

**ROYAL AIR FORCE
HISTORICAL SOCIETY**



JOURNAL

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**RAF OPERATIONS 1948-1961
MALAYA – KOREA – KUWAIT**

WELCOMING ADDRESS BY SOCIETY CHAIRMAN

Air Vice-Marshal Nigel Baldwin

It is a pleasure to welcome all of you today. Straightaway, let me thank Dr Michael Fopp and his Museum staff for their usual welcome and efficiency. The Society would hardly be able to operate without their help.

The genesis for the programme today, covering three stand-alone subjects, comes from some deliberations in Committee. We did not think any of the three could justify a whole day – on the other hand there are important stories to be told and, as you will see from your programme, we will cover a lot of ground. Air Vice-Marshal John Herrington has masterminded the day, and we should all be most grateful for all the work he has done, not least in finding and encouraging speakers but also organising the mechanics of the event.

I am grateful, too, to Air Chief Marshal Sir Michael Knight. for agreeing to chair the day. He, I know, will enjoy bringing his experience and skills to bear to keep us all on track. I forecast a busy day, so over to Sir Michael Knight.

INTRODUCTION BY SEMINAR CHAIRMAN

Air Chief Marshal Sir Michael Knight KCB AFC



Sir Michael Knight's 35 years RAF service as a front-line pilot and commander culminated in membership of the Air Force Board and three years as the UK's Military Representative to NATO. In that time, he gained experience in a wide variety of operational and staff roles and flew well over 100 types of aircraft, from Tiger Moth to Tornado. Retiring as an air chief marshal, he then reverted to the rank of flying officer in the RAFVR, in which he spent the next 8 years giving air experience flying to young ATC and CCF cadets. A former council member of the Society of British Aerospace Companies he is currently President of The Air League.

Today's seminar is, I believe, unique in that we shall be examining three separate operations, all very different in scale, which took place over a span of about twelve years. Although relatively limited forces were committed at any one time, in all three operations, certainly in Malaya and Korea, there can be no doubt that the seriousness and intensity of the action was sufficient to engage the full attention of those involved. We are fortunate today in having speakers, and others in our audience, who were there and who participated in these events of up to 50 years ago.

The Royal Air Force made its own distinct contribution to each of the three operations which we shall be discussing. These events took place during a period which saw great changes in the size and shape of the Service. It was also a period of considerable technological change, in air power terms, perhaps most dramatically through the introduction of jet engines. This picture was being painted on the broader canvas of an ever more menacing confrontation between the super powers that, within fifteen months of the Kuwait crisis, would bring the world as close as it has ever come to nuclear destruction.

But back to today's seminar, during the course of which we will examine events from which the RAF and Governments alike were able to draw – or perhaps failed to draw – important conclusions.

THE ORIGINS OF THE MALAYAN EMERGENCY

Group Captain Ian Madelin

Assessed against the background of wars and warfare in the twentieth century the Malayan Emergency would not be judged a major campaign. On the other hand, had its consequences gone the other way there can be no doubt it would now be seen as a major defeat. One cannot say exactly what course events in that part of the world would have taken or where they would have led. Certainly there would have been no Malaysia or Singapore as they are today and their achievements, both economic and in nationhood, would not have happened. There would have been no base in the Far East from which to confront and defeat Sukarno's megalomaniac campaign of Confrontation, and, had he prevailed, the consequences would have been grim. This is not speculation. It is the natural inference to be drawn after seeing what came to pass in every other country, east and west, which had fallen under so-called communism. So, as a milestone in the flow of events, the Malayan Emergency is more important than it is remembered to be, and neither here nor in the region itself is the extent of its accomplishment and its historical significance fully appreciated. How did it start?

The real origins of what has come to be called the 'Malayan Emergency' go back to the foundation of the Malayan Communist Party in 1929 following the formation, in Shanghai in the early 1920s, of the Far East Bureau of the COMINTERN, the Soviet-backed organisation for the spread of communism world-wide.

From the beginning, the Malayan Communist Party, the MCP, was a subversive organisation which aimed to overthrow the Malayan Administration and establish in its place a communist state. Its roots were in the Chinese community but even there it did not at first have very broad support. But then, in 1937, in China a truce was called between the Chinese Communist Party and the Kuomintang so as to present a united front against the Japanese. In the Chinese community in Malaya there was also a faction sympathetic to the Kuomintang. The MCP, expediently taking its cue from what had happened in China, and under the guise of patriotism, started to form anti-Japanese groups among people, both Malay and Chinese. In this way the Party increased its strength and broadened its base in the population so that by 1940 it had several thousand members and an experienced underground organisation.

When the Japanese invasion came in 1941 the Administration saw the

advantages of creating an underground network of partisans which could act as a resistance movement against the Japanese, serving the Allied cause. War makes for strange bedfellows and it is ironic that the only organisation capable of undertaking this task was the Malayan Communist Party, which was almost tailor-made for it. A hard-core cadre of about 200 withdrew into the jungle with British instructors and in the transition changed its name to the 'Malayan Peoples Anti-Japanese Army' (MPAJA). By the end of the war this force was highly organised and numbered about 4,000 regular guerrillas and 6,000 ancillary supports.

The period at the end of the war, in Malaya as elsewhere, was a time of confusion and unrest. The established organs of public administration did not yet exist and when British forces re-occupied the peninsula the MPAJA was kept in-being for a while to help re-establish some control during this period of uncertainty. The future political scene was unclear and against a background of strikes and disturbances the communist hard-core of the MPAJA undoubtedly hoped that the country would just drift into its hands. They would have been encouraged in this by noticing that Britain's commitment to its Empire was declining, as evidenced by the intended withdrawals from India and Burma. The MPAJA was officially disbanded in December 1945. Already though they had realised that a peaceful take-over was unlikely. They handed-in a few of their older weapons but most of the better ones were hidden. The die-hards withdrew to the jungle to prepare to continue their campaign as a clandestine force of guerrillas.

At first they concentrated on subversion by provoking strikes and infiltrating public organisations. By the beginning of 1948 it was plain that this was not getting them anywhere so they stepped up the campaign with a programme of intimidation, terrorism and sabotage. The scale of this insurrection reached such a level that in June 1948 the Federal Government invoked Emergency Powers and the military were called in to assist the Administration in restoring law and order. This event is looked on as the nominal start of the Emergency, though perhaps 'Emergency' is an understatement to describe a campaign which lasted twelve years and at its height occupied a quarter of a million men.

NB This is an extract from a paper presented to the South-East Asia Airpower Symposium – Kuala Lumpur – October 1994 which was received after our Seminar and we are very grateful to Group Captain, Madelin.

MALAYA

THE START OF THE EMERGENCY

Air Commodore Henry Probert MBE MA



A Cambridge history graduate, Henry Probert joined the RAF Education Branch in 1948. During the 1960s he served in Singapore and on the Directing Staff of the RAF Staff College at Bracknell. He became Director of RAF Education in 1976. Following his retirement in 1978 he was to spend the next eleven years as Head of the Air Historical Branch. He is the author of High Commanders of the RAF (1991) and The Forgotten Air Air Force (1995) and is currently working on a biography of Sir Arthur Harris.

1948 was the year in which whatever illusions people may have had about the post-war intentions of the Soviet Union were finally shattered. In Europe the communists completed the take-over of Czechoslovakia and the Russians cut all the surface routes from the West into Berlin; in the Far East the communist party was now in control of much of China, and the French and Dutch faced increasing challenges in Indo-China and the Netherlands East Indies. To many these events seemed like a carefully orchestrated programme and it is scarcely surprising that the opening of a campaign of violence in Malaya should have been seen as part of the world-wide challenge.

In the three years that had elapsed since the end of the Japanese War, the time had been fully taken up in restoring a degree of normality after the horrors of the Japanese occupation. Unfortunately, as in so many other occupied countries, during the war it was the communists who had organised and led most of the opposition to the occupying forces, and it was they to whom the British had given support in order to prepare the way for the planned campaign to re-conquer Malaya in the autumn of 1945. As a result, while every effort was made when the war ended to disband the 10,000 or so guerrillas and their ancillaries, several hundred of the more determined ones remained in the jungle with the intention of overthrowing the British administration at the first opportunity. They were well placed to do so, many of them having been trained and equipped by the British during the war and one of the key figures was Chin Peng, a holder of the

OBE for his wartime services.

To begin with they had relied on covert means – infiltration of public organisations, and fomentation of labour unrest – but in 1948 it was clear that these tactics had failed. Consequently the Malayan Races Liberation Army (MRLA), now numbering some 3,000 men, decided to turn to violence and on 16 June, just a week before the start of the Berlin Blockade in Europe, the Federal Government of Malaya declared a State of Emergency. It was to last twelve years.

Perhaps inevitably, the local administration and the British government back at home were largely unprepared, with neither the plans nor the resources needed to meet the threat. Britain's forces, enormously reduced in size since the end of the war, were still spread – albeit thinly – across many parts of the world, and in Malaya there were a mere ten Army battalions to back the efforts of the local police force. In a jungle-covered country the size of England, with almost six million inhabitants (including Singapore) and very limited communications, the Army would clearly be ill-placed unless it could be substantially reinforced and at the same time amply supported from the air.

The RAF had already firmly re-established itself in the Far East, with its main headquarters and principal airfields on Singapore Island, but in mainland Malaya there were only two all-purpose airfields, one at Butterworth and the other at Kuala Lumpur. Those apart, there were a few small landing grounds which could take medium-range transport aircraft if necessary, and a lot of grass strips suitable only for light aircraft. This pattern had really changed little since pre-war days, and the concentration of facilities in Singapore reflected the fact that the primary functions of the RAF were to provide air defence of the Far Eastern theatre in face of the growing threat from China, to work with the Navy over the adjacent sea areas, and to provide scheduled air services to places as far afield as Ceylon, Hong Kong and Japan. The types of aircraft available matched these tasks. Drawn from the RAF, the RAAF and the RNZAF, they comprised two Beaufighter squadrons for use as light bombers, two Spitfire squadrons, three Dakota squadrons, one Mosquito PR squadron, three Sunderland squadrons, and a flight of AOP Austers.

At first sight this appears a sadly inadequate force for the internal security campaign that was about to begin, and certainly, as the conflict developed, many extra aircraft would be brought in and more up-to-date types introduced. Yet during the first couple of years it was these old types,

all of them with great wartime reputations, that carried the burden of the air operations, together with the Lincoln – the immediate derivative of the Lancaster. Moreover they performed remarkably well – indeed, in the views of many the well-trying veterans, were more suited to the local conditions and the tactical needs than a lot of the more modern aircraft that later replaced them. Certainly their serviceability rates were often better, and their slower speeds could be an advantage – though we must remember that in this campaign there was no air opposition and virtually no ground opposition either.

It follows that the RAF in Malaya had no need to concern itself with such roles as air defence and counter-air. Its biggest task was undoubtedly air transport in all its forms, with much work also devoted to reconnaissance. At the same time, particularly in the early stages, offensive operations entailed much effort, and while in retrospect their direct effects were less than had been hoped, they certainly disrupted the activities of the insurgents and sapped their morale, thus greatly assisting the work of the security forces on the ground. To begin with many of the attacks were made on rebel camps by Spitfires and Beaufighters and by the end of 1949 they were joined by Tempests and Brigands, but the rebels were now realising their vulnerability and becoming adept at the art of concealment – not difficult in the Malayan jungle. So the authorities on the spot, worried by the increasing scale of terrorist activity and convinced that blast bombing would be the best way of harassing the enemy, decided to request the deployment of a force of Lincolns. Bomber Command, already anxious about its weakness in face of the Soviet threat, agreed only with some reluctance, after expressing doubts about the effectiveness of blast bombing in the local conditions, and in March 1950 eight Lincolns arrived at Tengah, soon to be reinforced by six from the RAAF.

These aircraft now commenced a series of operations against specific areas in which the terrorists were believed to be concentrated, their strikes being directed from the combined land/air Operations Room that had been set up in Kuala Lumpur. Good and reliable intelligence was obviously essential, and political clearance always had to be obtained, though in the process there was always a risk to security. It was important not to damage civilian property, not only because it would prejudice local goodwill but also because of the cost of the subsequent claims; crews were warned that they might be court-martialled if they bombed rubber plantations, where trees were reputedly worth £10 each. Consequently accurate pinpointing

was essential and Austers were employed for target marking, coupled with the use of datum points for bombing runs. The scale of the attacks quickly built up and in 1951, the peak year, no fewer than 5,000 × 1,000 lb bombs and 14,000 × 500 pounders were dropped. Not the least of the worries of the authorities in the UK was the sheer cost of all these weapons. Moreover not all of them exploded, and the Malaysian authorities are still concerned about trying to find those that did not.

At the same time as these offensive operations were building up, the squadrons of Dakotas based at Changi were increasingly committed to dropping supplies to the many remote police posts and the Army's jungle patrols. The main problems they faced were how to locate and identify their dropping zones in featureless primary jungle, how to obtain the requisite degrees of accuracy, and how to minimise the risks of security; fortunately only three years had elapsed since the end of the Japanese war in which large supply dropping operations had played such an important role, and there was still plenty of experience around. Communications flying also made heavy demands on the medium range transport squadrons, but the shortage of airfields capable of receiving them meant that light aircraft were needed in large numbers for communications and light liaison. The Austers of 656 AOP Squadron which were operated jointly by the RAF and Army had considerable value for this role, and their numbers were quickly augmented.

Thus began a campaign that was arguably the longest ever to be fought by the RAF. For the first two or three years the aircraft used were of wartime vintage and many of the techniques reflected those that had been developed in Burma during 1944 and 1945. Moreover, while the rebellion was being fairly well contained, in 1950/51 the outcome of the conflict was very far from being decided. Malaya was to be a major commitment for all three Services throughout the next decade; for the RAF it would be a testing ground for many types of aircraft, not least the helicopter, and much experience would be gained in the techniques of working closely with the Army and the civil authorities in counterinsurgency operations.

THE GROUND WAR IN MALAYA 1948-60

Group Captain Kingsley Oliver MA



Kingsley Oliver was born and educated in South Africa. He was commissioned into the RAF Regiment from RMA Sandhurst in 1949 and served with the RAF Regiment (Malaya) between 1954-57. He returned to the far east in 1964 when he served on the Air Staff at HQ FEAF with responsibility for the low-level air defence of RAF airfields in Singapore and Malaya, and the deployment of RAF Regiment field squadrons to Borneo during the Indonesia Confrontation. He retired from the RAF in 1978 and, during a second career, studied at Birkbeck College for a University of London MA in modern history. He has published two books on historical subjects, one a definitive history of the RAF Regiment, and is engaged in writing two more.

To set this aspect of the Communist insurgency in perspective, we should consider the factors of geography and population which affected the problems faced by the Security Forces on the ground. The Malay peninsula stretches some 400 miles from the Thai border in the north to Singapore in the south, with a maximum width of about 200 miles and a total area of 53,000 square miles – which makes it a little larger than England. It is divided by a central spine of high ground which reaches 7,000 feet in places and 80% of the country is covered by jungle, in which only the indigenous aborigine tribes live. In 1952 the population totalled around 5.3 million, of whom 48% were Malay and 40% Chinese. Central and local government, the police and the armed forces were predominantly Malay while the Chinese – many of whom were recent immigrants from mainland China – were mainly businessmen, merchants, small traders and poorer squatters in rural areas. In general terms the Malays predominated in the eastern half of the peninsula while the Chinese were concentrated on the western side. All in all, the two racial groups did not integrate and remained suspicious of each other's political aspirations.

Although over 6,000 of the, largely Chinese, Malayan People's Anti-Japanese Army (MPAJA) had accepted the disbandment terms offered by the British administration in 1946, and handed in their weapons as a pre-condition of their resettlement, the Central Executive Committee of the

Malayan Communist Party (MCP) was looking to the future and ordered the remainder of the MPAJA to remain in their jungle camps with a large stockpile of the arms and ammunition which the British had supplied during the war. You may recall that 1948 marked the centenary of the publication of the Communist Manifesto in 1848 and the Politburo in Moscow obviously considered that it would be an appropriate year in which to launch a world-wide communist insurrection. Equally, it was not a good year for what remained of the British Empire which was struggling to come to terms with a series of volatile political scenarios. The Federation of Malaya had only come into being in the February of that year and the restructuring of the Malayan Police and the Malay Regiment was far from complete. The British Army garrison in Malaya consisted of just two infantry battalions, manned mainly by national servicemen, and six Gurkha battalions which were still in a state of disarray following the division of the Gurkha regiments between the British and Indian armies.

The outbreak of what was euphemistically termed 'The Emergency' in June 1948 was regarded by the British and Federal authorities as a minor irritation, with the GOC Malaya publicly stating that quelling it would be the easiest task he ever had to deal with. To be fair, this misconception was widespread in the official community because there was no effective civil or military intelligence organisation to establish the nature and extent of the threat, or even its existence.

The MCP was well organised, with a political structure emanating from a Central Executive Committee headed by its Secretary-General (Chin Peng OBE) and spreading downwards through State, District, Branch and sub-Branch committees to the rank and file. Parallel with this was the military wing, to be renamed the Malayan Races Liberation Army (MRLA) in 1949, consisting of eleven regiments, and a number of independent platoons, with a combatant strength of about three thousand, predominantly Chinese, at the outbreak of hostilities. The MCP's strategy was based on four distinct objectives, the first of which was to dislocate the economy and the administrative structure by attacking the rural industries of tin mining and rubber planting, disrupting the transport system and murdering government officials, expatriates, police and military personnel. Local inhabitants were also targeted with the aim of terrifying them into co-operating with the communist terrorists. Once this had been achieved in selected parts of the country, these would become 'liberated areas' under a communist regime and the next step would be to link up these areas until they covered all but

the major urban centres. The final objective would then be to overwhelm the last bastions of imperialism and declare Malaya to be a peoples' democratic republic under a communist government.

From the viewpoint of the Federal authorities, the period covered by the Emergency was divided into four phases: the first lasting from June 1948 to October 1949 when the initial communist plan to seize control of Malaya was contained by military and police action, and the second from October 1949 to August 1951 when the MRLA recommenced a major offensive in an attempt to regain the initiative. The third phase began in August 1951 when the reinforced Security Forces began the co-ordinated civil and military offensive which by mid-1954 had driven the MRLA to seek refuge in the Malayan jungles and across the border in Thailand. The final phase of the Emergency began in July 1954 when the diminishing bands of Communist Terrorists (CT) were pursued into the deepest jungle until they were killed or captured, or surrendered. The official ending of the Emergency was declared by the government the Federation of Malaysia on 31 July 1960.

The first phase of operations was a difficult period for the Security Forces (SF) in which the initiative lay with the CTs who were operating in large groups inflicting damage to property and casualties on military, police and civilians at less cost to themselves than to the SF. At this stage the military were acting in support of the civil power and all operations were directed by the Commissioner of Police who was primarily concerned with protecting the civilian infrastructure. Nevertheless, British, Gurkha and Malay infantry battalions – together with squadrons of the RAF Regiment (Malaya) -carried out offensive operations in Pahang, Perak, Selangor, Kedah, Negeri Sembilan, Johore and Malacca in 1948 and 1949. By mid-1949 the MRLA realised that it could not achieve its aim of establishing liberated areas under its own control. It therefore abandoned its policy of operating in large formations and withdrew to the safety of the jungle to regroup for a long guerrilla war. This withdrawal led the authorities to assume that the war had been won by the SF and in September 1949 the CTs were offered surrender terms. The MCP's response was swift – the town of Kuala Krau in Pahang was overrun and occupied for several days by a large CT force and operations were promptly resumed by the SF.

Although the figures from June 1948 to December 1949 showed that the balance of casualties inflicted by each side was roughly even, the SF were growing in strength. Better weapons and equipment were being provisioned

and the formation of the Jungle Warfare School at Kota Tinggi in Johore dramatically improved the skills and effectiveness of SF operations in the jungle into which the enemy had taken refuge – and where their numbers were being increased by a recruiting campaign among the Chinese population. Spencer Chapman famously declared that the jungle is neutral but the great majority of the SF found it unfriendly, if not actually hostile. Movement through mangrove swamps and secondary jungle is slow, tedious, tiring and uncomfortable work. Visibility is poor and moving men are at a grave disadvantage against an enemy waiting in ambush, or in prepared defensive positions. Patrols were limited in duration to five or seven days at the most by the rations which could be carried on the man; the evacuation of casualties was a constant worry, and the absence of support weapons meant that contacts between SF and CTs in the jungle were restricted to exchanges of small arms fire, in which the SF had no great advantage over the CTs.

Air support changed all that. Resupply could double or treble the effective operational period of patrols, even though it took at least a day to clear a DZ and recover an air drop. The knowledge that a casualty could be lifted out by a helicopter, instead of being carried on an improvised stretcher for several days, raised morale considerably, and offensive air support added considerably to the firepower of the SF in the jungle. Effective air strikes depended on timely intelligence, accurate target identification and surprise, which were not always easy to achieve in areas where maps were inaccurate and target marking difficult. When attacks were delivered with surprise and accuracy, they were extremely effective; even when they did not cause CT casualties the damage caused to the target area by 1,000 lb bombs was most impressive and this did not encourage CT groups to linger in areas where they might be vulnerable to further offensive air activity.

Air support, together with harassing artillery and mortar fire, enabled increasingly long patrols in deep jungle to keep the CTs on the move, disrupting their logistic support and denying them the opportunity to reorganise in safe areas. It was a time-consuming task for the infantry on the ground – statistics revealed that it took at least 1,800 man-hours on patrol, or 300 man-hours in ambush positions, to produce a single contact with CTs in the jungle. But by being able to live and operate for long periods in the same environment as the enemy, the shooting war was won on the enemy's ground without embarking on the short-duration 'search-

and-destroy' tactics linked to indiscriminate air attacks which were to prove so counter-productive in Vietnam.

The second phase of operations was the one in which the political policy of gaining the hearts and minds of the civilian population began. In 1950 General Sir Harold Briggs replaced the Commissioner of Police as Director of Operations and set in train the separation of the Min Yuen – the mass of civilian collaborators who supplied the combatant element with food, money, medical stores, reinforcements and intelligence – from the armed terrorists. His first task was to resettle almost half a million Chinese squatters into securely fenced New Villages where – under the watchful eye of the police – they could neither contact CTs nor be intimidated by them. Deprived of their logistic support, the CTs were forced further into the deep jungle where they found the aboriginal Sakai tribes whom they used to provide them with food and protection. Briggs's response to that was to establish a network of air-supplied jungle forts in the Sakai tribal areas, thus depriving the CT groups of Sakai support.

General Briggs's next action was to establish a joint intelligence committee to collate, evaluate and disseminate all intelligence information for both the civil and military authorities. By the end of 1950 these two steps had transformed the security situation to the extent that the police were able to take over the protection of populated areas while the military were freed to concentrate on offensive action against CT groups. These ground operations increased the demand for air support in all its forms and extended to the parachuting of SAS troops into deep jungle from where they mounted long-range patrols which lasted for as long as three months at a time.

CT strength peaked at 8,000 in 1951, but thereafter it fell steadily to less than 5,000 in 1953 and to under 3,000 in 1955, until at the end of the Emergency in 1960 only some 500 hard-core terrorists remained in the field. On the other hand, the strength of the Security Forces rose to 26 infantry battalions [and six squadrons of the RAF Regiment (Malaya)], a 67,000 strong Police force and a supporting Home Guard of almost 300,000 in 1951/52 before being progressively reduced to match the declining threat.

General Briggs retired due to ill-health in 1951, and died the following year. He was succeeded by the extremely able and energetic General Templar who was appointed as both High Commissioner and Director of Operations in 1952. Building on his predecessor's firm foundations,

Templar adopted a very high profile in developing the civil and military aspects of anti-terrorist operations. He expanded the hearts-and-minds programme by adding a successful psyops component (which included voice broadcasting from aircraft), improved the intelligence organisation and reorganised the police from a para-military to a conventional force.

Gerald Templar believed in leading from the front and when a major terrorist incident was linked to the town of Tanjong Malim in Selangor he at once travelled there to make the local inhabitants aware of his displeasure. His forceful address – in which he confidently stated that they would find him a real bastard when dealing with malcontents – was translated into Hokkien for the benefit of the town's Chinese leadership. The government interpreter then had to tell the High Commissioner that while the civic officials assured him of their respect and intention to cooperate with his instructions in future, they also expressed their sympathy for him at learning that his parents had not been married.

On Templar's orders, military operations were concentrated in the central region of Malacca, Pahang, Negri Sembilan and Selangor to drive a wedge between the CTs groups in the north and south of the peninsula. Senior members of the MRLA in these states were eliminated and others either surrendered or fled elsewhere, enabling the first terrorist-free, or 'white', areas to be proclaimed. These 'white areas' were expanded steadily from 1954 onwards as military operations forced the CTs into a defensive posture in which survival became their principal concern. Growing confidence in the government reduced civilian support for the communists, whose lowering morale resulted in a higher rate of surrenders. A major contributory factor to the success of the security operations was that the MRLA was hampered by a lack of support – particularly in terms of weapons and ammunition – from outside Malaya. The Thai authorities prevented any resupply to the terrorists across their border and warships of the Royal Navy, supported by RAF maritime reconnaissance patrols, ensured that no arms were landed on the long coastline. This *cordon sanitaire* enabled the threat to be contained and the MRLA's offensive capability steadily declined throughout the period of operations.

