail. Here it is the helicopters, frequently controlled by maritime reconnaissance aircraft, that have usually played the lead role, and John Chartres properly reminds us how few disasters have befallen the rescue aircraft themselves. The 1980 attempt to recover a USAF A-10 pilot from the sea, when the pilot and the winchman were drowned after the wire snapped, was very much the exception; as he says, ‘the safety record achieved during the whole history of helicopter rescue stands as a tribute to the skills and dedication not only of aircrew but of ground and shipboard technicians as well’. This well-written and amply-illustrated book is a most useful record of what John Chartres describes as ‘the best air-rescue service in the world’.

HAP

**VICTORY OF A SORT: THE BRITISH IN GREECE,
1941-46**

By E D Smith

Hale, 1988, £14.95

ISBN 7090-3290-0.

Much debate still surrounds Britain's wartime role in Greece. The foredoomed attempt to come to her assistance in 1941, the activities of SOE and the complex military operations of 1944/45 that followed the German withdrawal; all these continue to excite controversy. Brigadier 'Birdie' Smith has shown again his capacity for careful, balanced analysis of complex issues and this well-written account will be of much interest to all who served in Greece during those troubled times.

While it is the work of the Army that properly occupies most of the author's attention, the various RAF roles are given their due – D'Albiac's small force earned the RAF great prestige in the winter of 1940; there was much gallantry in the short air campaign of 1941 when the RAF was grossly outnumbered; No 148 Squadron played an essential role in support of SOE, and the British force that arrived in 1944 contained a substantial RAF element and met considerable problems. It is salutary to be reminded of this major and unexpected military commitment that came Britain's way in the final winter of the war when there were still so many other pressures and anxieties to be faced.

HAP

**THE BERLIN RAIDS, RAF BOMBER COMMAND,
WINTER 1943/44**

By Martin Middlebrook
Viking, 1988, £14.95 **ISBN 670-80697-8.**

The Berlin Raids, covering the RAF's numerous attacks on the German capital city in the period between August 1943 and March 1944, is the latest in a series of books by Martin Middlebrook in which he examines certain specific raids carried out by Bomber Command. In the past, however, he has concentrated on a very detailed examination of one particular attack or, in the case of Hamburg, a closely-knit sequence; this time he describes what has often been referred to as a complete battle, the Battle of Berlin.

His general method remains the same, namely to describe each particular raid from the points of view of the attackers and the defenders, to draw on the recollections of the many aircrew of both sides whom he has interviewed, and to tell what it felt like to be on the receiving end of the bombing on the ground. Obviously, with 19 major raids to cover, he cannot always go into great detail, but the vivid description is there and the many human dimensions of the battle are well portrayed. One of the more fascinating aspects of the book is the way in which Bomber Command tried to thwart the German defences by varying the routes, carrying out spoof attacks, including in its campaign major raids on other targets, and introducing a variety of technological improvements; at the same time one sees how the *Luftwaffe* tried to cope with the offensive and achieved mounting success as marked by the growing percentage of RAF bombers failing to return. One reads too of the immense problems of attacking such a large and widely-dispersed city, not least the immense difficulties of finding and accurately marking the specific areas chosen for attack, often in very difficult weather conditions. so that while some raids were highly successful, others achieved relatively little.

Certainly those who took part in the Battle of Berlin, and indeed all who are interested in the wartime fortunes of Bomber Command, will wish to read this book, for it faithfully records the action during one of the most critical periods of the bomber offensive. What

disappoints, however, is the author's verdict. Having said that 'no-one should take away from Harris and Bomber Command the credit for severely weakening the German war machine and diverting weapons and manpower away from the invasion coast', he later concludes that 'the cost was too high in relation to the results' and that 'the *Luftwaffe* hurt Bomber Command more than Bomber Command hurt Berlin'. This is tantamount to saying that Bomber Command lost the Battle of Berlin, a view that has been expressed on other occasions but misses the essential point. True, the assault on Berlin did not by itself win the war, as Harris hoped it would, but Bomber Command's 42 raids during the winter offensive, 19 of them against Berlin, coupled with the Eighth United States Air Force's daylight attacks, must be seen in their broader context, for they compelled the Germans to concentrate resources on the defence of their heartland to an extent that ensured the success of the invasion of Normandy and the other great land campaigns in the later stages of the war. Those who fought in the Battle of Berlin need to know that, whatever the immediate balance of losses and damage, theirs was an indispensable contribution to the final victory.

HAP

**BARBED WIRE AND FOOTLIGHTS –
SEVEN STALAGS TO FREEDOM**

By Frank Taylor,

Merlin Books, 1987, £5.95 ISBN 0-86303-377-6.

A description of the author's experiences as a POW from 1942 to the end of the war. It will appeal to those interested in the genre but does not really have very much new to say; though the descriptions of the forced marches undertaken by so many Allied POWs late in the war as the Soviet Army advanced in the east are a salutary reminder that physical and mental hardship do not cease when a man is captured.