By the closing stages of the Emergency, 9,500 terrorists had been killed or captured at a cost to the Security Forces of 1,800 killed and 2,500 wounded, excluding the large number of civilian casualties inflicted by the terrorists. In terms of combat effectiveness in the jungle, the Fijian and East African battalions achieved the highest success rates, followed by Gurkha,

British and Malay units. While the final victory was achieved by the interaction of many different agencies, there is no doubt that air support – in all its forms – was the most obvious and welcome contribution to the efforts of the ground forces.

OFFENSIVE AIR OPERATIONS BEAUFIGHTER/BRIGAND

Air Vice-Marshal Michael Robinson CB MA



Graduating from Cranwell in April 1948, Michael Robinson joined 45 Squadron in Negombo, Ceylon in the following October 45 Sqn then had Beaufighter X aircraft and in early 1950 converted to the Brigand; and it was the one attack squadron which served in Malaya and Singapore for the whole twelve years of the Emergency. His other flying tours include the Canberra B(I).8 and the Victor B2 and he retired from the Service in 1982 after a tour as Director General of Organisation.

My perspective on the Malayan Emergency is that of a junior pilot on No 45 Sqn. I joined them at Negombo (Ceylon) in October '48 to fly the Beaufighter TF 10. The senior crews of the squadron were already at Kuala Lumpur in Malaya where the rest of us joined them in May 1949. The KL runway (and the two Beaufighters we saw in that short film were taking off from KL) had a laterite surface, 1,400 yards long and 33 yards wide with a batik factory at one end and a high railway embankment at the other. The squadron's dispersal, of pierced steel planking, was 40 yards or less from the runway so, under those circumstances, these Beaufighters did *not* swing on take off!

The aircraft were the last of the line and Malaya was nearly the end of the supply line, so spares, particularly for engines, were at a premium. Much reliance was placed on the judgement of our senior NCO fitter who assessed the amount of metal swarf in the oil filters to decide the probable remaining life of the engines. Formation positions were decided by which engine was the more vulnerable. A four-ship flight from Butterworth to KL at the end of an Armament Practice Camp was decided using this formula and, as the junior pilot, I was allocated the No 4 position – for obvious reasons, ie because both engines were suspect!

The Beaufighter's armament was 2 × 500 lb bombs, one under each wing, 8 × 60 lb rockets and 4 × 20mm cannon. 20 lb anti-personnel bombs could also be carried, as became necessary when our use of 500 pounders exceeded supply. Pilots Notes of those days, which I have tried to refer to,

gave absolutely no detail on armament other than to point out the various control switches, so one has to go to other sources to be reminded of what was carried.

Originally intended as a torpedo fighter, the Hercules engines of our aircraft had a rated altitude of 1,500 ft, which is to say that at above that height the power decreased, so an engine failure during a strike, or a training flight, to the east of the hilly spine of Malaya dictated a transit to Singapore. Target identification, and remember, I'm talking about 1949/50, depended upon best available photographs. Primary and secondary jungle could be distinguished but target positions were often little better than a bearing and distance from the edge of a patch of secondary jungle. Except for the populated west coast, as you have heard, maps were usually of little value and could be seriously inaccurate.

We did have some early successes, in terms of confirmed kills of CTs – Communist Terrorists – such as a series of attacks by Beaufighters and Spitfires in a forested area of Selangor, just to the south of Kuala Lumpur, in April 1949 when air was credited with 37 out of 45 kills – but these were rarely repeated. Nevertheless, air strikes in my time did discourage the CTs from camping near the fringes of jungle to sustain their protection rackets on the local populations for food, money and intelligence. The strikes may also have spared the land forces from having to make deep inroads into the jungle but I am certain, and I know that the transport speaker will confirm this, that eventual victory was achieved because our army, with the help of the Malayan police and forces, was prepared to hold ground over which control had been achieved – none of this firepower demonstration and then retire at nightfall – the answer was to secure the base and then hold it.

I do not know whether the quality of target information given to us in those early years could have been improved, but it was certainly only after the arrival of Gerald Templar as High Commissioner and Director of Operations in February 1952 that proper integration of police and military intelligence was achieved. That, however, was after my tour which ended in April 1951 by which time I had done 175 strikes in the Beaufighter and the Brigand.

The Brigand had an armament of 2×1000 lb MC bombs in tandem under the fuselage, 2×500 lb pounders on wing stations, six rockets and four cannon. It cruised at 175 knots, as opposed to the Beau's 165. Fuel consumption of its Centaurus 57 engines was half as much again as the Hercules and, being all-metal, the aircraft was heavy, as well as being

unreliable. In the sixteen months of my time on the Brigand the squadron lost three aircraft and eight aircrew, mainly from runaway guns which caused shrapnel to ignite batteries and then sever the unprotected control runs. What you saw was sparks around the cockpit area and then the aircraft would lose control and dive in. Failure of the undercarriage to come down was not uncommon but, just as a variation, I had a flight where, after take-off, selection of undercarriage 'up' produced no movement at all. All it achieved was to move the flap from the take-off position to fully down! Shortly after I was tour-ex another sinister flaw occurred when three Brigands were lost in one month, in June, as a result of one of the four Rotol propeller blades fracturing at the root. The subsequent out-of-balance torque tore the engine out of its mounting and asymmetric flight was certainly not on.

Some reflections on the effectiveness of offensive air, and here I hasten to add that these reflections are not by a pilot officer. In his 1966 book *The Long, Long War*, Brigadier Richard Clutterbuck, as he then was, considered air transport, and its ability to bring Government Services and control to remote areas, to be the most effective use of air support. Offensive air strikes were, he thought, the least effective. He placed particular value on the helicopter, which our Service was late in developing, a troop carrying capability not being available until about 1953.

Now, whilst I agree with Clutterbuck's listing, I would certainly question his assertion that offensive air strikes probably did more harm than good. He accepts that the terrain was mainly responsible for the lack of tangible success and, during my tour, there were no effective means of target identification, such as bearing and distance from ground beacons or smoke. Aiming relied on a best assessment of map, or photo, reading and the Mk 1 eyeball. Neither Beaufighter nor Brigand was fitted with a bomb sight and our technique involved a simple rule of thumb assessment of a 30° dive. An attempt to produce a concentration of bombs by flying a close vic or finger four at 250 ft. and all releasing on the leader's call was short lived – our bombs were allegedly fitted with 11 second delay fuses but dropping them through the jungle canopy disproved that theory when we got instantaneous explosions.

Bombing and strafing *did* make a positive contribution, albeit perhaps not directly in relation to the effort expended, but not to have indulged in offensive air would have been military nonsense. Attachments of Lincoln squadrons from the UK and the permanent deployment of No 1 Sqn of the

Royal Australian Air Force underwrote the Air Council's judgement that bombs, particularly concentrated, could play a part in adversely affecting the morale of the CTs by obliging them to stay in the inhospitable jungle, short of food and medicines, and not receiving any hoped for reinforcements of men and material from other Far East Communists who were at the time doing very well. But in the early years of FIREDOG it was certainly a close run thing, as many of the local population were far from convinced that the security forces would win through and it took an uncomfortably long time for Whitehall, High Wycombe and the Colonial Administration to appreciate the seriousness of the threat and the scale of effort and quality of intelligence necessary to succeed.

John Herrington had hoped that this section could have been rounded off by a talk on the Hornet, which replaced the Brigand in 1952. The Squadron Commander who saw this transition was Ian Stockwell. Sadly, as some of you will know, Ian died before he could put pen to paper, so, as a tribute to him as CO of No 45 Sqn and an enthusiastic supporter of this Society, I show this picture.

LINCOLNs – 100 SQUADRON MALAYA 1950

J R Burgess



Roland Burgess joined the RAF in early 1944, embarked on the normal aircrew training, but encountered what had by then become the normal series of delays. The war ended while he was still under training in Canada; returning to the UK the post-war run down meant that it was early '48 before he gained his wings. After passing through No 230 OCU he was posted to No 100 Sqn at Hemswell. In June 1950 he was on board the first Lincoln from the squadron to leave the UK for Tengah.

Having finished the Heavy Conversion Course on Lancasters at No 230 OCU Lindholme, my crew and I were posted direct to 100 Squadron at Hemswell in late November, 1948 and commenced flying on 5 January, 1949.

The squadron was moved to Waddington on 22 March, arriving in formation. There were the usual practices and exercises to keep us busy and up to standard. Early in 1950 we were informed that the squadron was set to replace 57 Squadron at Tengah, Malaya in June of that year.

Eight Lincolns were 'borrowed' from other units, presumably organised by the Ministry of Supply, and put through the station workshops to emerge in top condition, these replaced existing aircraft and were then adorned with squadron badges and code letters. The bomb bays of each aircraft were fitted with two 400 gallon auxiliary fuel tanks, which, during flights were to be pumped into the wing tanks. These tanks obviously did not take up enough space so the remaining bomb carriers were filled with practice bombs to be dropped on a practice target off the coast of Malta as we passed by en route to Castel Benito (later renamed Idris).

By this time all of my crew members had been used to fill gaps created in other crews by postings to other units. So I was to fly as spare pilot to the CO's crew, the idea being that we would fly the aircraft on alternate days of this journey.

So, on the morning of June 19th, 1950, Squadron Leader O'Brien lifted Lincoln RF498 from Waddington's runway and set course southward, then vacating his seat for me to take over control for the journey, until he

returned to his seat for the approach and landing at Castel Benito.

The next day was all mine from the take-off to landing at Habbaniya. The flight was broken at Shallufa, to allow engineers to fit a replacement bomb door jack, which was corroded and leaking oil. This was an occasional problem. The rear lower bulkhead of the nose compartment of a Lincoln is the forward end of the bomb bay, and into this is built a small hatch so that the bomb aimer can check that all bombs have gone and that there are no hang-ups. The chemical toilet, an 'Elsan', is fitted to the mainspar of the tailplane, so the associated rear bomb bay inspection hatch is much more convenient, all it needs is 'bomb doors open' and the whole world is there below. Unfortunately bomb door jacks became corroded when sprayed with urine.

The journey continued via Mauripur, and Negombo, where we had a day's rest and then on to Tengah, Singapore, where we landed in the afternoon of the 24th June.

After settling in, the first strike was in early July, my first being on the 6th. Targets would be arranged by liaison between the Army and air force, when I assume the Squadron Commander would attend. The pre-flight briefing contained very few details of the target or reasons for the attack, it was usually a case of – 'Here is the target. Navigators have details of the approach route,' and that was about all. There have been many horror stories of the bombing attacks on Germany during WWII and the opposition set up by anti-aircraft fire and fighters. Our operations in Malaya were nothing like that, being no more difficult than a normal training exercise. There were never any signs that the terrorist possessed any anti-aircraft equipment at all, so our flights were quite comfortable, although I suppose there was always the possibility that one of the terrorists would get annoyed with us and point his gun in the air and fire a few shots. Standing on the floor of the jungle, below a ceiling of tree tops and no sight of the sky, the situation was hardly conducive to laying-off a good deflection angle and it would have been a most unfortunate fluke if such a shot had found an aeroplane.

All daylight strikes were carried out to a similar pattern; usually six aircraft would get into formation after take-off and head for the target area. Identification of the target visually was difficult as there are not many landmarks standing out from the jungle. The nearest easily identifiable landmark was chosen, and a timed run was calculated from this point. The formation had to approach and cross this starting point at the correct

airspeed and steering the correct course. The navigator started his stopwatch, bomb doors would be opened, and at the end of the countdown 5-4-3-2-1, 'Bombs gone,' would come over the radio and all bomb aimers would release the bombs. The resulting bombing pattern would hopefully cause the terrorists to vacate the area, all known tracks out being covered by ground forces. Some of the earlier attacks were followed by a call from the leader, 'Form up line astern and follow me.' We would then fly at low-level over the target area, giving the gunners a chance to exercise their guns. When based in England there were occasional practice flights for air-to-sea firing. This meant flying out to sea via the Wash, not forgetting to wave to the crew of the lightship as we went by, then several miles out from the coast throwing out a marker which dyed the sea a bright colour, giving the gunners something to aim at. There was some awkwardness concerning the mid-upper turret, which was a Bristol B17 type, equipped with two 20mm cannons. Unfortunately the maximum angle of depression on this turret was only three degrees below horizontal, so, in order to allow the gunner to shoot at anything close by, it was necessary to fly holding on a sufficient amount of bank with opposite rudder to keep straight. This was all very well above a smooth, level sea but over undulating jungle it was advisable to keep a little height in hand.

This ground strafing was discontinued after a few weeks. A departure from formation bombing came when information received indicated that jungle clearings were being used to grow food for the terrorists. The attacks were made by carrying out individual bombing runs, leaving the gardens well and truly dug up.

There were some night attacks. The starting point for the timed run was a searchlight set up by the army. These were all individual bombing runs and it was felt by the planners that natural errors would provide a good spread of bombs over the target. However, we all flew too accurately and the bombs fell in such a confined space that in future such attacks would be flown on differing headings from the start point. The difference between aircraft heading was one degree.

The normal bomb load for daylight strikes was 14 × 1000 lb bombs and for night strikes 10 bombs plus 2 or 4 flares. At one stage the bomb stores ran out of 1000 lb bombs, so we had to use 500-pounders instead, normally we used 18 lbs boost for full load take-off, but with this reduced bomb load 12 lbs was sufficient, and so we continued until the supply of 1000 lb bombs was restored.

A change from this system came after information was received that a train was due to travel down through Malaya one night, always a tempting target for terrorist attacks. As a deterrent, two aircraft loaded with 22 flares each, were to fly to and fro along a certain open stretch of railway, dropping one flare every three minutes, each run along the railway taking 15-20 minutes. On this occasion the weather was not very helpful, a rather vague cloud base of 3-4,000ft below which was a steamy hazy $\frac{3}{4}$ miles visibility, with lots of lightning at a rate of 2 or 3 flashes per minute. There was a possibility that at any time we could run into a storm, but fortunately this did not happen. The bomb aimer, sitting in the nose, identified the railway and we continued with the operation. After dropping all the flares I returned to base, when the next aircraft took off to continue this operation.

Aircraft reliability as usual was good. I can only recall two occasions when an aircraft returned with one engine stopped, neither of which happened to me, although I was indirectly involved with one. An aircraft returned from an operation having suffered a loss of oil pressure. The engineers changed the oil filter and topped up the oil tank, ran the engine without trouble after which it took part in another attack, once again returning on three engines. Once again the engine was checked and run up without any fault being found, so the engineers asked for it to be sent up on a test flight to see what would happen. The usual pilot of this aircraft was away on duty so I was detailed for the air test. Having started the engines and carried out a thorough run up without any trouble, the aircraft was taxied out to the runway. Take off was normal, wheels up, 2,850 revs, flaps retracted, and then the oil pressure decided to disappear, so the engine was stopped, propeller feathered and there we were, little more than 300ft up, flying on three engines, so there was nothing else to do but climb to circuit height to do the approach and landing. This was my shortest ever flight in a Lincoln, logged at .05 minutes. After this the engineers changed the oil pump which was found to be faulty and there was no more trouble, in fact I flew the aircraft on an attack a few days later.

There was an agreement between governments that if there were any accidental stray bombs, for every rubber tree damaged a payment of £10 would be made to the Malayan government.

On one occasion a bomb did land in a rubber plantation, damaging trees and unfortunately killing a plantation foreman. The following investigation was a little hard on the bomb aimer who dropped the offending bomb, until it became known that the foreman was actually a terrorist working at his

day job.

The weather was usually good and gave few, if any, problems. Towards the end of our time at Tengah there was a tendency for rain and storm clouds to build-up in the afternoons, so most of our flying took place in the mornings, and occasionally on return our base was covered by a large storm, so we had to fly around until it moved away. One of the last attacks was near the Siamese border and the bomb aimers and navigators were urged to take great care with target identification, the area being mountainous. No one wishing to cause an international incident. I remember spending some time flying in cloud that was very rough and wet and no good for formation flying, so on this occasion we must have made individual attacks.

My own contribution to these operations was 33 air strikes, dropping a total of 348,000 lbs of bombs.

The squadron continued operations until late November when the replacement squadron personnel arrived by Transport Command Hastings in which we returned to England, leaving Tengah on December 3rd 1950.

VENOMs AND CANBERRAs

Air Commodore G S Cooper OBE



Geoff Cooper entered the RAF in 1944 and in 1956 he assumed command of 45 Squadron at Butterworth flying DFGA Venoms. When the Venoms were replaced by the Canberra, he completed the last six months of his tour in the JOC at Kuala Lumpur, tasking offensive, air transport and helicopter operations. His final tour was as AOC Military Air Traffic Service and, on leaving the Service in 1978, he spent the next eleven years as Air Correspondent of The Daily Telegraph.

45 Squadron's first FIREDOG strike with Venoms was in January 1956, a week or so before I arrived. Jet operations had begun in 1951, with 60 Squadron's Vampires. These were replaced in 1955 by Venoms at Tengah, where they were joined by the Venoms of New Zealand's 14 Squadron. So we are talking about three Venom squadrons, two at Tengah and one at Butterworth, with 16 aircraft each.

There were also eight UK Canberras detached to Butterworth from March '55 to September '56, provided in turn, by 101, 617, 12 and 9 Squadrons under Operation MILEAGE. Thereafter a few Canberras appeared every three months for a couple of weeks until 45 re-equipped with Canberras at Tengah in December 1957. Sadly Venoms could not stay longer because they were liferated at only 750 hours. It was ironic that when we were struggling against poor serviceability the aircraft that were most reliable, and so flew the most, would be the first to be grounded.

The Venom's low-high-low radius of action was some 200 miles. To give an example, dawn and dusk strikes with rockets and cannon in the Seremban area in June of 1956, which was a busy month for operations averaging two strikes a week by four to six aircraft, were managed comfortably from Butterworth. For targets further south in Johore we would operate from Tengah.

The rapid build-up of heavy storms posed a threat to jet operations, particularly for short-range aircraft like the Venom. Kuala Lumpur was half-an-hour away and might also be under a storm. In emergency you could land at Alor Star in the North, or Ipoh, but there were no landing

aids. Butterworth itself could only offer a DME-assisted QGH. Quite often we would advise those airborne to fly for endurance and come in behind a storm as it passed over. It could be a nail-biting experience. Even the Canberras were unhappy at times. They liked to be back in the circuit with the amount of fuel that we took off with. Our maximums were their minimums!

For operations over the jungle we both shared the disadvantage of having too much speed to cruise around looking for our targets in hills covered by patchy cloud. When flown at their normal speed at low altitudes, Canberras suffered badly from metal fatigue in the swirl vanes of their engines due to the hot turbulent air, which also made flying conditions difficult for their crews.

RP could be delivered by Venoms with accuracy, the squadron average being 7 yards, but even if we were able to locate a terrorist camp there was nothing suitable for semi-armour piercing 60 lb rocket heads to hit. They would go deep into the ground before exploding. According to surrendered terrorists, however, strafing with rockets and 20mm cannon shells was greatly feared and had a marked effect, so such attacks were often tasked for flushing operations. Some examples:-

Small clearing in the jungle about the size of a tennis court spotted by an Auster on Tuesday 22nd February 1956 close to Thai border. One or two sheets in the clearing, so it was presumed they were doing some threshing. Strafed on Wednesday 23rd by four Venoms with 16 rockets plus cannon. No troops, no assessable result. Saturday 25th, repeat attack by 8 Venoms.

For Operation EAGLE SWOOP north of Kroh on the Thai border, 8 Venoms tasked on July 7 1957 to deliver one rocket every half minute for 15 minutes along the banks of a mountain stream. The area was then raked with cannon fire, the whole object being to flush the terrorists away from their source of water into the waiting ground forces. On another occasion I was asked to fire rockets into a clearing, also on the Thai border, just to make it safe for a helicopter to land.

The Venom's heaviest punch was its bomb load of two 1,000 pounders. With a full load of bombs, ammunition and fuel, the aircraft was just 100 lb under its maximum take-off weight of 15,610 lb. On take off three-quarters of the 2,000 yard runway disappeared before the Venom shivered into the air, then took two minutes to reach climbing speed. Engine failure at Butterworth would have meant finishing up in a monsoon ditch at one end or the sea at the other.

We started bombing practice with the steep glide delivery system favoured by the Middle East Venom squadrons, then concentrated on 60 degree dive-bombing from 8,000 feet down to 4,000, with an average accuracy of 35 yards. Two bombs released in a dive from 10,000 feet to attack a tiny clearing perched on the tip of a 1,600ft spot-height, obliterated the top of the hill, leaving it flat and bare.

Unfortunately Boscombe Down stopped our fun by banning dive-bombing, fearing that if one bomb hung up the aircraft might break up during the pull-out. The ban was lifted later, but by then we had taken to level formation bombing from 2,000 feet, the minimum safe height for bomb blast.

Level bombing had two advantages. Strikes were less restricted by cloud cover: and pattern bombing was judged more likely to achieve kills than hitting clearings with pin-point accuracy. The system doubled our average miss distance from 35 to 70 yards.

The bomb-sight may not have been the first illustration of 'smart' technology in history, but it was certainly the cheapest – take a blue chinagraph pencil and draw three lines on the inside of the windscreen. Sighting through the gunsight's fixed cross, line up the smoke marker with the vertical line and give an R/T bomb release call to the formation when the marker is level with the two horizontal lines. Accuracy depended on steady flight at 250 knots and a hunch allowance for wind.

We used the Venom's bomb distributor setting, which delayed release of the second bomb for a fraction of a second to lengthen the kill zone from about 90 to 180 yards. For example:

January 26, 1957, two waves of four Venoms attacked a terrorist clearing in the Slim River area using the distributor setting: target disappeared completely as the first wave of bombs went down – the Auster could not find anything to mark for the second wave.

The most successful jet strike was 12 Squadron's on February 21, 1956 when four Canberras laid a pattern of 24 bombs on a smoke marker dropped by an Auster near Kluang in Central Johore. Two 1,000 lb bombs straddled the camp with a spacing of 80 yards designed to produce sufficient concussion to kill all life between them. Fourteen bodies were identifiable and allowed as kills, with up to eight more believed to have been blown to pieces.

We were concerned that Auster target marking eliminated the element of surprise, giving the terrorists time to run away. The time lag between

marking and bombing was about two minutes. As we could adjust formation fly-pasts to arrive on time overhead within plus or minus five seconds, we tried persuading the Auster pilots to co-ordinate their marking runs with our radioed 5-4-3-2-1 minute approach time and cut their marking time to less than a minute before the bombs arrived. They were keen aviators, but not that keen to test an Auster's resistance to bomb blast!

Finally there was the ground radar controlled bombing system introduced in mid-1956, using old Army anti-aircraft No 3 Mark 7 radars. The formation leader followed course directions from the Target Director Post (TDP) controller, who kept the aircraft's radar response in a narrow beam passing over the target before ordering bomb release at a pre-computed moment. An average accuracy of 175 yards was claimed.

SUNDERLANDs – FAR EAST FLYING BOAT WING

Group Captain G H Gilbert AFC



Gordon Gilbert was posted in 1951 to 209 Squadron, Far East Flying Boat Wing where, as pilot and aircraft captain, his roles included offensive air operations in the Malayan Emergency and maritime operations in the Korean War. Three years spent largely at 800 feet and 120 knots seems to have been considered suitable for his next flying tour as a QFI on Vampires. On retiring from the RAF in 1985 he spent ten years as Assistant Director, Royal United Institute for Defence Studies.

Assuming that few, if any, of today's OCU students are required to qualify in seamanship and the use of Admiralty charts (or even trained to swing the lead), one is inclined to reflect that the operation of flying boats was not just a vocation but a way of life. You will hear later today what it was like in near-arctic conditions yet, within a week, the same crew could be riding at anchor off a remote, sun-drenched coral island where the only available ground support was a barefoot oarsman with a rowing boat but little or no English and the nearest headquarters was 1,000 miles away. This bred a certain independence of spirit.

When the Malayan Emergency began there were three resident Sunderland squadrons in the Far East. Nos 205 and 209 were located at Seletar, which had been the RAF's only pre-war flying station in Singapore. No 88 Sqn was based at Kai Tak where, until 1948, its tasks had included a bi-weekly courier service between Hong Kong and the ex-Japanese Navy seaplane base at Iwakuni in Japan.¹

¹ Even before the beginning of the Korean War, 1949 had proved to be an eventful year for 88 Squadron. On 21 April one of its aircraft, captained by Flight Lieutenant K Letford DSO DFC, came under Chinese Communist artillery fire after landing on the Yangtze River to deliver doctors with medical supplies to the beleaguered HMS *Amethyst*. On the following day, a further sortie to transfer eight naval personnel and a naval chaplain to conduct burial services aboard was thwarted when the Sunderland, a sitting target, was hit by Communist fire and had to take off hastily before the passengers could be offloaded. The same aircraft was badly shot up a day later while making a recce of the Yangtze at the request of Flag Officer Far East Station prior to *Amethyst's* dash for safety. RAF personnel involved were awarded the Naval General Service Medal. A few weeks later the squadron was engaged in

Following the onset of the Korean War, 88 Squadron joined 205 and 209 at Seletar where the three squadrons were combined to form the Far East Flying Boat Wing (known, inevitably, as 'The Kipper Fleet'). The aim of the merger was that each squadron should spend one month in three on rotation in the Korean theatre.

Back at Seletar, in addition to normal training and exercises, the squadrons were tasked with anti-arms smuggling and anti-piracy patrols, search and rescue (including a standing SAR commitment in Hong Kong) and the carriage of passengers, freight and VIPs to locations inaccessible to land-based aircraft throughout the Far East and beyond. Also, to paraphrase an extract from Philip Towle's book *Pilots and Rebels*,² the Sunderland 'proved a very useful, if somewhat eccentric', addition to the RAF's (offensive air support) capability in Malaya because of its ability to carry large numbers of 20 pound bombs. Eccentric perhaps, but hardly less valid as an example of the flexibility of air power.

Echoing its *Luftwaffe* nickname 'The Porcupine', our version, the Mark V, was armed with ten 0.303 and two 0.5-inch Browning machine-guns affording an all-round field of fire. Of these, four fixed 0.303s installed in the bow, originally to keep U-boat gun crews' heads down, were fired by the pilot using a ring and bead sight. Turrets housed two further 0.303s in the bow and four in the stern. The manually operated 0.5s were mounted in beam positions, one behind each wing. All could be reloaded in flight with fresh belts of ammunition.

Bombs or depth charges were suspended in the bomb room on four universal carriers which ran out, two each side, under the wings for loading and dropping. Each carrier could also take the standard four-station practice bomb rack, allowing a stick of up to 16 practice or fragmentation bombs to be dropped at variable pre-set intervals. These too could be reloaded whilst airborne.

A typical FIREDOG sortie might involve the expenditure of 240 twenty pound fragmentation bombs proximity-fused to explode above ground level, plus 6,000 rounds of 0.303 and 1,000 rounds of 0.5 ammunition. If required, up to 360 bombs could be carried.³ At a transit speed of about 120

evacuating British nationals from Shanghai shortly before the city fell.

² Dr Philip Towle, *Pilots and Rebels, The Use of Aircraft in Unconventional Warfare 1918-1988* (Brassey's UK 1989), p88.

³ Malcolm R Postgate, *The Malayan Emergency 1948-1960* (HMSO London 1992), P49.

knots, the Sunderland may have lacked the short response time of a Hornet or Lincoln but, although based at the southernmost tip of the peninsula, it had the range and endurance to mount a sustained attack over any part of Malaya.

Some sorties took the form of attacks against terrorist camps and jungle gardens marked with smoke grenades by AOP Auster pilots.

However, the more typical target would be a rectangular stretch of rain forest some 2,000 yards long and 1,000 yards wide. To compensate for poor map coverage, the boundaries were drawn on enlarged vertical photographs taken, sometimes merely hours before, by No 81 (PR) Squadron which, together with the Joint Air Photographic Intelligence Centre (JAPIC), was also based at Seletar.

If radio contact was not available when operating in close support of ground forces, their location would be marked by smoke or by a tethered balloon. When the target itself had been identified, a series of bombing runs would be made parallel to its main axis at 1,700 feet above ground level. This was the safety height for dropping the 20 pound fragmentation bomb although there was a tendency to bend the rules if the cloud base was lower. The noise of its detonation, said to be 'not appreciably less than that of a 500 lb bomb',⁴ could be heard clearly above the clamour of four Pratt and Whitney engines.

The bombing phase generally lasted about two hours followed by up to a further hour at low-level, strafing with all guns. Consequently, depending on the size of its weapon load, one Sunderland could harass a target for a least three hours.

When operating in the western part of Malaya, crews would be briefed to return home by 'showing the flag' along the main railway line to Singapore. The Sunderland handled very well and was manoeuvrable enough at lower weights to follow the track closely at treetop level through rough terrain and even through Kuala Lumpur which, fortunately, was not then the multi-skyscraper development it is today. The inhabitants must have been pleased to see us because no one seemed to complain.

No account of the Sunderland's role in Malaya would be complete without mentioning the bombing technique employed for area, as opposed to precision, targets. Having been loaded on the racks before flight, the first stick of 16 bombs was dropped conventionally. Theoretically, the crew

⁴ *Ibid*, p50

would then recharge the racks between each successive run. However, as the racks were some eight feet above the bomb deck, this involved trying to mate each bomb with the release mechanism by hand in hot, sweaty, turbulent conditions while standing precariously on the boxes the bombs came in. This was not a popular task, especially as, in 1950, a Sunderland had been lost through an accidental release whilst being bombed up on its mooring at Seletar.

When I arrived in 1951, most crews had adopted a local procedure which, although likely to give the Command Armament Officer nightmares, proved no less effective than the approved method. After the first stick had been dropped, bombs for each successive run were stacked on the galley deck with their arming pins removed. When the navigator, stationed on the bridge with target photograph and stopwatch, gave the order to start the drop, a member of the crew would launch each bomb through the port galley hatch by hand at the calculated release interval (normally about two seconds) until the navigator called 'Stop bombing'.

After flying as an observer on one of these sorties, a newly appointed AOC Malaya was reported to have said that he was pleased with the crew's determination to complete the task despite a failure in the bombing mechanism immediately after the first run. It can be safely assumed that he was unaware of our electricians' inability to reproduce the fault during after-flight servicing.

The approach may have been unorthodox but the job was done, often in demanding conditions. For a start, as previous speakers have stressed, the weather could be tricky. Low cloud and severe thunderstorms were liable to materialise anywhere at any time and a rapid deterioration could be quite challenging in mountainous areas. A laden Sunderland's rate of climb didn't exactly make your ears pop and, whilst on target, one's planned escape route was more than likely to have become occupied by a large malevolent cumulo-nimbus. Needless to say, we felt a strong kindred sympathy for others embroiled in those conditions on low-level supply dropping or light aircraft operations.

In the absence of reliable maps, the quality of 81 Squadron's vertical photography, which enabled us to identify individual trees, provided the necessary detail to ensure that crews were on target even though the density of the jungle canopy usually prevented us from seeing the ground or any sign of the enemy. Conversely, the restriction on his own field of view coupled, perhaps, with our harassing fire, must have played a key part in

preventing him from drawing a bead on such a tempting large, white, slow target. Just how much this factor enhanced our freedom of action was brought home in 1954 when visiting a French Navy seaplane base near Saigon where the ramp was occupied by a severely damaged amphibious aircraft. Our hosts explained that it had limped home from their equivalent of a FIREDOG operation against the *Viet Minh*, with one dead and several wounded, after meeting a well co-ordinated barrage of small arms fire on overflying an apparently innocuous stretch of paddy.

Official records show that over 34,000 twenty pound bombs (£4-10s each at 1951 prices⁵) were dropped in 1951 alone.⁶ But what did all of this effort achieve at the end of the day? There is a shortage of tangible evidence but air attacks were frequently the only way of maintaining pressure against terrorists who had retired to deep jungle areas.⁷ We would hear occasional reports of captured insurgents admitting that they had been extremely demoralised by prolonged bombing and machine-gunning.⁸ The high point for my own crew came during one close support sortie when the local Brigade Commander called on VHF to say that our efforts had led to the surrender of three very shaken terrorists who had proved only too willing to give themselves up.

In sum, the Sunderlands happened to be available (until they were withdrawn from RAF service in 1959) and, in terms of effort, FIREDOGS were a relatively small component of their overall task. Despite their maritime pedigree they proved to be well suited for this particular type of overland operation, but it should not be forgotten that it was conducted in a benign air situation and with no evident opposition from the ground.

Finally, a tribute must be paid to the splendid work done by the groundcrew and marine craft personnel who laboured all hours in taxing conditions to keep the Wing flying. Not least the hard-pressed Sunderland

⁵ *Ibid*, p52. By comparison, 1,000 lb bombs cost £125 each; 500 lb bombs and 60 lb rockets cost £56 and £18-10s respectively

⁶ *Ibid*, p180

⁷ *Ibid*, p150

⁸ Towle, *op cit*, pp86-87. 'As one report noted on 30 September 1949, the bandit suggested that bombing over a wide area, followed by intense machine-gunning before follow-up by troops, will produce more fear and despondency and consequent lowering of morale than concentrating on precise targets'. Some insurgents also felt that 500 lb bombs were less frightening than large numbers of 20 lb bombs and strafing from Sunderlands and other aircraft.' (AIR23/8444, report on anti-bombing operations 4-8 June 1950)

engine fitter who, whenever working ashore some fifteen feet above the hardstanding, had to curb an instinctive reaction to dive overboard after the dropped spanner which an unforgiving supply accounting system had required him to sign for.

RECONNAISSANCE

Sir Michael Knight

We are about to see a short film clip of air operations in Malaya but, before we do, because we don't actually have anyone to speak on one particular aspect of air operations, I want to emphasise a point which Henry Probert referred to briefly in his introduction – the overriding importance of aerial reconnaissance throughout the Emergency.

From the outset it was clear that intelligence on the whereabouts and intentions of the terrorist groups would be the key to success. There was an equally important requirement for accurate photo reconnaissance in the context of tactical operations. Most of the existing mapping was pre-war and pretty useless. For example: many of the rivers were found to have changed course; features appeared to have changed or were missing altogether; and some areas were simply marked 'unexplored'. A high premium was, therefore, placed on the work of the various recce units. Nos 28 and 60 Sqns both operated Spitfire FR 18s for a time but most of the photographic load was carried by No 81 Sqn whose Spitfire PR 19s and Mosquito PR 34s were progressively replaced by Meteor PR 10s and, eventually Canberras PR 7s, with a few camera-equipped Pembrokes being operated for a time in the late 1950s. Low-level tactical visual reconnaissance was provided by Austers, augmented by Pioneers and Dakotas.

Searching for terrorist camps, which were always well hidden, was a delicate business, as care had to be taken to ensure that the search did not in itself compromise the chances of success of any subsequent ground or air action. Last, but not least, I should also mention the maritime reconnaissance of the Sunderlands whose patrolling of coastal waters assisted the Navy in preventing illegal immigration and arms smuggling.

AIR TRANSPORT OPERATIONS – VALETTAs

Flight Lieutenant Maurice Rogers



Maurice Rogers joined the RAF as an aircraft apprentice in 1942 and subsequently served as a technician in both the UK and the Far East before qualifying as a pilot. After an initial stint with Transport Command he was posted to the Far East, carrying out 155 operational supply drops. He then transferred to Bomber Command flying the Canberra B2 and B6 and then the Vulcan B1 and B2. On leaving the Service he joined the Civil Aviation Authority.

In the early to mid-1950s the Far East Transport Wing consisted of 26 Valetta aircraft to form three Squadrons (No 48, 52 & 110) and a VIP Flight of one Valetta and a Dove.

The squadrons had two roles. One to carry passengers and freight to Hong Kong; to the British Missions in Burma, French Indo-China and Ceylon and to the intermediate staging posts. The second role was to give airborne support to the Army, Royal Air Force Regiment and the Civil Police directly involved in jungle warfare operations in the Malayan Campaign. Typical units were 1st Somerset, West Yorks, 1st Queens, Hampshires and 95 Squadron Royal Air Force Regiment and the Gurkhas. By 1953 some twelve fortifications had been built at strategic points along Central Mountain Range running along the spine of Malaya. Each fortification had a 200 yard landing strip for Austers and Pioneers along with helicopters. The forts bore such names as Dixon, Shean, Brooke, Gambia, Iskander and Langkap and from these ground forces embarked on 'hand-to-hand' missions against the guerrillas operating many days away from base and constantly requiring airborne supplies in often difficult terrain.

Field units would radio their provision requirements to a central co-ordination unit at Kuala Lumpur along with the map co-ordinates of their anticipated locations. The loads were packed and dispatched by the Royal Army Service Corps.

Each field unit had a discrete call sign and, where practical, a clearing would be made in the trees to display an identification letter on the ground.

This, in conjunction with voice R/T and a smoke signal, would provide identification to the aircraft crew. On occasions a patrol would not be able to reach the exact co-ordinates and a request would be made to 'put up smoke' to assist in location and assess the drift for the drop. The Gurkhas were great exponents of 'economy of effort', by putting up smoke and then chopping down those trees in which the parachutes landed. I never concluded whether this was good common sense or the lack of confidence in the accuracy of airborne drops in general.

Pilot training in the supply dropping role was carried out by the Wing Training Officer. The squadrons were deployed on rotation on a three-month detachment to Kuala Lumpur and therefore spent six months of a nine-month cycle operating from Singapore in training and route flying. Inexperienced crews were split up to fly with other experienced crew members during the initial training phase at Kuala Lumpur. The hazards of the role for me were learnt swiftly when my navigator designate was killed with an experienced crew within three days of starting supply dropping. The Training Officer's role was to give advice on power and flap settings, and best speed to effect the drop, as well as pointing out basic 'do and don'ts' when approaching a dropping zone. For example, always fly on the right hand side of valley – never in the middle – so that an adequate turning radius was preserved. Sometimes a circling advance would be necessary, keeping a watchful eye on the rate of the rising ground. It was always essential to pick a clear route out in the event of an emergency and a safe height to achieve it; in particular a safe height following engine failure. The Valetta was pretty poor on one engine. These procedures were essential when reaching patrols in remote mountain regions. In time the routine at the main forts became familiar and standard – but complacency was always the enemy.

Probably one of the most difficult forts to drop on was Fort Brooke. It lay bounded by four or five hill ranges and the terrain was such that a straight and level run was short. In these circumstances I relied on another crew member to control the engine cooler operation under instruction. On this occasion I noticed a higher than normal temperature on both engines and instructed the oil coolers to be opened. On the next inspection, both temperatures were 'off the clock'. The coolers had been closed completely. I won't repeat the ensuing conversation – but good use was made of the emergency procedures to escape to the flat terrain to the east of the mountain range. With the engines cooled-off and a decent time interval to

prove that the engines were operating normally – the drop was resumed.

Another uncomfortable incident happened at a new fort being built near the Thailand border. The ground for the landing strip had been prepared by a bulldozer and in order to bond the earth together and prevent erosion, grass shoots had to be dropped. These were contained in sacks, weighted down before loading by soaking them with water. They were released by free fall from the aircraft dispatch platform at an altitude just above tree level. Whether one sack was insufficiently soaked or the maximum number of sacks permitted on the dispatch platform was exceeded will never be known, but the result on the final run-in was for one sack to become lodged on the port leading edge of the tailplane, splitting the airflow over the tailplane and creating extreme buffeting. This was so bad that it took two persons on the control column to dampen the oscillation.

The amount of cargo dropped on each sortie ranged from 1 to 3¼ tons and covered all provisions to sustain life and armaments to perpetuate the war. Live chickens were dropped on one occasion and cats to combat a rodent problem.

The number of ‘no-drops’ were relatively small, mostly due to either bad weather or not being in position. Repeat drops were sometimes necessary after a parachute ‘candled’ and destroyed the provisions. There was usually an increase in repeat drops around Christmas time!

The supply dropping role was a great challenge to both pilot and navigator; the latter developed a unique map-reading ability and resulted in forging a close and trusting relationship between crew members.

The expertise gained by crews in the supply dropping role was put to good use in other directions. For example, famine and flood relief in India and for me two special missions in North Borneo. Most of you will recall the high drama of the 1994 expedition to Mount Kinabalu. Some forty years before, I had to drop halfway up this 14,000 ft. mountain to a geographical survey team. Two previous attempts by other crews had failed and my attempt was doomed to fail also. It was an awesome spectacle at close range, close to what is now known as Low’s Gully and near to a waterfall some 2,000 ft in height. The marked downdrafts caused aileron controllability problems and the drop was made eventually at Ranau – a bush pilot landing area at the base of the mountain.

On the same detachment an emergency relief operation was carried out to a remote area of Borneo – a place called Pensiangan. Maps for the area were pretty unreliable and the navigator used a map taken out of the

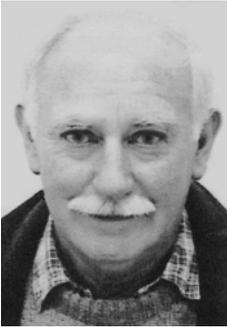
District Officer's book. Flight time to the dropping zone was one hour. We were told later that to get the supplies there by normal delivery would have involved one day by ship, four days by lorry or a two week trek provided there had been no flooding.

We dropped in the morning papers!

The supply dropping role was fascinating but very demanding. Three aircraft were lost during my 2½-year tour – all the crews were killed along with the Royal Army Service Corp soldiers who flew as dispatchers. The terrain was unforgiving. One crash was seen by a jungle patrol. It took them 2 days to cover the 4 miles to the crash site. I completed 155 supply drops – I think this was an average number for the tour of duty.

HELICOPTER OPERATIONS IN MALAYA 1950-1960

Squadron Leader H H J Browning



'Tom' Browning graduated from the RAF College in 1951 and his first flying tour was on Shackletons with 220 Sqn. Following a CFS helicopter conversion course on Dragonflies he was posted to 155 Sqn (Whirlwinds) at Kuala Lumpur in 1958, transferring to 194 Sqn (Sycamores) the following year. Shortly afterwards the two helicopter squadrons in Malaya moved to Butterworth where they were merged to become 110 Sqn. Later he became OC of the Wessex Intensive Flying Trials Unit and ultimately OC 18 Sqn at Odiham. Taking retirement prematurely at his own request, Tom subsequently flew Pumas with the Abu Dhabi Defence Force Air Wing.

If you except 529 Squadron's brief flirtation with the R-4 Hoverfly I in 1945 and 657 (AOP) Squadron's with the R-6 Hoverfly II in 1946, the Millennium Year will mark the 50th anniversary of the formation of the Royal Air Force's first operational helicopter unit: the Far East Air Force's Casualty Evacuation Flight on 1st May, 1950 (see Table 1).

The flight formed at RAF Seletar with three Westland-Sikorsky S-51 Dragonfly Mk 2s, the first of which flew in late April 1950 – which probably accounts for 1st April sometimes being quoted as the formation date. The first casualty evacuation was carried out on 14 June 1950: the evacuation of a wounded British soldier from the waterlogged airstrip at Segamat. This wasn't the first ever casevac carried out by helicopter but it was the first by the British services. The flight carried out other types of missions, but casualty evacuation was its primary task and, as you will see in Table 2, the account of the Malayan Emergency given in AP 3410 only records the number of casevac amongst the flight's achievements.

The Casevac Flight's success not only demonstrated the helicopter's potential but helped to generate a demand for more. As Table 1 shows, within three years the flight was to be succeeded by two helicopter squadrons.

No 194 Squadron was re-formed at RNAS Sembawang on 2 February 1953 – the day that the Casevac Flight disbanded at Changi. Initially equipped with Dragonfly Mk 4s it began to receive Sycamore Mk 14s in

Table 1. HELICOPTER UNITS: MAY 1950 – JULY 1960

UNIT	DATES	HELICOPTER TYPE
Casevac Flt	1 May 50 – 2 Feb 53	Dragonfly Mk 2 Dragonfly Mk 4
No 194 Sqn	2 Feb 53 – 3 June 59	Dragonfly Mk 4 Sycamore Mk 14
No 848 NAS	2 Feb 53 – 10 Dec 56	Sikorsky S-55 Whirlwind Mk 1
No 155 Sqn	1 Sep 54 – 3 Jun 59	Whirlwind Mk 4
No 110 Sqn	3 Jun 59 –	Whirlwind Mk 4 Sycamore Mk 14

October, 1954 and was completely equipped with this type by July 1956.

No 194 Squadron was the light helicopter element of 303 (Helicopter) Wing, the so-called medium helicopter element being 848 NAS which had disembarked in Singapore in January 1953. Equipped with Sikorsky S-55s and intended to remain in Malaya only until August 1954, 848 not only pioneered virtually the full range of helicopter tactical transport roles – including paratrooping – but remained in Malaya until December 1956.

No 155 Sqn was formed on 1 September 1954. Its first Whirlwind Mk 4s arrived in Singapore on 20 October and, following pilot conversions, were flown to Kuala Lumpur – then the main base for the helicopter squadrons – on 9 November. Initially the Whirlwind Mk 4 was plagued with problems, hence the retention of 848 NAS, and it was not until the second quarter of 1955 that it could properly be considered as operational.

After 848 NAS had been withdrawn, 155 and 194 Sqn provided helicopter support in Malaya: and also detachments elsewhere, but that is outside the bounds of this presentation. It is, however, just about the point where I come into the picture.

With the end of the Emergency distantly in sight, and taking account of competing requirements for helicopters elsewhere, it had been decided to run down the helicopter squadrons in Malaya to the point where only 194 Squadron with its Sycamores would be left.

Fate had decided otherwise. Following two fatal accidents in February and April 1959 the Sycamores were grounded. On 3 June 155 and 194 were combined to form No 110 Sqn which took over 155's remaining Whirlwinds. By September the squadron had moved to RAAF Butterworth. In April 1960 the first three restored Sycamores were received. The last Whirlwind left on 26 July and the Emergency was declared at an end five days later – although there remained work for 110 to do.

Although helicopters were *the* short range transport force in Malaya it would be churlish not to mention the Single and Twin Pioneers which were used for troop lifting, fort re-supply and casevac.

'Economy of Effort' was paramount in Malaya – helicopters were only to be used in the absence of alternative methods of transport. It also had a financial ring about it and at only £35 per hour the Pioneer was cheap and cheerful, especially when compared with £53 per hour for the Sycamore and £73 for the Whirlwind. Unfortunately no one came up with a scheme to modify the Auster for troop and freight lifts. At £15 per hour it would have been unbeatable!

I am grateful to earlier speakers who have so comprehensively refreshed our memories on the subject of Malaya's terrain and climate. The helicopters operated between first and last light. It was common for three or four to leave ground about seven in the morning and return by six in the evening having spent most of the day, apart from two to three hours positioning time, lifting troops and freight from an assembly area to a jungle clearing and/or bringing troops out – flights of no more than ten to twenty minutes or so covering distances that could have taken days to walk. Sometimes the start of an operation might be delayed by low cloud, sometimes the flight home would result in a hectic tail chase down mountain valleys in a desperate race to beat the lowering clouds and reach the open plains before our escape route was closed. Much of the time it was just another sunny, hot, humid day.

There were no air defences for us to worry about in Malaya and although there were rare instances of terrorists being seen in clearings as a helicopter was landing or overflying, I know of no occasion when a landing was opposed, let alone actually fired on. Consequently, tactics were not really an issue.

In the time remaining I'd like to talk briefly about the helicopters that were used and what they did.

All three types used in Malaya were in the early stages of helicopter

development. The Dragonfly especially so. Even stripped down, it could only be expected to lift about 200 lbs out of a clearing plus 30 minutes fuel – and the pilot, of course.

To get the best possible payload it was stripped of everything that could be considered expendable – from the winch down to cockpit lighting. A locally manufactured stretcher unit weighing 35 lbs replaced the original external pannier attachments that weighed 210 lbs and which would have virtually precluded carrying any casualties at all!

The pilot techniques and approach criteria for helicopter clearings which obtained, certainly, for over twenty years (if not today) were established as the result of these early operations using the Dragonfly.

The Whirlwind set the general configuration for transport helicopters for many years following the S-55's first flight in November 1949. The weight of the tail end was offset by the nose mounted engine, leaving a large, box-like cabin capable of seating ten passengers – but unable to lift anything like that number in Malaya – directly beneath the main rotor.

Much has been said and written about the poor serviceability of, particularly, the Whirlwind. In fairness I think it should be said that all three types had their fair share of problems. Remember too that we were at the bottom of the learning curve with regard to helicopter operations and maintenance. Spares backing sometimes appeared to be grossly inadequate.

But, despite all the problems, the ground crews were untiring in their efforts to keep the squadrons flying. This involved them flying on missions as crewmen, refuelling, turn-round inspections and rectification – such as engine or rotor blade changes – in the field. Crashed aircraft, where they could be got at, were repaired and eventually flown out – thanks mainly to maintenance unit personnel.

Lastly, the Sycamore. It was the first indigenous design to enter RAF service. Like the Dragonfly Mk 2 it had all manual controls but succeeded in keeping control loads pleasantly manageable for the pilot. Most importantly its performance carrying a useful load of 540 lbs -considered to be the equivalent of three troops at the time – was vastly superior to that of the Dragonfly and was to lead to it becoming a maid of all work in the theatre.

One thing that all three types of helicopter had in common was a need to reduce weight. Consequently role equipment was kept to a minimum: no winches, external cargo hooks, not even seats in the Whirlwind. However the lack of role equipment was not necessarily a bar to, say, carrying

external loads on one occasion at least.

Our attempts to recover a 656 (AOP) Sqn Auster in 1960 were made by tying it on with a length of target banner cable. A block of wood was placed between the cable and the floor by the cabin door sill and a crewman armed with a crash axe constituted the emergency release gear! The Auster pilot had made a superb forced landing on a narrow track without any damage to the aircraft. Our attempts to carry the wings to a more open area less than a mile away soon put an end to that although we were more successful with the engine and fuselage.

Other work for the helicopters included communications flights – particularly between the many forts that had been established in jungle areas; what could grandiosely be called tactical reconnaissance; and search and rescue – the latter almost always over land and exemplified by the recovery of two RAAF Sabre pilots who had ejected after a mid-air collision in July 1960.

Between the end of 1953 and early 1954 Dragonflies were used for spraying terrorist cultivations in the jungle – with a view to denial rather than promoting husbandry. Other operational role techniques introduced in Malaya included roping, whose purpose was to enable troops to land safely in unsecured or unprepared areas where the surface was either obscured – by undergrowth – or whose load bearing was suspect. 848 NAS carried out the first experiments using equipment that had served the Royal Navy well over the centuries – scrambling nets! They soon settled on what became the generally accepted knotted rope. Personally, I was never convinced of roping's usefulness but – rather like abseiling – it made for a good demonstration.

Not that the RAF didn't have its moments of madness too. At some time the rope ladder was thought to be a suitable alternative to the winch for the Sycamore. Film taken at the time seemed to suggest that if the survivor had the strength to climb the ladder he didn't really need rescuing in the first place.