JSC

The Rt Hon The Lord Balfour of Inchrye PC MC
Service of Thanksgiving
St Clement Danes, 30 November 1988

**ADDRESS BY WING COMMANDER P B LUCAS CBE DSO
DFC**

My first contact with Lord Balfour (hereinafter referred to as Harold Balfour or Harold) came in September 1940 – a significant month in British history. The circumstances were rare. He was Under-Secretary of State for Air – and had been for more than two vital years – and I was AC2 Lucas, P B, 911532. I hadn't yet learnt to fly, nor could I see the least prospect of being able to do so here. There weren't enough training aeroplanes to go round. And so, through the good offices of a friend at Court, I got myself posted to Canada under the great Empire and Commonwealth Air Training Plan of which Harold had been one of the prime promoters and in which he was to have an abiding interest for the rest of the war. He knew its worth for victory.

The night before we were due to sail from Liverpool in the middle of a night blitz (it was a good time to go!), I received a message from my friend at Court.

'There's one string attached to this Canadian posting of yours,' he said. 'You must send me privately once a fortnight (and I will see that it is equally privately passed on) a progress report on how things are going in Canada. The Under-Secretary of State knows you are on this early posting and he also knows that you have been working for Lord Beaverbrook and his Express Newspapers pre-war ... He thinks, therefore, that he will get it from you – straight ...

I do not think the Air Staff ever did discover how it was that the Under-Secretary of State for Air was always so up-to-date on Canada.

I recount this small experience because it tells us some important things about Harold Balfour.

All his life, he had this thirst to be well informed, to get the facts, to be up-to-date. He liked to take things at first-hand himself, but if he couldn't do this then he would find someone who would 'give it to me', as he put it – 'straight'. And this was reflected in his actions on arriving at the Air Ministry in the spring of 1938, a very difficult

time for a Minister of the Crown.

He found, when he got there (and it amused him very much), that he was the only member of the Air Council – the supreme body presiding over the Service – who was in what he called ‘proper flying practice’, that is to say, capable of flying modern aeroplanes – the Spitfire and the Hurricane as they came along. (And this, of course, was what Harold did throughout the war.) Within a fortnight of taking over, he also discovered that the Royal Air Force had got coming into service a basic trainer – an elementary training aircraft – which was thought by some to be dodgy, to be dangerous for young pilots to learn to fly on. So he said, ‘All right, let me fly it. I’ll see what I think of it.’

He put this aircraft through its paces (he told me the story himself years afterwards), he spun it to the right – the difficult side – and he spun it to the left; he stalled it, he rolled it off the top ... He did everything with it, he said, except a ‘bunt’ – an outside loop, a horrible, unnatural manoeuvre, anyway. And when he came down he said there was nothing wrong with the aircraft; all that was wrong were the Pilot’s Handling Notes. These, he said, weren’t clear. So, when he got back to his room at the Air Ministry, he sat down and in that largely illegible hand of his started scratching about with these notes until they were plain and correct to his satisfaction ... And the Miles Magister became a workhorse for the Royal Air Force throughout World War II.

And throughout the war, right through those remarkable years, Harold remained totally loyal to the Royal Air Force. And when, in the middle of it, the Prime Minister, at the head of the great National Coalition, offered him, first, Financial Secretary to the Treasury, which in those days could be a stairway to the stars, and then, later, one of the Civil Departments of State. Harold turned them both down. He was resolved to remain with the Royal Air Force until victory was assured ... And that was precisely what he did.

As to his politics, I never had the privilege of serving with him in the House of Commons – he was before my time – but I did have the special advantage of having his support on the platform at successive general elections and at meetings in between.

There was one meeting I particularly remember. It was in the Chiswick Town Hall, which was packed, in the late 1940s; I’m pretty

sure it was 1948. At any rate, it was at the time when the building industry was having trouble with the supply of bricks. Bricks were in short supply and holding things up.

By arrangement with Harold beforehand, it was agreed that he would let me have a free run with bricks. And after he had set everything up for me to follow him (Harold always saw to it that the candidate had a decent wicket to bat on – he had fought West Ham in other days and he knew all about fighting a difficult constituency), I started in with my bricks – armed with a Central Office crib.

Almost immediately, there came the inevitable shout from the back of the hall, ‘You’re dropping some now, Laddie.’ And this at once provoked some equally puerile and provocative rejoinder from the platform. In a moment, the place was in an uproar and, in the end, we were lucky to finish the meeting.

After it was all over and Harold and I were sitting down together having a drink, he suddenly cut into the conversation ... He didn’t find it easy to criticise, he was quite reticent about saying critical things, but now he was determined to speak his mind.