The Emergency, like all wars, was won by the efforts of the troops – and paramilitary police – on the ground. And getting rid of the terrorists, who numbered some 5,000 men and women under arms when it began in mid-June 1948, was what the Emergency was all about. When the Emergency was declared to be at an end in July 1960, only some 250 were believed to be holding out in the northern border areas between Malaya and Thailand.

The helicopter squadrons not only carried troops and their equipment to

positions where they could more easily engage the enemy, they also brought out dead and captured terrorists as well.

To conclude, Table 2 shows what the helicopter squadrons achieved carrying single and multiple casevacs, loads of two to five troops and freight in loads of between 500 and 800 lbs during the ten years between June 1950 and July 1960.

Table 2. SHORT RANGE TRANSPORT SUPPORT BY HELICOPTER UNITS: JUNE 1950 – JULY 1960

UNIT	CASEVACS	TROOPS	PAX	FREIGHT lbs (tons)
Casevac Flt	229	—	—	—
No 194 Sqn	2,818	10,853	11,700	676,598 (302.05)
No 155 Sqn	588	68,828	2,645	1,105,297 (493.71)
No 110 Sqn	309	6,430	693	168,039 (75.02)
No 848 NAS	815	41,314	2,827	748,763 (334.27)
Totals	4,759	127,425	17,865	2,698,697 (1,204.78)

Sources:

AP 3410 The Malayan Emergency 1948-1960, Annex X.

F 540s for Nos 155 and 194 Sqns, Jan-May 1959.

MALAYA DISCUSSION

Wg Cdr ‘Jeff’ Jefford: For Gp Capt Gilbert. I understood that the Sunderlands used to spend quite a lot of time dropping twenty-five pounders at night to keep the CTs awake. Was that the case?

Gp Capt Gordon Gilbert: There were some sorties like that, but I think they were earlier in the period, rather than later, and I certainly did not take any part in them myself, so I couldn’t give you any information on how they were conducted.

After Meeting Note: Coincidentally, an article appeared in *Flypast* in April 1999 which provided an excellent first-hand account of Sunderland operations in the Far East in 1952-55. It was contributed by a, then, first tourist pilot Colin Sharpe, who confirms Gp Capt Gilbert’s account of the high-tech ‘out of the galley window’ bomb release mechanism. He goes on to tell of night bombing sorties, involving a timed run from a designated start point. This IP was usually defined by crossed searchlight beams provided by a couple of ‘Jeeps’, co-ordination being achieved by two-way radio contact with the ground party. Most bombing was conducted from 1,000 ft agl and, since the drop zone might be ten miles from the IP, and sometimes up a valley, Sharpe describes night bombing sorties over Malaya’s mountainous terrain as ‘demanding’. – **CGJ**

Douglas Finch Beavis: Was the Mosquito ever used in operations? I understand that the fabric wasn’t suitable when in tropical areas because the glue came unstuck.

Gordon Gilbert: No 81 Sqn used Mosquitoes until well into the 1950s for photo reconnaissance work – and I thought that the problem was more associated with the Hornet than the Mosquito.

Air Cdre Henry Probert: May I comment very briefly. We should bear in mind that the Mosquito was used quite extensively in India during 1944-45. There certainly were problems with glue, but these were worked on and eventually overcome and the same will have been true in Malaya.

AVM Nigel Baldwin: Would someone like to tell me about communications, air-to-ground and ground-to-air. At my distance in time from those events it is difficult to imagine what it was like then. For instance, assuming that you had any communication at all with soldiers on the ground underneath the jungle canopy, what sort of range did you have?

Maurice Rogers: Well I had no problems at all with communications. We had voice R/T. It was standard practice for the DZs to make a clearing, apart from the forts which already had one anyway, and the patrols would make a clearing and put up a smoke signal. We used the smoke to make the drop and, with two-way R/T, it was all very straightforward.

Air Mshl Sir Ian Macfadyen: I was interested to hear Kingsley Oliver refer to PsyOps and leaflet dropping – I wonder if we could say something more about that, because it is an aspect of warfare which is too often overlooked despite its often proving to be very effective.

Air Chf Mshl Sir Michael Knight: Well actually I can tell you about that – this is not a planted question! Those of you who have had AP3410 as your bedside reading for the last few weeks will know that psychological warfare was seen as a particularly useful weapon and one which made a major contribution to the erosion of CT morale. It is an amazing figure, but the MR Transport force dropped nearly 500 *million* leaflets during the course of the campaign and Dakotas and Austers carried out more than 4,000 hours of aerial bombardment broadcasting. According to the AP, that effort was undoubtedly justified by the number of terrorists who surrendered, either wholly or partly, as a result of it.

Crop spraying was touched upon by Tom – the intention was to deny food to CTs deep in the jungle. In practice, however, it was very difficult to distinguish between a CT cultivated area and the garden clearing of one of the local aborigines. As a result, the technique was little used during later stages of the campaign.

Gp Capt Kevin Dearman: Roland mentioned that they had to give the Lincolns separate headings to achieve a suitable dispersion of their bomb loads. I wonder what sort of accuracy he was claiming?

Roland Burgess: We had very little information on the results achieved. As I said before, we couldn't actually see what was happening from above because the jungle was quite impenetrable, and feedback from the target area could take months to arrive – and even then it was rare for that sort of information to trickle down to ordinary squadron members.

Sir Michael Knight: I think it is quite clear that, as one or two speakers have indicated, bombing and rocketing into featureless jungle made it very difficult to produce a post-strike assessment of any accuracy, especially as there wasn't very much in the way of accurate target information in the first

place. The terrain was pretty featureless, and there was a lack of strategic targets anyway, and the absence of formal enemy lines of communication and difficulties in establishing properly demarcated bomb lines would all have tended to make post-strike analysis quite difficult. Does anyone else in the room have anything on this?

Wg Cdr Mike Mockford: Yes, I was there as a very junior member of the team in 1954, doing photographic interpretation – we used to lay out the FIREDOG mosaics. The whole of Malaya was divided into 20,000 × 10,000 yard areas, and most of those that could be photographed were covered many times over the period of the Emergency. They weren't vertical photographs; they were split pairs, having a 7° offset from the vertical, which made mosaic construction quite difficult. Once the mosaics had been completed, they were compared to local mapping and, as you rightly pointed out Mr Chairman, the mapping was exceedingly poor in places. Nevertheless, between the photographs and those features on the maps which were reliable, we could generally get down to an accuracy of perhaps 100 to 200 yards on the ground. The target areas were usually a 1,000 yards square and, at the time I was there (and I was there twice during the Emergency), the bombing was actually exceedingly accurate.

We usually did our analysis from the strike photographs and, having designated the 1,000 yard area with a smoke marker and/or timed run, the bomb falls were I suppose probably 95% within the area. This was certainly accurate enough to disrupt CT activity – which was what we were looking for. I would point out, however, that there were very few kills – and as other people have said – we did on a few occasions straddle rubber plantations, which was of course not the intention – and once or twice I can recall bombs falling close to troops on the ground, which caused some consternation! By and large, however, it was a very accurate effort and I believe in terms of disruption very effective.

Sir Michael Knight: Thank you Mike. The AP actually says that the overall effect of in terms of damage done was 'limited' but that there was an incalculable effect on weakening morale and reducing the ability of the terrorists offensive and, once they had retreated into the deep jungle, air power was the only means of actually getting at them, and there was no question that it certainly did shorten the duration of the conflict.

Gp Capt 'Jock' Heron: My question relates to maps. I'm surprised that

the maps were still so disappointingly poor in the 1940s and early '50s. I would have thought that DMil Survey would have responded very quickly to the, clearly well-defined, output of the photographic interpreters described by Mike Mockford. I mean, since there was aerial survey going on, plus lots of reconnaissance, how long did it take for DMil Survey's organisation to produce maps which were of a little more use to air crew?

Sir Michael Knight: From personal experience, and Gordon Gilbert will elaborate, they were still doing the Borneo Survey as late 1970 and we never did finish it all, because it was just impossible to get at it.

Gordon Gilbert: I spent a couple of years or so on No 81 Sqn in the mid 1960s. As a matter of interest, incidentally, when I arrived on 81 in 1963 we were still doing FIREDOG survey work in Malaya – as well as the Borneo Survey. The squadron had been established to carry on with the surveys of both Malaya and Borneo from 1945 onwards. The problem, as ever, was the weather. For example, we would set off from Tengah (this was in Canberras) to arrive over Borneo at first photo light, which was about 7.30am and the start of a very narrow time window during which, if it was clear enough and light enough over your area of interest, you could get your photographs – because you knew that within about half-an-hour cloud would develop and build up into thunderstorms. So it was touch and go. Sometimes we would refuel at Labuan and then have another go in the afternoon, in the hope that it might perhaps have cleared up a bit. As you can see, the main problem was the weather – otherwise the survey task would have been dead easy – but, as I said, the squadron was at it for more than twenty years and they never did achieve total coverage because the requirements specified by the survey people were pretty tight. You had to have a certain percentage, I can't remember now but it was over 90%, of each photograph overlapping before they would accept it for map making.

Ms Leona Simpson: Providing a tradesman's perspective, Ms Simpson made a short contribution from the floor but followed this up with a written input which is reproduced below:-

A Technician's Recollections – 1949-51 and Apr-Oct 1956

I was not unfamiliar with SEAC/FEAF having been with 45 Sqn in Ceylon. My first posting at RAF Changi was to ASF (aircraft servicing flight) Tech Wing and minor and major inspection on the Command's C-47/DC3s also some of those from the 'Berlin Airlift' operation. I was later

transferred to No 52 Sqn and 'flight line' servicing just prior to their being temporarily moved to Seletar whilst the 'new' (concrete) runway was laid at the intersection of the two runways (the old PSP and the 'new' runway), now part of Singapore International Airport.

The dispersal for the aircraft at Seletar was all grass on which a mat of steel netting had been laid right up to the edge of the main 'land' runway, as Seletar was also the main Far East base for the Sunderland squadrons. The aircraft maintenance tasks carried out at Seletar were exactly the same as those at Changi, the first line (flying function) of aircraft maintenance operations, pre- and post-flight servicings, refuelling and topping up of the aircraft oil tanks, defect rectification that did not require second line (hangar/Tech Wing) support, these were the 25-hour periodic requirements that were the norm to flight line/ramp functions. As an engine-oriented person/mechanic this was a check of engines and related equipments, removal of the scavenge oil filter to check for particles of main engine bearing failure, as well as that of the carburettor for cleanliness, also the overall condition of the aircraft and equipments.

These inspections also involved ground running to check the engine operation indications, oil pressure and temperatures as well as rpm, propeller feathering and 'constant speed' operation also that all other aircraft needs and requirements: electrical; instrument; and hydraulic pressures and indications.

Eventually the intersection was completed at Changi and we returned to our main base, the squadron flying back to Changi in 'county' formation. Later on in 1949, 52 Sqn was detached up to RAF Kuala Lumpur, it being their turn to operate up-country. These detachments were shared with the other two squadrons, these being Nos 48 and 110 Squadrons. The other Dakota unit was the Far East Communications Sqn (FECS) which was permanently located at RAF Changi, adjacent to Tech. Wing using part of the PSP area as their dispersal.

The tasks of the Dakota squadrons in Singapore and up-country in Malaya was the job of supply to those members of the Services, be it the British army units, Gurkha Brigade, or local Malay and Police units. Some times the Dropping Zone (DZ) was a reasonable clearing which could be 'marked' but for the most part those places up-country it was just a hole in the jungle canopy and marked with 'smoke' and 'mobile' radio communications with the ground forces.

On occasions, when working out of KL, we had a task which involved

an aircraft being despatched to places like Kuantan, Butterworth or even a strip at Ipoh, primarily to pick up either casualties or local residents being evacuated from certain areas, and even the re-deployment of Army personnel for other areas of operation.

Working on the strip was not without its 'fun' as there was the occasional buzz of the odd bullet and even the odd Spitfire landing with a 'minor' defect that needed immediate attention; these Spitfires were sometimes part of a support group for a ground operation and were armed with rockets, which, of course, had to be 'made safe' before any rectification could be carried out. On one occasion one of these Spitfires 'blew' his Coffman starter safety disc and to the pilot's chagrin he had no spare, and we were not equipped with the necessary spares, being a Dakota unit. Needless to say he was sent off with strict instructions to get a proper replacement fitted on immediate return to his base. It's a good thing Malay five cent pieces were the shape they were and also thick enough – good old Cosford/RAF know-how – another smiling pilot on his way again.

On another occasion we had a visiting Mosquito to see to, right in the middle of a very heavy rain storm which flooded the whole of our dispersal area to a depth of three or four inches of rainwater, and the Mossie had to leave on schedule, the pilot and navigator were transferred from their road transport to aircraft by piggy-back mode (one can't have pilots trying to fly safely and properly with wet boots), happily to say the runway was not under water and she got off without any further ado.

Engineering by FEAF at Changi was not only done on Royal Air Force aircraft but also those of the French Air Force and often involved the tinsmiths of Station Workshops in producing replacement panels and cowlings. But this engineering facet was not a one-way street, they serviced our Dakotas at Saigon that were in transit to Kai Tak and provided their overnight protection and safety as well as providing transportation to accommodation for the overnight stay of the aircrews, as well as seeing to the refuelling and servicing support.

These aircraft that were used on the HK run usually left Changi about 04.30 so it was an early start, also they had to have sufficient 'Life Between Inspection' on all equipments and routine inspections, sufficient for the trip to Kai Tak and back. Changi was not only home base for the RAF but also a detachment base for an RNZAF squadron of Bristol Freighters and a squadron of RAAF Dakotas. These being Nos 6 Sqn RAAF and 41 Sqn RNZAF.

Things got quite busy for all at Changi during the Korean War. Service personnel off duty were asked to volunteer to do stretcher bearer duties, moving as carefully as possible those soldiers casevac'd from Korea. Some were taken up to Changi hospital (those that required immediate surgery) other were transferred to other RAF transport aircraft for onward transshipment back to the UK. It was obvious that the most arduous task was that of the 'in flight' medical staff, the nurses and doctors. As well as these functions Changi was to set up a Passenger and Freight Section, as it was becoming obvious that it would be more expedient to take on board 'Air Trooping' of both servicemen and their families.

In 1956 I found myself back at RAF Changi this time with a detachment of Canberras of No 82 Sqn to carry out a photo reconnaissance survey of part of the FEAF area. This second time I found myself within a few hundred yards of where I had serviced Dakotas but now they had Valettas. No 82 Sqn was to be renumbered as No 58 Sqn whilst we were at Changi – no propellers to watch out for, but jet effluxes and intakes of our own engines. Our dispersal was immediately adjacent to the Changi to Singapore road that crossed what was now the aircraft taxiway.

Whilst there we had to provide and supply our own first and second line servicing, having previously carried out all necessary changes to 'lifed' components and carrying sufficient spares in the event of an unserviceable part and using RAF Changi facilities if and as required. This did happen just before we completed our time on detachment. I had to use Changi's stores and workshop facilities to repair and fabricate a means of getting 'cooling air' from the leading edge of the mainplane to the generator drive gear-box.

CHAIRMAN's CONCLUSIONS ON MALAYA

Sir Michael Knight

I will take just a couple of minutes to try to draw together the threads of a very varied series of presentations and discussions. It is interesting to note that FIREDOG, the Emergency, was actually only the tertiary role of AHQ Malaya/224 Group. Throughout the period of FIREDOG the first priority was air defence against a possible attack by China so the main units were fighter squadrons and considerable expenditure was diverted into radar and other equipment. The secondary role was support of naval units and army field forces, the third being the Emergency.

One of the problems which we have not dealt with was the exercise of control in that AHQ Malaya was located at Changi, which was very remote from DofOps, GOC Malaya and the Federal Police Headquarters and a lot of inefficiency and confusion arose from that. At lower levels, the State and District War Executive Committees planned, organised and mounted nearly all counter-insurgency operations from 1951 onwards, but it wasn't until 1953 that air force representatives were appointed to the Operations Sub-Committees of Kedah, Negri Sembilan, Perak, Pahang and Johore, which was about three quarters of the Malay Peninsula! The most significant development was the establishment in 1953 of a Joint Operations and Intelligence Centre at KL. As to deployment, the location of air units was dictated by the availability of airfields, rather than tactical considerations.

In the end the attempt by the Malayan Communist Party to overthrow the Government of Malaya was comprehensively defeated. Chin Peng withdrew across the Thai border (presumably still clutching his OBE) with 7,000 zealots to wait in vain for another opportunity; but he had failed. The majority of captured terrorists opted for resettlement within the community, in preference to being shipped to China – and who can blame them? At the end of the Emergency Britain was able to hand over a prosperous Malaya to a stable, multi-racial Government. The British military campaign had provided a classic demonstration of counter-insurgency from which, after a stuttering start, all of the British Services, and the local Police, had emerged with justified pride and confidence.

For the record, the total of killed, captured and surrendered terrorists was 10,704, of whom 6,711 were killed. However, Government and security forces had also lost 5,138 killed and missing, so it was a very expensive campaign. It is difficult to assess the effectiveness of the

offensive air operations – or even to guess at how many CTs were actually killed by air power alone – and for this reason its use (as it always does, and as it is doing today in Kosovo) aroused controversy and some criticism. But there can be no doubt that the air campaign harassed the terrorists, kept them on the move, drove them into ambushes and generally sapped their morale.

The AOC of the day said, in November 1950, ‘If we ceased bombing I believe the enemy would be able to tackle our ground forces on their terms, as opposed to, at the present time, on the Army’s terms.’ Air transport support was absolutely vital in sustaining the ground forces in their jungle campaign, denying the enemy the opportunity to establish bases and contributing greatly to the battle for hearts and minds. Of more than 25,000 short tons dropped, less than 400 tons (that’s a mere ½%!) were not recovered by ground forces – that is an amazing figure. And finally, as Tom Browning has so vividly reminded us, the age of the helicopter had arrived and they proved their value with increasing effect as the campaign progressed, heralding a new era for all three services.

CHAIRMAN's INTRODUCTION TO KOREA

Before I reintroduce Henry Probert to set the scene, I would remind those of you who don't know, that the UK Chiefs of Staff were initially reluctant to commit forces to the UN enterprise in Korea, claiming that it was difficult to see whence the necessary manpower might be drawn. Yet, at the time, the RAF still had no less than 120 squadrons, although it has to be said that few were equipped with 1950's standard aircraft. Nevertheless, the Service was keen to have at least some of its aircrew experienced in jet-age warfare and it was decided to send a handful of specially selected young fighter pilots, of whom we have one in our number today, to the USA for conversion to the F-86 Sabre and subsequent secondment to the Far East Air Force in Korea. Air Marshal Sir John Nicholls – Flt Lt Nicholls as was – is reported to have found the whole experience most frustrating – because he couldn't shoot down a MiG until his, I think penultimate sortie, his 99th – but, at the same time, immensely satisfying. He described his base, Kimpo, as 'a dreary place, surrounded by rice paddies' and the atmosphere of the whole affair as 'rather like our participation in the Boer War; there was a vaguely early 20th Century feeling about the place.'

ROYAL AIR FORCE AND THE KOREAN WAR

Henry Probert

It was on 25 June 1950 that the Army of Communist-controlled North Korea crossed the 38th Parallel which divided it from the independent state of South Korea; the matter was immediately referred to the United Nations, which called for North Korea to withdraw. This order being ignored, the United States allocated its forces in the Far East, commanded by General MacArthur, to support South Korea on behalf of the United Nations. Other countries followed suit, including the United Kingdom, which placed ships of the Royal Navy in the area under MacArthur's command.

Thus commenced a war which was to last three years, cause 350,000 United Nations men to be killed or wounded, and cost the Communists casualties estimated at 1½ million. Moreover, among its many repercussions, it would cause the United Kingdom to embark on one of its greatest peacetime rearmament programmes; the Army would be heavily committed in the 1st Commonwealth Division, and the Navy would continue to contribute to the maritime force. Yet, to the surprise of many who today look back on these events, the RAF involvement was only slight, and to find out why we must look beyond the immediate situation in Korea.

Not least of the concerns of the Chiefs of Staff in their many deliberations was the campaign already being waged in Malaya, which we've already discussed. The possibility of the Chinese taking advantage of the Korean situation and attacking Hong Kong was another factor they had to weigh, and they judged it essential to provide the colony with a degree of air defence. But at the back of their minds was an even greater anxiety. Sir John Slessor, who knew much about global strategy from his wartime experiences and was now Chief of the Air Staff and giving a strong lead to his colleagues, makes it quite clear that they saw the Russian threat in Europe as paramount. At this moment every effort was being made to establish the NATO military structure and strengthen its admittedly inadequate forces in Western Europe in order to counter the Soviets, and with the RAF central to this process it was inconceivable that it should now be weakened; indeed to do so could well play into Russian hands. It is fair to add that the Americans appreciated this point of view, realising that Korea could not be viewed in isolation.

There was, however, one way in which the RAF could immediately

assist. With the initial Communist drive taking them rapidly southwards to the extent that MacArthur was soon left with little more than a bridgehead around Pusan, it was clear that the land forces would need the support of an effective naval blockade of the enemy's supply ports, and the Sunderlands of 88 Squadron, which were stationed in Hong Kong, were immediately sent to the Japanese base at Iwakuni, not far from Hiroshima, to assist the United States Navy in patrolling the waters around Korea. Their value in these operations being quickly proved, it was then decided that the other two Sunderland squadrons in the Far East, Nos 205 and 209 based at Seletar, should also join in; while obviously the Sunderlands had other duties over the waters around Malaya, their roles were not as closely connected to the internal security operations as were those of the local land-based squadrons and some of their effort could fairly easily be spared. Consequently a pattern emerged whereby each of the three Sunderland squadrons spent a month at Iwakuni in turn, and this continued for the rest of the war.

Another formal RAF contribution, albeit relatively minor, emerged a little later. The early stages of the war – the initial Communist advance south, MacArthur's equally rapid drive North almost to the Chinese border, and the enemy reconquest of the northern part of Korea using 'Chinese volunteers' – had been fought almost entirely by American and South Korean troops. By early 1951, however, a number of Commonwealth countries, including the United Kingdom, had agreed to contribute land forces, and as the fighting front began to stabilise near the 38th Parallel these units were combined into the 1st Commonwealth Division, among whose components were two units of Austers. No 1903 Independent Air Observation Post Flight was sent from Hong Kong, shortly followed by 1913 Light Liaison Flight, and between them they were able to provide up to 10 aircraft at any one time to operate over the immediate battle area spotting targets for the artillery, reporting ground activity and taking photographs. Flown by British Army pilots and serviced by a mix of RAF and Army personnel, they flew almost 3,000 sorties, often in extreme cold, from airstrips that varied between ice rinks, dust bowls and quagmires; two of the aircraft were shot down, both pilots being killed.

We must turn now to the main range of air operations, which were of course carried out largely by the United States Air Force, and in particular to the ways in which the RAF was able to influence them and contribute. Slessor, who had many friends in high places in the USA and not least in

the recently independent USAF, showed as might be expected a close interest in their air operations, and within two months of the start of the war plans were being made at his instance to send some senior RAF officers with experience of tactical air operations as observers. The two officers chosen were Wing Commander (later Air Vice-Marshal) J E Johnson and Wing Commander P G Wykeham-Barnes (later Air Marshal Sir Peter Wykeham-Barnes), each with a highly distinguished war record. Both went to Korea in the closing months of 1950, where the Americans gave them every opportunity to see what was going on and allowed them to fly a number of operational sorties. The reports they wrote pulled no punches and were read with interest and care by the Americans as well as by the RAF back at home.

In essence their criticisms were that air superiority, which had been quickly won at the start of the war, was now being taken for granted; that the principles of interdiction had not been understood early on; and that air power was being widely regarded as meaning merely close support for the land forces. It seemed to them that the United States Army was determined to place tactical aviation under the control of the ground force commanders, who felt that otherwise there was no guarantee that they would have any air support at all, and that this was causing serious differences with the USAF – a reflection maybe of the Army's resentment at the establishment of the independent USAF only three years previously. Whatever the truth of this, it is salutary to read Johnson's conclusion: 'One of the fundamental lessons is that at the outbreak of hostilities both Air Force and Army units were quite unprepared to participate in joint air-ground operations. The other is that the basic doctrine laid down at the end of World War II for air-ground operations is still valid'. Much had been forgotten in five years. Not all was criticism, however, and the two officers were convinced that the jet fighter-bomber was already proving its worth as a tactical weapon. A number of individual units came in for specific praise, not least 77 Squadron RAAF. Moreover a number of changes were made in the light of their comments, notably the introduction of better procedures for the co-ordination of operations and the allocation of targets.

By the end of the year, however, there was to be a major new factor, when the Chinese Air Force joined in the war from airfields in Manchuria, north of the Yalu River, and there was much pressure from MacArthur to be allowed to attack these bases. Slessor and the other British Chiefs of Staff had no doubt that air attacks on such targets would carry a real risk of

bringing the Soviet Air Force into the battle and thus a dangerous escalation of the war, and he was at pains to keep Air Vice-Marshal Bouchier, the senior RAF representative in Japan, fully informed of his views. It was Slessor too who was chosen to visit Washington in January 1951, representing the Chiefs of Staff, in order to explain to their American opposite numbers the British anxieties about the military situation and the threat to Anglo-US solidarity. In the event political approval for such attacks was never given, so for the rest of the war the Allied air forces had to operate in the face of an enemy air force whose bases were immune, and which, from mid-1951, was operating the MiG-15.

This was the first time that Western fighter aircraft had come face to face with the MiG-15. The Australians, who were flying the Meteor F8 (the standard equipment of RAF Fighter Command at that time), quickly found the MiG to be markedly superior and their role had to be changed to giving medium cover for bombers and ground attack aircraft in circumstances where the F-86 could give top cover. The Americans, who were operating the F-86 (with which the RAF's fighter squadrons in Germany were now being re-equipped), found their aircraft better matched, though still inferior in some respects, and most of the fighter combats of the rest of the war were between these two types. The RAF quickly realised that it ought if possible to take advantage of the situation to give some of its best pilots experience of jet combat, and Slessor personally asked General Vandenberg, the Chief of Staff of the USAF, to allow RAF pilots to fly with his F-86 squadrons. The result was that by the end of the war 21 carefully selected officers had served with the 4th and 51st Fighter Interceptor Wings, and they contributed many ideas which improved the tactics and operational effectiveness of the F-86 units. A further 29 RAF pilots served with 77 Squadron RAAF; one of them, Fg Off Keith Williamson, subsequently became CAS, and several others also reached very high rank eventually; the experience was not wasted.

The war ended in July 1953. Apart from the Sunderlands and Austers, the only RAF aircraft to be involved were the transport aircraft, principally Hastings, which helped to provide the links between Singapore, Hong Kong and Iwakuni and assisted with the unspectacular but essential role of casualty evacuation. Altogether 27 RAF pilots were killed in the air war while flying with the US or Australian squadrons, and two more were lost flying on exchange with RN carrier-based squadrons. The 43 who came back had gained invaluable experience both for themselves and to pass on

to others, and a number of more senior officers had contributed wise counsel. The RAF, notwithstanding its many other tasks in these troublesome years, had made a modest but significant contribution to the first major armed conflict since World War II.

WITH THE RAAF IN KOREA

Air Vice-Marshal John Price CBE DL



John Price joined the RAF as a cadet at Cranwell in 1948 and his early flying tours were with 11 Sqn in Germany and then 77 Sqn RAAF (Meteors) in Korea. He later switched to helicopters as OC 110 Sqn, returning to the fixed wing world when he commanded RAF Laarbruch. He was DofOps (Strike) during the Falklands imbroglio and finally ACAS (Ops). Since retiring from the Service in 1986 he has worked in the oil industry.

When the war started No 77 Sqn. RAAF was based in Japan flying the trusty P-51 Mustang. Many close-support and escort missions were flown from Iwakuni – just south of Hiroshima – until the squadron moved to Korea in October. 77 operated their piston-engined Mustangs with great skill and enthusiasm, albeit with an increasing sense of inferiority as their neighbours re-equipped with jet aircraft. The USAF sported RF-80s in place of recce Mustangs, F-86s appeared in the fighter squadrons and F-84s as mud movers. The search was on for a replacement aircraft.

British aircraft salesmen in those days must have had skills far superior to their competitors because in December 1950 the Australians chose Meteor F8s. At first these were Meteors with small air-intakes and lacking spring-tab ailerons – two shortcomings later remedied with some benefit to performance and manoeuvrability. The aircraft also lacked a radio compass. The US 5th Air Force (the air controlling authority in Korea) would not let aircraft operate without this kit, so the necessary boxes, wiring and controls had to be bought and fitted. The Meteor was sold as a fighter-interceptor – after all, that was its RAF role – and Flt Lts Joe Blyth, Frank Easley and Max Scannell and Sgt Reg Lamb, were detached to 77 to convert the Australians. Joe Blyth gave me my final handling test on Meteors at Driffield in 1950 and I can confirm that his forthright nature and command of Anglo-Saxon vernacular made him an ideal choice. The ‘Pommies’ arrived before the Meteors were ready, so they filled in time by flying Mustang sorties with 77 – Blyth flew over 30.

Eventually, men and Meteors were combat ready and on 29 July 1951,

16 aircraft flew top-cover to F-86s on a fighter sweep over North Korea. The aim of these sweeps was to tempt the Soviet-operated MiG-15s into combat to establish and maintain air superiority over the peninsula so that other operations, air and ground, could proceed unhindered. The MiGs were not tempted on the 29th, but duly obliged during August, shooting down a Meteor and damaging two others without loss. The squadron was withdrawn from fighter sweeps and given the task of bomber escort. But it was painfully obvious that even in this role the Meteors were no match for MiG-15s and after losing three aircraft in one engagement on 1 December the squadron was relegated to duties where MiGs were unlikely to be encountered.

Relegation rankled and a more aggressive role was keenly sought. This was found in meeting the need for more ground attack aircraft, not only to interdict the North Korean lines of communication but also to give close support to the often hard pressed ground forces. Although this was not a role in which the RAF used Meteors, the Australians decided to 'give it a go' since the aircraft was certainly robust, had two very reliable engines, four forward-firing 20mm cannon and, with some modifications, could carry up to 16×3 -inch 60 lb rockets. Local improvisation produced an alternative to the SAP heads – 5 gallon canisters of napalm, with uncertain and unpredictable ballistics. It was felt that the Meteors could be shielded from marauding MiGs by co-ordinating their operations with those of F-86s on fighter sweeps up to and along the Yalu River; by and large, this worked. The clinching argument for the change of role was that the Australians had the Meteors and they were not going to be exchanged. But a popular squadron song was 'All I want for Christmas are my wings swept back'.

Pilot losses on GA operations, which started on 8 January 1952, came almost entirely from ground fire, often unaimed, but always heavy, from the Chinese and North Korean troops who were present in very large numbers around every target – and everywhere else, for that matter. I think one flew into the *Flak* rather than the other way round. The loss rate was far greater than expected – four pilots in two weeks for example. After a while the RAAF faced a shortage of suitable pilots and asked for volunteers from the RAF. A lot of my friends were going and I didn't want to miss out on the party. So I volunteered and, after some delay, was on my way to join 77. Fg Off Bertie Booth, who had been on 79 Sqn flying Meteors, and I arrived at a snow-covered Iwakuni on Christmas Eve, 1952, just in time for

a memorable party as the first bunch of RAF pilots marked the end of their tour. Martin Chandler, Bill Holmes, Johnnie Mellers and Butch Hoogland were in great heart; Olaf Berg was unfortunately absent on RAF representational duties in a North Korean PoW camp, from which he later returned unbroken.

After a Meteor 7 check ride and eight solo air-ground gunnery/rocket sorties, which showed the Meteor to be an excellent aircraft for pointing at the ground – much more stable than the Vampire – a Gooney Bird took Bertie and me to Kimpo, the airfield a few miles north of Seoul where 77 was based. We lived in tents, heated by oil-burning stoves against the – 15°C cold; the Meteors were in sandbagged revetments where much of the servicing was done, unless the work called for a move into a canvas servicing shelter; Quonset huts, housed the Ops, Int and Briefing Rooms, flying clothing and, most importantly – the bar. There was no Crew-Room, nor was one needed as you were either working, flying or ‘at ease’ in the tented area. We ate at the USAF all-ranks chow line, a bus ride away on the other side of the base – miss the bus and you went hungry, no aircrew buses then! We showered once a week when the bath-train came. The ground was frozen in winter down to about 6ft and a steady wind blew from Siberia taking away the topsoil at a fast rate and raising the chill factor. In summer the temperature rose to around 30°C, which lengthened the Meteor’s take-off run considerably and raised its laden unstick speed to somewhere around 160/170 knots. Kimpo had one runway, but its capacity was sometimes increased by landing aircraft simultaneously in both directions – ‘everyone keep to the right’ was the message from Air Traffic.

The tour on 77 consisted of 28 days on operations followed by 2 days rest & relaxation (R&R) back at Iwakuni. Mid-way through the tour one had a 14-day break in Japan. The tour for USAF aircrew in Korea was 100 missions; the RAAF had, more sensibly I thought, chosen a tour length of six months during which one would fly between 100 and 140 missions depending on the tempo of operations. I saw some spectacular American ‘100 mission’ beat-ups at Kimpo; but on 77 one never knew which mission marked ‘going home’ – the CO came up to you after a trip and said ‘Right, pack your kit’, – and that took much of the stress (a word not then in vogue) out of the final days on the squadron.

But back to our arrival at Kimpo. We were given intensive briefings about the enemy’s order of battle and capabilities – particularly about his anti-aircraft inventory – and told about rescue and survival in the event of

being shot down. One or two small offshore islands were in Allied hands and the idea was to make for one of those; I was rather dubious about the likelihood of success as I couldn't see myself passing unnoticed in the Oriental crowd. The importance of making and keeping up-to-date a personal 'flak' map showing the location of all known AA sites was stressed time and again; I spent hours making and updating mine and never flew without it. It kept me away from many hot spots when going to and from targets. We were also briefed about tactics, but as we would be flying as Number 2s or 4s for some time, this was largely confined to start-up, take-off, form-up and recovery procedures; in the air it was a case of 'stay close but loose with your leader'. There was considerable emphasis on never flying on the same heading or at the same height for more than a few seconds, apart from when tracking a target, of course, so as not to give the AA gunners a steady aim. Radar-laid AA had started to appear and as their predictors seemed to be programmed that Meteors flew about 50 knots slower than was the case, there was a powerful incentive not to lag behind your leader and get caught by the 'undershoots'.

So, on 8 January 1953, I flew my first operational sortie as No 2 to Johnnie Rose – a combat-experienced pilot – on an area recce of the east coast to show me the SOP for a mission: departure, crossing into and out of North Korea, radio calls and IFF squawks, battle-formation positions, and so on. Somewhere in the sortie my ASI packed-up, so Johnnie led me in to Seoul's longer runway. This seemed a good idea at the time, but I changed my mind when I came under fire on finals from some keen USAF quad 40mm gunners whose aim, luckily, was no better than their aircraft recognition and I landed unscathed.

The daily operations routine started in the early evening when the 'FRAG' came from 5th Air Force HQ in Seoul detailing the squadron's tasking for the following day. Missions included:

- Combat air patrols over a designated area, usually covering a recce sortie or a strike on a target.
- Bomber escort missions – B-29s or -26s were the usual customers and they liked to see friendlies near at hand.
- Road recces, which involved flying along a specified road or railway line and attacking any targets spotted – if you were very lucky you might find a train, but as these normally spent the daylight hours in a

tunnel one's best chances were at first and last light.

- Strikes with rockets and guns against targets such as supply dumps, vehicle parks, fortified positions and, very occasionally a power station – always a good firework display when the RPs went in.
- Various alert states with various weapon loads to meet urgent calls for close air support.

With the FRAG in, the CO went into conference with his Flight Commanders and the Technical Officer to produce the following day's programme. One hung around the Ops Room until this appeared, chalked up on a blackboard, and then went to bed, bar or club depending on the time of one's personal appearance in the programme. If ground fighting was intense or 'hot' intelligence called for target changes, the FRAG might be revised several times during the night. The Ops Officer would then call the duty Flt Cdr to rejig the programme and warn those affected.

Nights were also broken if 'Bed Check Charlie' – a Po-2 biplane with incredible slow-flying characteristics armed with hand-grenades and hand-dropped bombs – was at work. One knew he was around when the base generators went quiet a few minutes before the sirens sounded. A secondary duty that I acquired was ARP Officer and trying to persuade Australian pilots to leave warm beds for the cold and dubious protection of slit trenches was one of my sternest missions in Korea. 'Charlie' flew so low that the base's AA guns could not be sufficiently depressed to be brought to bear and he flew so slowly that only a hand-held machine-gun in the rear cockpit of an AT-6 finally brought him down. I learned several lessons from those nights.

One self-started mission briefing with a check of the master *Flak* map and updated one's personal map as necessary. If it was a strike or a road-*recce* you gave particular attention to target defences or along the road. A quick check of the general Int picture and a look at the latest rescue and survival gen followed – those friendly offshore islands had a nasty habit of changing hands and it would have been embarrassing to walk ashore shouting 'I'm here,' only to find a different landlord. Then, about an hour before take-off, the formal briefing started: met, target, intelligence, weapon load, route in and out, other Allied activity in the area, any changes from tactical and/or procedural SOPs, were all covered. The mission leader then pulled it together, answered any questions and we walked to the

aircraft. Our flying clothing was a very mixed collection. In winter an early pattern US immersion suit, the sea temperatures were so low that, without protection, consciousness would last only a few seconds. Helmets were to personal choice – one could acquire an American P1 for a bottle of whisky – but I thought they were clumsy and vision-restricting, preferring a leather helmet in winter and a fabric one in summer so as better to see what was around. Survival equipment was fairly basic; the dinghy pack plus a few items in pockets – such as any penicillin which one could ‘get’ (even out-of-date stuff was reputed to be the best currency to carry in the North), and a shell-dressing. I carried a hunting knife in place of a pistol reckoning it had more uses than a gun and was quieter. A few words with the ground crew while doing the pre-flight and while being strapped in. Then the wait for engine-start time. There was usually one or two ‘spare’ aircraft in case of a wet start, but the Derwents were reliable starters. Getting out of the revetments in the right order called for care, as there were no passing-bays at Kimpo.

There were very few R/T calls during the pairs take-off and form-up into battle formation on the climb. On a road-recce we operated in pairs, going round the route at about 8,000 ft to be above light *Flak* and below the heavy stuff, looking for targets and attacking them as quickly as possible after sighting to reduce their chances of escape and also to get in before the *Flak* got organised. Having made an attack you never went round again.

Strikes by 16 Meteors were quite impressive. If the target was at extreme range the order was given ‘Drop ventrals, drop ventrals – GO’ and 16 ventral tanks plunged to earth. I often wondered about a poor North Korean peasant tending his paddy field when that lot arrived. If he survived, I reckoned he could start a good scrap-metal business. The SOP was for the first eight aircraft to attack with 60 lb SAP rockets to shake-up the target and the rest followed with napalm-headed ones to get fires going. 20-mm cannon fire was usually added; remembering to cease fire when a couple of red tracers showed that only 50 rounds remained. The exit from the target used as many routes as possible to deny the AA a stream of targets, but the mountainous terrain in most of North Korea imposed constraints.

After a multi-aircraft strike the formation re-formed at a pre-briefed rendezvous and a radio check called to see if anyone was missing. Any losses were reported back to control so that appropriate agencies could be alerted. I was not aware of a combat rescue organisation; but USAF and US

Marine rescue helicopters were used south of the front line.

The route back to Kimpo passed through several 'gates' to ensure safe passage, as the IFF was not always reliable. Often the Meteors were short of fuel and intentional single-engined recovery and landing was a well-practised technique. A squadron tractor or two would be at the end of the runway ready to tow in the 'empties'. Kimpo was a busy place during recovery as it was also the base for three USAF fighter squadrons, a TAC Recce Wing and a B-26 squadron and our return frequently coincided with that of the fighters and damaged aircraft diverting into the base. Air Traffic handled it all with great skill and an air of competency, which was most reassuring after a hairy mission.

The Squadron Ops and Int Officers were the first to de-brief the mission as a combat report had to be with 5th AF within the hour. A cigarette eased the chore, as I don't recall any tea/coffee being on tap in those days. The mission leader had the final word about the mission and distributed praise and blame as appropriate. Then it was away to eat, or to prepare for the next mission, or to update the *Flak* map, or to go back to the tent. The ground-crew meanwhile would refuel, rearm and ready the serviceable aircraft, patch minor battle-damage, and see what could be done to more seriously damaged aircraft to enable them to be flown, carefully, back to Japan for permanent repair.

The squadron was used mainly for daylight missions, although night take-offs and landings were quite common in order to keep maximum pressure on the enemy. In an effort to add more pressure on his supply routes some road-recces were flown at night if the weather and moon-phase were co-operative. Ground-attack at night in areas with 8,000 ft. mountains was certainly character forming. One flew singly round the track with about 10 minute spacing between four aircraft looking for lights on the ground and attacking them with rockets and guns. One night I was following two RAF pilots (Charlie Babst and Mike Whitworth-Jones – who won a DFC in Korea) when I heard Mike's cultured and somewhat pained English tones enquire, 'Charles, what have you bin doin' to these people – there's flak everywhere.' But Charlie was not the culprit – Mike had left his downward ident light on and so was providing a nice target for all the *Flak*.

Other RAF pilots whom I recall on 77 include Don Arnott and Chunki Ball, both won DFCs, Jimmy Cruickshanks, Jimmy Dolittle, Tube James and Taffy Rosser – all killed, Don Smith, Roy Smith, and Bertie Booth who was killed after only three weeks on the squadron. Given a record like that

– just about 50% killed – I was somewhat put out nearly 30 years later when a senior RAF officer said to me, ‘Of course, the RAF pilots only got to 77 when the war was over and you just sat around for six months.’ I thought of my friends, alive and dead, and of their achievements, I thought I must have dreamt of them. But I didn’t.

What are the lesson? I suppose they were the ones learned in WWII and again in the Falklands and in the Gulf.

- The importance of morale, and the need for realistic training.
- The need for air superiority.
- The need for up-to-date combat intelligence, promptly disseminated down to aircrew.
- The need for robust, reliable aircraft with bags of power and good all-round vision from the cockpit.
- Retain flexibility – in aircraft role, in mission planning, in tactics.
- Beware of aircraft salesmen – they can be just as dangerous as *Flak!*

FIGHTER OPERATIONS WITH THE USAF

Group Captain R J F Dickinson AFC



After graduating from 19 FTS at Cranwell in 1946 'Dickie' Dickinson flew his first tour on Spitfires in Palestine; thereafter he accumulated a very wide experience as a fighter and aerobatic pilot which few can match. He was one of a select band of RAF pilots seconded to fly the F-86 Sabre with the USAF in Korea. He flew with their 25th Fighter Interceptor Squadron, a unit of the 51st Fighter Interceptor Wing, and was awarded an American DFC.

As a lead into my talk on F-86 operations during the latter part of the Korean War, I am going to start with the selection process of the RAF pilots and the ensuing conversion to the Sabre in the USA before recalling Yalu sweeps and then offering my thoughts and comments on flying with an American squadron.

In the first instance, volunteers were called from experienced day fighter pilots from within Fighter Command then filtered down to about 24 – a number agreed with the USAF. In the case of myself and a distinguished colleague, Flt Lt Jock Maitland, it was the then great Wg Cdr Crowley-Milling who sent us on our way and was later to become Air Marshal Sir Denis Crowley-Milling.

The selected pilots were then interviewed by Air Marshal Sir Basil Embry at HQ Fighter Command in November 1952, before flying out to Nellis Air Force Base in January 1953. This was all brought about because the RAF did not have a suitable fighter at that time to match the MiG-15. Magnificent though the Meteor F8 was, it could not cope with high Mach Nos and the very high ceiling of the MiG.

In February 1953 I and a small group of pilots commenced a very intensive six-week conversion to the F-86E, comprising – dog fighting – tail chasing – formation flying – dive bombing – rocketing – air-to-air flag firing – night flying – and simulated sweeps of 4 aircraft, the latter with experienced bouncers. The staff pilots on all these training sorties were all highly experienced, and most had completed 100 missions on F-86s in Korea – they were all very good and put us through our paces.

After completion of the course it was off to Japan, where we were

allocated to our future squadrons in Korea. I was posted to the 25th Fighter Squadron at Suwon where there were already two RAF pilots – Flt Lt Jock Maitland and Flt Lt John Lovell.

On arrival at the Squadron, we were made very welcome and commenced our introductory flying programme before being let loose on Yalu sweeps. Amongst my mentors for my first few sorties were John Lovell and Jock Maitland who gave me an excellent initiation into the local inhospitable terrain as well as more dog fighting, tail chasing and sticking in as a Wing Man through every type of manoeuvre.

F-86 Missions. The prime purposes of the F-86 was to maintain air superiority over the Korean peninsula, and to destroy as many MiG-15s as possible in aerial combat. Air superiority involved escorting ground-attack and recce aircraft.

My first Yalu sweep was on 13 May, involving 48 Sabres, but no MiGs were sighted in our sector. This was repeated on 16 May, but although many MiG were sighted they were all well to the east of our area and flying above 50,000 feet so no contact was made.

Things were to change on 18 May, another Yalu sweep was planned. I was to fly No 2 to Jock Maitland, we were part of 24 aircraft from our squadron. We climbed up to 35,000 feet and toggled off our drop tanks – which we did on every mission. As we got to about 50 miles from the Yalu we checked our guns – my guns worked but my gunsight was u/s. I had a quiet word with Jock who said he had fuel feed problems, and in view of this we were going to abort and return to base. He then called a turnabout left. When we had passed through 90 degrees I saw four MiGs barrelling down on us from 8 o'clock high, I immediately called 'break left'; as I did this I saw three of the MiGs shoot past my tail unable to hold the turn, but the fourth MiG, pulling like hell, managed to almost get between Jock and myself. I thought he was going to collide with me so I slapped out my airbrakes and throttled back. By this time the MiG was filling my windscreen at about 50 yards. I pulled my trigger – still no gunsight but fired up his tailpipe aiming on my tracer. I got a number of hits upon which he broke hard left and dived steeply in a left spiral. I followed him down still firing. I was so stunned by everything that had happened in seconds that I failed to tell my leader what was happening and advising him to come out of his turn and cover me.

Whilst still firing at the MiG, who by now was really smoking, I heard

Jock call me to break left as there was a MiG firing at me. I then broke off my attack and turned hard left. A quick look all around confirmed there was no MiG behind me and that I was alone. My MiG was still spiralling down vertically still smoking heavily. By chance I saw Jock orbiting to the south of me 10,000 feet above. I joined up with him and we returned to Suwon. On our debrief Jock quite rightly chewed me up for not keeping him informed and at the same time told me that after he had seen me disappear down, he thought it was a MiG on my tail whilst in fact it was me on the MiGs tail! I learnt my lesson from that engagement. In a lame excuse, it was the first MiG I had ever seen close up – so nearly a disastrous mid-air collision and a lost opportunity to get a positive kill. I was credited with a probable.

I only fired my guns twice more in anger; once when flying Wing Man to my Squadron Commander, Major Giraud. He was chasing a MiG about 1,500 yards ahead when we were bounced by two MiGs at 7 o'clock high. I called a break left, but no reaction from my boss. I could see the lead MiG firing and his 37 mm cannon shells streaking towards my leader like flaming red tennis balls. He then switched over to me. I broke hard left then reversed on the MiG as he dived down and back to the Yalu River. I opened fire and got in a long burst but he was by now out of range.

On 18 June, I was briefed to fly No 3 in a formation of four aircraft led by Col Baldwin – our Group Commander. My No 2 had to abort on the runway so the boss said, 'OK, lets go as a three.' We climbed up through cloud and then descended back through cloud to 20,000 feet over the Yalu. As we came out into the clear I saw two MiGs right behind us at about 1,000 yards. I called break left and one MiG flew past my tail and another followed my leader in a very hard turn. I managed to get on his tail and started firing. He turned on to a North heading before straightening out and starting to burn. My leader was then covering me. I fired every round in my aircraft, the MiG started to spiral down and crashed near Oick-Tong. This was the last time I fired my guns in anger. I was credited with a kill.

The next three weeks I was involved in escorting F-84s on interdiction missions and US Navy Banshees on photo sorties. On 15 July, I was detailed to lead four aircraft on a low-level recce mission of the Antung MiG airfield complex at 1,500 feet. We flew up the west coast at 40,000 feet until over the mouth of the Yalu, then put our noses down in 'Finger Four' formation at about .95 Mach arriving near Antung doing over 600kts. I had staggered my four at varying heights to avoid the *Flak* which was

intense. I had binoculars round my neck to look out for new revetments on some of the airfields planned to receive Il-28 light bombers. My wing man was getting rather excited calling out very accurate *Flak*. I then turned slightly right – as I did this everything turned black followed by a very loud bang after which my aircraft turned on its back. I then realised my wing man had hit me as he was trying to cross under me. My aircraft decelerated from 610kts to 180kts but still continued to fly. I saw my wing man climbing away and disappear heading south. My 3 and 4 had to return to base because of fuel shortage. My Mayday had brought a few sympathetic calls of good luck, etc.

To my surprise, my aircraft continued to fly, although it would go no faster than 175kts at full throttle. As I crossed the coast, still with no MiGs around and no *Flak*, I made preparations to eject. I knew there was a small island about 50 miles to the south west – so I plodded down the coast well out to sea. After a while I saw the island with its long beach and which I knew was manned by US Marines.

I once again prepared to eject but my aircraft still handled okay and the engine kept going. To cut a long story short, I managed a successful wheels down on the hard sand. As I came to a stop, a few Marines emerged from dugouts near the beach and greeted me. I was returned to Suwon by light aircraft the next day, and back on Ops the day after. My wing man had returned safely without knowing he had lost half a tailplane. The war ended on 27 July, twelve days after this incident, so I suppose I was very fortunate in not ending up in a North Korean PoW Camp.

I believe it is worth recalling that I was leading eight Sabres on 12 August (after the war) up the west coast of Korea on an early morning mission, well out to sea, when we were recalled because of bad weather approaching our base. On arriving back overhead it was obvious that Suwon was weathered out and that we had no diversions. I had advised the operations staff that this might happen, but was firmly told to get airborne. After an abortive approach to Suwon I climbed back through terrible weather and rejoined the rest of my formation whom I had left at altitude and carted them off to Pyong-Yang-Do Island where we all completed successful wheels down landings on the beach except my wing man who had damaged his undercarriage. A Dakota flew up that afternoon with fuel and ground crew and we all flew back to Suwon the next day with the exception of my No 2 who returned in the Dakota.