‘Just about that meeting tonight,’ he began, ‘you know, you really mustn’t go at them like that. You can win this division, but you will win it with persuasion, not aggression.’ Persuasion, not aggression. It might have been a reflection upon Harold’s own personality and character, for I do not recall anyone in my lifetime for whom it was harder to refuse some request than it was for him. With all that gentleness, persuasion, courtesy and good manners, he made it almost impossible to say ‘No’. But when you had done whatever it was for him and you could see how pleased he was, it gave one enormous satisfaction because it was a pleasure to serve Harold. He was that kind of man.

Of course, he had his own special advantages. He had his leisure pursuits which he loved – his shooting and his fishing, and his beloved Scotland ... He once said to a member of his family as the years were rolling by; ‘You know. I would be sooner stone deaf on a grouse moor than able to hear a pin drop in a bath chair.’ The twinkle and the humour were never very far away.

But above all, and dominating everything, was the love and support he had from his family and which he returned with compound interest. And that is why Maina and the family are so

much in our thoughts and prayers today.

Now, if you believe, as I fervently do, that Almighty God in His marvellous wisdom has always kept some safe in the face of mortal danger because He felt there was special work for them still to do ... If you believe that, as I do, then I suggest that Harold Balfour is perhaps as good an example as we shall find. For there was that terrible April in 1917 on the Western Front, when the old Royal Flying Corps' losses were catastrophic and Harold was an able and gallant 20-year-old Flight Commander in the famous 43 Squadron ... He wasn't made for war, he wasn't built to withstand war, he was far too highly-strung for that ... But he stuck it and he saw it through and that is why I shall always think that the two Military Crosses he won in those awful days were among the very best gained in all the Royal Flying Corps' history.

One evening after dinner in the Mess (they seemed to do themselves pretty well even in those days), the squadron had a debate about whether, if you were going to crash (there were no parachutes in those times or anything comfortable like that), it was better to keep your seat belts done up tight or whether it was wise to let them go free. Those who were for freedom (Harold wasn't) won the day by a narrow majority.

The very next morning, true to form, Harold was shot down and when he was about 100 feet above Vimy Ridge, and going in, he suddenly thought; 'My goodness, my straps,' and he flicked them undone just as his aircraft hit the ground. He shot straight up through the top of his Sopwith 1½ Strutter and landed on his head in the mud 20 yards in front of his aeroplane. Meanwhile the engine, which had been in front of him, had cut straight back through the cockpit where he had been sitting.

There was work still to do, and what work it was for Britain.

But, as I look back now (and I finish with this), I shall always think that the two or three years that Harold Balfour spent as a young news reporter on Lord Northcliffe's *Daily Mail* in the 1920s, before he entered industrial and commercial life, were among the most impressionable of his time.

Anyone who has had that kind of experience knows very well that it teaches hard lessons the hard way. And those lessons were to be seen in Harold's writings – in his books and his newspaper stories –

and in his speeches in Parliament and out of doors in the country. Harold Balfour never waffled. He got his facts, he marshalled his thoughts, he said what he had to say and then he finished. He never went meandering on.

But I believe that experience on the *Daily Mail* did something else for him – it gave him his feeling, his sensitivity, for words. And nowhere is this more apparent than in those delightful little stanzas, verses and couplets which he was always so fond of putting together. And there was one, in particular, which I recall today. It was written some years after World War II, after he had passed some old aircraft dump with bits and pieces of wartime fighter aeroplanes strewn all over it. He called it *Hurricane, 1940* and its lines seem to me to be a fitting way to end these few reflections upon a life which we remember with so much gratitude and affection today.

This is what he wrote;

Just twisted scrap thrown on a dump
Strips of wing and a Merlin sump
 Old Fighter plane
 Your flight is done
Your landings made and Victories won

Gun barrels scorched and motors tired
Your masters fought as men inspired
 Old Fighter plane
 They trusted you
Who faithfully served the Gallant Few

Casually now they fly around
Jet propelled at speed of sound
 New Fighter planes
 Fierce in your power
Spare thought for those who had their hour

MORE COMMITTEE PROFILES

Brian J H Blancharde BA MA MEd FRGS

Brian Blancharde was born in 1933 and was educated at Prior Park, Bath. For his first degree he read History, Politics and International Law at the University of South Africa, Pretoria and later obtained other degrees at the Universities of London and Bristol.

After National Service in the Canal Zone with 35 LAA Squadron, RAF Regiment (1953-54), he joined the Federal Rhodesian Army as an infantry instructor for five years. He then became a schoolmaster at an Anglican multi-racial school and later taught in Britain and Zambia between 1963 and 1974.

Since 1974 he has worked at Bristol Polytechnic and is Senior Lecturer in Imperial and Commonwealth History in the Humanities Department. He is also a flight lieutenant in the RAFVVR(T), running the RAF Section of a CCF Contingent.