At the same time as this drama was unfolding Jock Maitland was

leading eight Sabres on a similar mission up the east coast of Korea and was faced with an identical problem. After the weather recall he saw a small gap in the clouds with an airstrip visible. He dived his formation and under very heavy rain landed them all safely on a South Korean airfield with no damage other than some aircraft sliding off the end of the runway.

Another interesting mission took place after the war on 28 August, when I was included in a twelve-aircraft escort for two Banshee recon aircraft to photograph some Soviet airfields close to Vladivostok. We put on 200 gallon drop tanks, and joined up with the two recon aircraft and headed across Korea to the east coast then up to Vladivostok at altitude. The Banshees dropped into 1,000 yards line astern at about 25,000 feet for the photo run and we flew top cover at 35,000 feet. We expected swarms of MiGs and possibly flak but surprisingly saw neither. The mission was, of course, completed out to sea and took 2¼ hours.

The F-86. The Sabre was a truly magnificent aircraft and a delight to fly. Sitting up in that excellently positioned cockpit, I felt I was king of the castle, and would survive in any situation and, perhaps immodestly, get a few more MiGs if the war had continued a little longer.

One of its greatest assets was the all-flying tail. One could take it up to 40,000 feet, turn it on its back and pull through still maintaining full elevator control with the Mach indicator hovering just over Mach 1.

The bubble canopy with its superb rear view was an invaluable asset.

The ailerons were crisp at all altitudes and speeds. It was very docile in the circuit and landing. Its constraints lay in its slight lack of engine power. As far as armament was concerned, the .5 machine guns did very well, but two or four 20mm cannons would have been much more lethal – just recalling the later Spitfires and Me 109s.

Tactics. We would often start off a sweep with 48 aircraft sub-divided into fours. Once MiGs were sighted, the fours would spread out until close contact was made then split into pairs during combat, covering each other if possible. It was the wing men's task to cover their leaders and only shoot in extreme circumstances.

On a number of occasions, we sighted MiGs flying in trains of about sixteen aircraft at heights of above 50,000 feet. They would sometimes detach four or more aircraft and dive down on us – have a quick burst, often out of range, and then 'high tail' it off to the north for the sanctuary of China. On these occasions we had few alternatives other than to wait until

we were bounced then break at the appropriate time – reverse quickly as they shot past our tails and have a going away shot. Once they turned and tried to tangle with us, they usually lost out and were shot down.

One of our biggest problems was fuel. We had to cover 200 miles of hostile territory to get to the combat area of the Yalu; this left us with only 15 minutes for combat before ‘bingo’ time and the return 200 miles to Suwon.

Our kill ratio was about 12 to 1; the total number of MiGs destroyed in combat was about 790. I finally completed 42 missions before the war ended.

The quality of pilots was excellent and similar to those I had known on RAF squadrons but this, of course, was the testing of USAF pilots in a real hot war. I would like to pay tribute to those RN, Army, and RAF pilots who lost their lives in Korea and those who suffered as PoWs of a voracious and cruel enemy. With many thanks to the USA and the USAF who made us so welcome as ‘Brothers in Arms’.

SUNDERLAND OPERATIONS IN KOREA

Air Vice-Marshal G A Chesworth CB OBE DFC



George Chesworth began his RAF career as a National Serviceman in 1948, his first flying tour being on Sunderlands with 205 Sqn which involved operations during the Korean War and the Malayan Emergency. Subsequent flying tours include being a Flight Commander, and later CO, of 201 Sqn when he introduced the Nimrod into squadron service. His final appointment was Chief of Staff at HQ 18 Group. During an active retirement, he was appointed Lord Lieutenant for Morayshire in 1994.

To be involved in the first post World War II conflict on one's first tour was very exciting. We flew a lot, visited many fleshpots around the Far East, collected three campaign medals in as many months and life was good. I had a memorable tour and was very pleased to be asked to come here today to talk about Sunderland operations in the Korean War. That is until I came to research what had really happened! As was so often the case with Royal Air Force activities at that time, Press coverage was minimal and little has since been written about the Far East Flying Boat Wing. And after nearly fifty years, memories of the important issues fade.

By the beginning of July 1950 No 88 Sqn had established a detachment at Iwakuni and opened the batting on 18 July when Flying Officer Brand flew the first patrol. This was to be the first of more than 1,100 sorties and some 12,500 hours flown by the three Sunderland squadrons during the campaign.

This may not sound like much of an effort, but as the establishment of each squadron was five aircraft and five crews, and the strength, particularly of crews, was often below the establishment – I believe the achievement was very creditable.

To achieve the rate of effort to meet the task required it was necessary to concentrate the resources of the three squadrons. This could only be achieved in Singapore where base facilities were already in place to support Nos 205 and 209 Squadrons. No 88 Squadron moved to Seletar and the three squadrons formed the Far East Flying Boat Wing under the command of, the then Wing Commander, Dudley Burnside. This arrangement worked

well and theoretically meant that each squadron spent one month in three at Iwakuni.

In the Korean theatre the Sunderlands came under the operational command and control of the US Navy from their base at Sasebo. Day to day OPCON was exercised from an American flying boat depot ship moored in Iwakuni Bay. This ship also controlled the USN Mariner flying boat squadrons based at Iwakuni and engaged in the same operations as our Sunderlands. Their flying was closely co-ordinated with ours and we worked together to a common flying programme. All this was before the days of NATO type procedures, but as far as I can remember it all seemed to work well and to the satisfaction of the US and Royal Navies.

The essential task, working in co-ordination with surface vessels as well as USN patrol aircraft – which included land based types – was to maintain the blockade of the enemy's supply ports mentioned by Henry Probert. It was also necessary to protect our own convoy routes across the Tsushima Straits between Japan and South Korea. Although the Tsushima sorties were designated Anti-Submarine Patrols I do not think a submarine threat was ever established. Be that as it may, there was a threat to our ships from surface vessels and mines and as the only sensors we had were a sometimes temperamental radar and the Mark One eyeball the net effect, from the crews, point of view, was the same.

Weather reconnaissance was a task usually flown at night. In the main we operated in the Yellow Sea as far as the Shantung Peninsula and north towards Port Arthur. The most exciting part of these sorties was obtaining sea level pressure readings using the rather unreliable radio altimeter. The weather reports were passed by VHF to ships in the area and W/T to the controlling authority. The information was used in the preparation of the meteorological picture for planning air operations over Korea. To the east of Korea, in addition to weather recce, we operated in support of Task Force 77 the, largely USN, fleet. These sorties took the Sunderlands to within some 50 miles of Vladivostok. Daylight weather reconnaissance was also flown in the Shanghai sea areas. These weather patrols were often associated with supporting operations when the ships were refuelling.

On all sorties the aircraft were armed with depth charges and a similar quantity of 0.303 and 0.5 ammunition to that carried on FIREDOG operations over Malaya.

But what of the enemy? In the early months of the war, particularly when operating well north in the Yellow Sea the Sunderland was judged to

be at risk from hostile aircraft. As a result air gunners were reintroduced into the crew. However I am not aware that any of our aircraft were attacked. Indeed the only occasion I was ever fired on was by the US Navy ship I had been flying round all night and who had just given me permission to return to base!

The only real enemy was the weather, and in the winter the associated cold. Frontal type weather with rain and often very low ceilings posed a problem in the context of the grim and forbidding terrain in and around Korea and, in particular, southern Japan. At Iwakuni itself the safety height in the local airfield area was 4,000ft and frequently the only way in and out of the bay was either over the top at 4,500ft or by crawling through the narrow gap visually at about 100ft.

On the face of it climbing out should not have presented a problem. In the warmer weather it did not. But come the winter it was not uncommon to have severe icing conditions from ground level. Unfortunately the rubber boot type wing de-icers of the Sunderland proved very difficult to maintain as the rubber deteriorated very quickly due to the extremes of temperature between Singapore and Japan. All this meant that Sunderland winter flying could be quite exciting.

Cold was something else which created significant difficulties for the aircrew as temperatures of minus 20°C were regularly experienced. The Sunderland had no heating and, until well into the second winter of the campaign no effective cold weather clothing was available.

In those temperatures, hot drinks and food were essential to maintain crew efficiency. The snag was that the only way to get a hot drink or meal was to consume it in the galley – straight from the saucepan. Otherwise it was cold by the time it arrived at the crew position!

And the tally at the end of the war.

- One aircraft and crew lost on a transit flight when it crashed on Formosa in bad weather.
- One aircraft crashed on alighting at night at Iwakuni in bad weather with the loss of four crewmen.
- One aircraft destroyed at Iwakuni when it was prevented by unserviceability from evacuating during a typhoon.

On the positive side, one OBE, and twenty-five DFCs and DFMs were awarded, together with many Mentions in Despatches.

I would like to finish with Gp Capt Burnside's concluding remarks from his 1993 article about the Far East Flying Boat Wing in *75 Eventful Years*.

'At the age of 81 one's memory of events of forty years ago fades and details of many happenings, however exciting, become blurred. Not so, however, when it comes to recalling the squadron spirit of a first class Royal Air Force unit. In my case I was indeed lucky to have been associated with three such squadrons, albeit for a short time, and I will never forget the unstinting support, encouragement, endurance and fearlessness of the air and ground crews of 88, 205 and 209 Sunderland squadrons in the Korean conflict.'

I echo that tribute – especially to the ground crew – and particularly in the winter.

CASUALTY EVACUATION BY AIR

Air Vice-Marshal W J Herrington CB

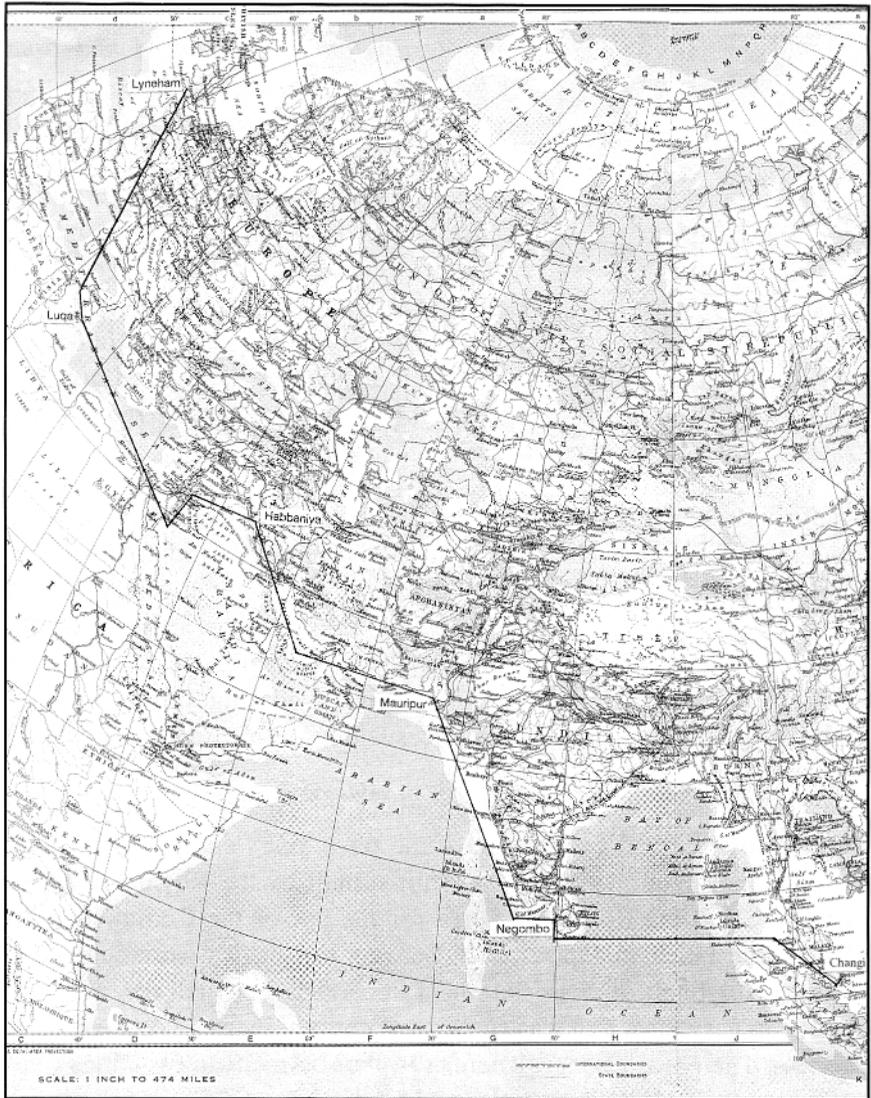


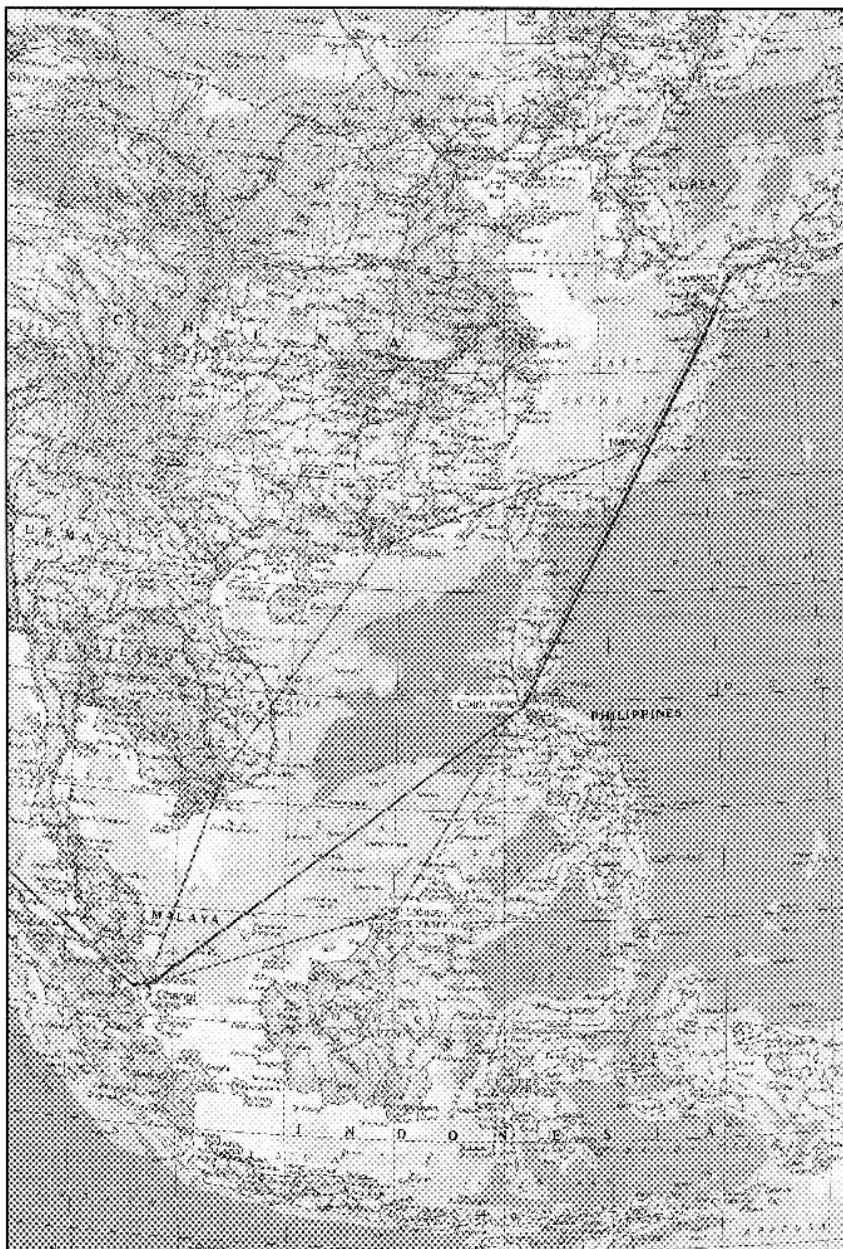
John Herrington was commissioned from the RAF College Cranwell in 1949. His first tour was with the Transport Command Hastings Force at Lyneham, whose scheduled routes included the repatriation of casualties from the Middle and Far East. He later went on to fly Canberras and Victors in the radar reconnaissance role. His staff appointments include an exchange tour with the USAF and his final post was as Director of Service Intelligence at the MOD.

The first British Army units, two battalions of the 27th Infantry Brigade from Hong Kong, moved to Korea in August 1950 and were immediately thrown in to the critical defence of the Pusan perimeter, the last foothold on the peninsula. British reinforcements continued to arrive from the United Kingdom; 28,000 British troops served in Korea, reaching a peak of 16,500, making the largest national contingent in the 1st Commonwealth Division. The first casualties were being evacuated by the autumn of 1950.

Two important elements which made an air casualty evacuation service possible had been set up some three years earlier. First was a hospital at Iwakuni, south of Hiroshima, built by the Royal Australian Air Force and the Royal Air Force for the use of the Commonwealth Occupation Force in Japan which became the British Commonwealth General Hospital. It was the main receiving hospital for all non-American casualties and was run almost entirely by the RAAF medical services. There was also an airfield at Iwakuni. American casualties were processed through their own clearing hospital some 25 miles distant at Kure, and their own casualty evacuation service.

The second element was the air trunk route from the UK to Singapore, for the reinforcement of bases in the Far East set up in 1947 under the direction of the Deputy Director Operations (Air Transport) of the day, Air Commodore Rainsford, who sadly died earlier this month. The route distance, coupled with the performance of current aircraft in service, represented a five-day haul using a number of existing RAF airfields as staging posts, Luqa (Malta), Habbaniya (Iraq), Mauripur (Karachi),





Negombo (Ceylon), and Changi (Singapore). It had been used for the movement of men and equipment to Singapore for the Malayan Emergency: in August 1950 the RAF Director General of Medical Services (DGMS) directed that it should be brought in to use 'forthwith' for the Casualty Evacuation scheme from Korea.

Aircraft available for a casualty air evacuation service were the long-range Hastings of the UK-based squadrons of Transport Command, and three squadrons of Dakotas based in Singapore which were already involved in the Malayan campaign. In this role the Hastings could be fitted with a total of 32 stretchers, in tiers of four, mounted in webbing supports fixed between the floor and the top of the fuselage, or a combination of sitting patients and stretchers. The on-board medical team from UK consisted of two Flight Sisters and two medical orderlies. The Dakota, and the Valetta which replaced it in 1951, carried fewer patients and the medical team were often only one Sister and one orderly.

There were three stages in the casualty evacuation process. First the move of personnel from the Korean peninsula. Under a United Nations agreement (Operations Instruction No 10 dated 1st March 1952) the responsibility for the evacuation of casualties of all nations from the battle area to the two major hospitals in Japan rested with the United States 8th Army. The British Army had its own field hospitals and in 1952 a team of RAF doctors and medical orderlies was established near Seoul (K16).

Stage Two was from Iwakuni, where the RAF airlift began, to Changi. Following DGMS's Directive, the first Dakota flights took place in August 1950, the first Hastings arrived in September 1950 and in February 1951 a regular pattern of Casualty Air Evacuation (Cas A Evac) flights was established which continued throughout the war: one Hastings flight per week provided by aircraft and crews detached from the UK to Changi operated via Clark Field (Manila) to Iwakuni. Singapore-based Dakotas also provided one flight per week but, because of their shorter range, they used intermediate stops in Labuan, Hong Kong and Naha, off Okinawa. By 1951 Valettas frequently did two return flights per week.

On arrival at Changi from Iwakuni casualties were admitted to a transit ward opened in 1951 by Lady Fogerty and named Wroughton Ward. There they were medically assessed before being cleared for Stage Three of the evacuation process, the onward flight to the United Kingdom in a UK-based Hastings with a Cas A Evac-trained team from the RAF Hospital at Wroughton. The UK Flight Sisters assumed responsibility for the group of

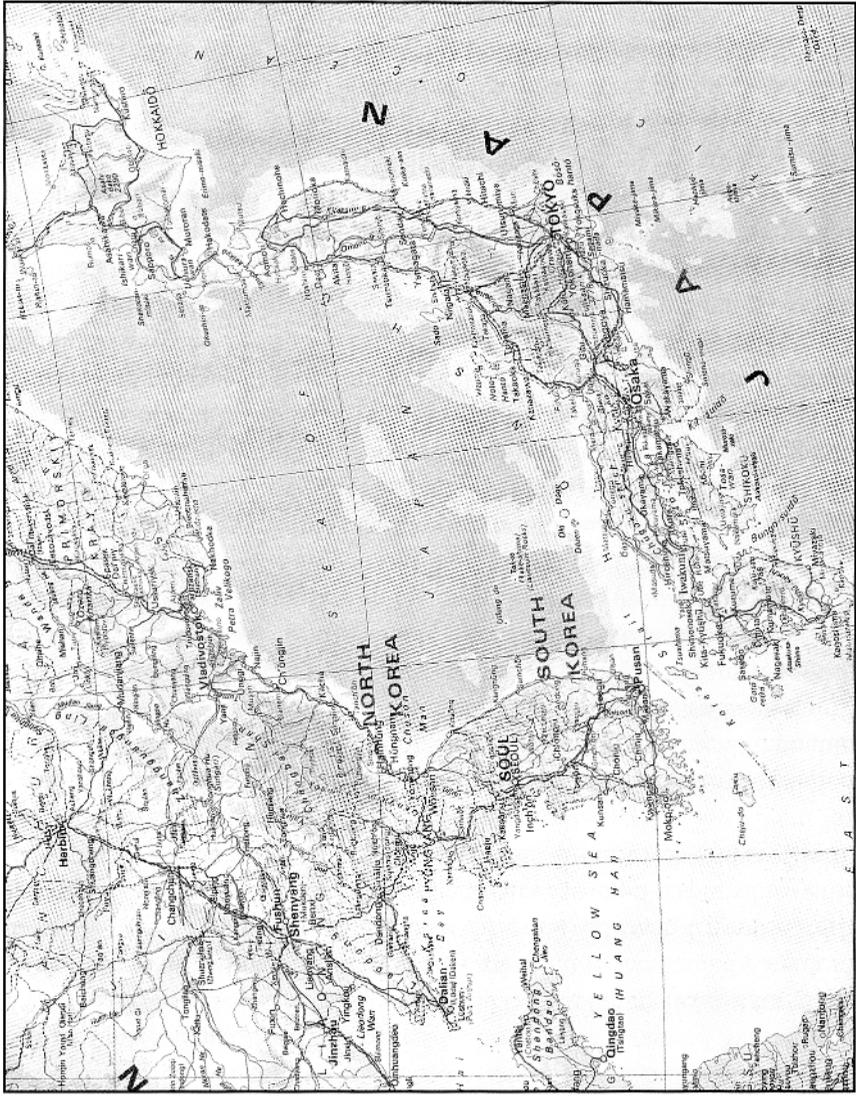
patients and their records, and the aircraft was prepared with the appropriate numbers of stretchers and seats.

When the list of patients had been determined, details were signalled to the hospitals at each of the staging posts and to Wroughton, to enable them to make the necessary preparations for reception and overnight stop, numbers of beds, ambulances and any special treatment required. As further confirmation, a few hours into each leg of the journey the Flight Sister passed an update on patients' details to the wireless operator who transmitted it to the next destination, where the local Medical Officer again checked the patients to ensure there had been no deterioration in their condition: occasionally a patient had to be offloaded at an intermediate stop. Flight Sisters were responsible for overseeing the collection of patients from the hospitals, positioning them in the appropriate place in the aircraft depending on the nature of their condition and any in-flight treatment, and the reverse procedure at each stop. This lengthy routine, added to the average flight time of seven hours in noisy, unpressurised aircraft constituted a tiring schedule, one reason for separating the Singapore-Iwakuni section of the journey.

On arrival at Lyneham the patients were transferred to the casualty clearing wards at Wroughton Hospital: after an overnight stay they were transferred to other predetermined Service or civilian hospitals, an essential revolving door operation because Wroughton was also receiving Medevac flights from other overseas areas – mainly the Middle East and Germany.

These arrangements satisfactorily met the demands of the casualty evacuation service until June 1951 when the Hastings schedules were interrupted by events in the Persian Gulf – the nationalisation by the Iranian government of British oil interests at Abadan. Britain moved military reinforcements, including almost the entire Hastings force, to Libya and the Canal Zone as a show of determination: from July to mid-November Hastings schedules were replaced by civilian Yorks which took over the Cas A Evac role.

There was another complication: a number of European countries, France, Belgium, Holland, Turkey and Greece contributed fighting units to the UN Command, but only the RAF operated a coherent casualty evacuation service to Europe. The RAF therefore agreed to bring back these nations' casualties, offloading them at appropriate stops en route. The mix of nationalities created a communication problem for the Flight Sisters.



Iwakuni produced a foreign language hand out of key phrases, but this did not really solve the problem as the Flight Sisters could not always understand the replies.

It has not been possible to reach a precise figure for the number of patients flown by the Royal Air Force on what became an international casualty evacuation service, but there are a number of pointers. By June 1953, 11,000 non-American personnel had been moved from Korea to the Commonwealth General Hospital under the UN Agreement: a further 2,900 arrived after the war had ended plus increasing numbers of repatriated prisoners of war who were also flown home by the RAF. Undoubtedly some less seriously wounded soldiers returned to their units; some were evacuated by sea and Australians returned home on their own limited service. The RAF operation continued through 1954 and the last flight departed Iwakuni on 4 April 1955: it had carried more than 8,000 personnel and, notwithstanding its many complexities, worked smoothly and efficiently and did not lose a single patient. The Royal Air Force Casualty Air Evacuation service played a significant support function in the Korean War.

CHAIRMAN'S SUMMARY ON KOREA AND INTRODUCTION TO KUWAIT

Sir Michael Knight

I will try, very briefly, to bring these varied experiences into some sort of context. As you will appreciate, the RAF did not become deeply involved in Korea, but many of its people were and its Sunderlands, in particular, performed admirably. Furthermore, although we are not really concerned with the Fleet Air Arm, we should acknowledge that they played a large part in this campaign, flying Seafires, Fireflies and Sea Furies from HMS *Ocean*, *Theseus*, *Triumph* and *Glory*. By late 1950 land-based United Nations aircraft, mostly USAF of course, were flying almost 700 sorties a day, with another 300 coming from the carriers. You've heard at first-hand about the Meteors and I believe that one RAF Exchange Officer recorded as many as 114 operational Meteor sorties in six months, five of them in one day! However, the battle for air superiority remained critical throughout. As we have heard, the F-86 played a vital role in this. Chinese and North Korean air forces had an estimated 850 MiG-15s available on their bases in north-west Korea and across the Yalu. By contrast, the USAF had just two interceptor wings, each with 75 F-86s. They were almost always outnumbered and they were operating in airspace which was generally very favourable to the enemy. Nevertheless, the Sabre remained unchallenged as the outstanding aircraft of the Korean War. Of 900 enemy aircraft claimed as destroyed by USAF pilots – plus perhaps a dozen by Brits – no fewer than 792 were MiG-15s destroyed by Sabres for a loss of 78 F-86s. This very creditable ratio of 10:1 reflected, I am sure, superior tactics, superior training and superior leadership. Interestingly, if somewhat ironically, both the F-86 and the MiG-15 were powered by derivatives of the Rolls-Royce Nene – because we'd given the Nene to the Russians at the end of the War! Are we not generous to a fault?

Now we are going to move south and west from Korea to Kuwait – today's final topic, the British response to the crisis of 1961. This was an altogether different operation – no shots were fired in anger by any of the forces involved and some have dubbed it 'the operation that never was', but I can assure you that for those involved at the Ministry of Defence, Middle East Command and serving with the units which were deployed this was a real crisis, and one which had the potential to become a major conflict at the northern end of the Persian Gulf. Quite a lot was learned from this

exercise and for those with long memories there were distinct overtones of the more spectacular events of 1990 and '91. To set the scene on the background to British interests in, and the 1960s version of the Iraqi threat to, Kuwait, may I again call on our invaluable mastermind AVM John Herrington.

OPERATION VANTAGE – KUWAIT 1961

Air Vice-Marshal John Herrington

On 25 June 1961 General Kassim, the Prime Minister of Iraq, claimed that, since Kuwait had formally been part of the Ottoman province of Basrah, it was an integral part of Iraq. (It was, of course, precisely this same territorial claim which Saddam Hussein invoked to justify his occupation of Kuwait in 1990.) Britain, through a treaty obligation to maintain the independence of Kuwait, was drawn into a potentially major crisis in the Gulf. But how had Britain become so embroiled in the affairs of this small, remote state?

First, there was a long history of involvement in the Persian Gulf area to enhance and protect the increasing trade with her expanding eastern empire. Secondly, in the 19th Century it had been necessary to bolster the declining authority of the Ottoman Empire against the perceived threat from Russia. As part of these policies, Britain entered into a series of treaties with many of the small Gulf states, offering assistance in exchange for trading facilities. In particular, in 1899 she negotiated an 'Exclusive Agreement' with Kuwait. With the mandates she acquired after the Great War she became even more closely involved with Palestine and Iraq.

Thirdly, the discovery of oil in large quantities in the Gulf in the 1930s gave a new dimension to the strategic importance of the area as it would eventually become the UK's major source of supply. By the 1950s the development of her huge oil resources had made Kuwait so wealthy that her status as a *de facto* British protectorate was no longer acceptable – to either country. On 19 June 1961 the two governments signed a new agreement which recognised the sovereignty of Kuwait but reaffirmed Britain's readiness to provide assistance in an emergency, if asked to do so by the Kuwaiti Government.

Prior to General Kassim's statement there had been no significant threat to Kuwait, a fact confirmed by intelligence assessment as late as 12 June. Nevertheless, among the thirty-odd contingency plans sponsored by the regional British military authorities was one for the reinforcement of Kuwait at the request of its ruler – Operation VANTAGE.

Kuwait was remote and vulnerable to attack by armoured forces across the open desert to the north. The plans assumed, however, that there would be a period of warning, because there might be an attempt at insurrection and it would take several days for Iraqi forces to deploy to the Basrah area.

British Command Structure in the Gulf Region

That then was the background to Britain's presence in the region. We now turn to the command structure and the resources available to meet any crisis which might arise in the area.

By 1961, a two-year experiment in unification had matured into Middle East Command. The CinC was Air Marshal Sir Charles Elworthy, whose headquarters were in Aden. Also in Aden were two of the subordinate single-Service formations, HQ Air Forces Middle East (AFME) and HQ Land Forces Middle East (LFME). Flag Officer Middle East (FOME) continued to reside at HMS *Jufair* (Bahrein) until 1963.

Middle East Command covered a vast area, stretching from Kenya to the head of the Persian Gulf. Its modest military resources, which I will outline shortly, were located mainly in Aden, Kenya and the Gulf. Aden to Kuwait is 1,500 miles, Nairobi to Kuwait 1,900 miles direct. The problems of distance were compounded by the total lack of surface links between Aden and Kuwait. Everything had to be moved by sea or air.

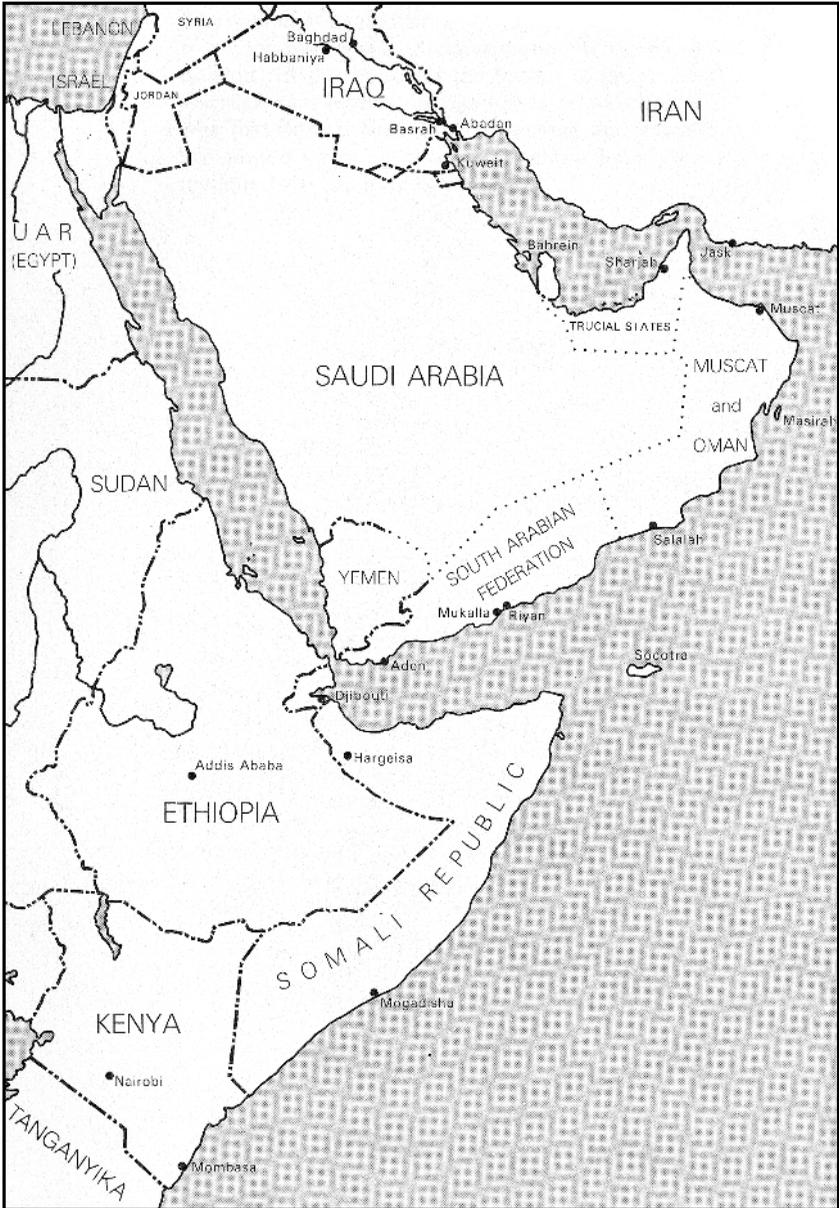
Another major deficiency was the absence of landlines. All communications had to be relayed by wireless – teleprinter or W/T – by mail or by hand. While the available channels were adequate for routine traffic, they were insufficient to support a substantial operation and this became a major problem as the reinforcement proceeded.

All reinforcements from outside the theatre would have to be transported over immense distances; even Cyprus was 1,800 miles by the shortest practical route. The VANTAGE plans assumed a four-day build up of British forces in Kuwait, airlifted from Cyprus and the UK, but movements were, as always, dependent upon obtaining overflight clearance from the countries en route: UK to Kuwait is 3,800 miles via Turkish and Iranian airspace; 5,000 miles via Libya and the Sudan and 7,000 miles via Nigeria and the Congo. As we shall see, when both Turkey and the Sudan unexpectedly imposed overflight bans when these were requested on 30 June, the planning schedules were seriously disrupted. Finally, the distance from Singapore, source of naval reinforcement, was 4,300 miles.

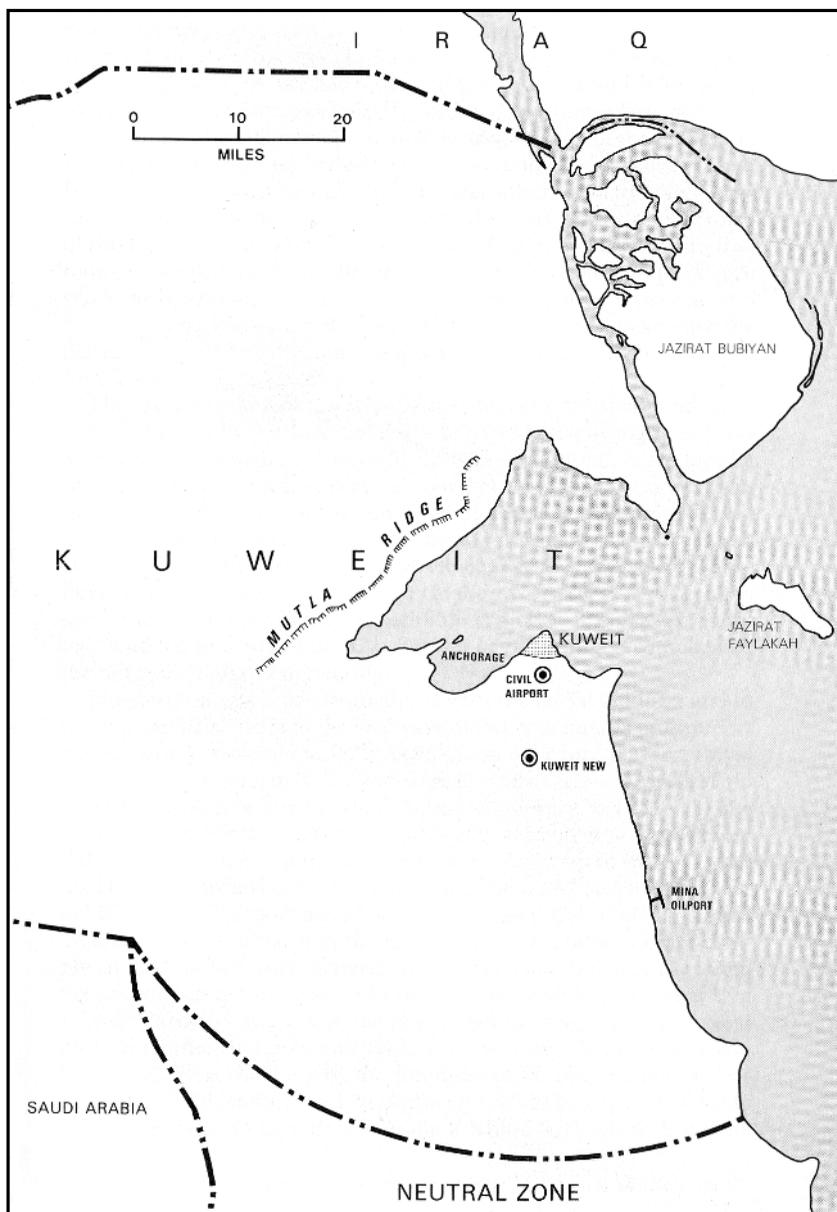
Forces Available in Theatre

For the immediate reinforcement of Kuwait, the CinC had the following forces at his disposal:

- a. Royal Navy – The Persian Gulf Squadron of three frigates and the Amphibious Warfare Squadron of four LCTs. In addition an LST had



The Middle East



just arrived to deliver a half-squadron of Centurions to replace those on board the in-theatre LCTs. 45 Commando was available in Aden.

b. Army – Two battalions of infantry with HQ 24 Brigade in Kenya; tank and armoured car crews in Aden for the armour afloat at the head of the Gulf and in Bahrein. There were two companies of infantry actually in Bahrein where there were substantial stocks of pre-positioned military equipment and supplies.

c. Royal Air Force – The principle offensive element comprised two fighter/ground attack squadrons of Hunters (No 8 Sqn at Khormaksar and No 208 Sqn at Eastleigh); four Shackletons of No 37 Sqn and a mixed transport force of a dozen Beverleys, six Valettas and sixteen Twin Pioneers.

Reinforcements ex-Theatre

a. Royal Navy: HMS *Victorious* east of Singapore with No 803 Sqn (Scimitars), No 892 Sqn (Sea Vixens) and No 849 Sqn (Gannet AEW). HMS *Bulwark* with 42 Commando embarked was at Karachi on passage to the Persian Gulf.

b. Army: 2nd Parachute Battalion in Cyprus and a variety of support troops, most of whom would have to come from the UK.

c. RAF: Nos 88 and 213 Sqns with Canberra B(I)6s and 8s in Germany and No 13 Sqn with Canberra PR 7s in Cyprus.

Deployment. On 26 June, the day after General Kassim's declaration, forces assigned to VANTAGE were placed on four day's readiness, but the order to implement the movement plan was not given. On the 27th and 28th, the Military Attaché in Baghdad advised that Iraqi armour and infantry units were being deployed towards Basrah. They were assessed as being capable of attacking Kuwait but their actual intentions were not known.

Without a formal request for assistance from the Emir, the CinC could not move into Kuwait, but on 29 June he ordered preparatory moves for elements of all three Services. In particular, the two Hunter squadrons were moved to Bahrein and the Canberras to Sharjah. Most of these moves were complete by the evening of the 30th. That night the Kuwaiti Government formally requested British intervention.

Implementation. Key to the success of VANTAGE was the rapid deployment of sufficient troops to hold a defensive line on the Mutla Ridge to cover the arrival of additional forces. This screen was planned to comprise two infantry battalions, a squadron of tanks, a squadron of armoured cars and both Hunter units. The infantry commitment was to be provided by 42 Commando from *Bulwark* and a battalion of the Parachute Regiment flown in from Cyprus. The deadline for completion of this phase was 2 July.

At this crucial juncture Turkey and the Sudan both imposed overflight bans on troop carrying aircraft, which meant that the shortest route to Kuwait from the UK and Cyprus now involved a long haul through Central Africa and Aden of about 7,000 miles. The CinC's options were to delay implementation until the troops from Cyprus could be delivered, or to go ahead and make up the deficiency by moving 45 Commando up from Aden. A delay would have been unthinkable after the Ruler's request. The CinC decided to proceed with the forces at his disposal. The initial, albeit considerably rearranged, deployment was completed on schedule. On 2 July the CinC moved to Bahrein where a JOC was established in HMS *Jufair*, although tactical command was actually exercised from field headquarters set up within Kuwait. The chain of command worked very well, most of the difficulties which did arise being due to the overloading of communications facilities.

The Sudan lifted its ban and the Turkish restriction was soon reduced to a ban on daylight overflights. Even so, this still imposed severe constraints on the shuttle service that had to be set up to move the troops from Cyprus but, despite this considerable complication, the Paras were in Kuwait by 6 July. Thereafter the air transport effort concentrated on bringing up the additional troops from Kenya. The force committed to this activity peaked on 4 July when, in addition to AFME's own Beverleys and Valettas, there were fourteen Britannias, twelve Beverleys and twenty-seven Hastings of Transport Command in theatre, plus three DC-4Ms of the Royal Rhodesian Air Force and two more which had been chartered from East African Airways. To quote the official history, 'The flexibility shown by Transport Command in switching aircraft and routes to meet the changed circumstances was quite outstanding.'

Completion. Notwithstanding all the problems, in round figures, by 9 July, 4,000 soldiers, 1,000 marines and 600 RAF personnel had been deployed

within Kuwait in addition to the local forces. That same day HMS *Victorious* arrived with her Sea Vixens to provide air defence cover. The two Hunter squadrons were in Kuwait for close air support operations and there were PR Canberras of No 13 Sqn at Bahrein plus adequate numbers of Canberra bombers available for interdiction or counter-air operations from Sharjah and/or Cyprus.

This represented a well-balanced and substantial force, although it must be said that the prevailing conditions might well have blunted its edge. Sharjah's natural surfaced runway, for instance, soon became deeply rutted and it is questionable for how long it could have sustained intensive operations by Canberras at high all-up weights, and the recently completed Kuwait New airfield provided strictly 'bare base' facilities. Temperatures rarely fell below 100°F and visibility was often extremely limited due to blowing sand. Had it come to a fight, these conditions would have imposed severe handicaps, both on the ground and in the air, although the Iraqis would, of course, have suffered similar disadvantages.

Withdrawal. The British had responded to Iraq's implied challenge with remarkable speed and convincingly demonstrated their resolve to honour their obligation to Kuwait. The ball was now squarely back in General Kassim's court. Since the 14 July was Iraq's National Day this was considered the most likely date for Kassim to make a move but, beyond reiterating his territorial claim, nothing happened and the tension began to ease.

A week later a partial withdrawal began. At the end of the month, HMS *Centaur* arrived to relieve *Victorious* but the crisis was considered to have passed and the CinC felt able to move back to Aden. The remaining forces were gradually pulled out over the next several months, although a stronger, permanent presence was maintained in Bahrain thereafter.

Note. The Society is indebted to Air Chief Marshal Sir David Lee, whose book, *Flight from the Middle East*, provided much of the material for the Kuwait section of this seminar.

MOUNTING THE RESPONSE

Air Vice-Marshal L W G Gill DSO



During his wartime service, Bob Gill flew everything from Buffaloes to Mosquitoes and was admitted to the DSO in 1945. After the war his career flourished through a variety of staff appointments. In 1961 at the time of the Kuwait crisis, he was Deputy Director of Operations (Overseas), the department which handled contingency planning.

I had mixed feelings when John Herrington asked me to participate in this discussion of the Kuwait operations. It is some 38 years since it took place and it is difficult to recall the detail of the events. I was particularly grateful for the Order of Battle which John has produced and I expect that he was in turn grateful to Sir David Lee for the excellent history that he wrote describing the history of the RAF in the Middle East – a record about which I feel a great deal of pride – not because I was there, but because the RAF in the Middle East had demonstrated the classical use of air power which we had been preaching from earliest days of military flying.

At the time of the Kuwait events, I held the position of Director of Overseas Operations – a post that had been a Deputy Directorship reporting to the Director of Air Transport and Overseas – Air Commodore Tubby Clayton – He had found that the two responsibilities were too diverse for him to be able to encompass all in the one position. Nevertheless I worked closely with Tubby Clayton, ably assisted by a staff of four or five, one of whom – John Price – is here today and will, I hope, add to my recall of events.

The Director of Overseas Operations was responsible for general contingency planning and I should say that the basics of any plan were usually developed by the Command concerned and came to my department for processing through the approval and implementation stages. I cannot remember how many contingency plans that we were responsible for but I do remember some pretty wild ones such as the armed support for various African countries that were at that stage not too keen on the British colonial presence – the political pressures for freedom from the Colonial yoke were at their peak and there were some Montgomery-like ideas for dealing with

the insurrections very aggressively.

We had a very good plan for the support of Kuwait and as far as I can remember we had reviewed it comparatively recently prior to its implementation. As far as we were concerned, the key moves were the move of 8 and 208 Squadrons to Kuwait. This would have been a comparatively simple move but it depended on the availability of substantial Air Transport support from UK. There were very carefully constructed air movement tables all of which depended on various overflying rights. And it was the difficulties raised primarily by the denial of Turkish overflying rights that caused the very good plan to go astray, aggravated by the subsequent difficulties with Sudan on overflying their territory.

Instead of a steady and logical build-up of the forces – both Army and RAF support – we found that the longer routes from UK to the Gulf had to be used for the bulk of the first waves and, when the Turkish embargo was raised to daytime only, the result was that the lower priority reinforcements were arriving before the first priority. Indeed the carefully planned logical build-up became a matter of just getting there in more or less any order. We understood that the first Hunters of 8 Squadron had arrived ahead of their support and that the first refuel and turn round was done by the aircrew. 208 Squadron suffered similarly, but their move was arranged entirely by AFME in spite of the very severe communications difficulties that they experienced .

Clearly, the first few days were very dangerous in that we had aircraft on the ground but with very little support. The weather was very poor with sandstorms, poor visibility, virtually no radar support and very few flying aids and it is a miracle that there were no serious accidents – perhaps not a miracle but a tribute to the experience and training of the aircrew involved. We were also very lucky that the Iraqi forces did not exploit our difficulties – it could have been very difficult if they had chosen to mount airfield attacks on our aircraft on the ground – and it would have been comparatively easy for them to have done so.

The part played by my Directorate was relatively small, since no actual operations took place which was fortunate. The major part of the operation revolved around the Transport Force and its effectiveness. It is a great tribute to them that they managed to cope with the many changes of routes and timings and the extensive further planning that was needed as the

political changes took place which affected the reinforcement routes.

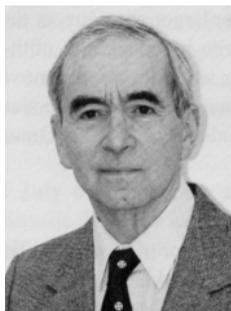
The Order of Battle shows the presence of Canberras but I cannot remember any details of their move to Sharjah. However, I feel sure that the move of the Canberras to Sharjah will not have raised too many difficulties, but the support elements will have had the same problems as the rest of the reinforcement movements.

To me, the Kuwait Operations has two main lessons:-

- The demonstration of the flexibility of air power.
- That this flexibility is achieved by well trained ground and aircrews.

EXPERIENCES OF A SQUADRON ENGINEER

Squadron Leader M Murden



During his service as an RAF Engineering Officer, Michael Murden's appointments include Squadron Engineer Officer, No 8 Sqn Khormaksar 1960-62, OC Air Engineering Sqn, Seletar 1965-67, and finally OC Nimrod Major Servicing Unit, Kinloss 1971-73. After leaving the Service he developed a second career with the Civil Aviation Authority between 1974-91.

Background: In 1960, a year before the Kuwait Emergency, No 8 Sqn in Aden and No 208 Sqn in Nairobi re-equipped with Hunters. The Mark 9 Fighter Ground Attack aircraft carried two 230 gallon long-range fuel tanks on the inside pylons giving the type an extended range needed for the role in the Middle East.

It was just as well the change came that year because there were many serious problems operating the new type in Aden with its dreadful climate and frequent sandstorms. Aircraft suffered unprecedented numbers of technical failures caused by the heat and corrosive sand which penetrated everywhere. To make matters worse, most of the servicing had to be undertaken in the open.

Engines, hydraulics and electrical systems all failed far more frequently than in the UK. Consequently there was a serious shortage of spares and manpower was inadequate. Even more worrying, from an operational point of view, utilisation was well below target so that pilots struggled to remain current.

In what was quite an achievement, Command staffs managed to bring about many improvements in the year that followed. By the time Air Vice-Marshal David Lee carried out his AOC's inspection at Khormaksar, in February 1961, new hangars had been constructed, spares were more plentiful, technical manpower had been increased and pilots were getting more of the flying needed to remain proficient.

Exercises. At the same time, behind the scenes, contingency plans were being drawn up for VANTAGE. One of the larger exercises in the spring of 1961 involved all three Services. Carrier-based aircraft of the Royal Navy relieved 8 Squadron at Khormaksar so that we could move to Sharjah and practice for 'an emergency somewhere in the Persian Gulf'. Army

involvement in the exercise included The Trucial Oman Scouts and Coldstreams at Buraimi Oasis.

INTO KUWAIT

30 June 61. So whilst there was still plenty of room for improvement we were better prepared than we had been a year earlier when, on 30 June 61, 8 and 208 Squadrons were ordered to move immediately to Bahrein, together with 30 and 84 Squadron Beverleys carrying ground crews and spares. For 8 Squadron that meant a flight of 1,300 miles from Khormaksar. But Squadron Leader Mike Goodfellow, CO of 208 Squadron, and his pilots had to fly from Nairobi and cover almost twice the distance. On arrival at Khormaksar, 208 had a sandwich lunch, still wearing flying suits, before the two squadrons departed, ‘cutting the corner’ over Oman, to reach their destination early that evening.

Operation VANTAGE included the possible need for the Hunters to fly from Bahrein to the Iraq/Kuwait border and beyond, jettisoning tanks on the return leg. So, on arrival, we refuelled immediately and I sent airmen to collect more tanks and jettison-cartridges from the contingency stockpile. In the meantime we began painting white bands around the rear fuselages of our aircraft to distinguish RAF Hunters from those belonging to two similar squadrons operated by the Iraqi Air Force alongside their MiG-15s.

There were 500 long-range tanks in the stockpile so the planners must have expected a lengthy campaign: To my dismay the men returned to tell me that there were no explosives bolts in store. A few urgent signals confirmed none could be located anywhere in the theatre. So the plan to ‘jettison’ was out of the question. A decision was made to remove the long-range tanks fitted to every aircraft and replace them with the smaller 100 gallon version.

By this stage all bowsers were full so they could not be used to empty the contents. We had no other option than to drop every tank onto the sand, roll it onto its side, and empty the contents – being careful not to get fuel on the tyres. All the empty tanks were contaminated with sand and had to be scrapped.

Most of that night was spent re-configuring tanks so there was no time to finish painting the fuselages. We had very little sleep before returning to the aircraft.

1 July 61. Early the next morning, we were ordered to proceed to Kuwait.

Together with the ground crew I was in the first Beverley to take off, soon to be followed by the Hunters led by the CO, Squadron Leader 'Laurie' Jones. Visibility was appalling and everyone on board the Beverley was wondering about the whereabouts of the Iraqi aircraft. The crew eventually located Kuwait Civil Airport and landed but, as we taxied in, we were ordered to take-off immediately and continue to the partly completed Kuwait New airport. Whilst in the air we heard that the Hunters were very short of fuel but had located the airport and should land just ahead of us.

Coming to a standstill we saw the first three Hunters on the ground with several Royal Navy helicopters of 42 Commando overhead. Within minutes of our arrival a Kuwait government official came to me offering the use of over 100 cars, trucks and cranes for unrestricted use by the British forces. Petrol would be issued free to any driver wearing a British uniform.

Squadron pilots quickly volunteered to drive trucks and help unload the continuous stream of Beverleys arriving and departing. The number of aircraft on the airfield increased rapidly throughout the day as did the helicopter movements. During the morning several Centurion tanks came out of hiding and moved to the perimeter. But we soon lost sight of them because the visibility remained at about 400 yards for most of the next few days. Consequently almost every take-off and landing was a very hazardous business.

There was no let-up throughout that day even though mid-day temperatures reached 125°F. As Shackletons and Twin Pioneers joined the two fighter squadrons we noticed that Hunters were sinking into the perimeter track because the newly-laid tarmac was melting. That added to the severe congestion which was already making movement control a headache. By the end of the first day we found places to sleep on the concrete floors of the terminal building, but it was very hot inside and some pilots found it cooler to sleep on the aircraft wings.

2 July 61. On the second morning we began work very early while it was still cool – the only time to do an engine change. Field kitchens had been set up and were most welcome as was the arrival of a truckload of Pepsi Cola commandeered by Flying Officer John Volkers of 8 Squadron. There were even more arrivals that day with aircraft from Cyprus, UK and the Far East including commandeered Argonauts and Comets.

3 July 61. For operational reasons Britannias mostly arrived and left by night often staying on the runway because of congestion. Engines were

kept running because there was no external power. On the third night a tired airman marshalling a taxiing aircraft, and probably blinded by blowing sand, walked into a propeller and was killed. We were all deeply upset by the accident.

It was frustrating time for Hunter pilots because of the dreadful visibility. After the initial rush to reach Kuwait it was at times near impossible to carry out reconnaissance. On the third morning Flying Officer 'Flick' Hennesey of 208 was killed as he flew in the forward area. While trying to maintain visual contact with the ground he probably became disorientated and spun in. Later that same day we heard that a bomb had exploded in a Beverley at Bahrein. So we had to introduce our weary airmen to even more security measures.

That first week I was the senior engineer at the airport so I continued to be involved in most technical activities on the base. Each morning the Oil Company insisted on signatures for enormous quantities of aviation fuel, and during the week more than a hundred technical tradesmen from UK, and some from Singapore, reported for duty. They had no tools and were not acclimatised so it was impossible to use them all on aircraft maintenance. Many had to be employed unloading stores and armaments.

Senior officers visited each day from Bahrein and I usually attended daily meetings with SASO, OC Ops and sometimes the AOC, who always arrived in his distinctive white Canberra. Expatriates at the Oil Company, grateful for our intervention, offered overnight use of air-conditioned accommodation to some squadron pilots.

4 July 61. On the fourth day there was an early morning scramble by two Hunters after a reported intrusion by an unidentified aircraft. The pilots did not encounter any Iraqi aircraft but the incident proved a timely reminder of the need to remain vigilant. The Iraqi Air Force must have faced similar difficulties with visibility in the Kuwait area. By the time the weather cleared the build-up of British Forces was nearing completion. Initially limited radar coverage of up to 80 miles was provided by HMS *Bulwark* as she stood close to shore during daylight hours. But the carrier had to move offshore each night as a precaution against attack.

5 July onwards. After the first few days everyone began to relax a little and a few of us visited HMS *Bulwark* by then in Kuwait Harbour. HMS *Victorious* and her escorts arrived from the Far East on 9 July and provided much improved radar cover.

Whilst there was a need to remain alert, settled routines were being established. Despite the order to 'MINIMISE', signals traffic was overloaded most of the time and great ingenuity was needed to get AOG parts for aircraft. The health of pilots and tradesmen suffered for each extra day spent in that dreadful climate.

8 and 208 began to rotate, in turn, between Kuwait and Bahrein from mid-July. Even though facilities at Bahrein were far from ideal, pilots could resume training and it was possible for everyone to have the occasional day off work. But after the Kuwait Emergency life had changed for everyone involved as had the continuing British presence in the Middle East.

THE NAVAL DIMENSION

David Brown OBE FRHistS

David Brown originally flew in the Royal Navy as an observer on Sea Venoms, Sea Vixens and Buccaneers. During his final appointment as Adjutant of the helicopter station at Portland, he found time to write the first of a number of books on carrier aviation and related topics. Since then he has been with the Naval Historical Branch for nearly 30 years and Head of it for the last 22 years.

The Chiefs of Staff authorised the preparatory measures for Operation VANTAGE at 291830Z but the signal was not received in the Middle East for another nine hours and twenty minutes. As far as the Navy was concerned, these gave the executive order to sail the Amphibious Warfare Squadron – the HQ ship *Meon*, the LSTs HMS *Striker* and *Empire Gull* with a squadron of Centurion tanks between them, and the frigate HMS *Loch Alvie* to join the *Bulwark* over the horizon off Kuwait. The aircraft carrier *Centaur*, then at Gibraltar, was to proceed to the Eastern Mediterranean and await further orders. Fortunately, the CinC Middle East had already ordered the *Striker* and a frigate to sea and the LSTs and LCTs to start loading VANTAGE stores at Bahrein and even these orders had been anticipated by the Flag Officer, Middle East: the *Meon* and *Striker* sailed from Bahrein at 0800 local on 29 June, 24 hours before the Chiefs of Staff's signal arrived.

The landing of the amphibious force turned into an epic. The *Meon* and *Striker* with the 'Rhino' ferry in tow, reached their loitering position in the evening of 30 June and, joined by the *Loch Alvie*, spent the night south-east of Kuwait in a rising gale which brought on a sandstorm. The weather was not a problem but the small Amphibious Warfare Squadron staff was struggling to identify a suitable beach for landing the tanks. The limited local knowledge indicated that the Kuwaiti beaches were all very inadequate, the three 'least bad' being south of Mina al Ahmadi, 30 miles south of Kuwait city, Ras al Ardh, five miles east of Kuwait, and Shuwaikh, the new Kuwait port area, where a suitable 'hard' (slipway) was known to exist.

Mina had been ordered as the landing area by the Flag Officer, Middle East, but shortly after midnight on 1 July, Captain McCrum attempted to alter the target area to Shuwaikh. Before this was received, he was ordered

to land the tanks at 0700Z (mid-morning, local) and with time running short he tried to find a more convenient beach, north of Mina and closer to where the tanks were required. This reconnaissance took up a precious hour, during which permission to carry out the landing at Shuwaikh was received, and reported unfavourably on this beach. With only two hours left until H-Hour, McCrum asked Political Adviser, Kuwait, to arrange for the Shuwaikh port authorities to meet him at 0700Z and set off for the port at the *Meon's* full 18 knots. The *Loch Alvie* was detached to take up a bombardment support position in an inlet, ten miles west of Kuwait city, and close under the main defensive position of Al Mutlah Ridge while the *Striker*, towing the 'Rhino', followed on at best speed.

The *Meon* arrived in the harbour with a quarter of an hour to spare before H-Hour but when Captain McCrum went ashore the only people he met at 0700Z were 'a multitude of zealous Kuwaiti guards' who had been ordered to clear the port area and were not going to be deterred by the fact that the only intruders were allied forces. It was fortunate that at this juncture there appeared a retired Chief Petty Officer RN, now employed by the contractor who was developing the port of Shuwaikh. This individual brought the unwelcome news that the vital hard had recently been broken up to permit the construction of a jetty, but he did know of a possible suitable beach nearby. As the Kuwaiti guards would not allow the party to pass, the ex-Chief drove McCrum to the Political Adviser's office to get authorisation and a translator.

The *Bulwark* arrived at this juncture. She had been delayed off Bahrein, trying fruitlessly to retrieve the Commanding Officer of 42 Commando, and did not reach her assault position east of Kuwait city until H+45 minutes, when the carrier captain, Captain R D Franks, became the Naval Force Commander.

The strong wind which had prevented the re-embarkation of the CO of 42 Commando meant the carrier's Whirlwind 7s could take off with a full load of 'Booties' and fly them the 25 miles to the Al Mutlah Ridge. Two Kuwaiti helicopters arrived on board to act as navigational guides for the first wave, which was to secure the main airfield; subsequent waves would lift the remainder of the Commando direct to the Ridge.

Although the straight line distance between the flying-off position and the airfield was only ten miles, the first wave did not arrive until 1117 local – H plus an hour and 17 minutes – partly due to the poor visibility (about 1,000 yards) in the driving sand, but largely because the Kuwaiti

helicopters led the force by a roundabout route to a grid reference which was not that expected by the RN pilots. The Hunters of No 8 Squadron, which arrived from Bahrein shortly after the leading waves of helicopters, appeared to know exactly where the airfield was. The first Marines ashore learned that the Kuwaiti Army had already taken up positions along Mutlah Ridge and was liable to fire on any troops arriving by air and it was therefore decided to land the whole Commando at the airfield, whence it would be taken forward the 20 miles to the ridge by motor transport. The wind and sandstorm did not let up but the eight Troops were ashore by mid-afternoon, the airfield was secured against ground or airborne attack and the main water distillation plant at Kuwait city was under guard.

The *Loch Alvie* reached her bombardment position at the head of the Dohat Kadhima at H-Hour, after feeling her way through shallow water with few recognisable visual or radar landmarks. She spent a lonely and exposed day ahead of the units which she was intended to support and before she was withdrawn during the evening to mount an anti-Fast Patrol Boat patrol off Kuwait bay, she landed her Royal Marine detachment, to join 42 Commando ashore.

Captain McCrum got past the Kuwaiti Army guards at the port with his authorisation and interpreter and reached the promised beach at 1245, an hour and half after the first Commando Troop had landed, some eight miles away. The beach was not suitable for the LST, but the Rhino ferry could be put ashore and Captain McCrum summoned the two vessels, which had to make a long and difficult approach up the narrow channel in a strong wind and poor visibility. The *Striker* anchored at 1500 local and by 1620 the first load of tanks was ashore. The Rhino was normally capable of only five knots but this was raised to a breathtaking nine knots by strapping two LCAs to either side, and the last load was landed from the LST an hour and half later.

The Rhino and LCAs now turned to offload the Commando vehicles from the *Bulwark* which had anchored in Kuwait harbour, six miles from Shuwaikh and by 2000 had landed sufficient transport to carry a Royal Marine Troop to Mutlah Ridge, where they took up defensive positions alongside the Kuwaiti Army. The two companies of Coldstream Guards had by now arrived from Bahrein by air and assumed responsibility for airfield defence late on 1 July. 42 Commando, reinforced by *Loch Alvie's* Royal Marine detachment, prepared to move up to the ridge from first light. The *Striker* sailed for Bahrein in the early hours of 2 July but the Rhino and

LCAs remained, working all night to disembark the motor vehicles from the *Bulwark*.

One Commando Troop was helicoptered to Mutlah Ridge at dawn on D+1, the last of the trucks and Land Rovers were disembarked from the carrier in mid-morning and by noon 42 Commando's rifle Troops were on the ridge and the logistics echelon was established on the beach at Shuwaikh. More stores were being landed from the LCT HMS *Bastion*, which had entered Kuwait harbour at midnight, and during the hour before noon, the *Redoubt* arrived, beached, disembarked the 11th Hussars' armoured cars and sailed for a fresh load.

The landing of the armoured cars, a little less than 24 hours after the first tanks had been disembarked from the *Striker*, marked the end of the amphibious assault phase of VANTAGE. The first reinforcements for 42 Commando and the Coldstreams (and the crews for the armoured cars) were already arriving by air and the leading elements of 45 RM Commando were in place on the ridge by nightfall. From about noon on 2 July, therefore, the Royal Navy's task became one of support for the military presence. I say one, but in fact there were three main broad aspects – tactical, 'Charlie Three' and logistic.

Of these tasks, the most obvious, and the easiest described was the direct tactical support. From H-Hour the only artillery support for the British contribution to the defence of Kuwait was the frigate *Loch Alvie*'s 'A' mounting. The ship, and both Commandos, had Forward Observation parties who were trained in the direction of naval gunfire and the value of these two 4-inch guns for bombardment support should not be underestimated for their rate of fire and relatively heavy HE round gave them a weight of fire greater than that of a battery of 25 pounders, which they outranged by a considerable margin. A second frigate, the *Loch Fyne*, arrived off Mutla Ridge on 5 July. She had been docked down at Karachi, but with the assistance of the Pakistani Navy, she had been hastily undocked, loaded with more 4-inch HE ammunition and bombardment fuses and sailed on the evening of 1 July.

The guns of 29th Field Regiment RA also arrived from Bahrein on 5th but the gunners were still on their way out from the UK and it was not until 7th that one battery of this regiment became operational. On the same day, the third Persian Gulf Squadron, *Loch Ruthven*, reached the operational area, having steamed the 2,800 miles from Mombassa at a speed of nearly 17 knots; this may not seem a blistering pace but for a 17 year old, 19-knot

ship it was very respectable. The three frigates continued the routine of standing by to provide gunfire support by day while patrolling Kuwait Bay and its eastern approaches by night.

Throughout the first week of the operation, the *Meon* and the *Bulwark* had fulfilled vital 'Charlie Three' – Command, Control and Communications – tasks. The former was equipped to act as an afloat HQ to control the landing of a brigade, with a troop of Army signallers as well as her own telegraphists. HQ 24 Brigade began to arrive at Kuwait on the evening of 2 July but there was initially no army or air force communication support to maintain the link with the high-level theatre command which had been established in a fully-functioning HQ at Bahrein. The *Meon* therefore became the signals nucleus of the operation, with circuits linking the Brigade HQ, the 'Forward Airfield' while she maintained continuous communication with Bahrein and the ships offshore.

Once the *Bulwark* had offloaded the Commando's vehicles and stores, she became a support ship, little tactical use being made of her helicopters, whose flying was usually undertaken in the early morning and late afternoon, to avoid the temperatures of over 100 degrees. Although the Army authorities considered that 848 Squadron was a brigade asset, this was resisted by the ship and the Whirlwinds' main task was to support 42 Commando, which was supplied with all its stores, ammunition, fresh victuals and NAAFI goods for the seven days it spent on the ridge and the fortnight it was held in reserve. Once the build-up was complete and it was clear that the crisis was not developing, a routine was worked out whereby the Commando carrier took off 200 troops every 24 hours to give them 'leave', eating regular meals, sleeping in air-conditioned spaces and having their laundry done for them. By the time that the *Bulwark* left on 20 July, most of the men of the original military units had passed through this morale-boosting rest camp.

The Operation VANTAGE plans had made the Royal Navy responsible for the air defence of Kuwait, supported if possible by air force tactical fighters until the first carrier arrived between D+7 and D+21; 'Bellringer' added an Air Force Type 787 radar to the force assets but this was a stockpiled item and had to be manned and calibrated before it would become operational. It was extremely fortunate that the *Bulwark* had retained an air operations capability which included picture compilation and fighter direction, albeit with Direction Officers trained not for overland area defence but for the defence of a task force at sea. Anchored off

Kuwait, her main radar could track aircraft up to 60 miles overland and she was able to maintain a continuous air picture. The problem was that there was a considerable volume of civil air traffic, the RAF aircraft supplying and defending Kuwait were not fitted with IFF Mark 10, which was the RN standard, and the absence of a standing CAP meant that contacts could not be investigated and identified. No standard control and reporting procedures existed and these had to be arranged on an *ad hoc* basis between the Commando carrier and the fighter/ground attack squadrons. Realistically, air defence was not effective during the early phase of VANTAGE.

It should have improved when the naval build-up was completed on 9 July by the arrival of the *Victorious* with the Aircraft Direction Frigate HMS *Lincoln* and A/S Destroyer *Cassandra* in company; the A/S frigate *Yarmouth* joined from Singapore on 11 July and the destroyer *Finisterre* from the Mediterranean on 17th. The carrier had twenty 'fighter' aircraft embarked but the Scimitars had no missiles and were suitable only for ground attack; the Sea Vixens were all-weather fighters but serviceability was low and the carrier had conducted no flying since 1 July when she had started her 3,800-mile dash across the Indian Ocean in earnest and only six of the Sea Vixen pilots were fully night-qualified.

The operating conditions in the northern Gulf imposed further limitations. The 'Shemal', which had greeted the *Bulwark* and permitted the Whirlwind 7s to star as never before, had blown itself out and the *Victorious* had to hunt for enough wind to launch the Scimitar which, clean, needed at least three knots of natural wind, as well as the ship's own 26 knots and the 95-knots which the catapults provided. This meant that she needed a lot of sea-room to work at high speeds and so she had to operate up to 80 miles south-east of Kuwait, between ten and twelve minutes flying time distant. Her own stacked-beam '3D' Type 984 radar worked on centimetric frequencies which were prone to 'anomalous propagation' interference caused by temperature ducting in the prevailing meteorological conditions and it took some time for the height and azimuth trackers to gain experience. Over the land, the 984's performance was severely degraded.

The *Lincoln* was detached and stationed in Kuwait Bay where, some six miles north of the city, she found a position where her Type 982 centimetric radar was not land-locked and gave a range of up to 70 miles in the direction of Iraq and her 960 metric radar obtained ranges of up to 130 miles at medium and high altitudes; her twin 4.5-inch turret was also a very

welcome and powerful addition to the bombardment plan. Although no provision had been made in the Joint Communications Plan for the necessary control and reporting communications and the RN ships were equipped to handle UHF-equipped aircraft, the AD frigate and the Hunter squadrons quickly worked up as a useful air defence team and in an exercise on 20/21 July they turned in a very impressive performance against the carrier's jets.

On paper, the Scimitars should have been a powerful close air support asset but the Government decision that bombs were not to be used for 'counter-offensive' action meant that the aircraft was limited to 2-inch rockets and internal 30mm guns. In a way this was fortunate, for the mean wind speed of 8 knots experienced in the carrier operating area would have prevented the carriage of more than a single 1,000 lb bomb. As it was, no external fuel could be carried and with rocket pods the Scimitar's time over the target was limited to twelve minutes, which in the prevailing poor visibility was scarcely sufficient to identify and attack a target in featureless terrain. A 40-minute cycle of launch and recovery was adopted for the Scimitars, and although the Vixens were able to fly a 'double cycle' this routine was exhausting for the flight deck parties and the command and could only be sustained for the four days that the carrier spent on the line between replenishment serials.

Which brings me neatly to logistics. Fuelling facilities for the ships were available at Bahrein and Mina al Ahmadi and there were naval stores depots at Bahrein and Aden but mobile operations with limited assets require replenishment to be close at hand. When the crisis was recognised two replenishment oilers and three tankers engaged on freighting but capable of refuelling warships were on station east of Suez. The most modern oiler, RFA *Tidereach*, was part of the *Victorious* group, between Singapore and Hong Kong, as were the stores ship *Resurgent* and the aviation supply ship *Reliant*. Two of the freighting tankers would be in the northern Gulf on 1 July and one of these, the *Orangeleaf*, was subsequently retained 500 miles from the active theatre in the Gulf of Oman as a 'Service Station', topping up ships if needed as they reached or left the Straits of Hormuz.

A relief carrier group had already been identified; this centred on the *Centaur*, which was accompanied by the destroyers *Saintes* and *Camperdown* from the Mediterranean and was to be joined from Singapore by the frigates *Blackpool* and *Llandaff*, the latter another Air Direction ship.

The replenishment tanker for this group, the *Olna*, was at Gibraltar but left Suez southbound on 6 July; another fast stores ship, the *Retainer*, was off Freetown, bound for Singapore via the Cape; like the older, slower *Fort Charlotte*, she would arrive in the Gulf on 31 July, the day that the *Centauro* relieved the *Victorious*. This urgency had long gone from the situation but this task group remained until 15 August.

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The naval commanders' comments on the deployment were generally critical. The Flag Officer, Middle East, was probably the most charitable: 'While it is agreed that there were many difficulties in providing close air support and air defence communications particularly in the initial stages of the operation, it would be wrong and misleading to describe the situation which prevailed as 'chaotic', but he did comment that, 'It was just as well that no fighting occurred in the early stages.' The Naval Staff monograph, written in 1968, states:

Nothing could have been devised better than the Kuwait emergency to test the accepted method of deploying our limited forces to deal with the 'brush-fire' emergency outbreak and the equipment available. This particular emergency had been long foreseen. Operational plans for dealing with it had been kept constantly under review and brought up to date. No emergency was simultaneously in eruption. Yet the system was found wanting in several vital particulars.'

Table of Distances 'East of Suez'

	Kuwait	Aden	Bahrein	Hormuz	Karachi	Mombasa	Suez
Kuwait		1905	155	495	1085	2815	3215
Aden	1905		1750	1410	1460	1610	1310
Bahrein	155	1750		340	930	2660	3060
Hormuz	495	1410	340		590	2320	2720
Karachi	1085	1460	930	590		2360	3215
Mombass	2815	1610	2660	2320	2360		2920
Singapore	3850	3645	3695	3355	2905	4015	4955
Suez	3215	1310	3060	2720	3215	2920	

CANBERRAs – A NAVIGATOR’S VIEW

Wing Commander T F Hayward OBE



Terry Hayward joined the RAF in 1955 and served his first two tours on Canberra squadrons, initially with 12 Sqn and then 213 Sqn who were detached for Kuwait in July 1961. He left the RAF in 1984, his final appointment being on the staff of ACAS(Pol). In retirement he spent his first 12 years as Bursar and Clerk to the Governors of an Independent School. Terry Hayward is a Fellow of the Royal Institute of Navigation and currently a member of its Council. He is presently assisting Philip Saxon to complete his history of Specialist Navigation Training in the RAF.

In June 1961 213 Squadron was based at Brüggen, the only squadron in the RAF operating Canberra B(I)6s. Its main role was low-level all-weather nuclear strike, with one aircraft and crew on 15 minutes QRA, with a secondary role of low-level conventional interdiction. On 7 June the squadron gained a new leader, and I a new pilot, when Wing Commander Stan Slater took over as Squadron Commander. We had flown two sorties together and the squadron was about to embark on Exercise QUO VADIS when, out of the blue, on 27 June the squadron was withdrawn from the exercise and told to prepare for Operation VANTAGE. This was apparently part of a contingency plan drawn up in 1960 in which RAF Germany was required to provide a force of twelve aircraft in the conventional light bomber/interdictor role at 96 hour’s notice.

The squadron as a whole, and Stan to this day claims that this includes him, knew nothing about this commitment until told to get on with it. So we set to to prepare eight aircraft and crews for destination unknown, but probably in the Middle East. Gun packs were fitted, a task which involved the ground crew changing the bomb doors so that the gun pack could be fitted at the rear of the bomb bay. This was an arduous task which involved a good deal of manhandling and specialists being involved in non-specialist employment. The guns were then harmonised, under-wing fuel tanks fitted and all aircraft had to be compass swung. This latter task was carried out with even greater care than normal because all crews were aware that the possible absence of navigation aids on the route to ‘wherever’ would place

a greater than ever reliance on the Doppler navigation system. By 29 June, two days after the initial warning we were ready to go and crews were put on standby. The first five crews departed late next day and the remaining three early on the 1 July to meet up at El Adem to await further orders. We were eventually briefed that our destination was Sharjah and that we would fly there via Khormaksar, Aden. However, there was a small problem of overflying clearance of Egypt and the Sudan and we were routed via Nasser's Corner. This made the likely flight time at the very limits of fuel reserves, especially bearing in mind the limited availability of diversions. All aircraft were fuelled in the cool of the night and topped up at the end of the runway. The flight to El Adem had been uneventful and had given us all the chance to get used to a very crowded cockpit, a crew of three, and a passenger/crewman/technician on the jump seat with every nook and cranny, including the nose and bomb-aimer's position crammed full of kit, etc.

The next leg was rather more interesting. Not only were we short of fuel, at high AUW, committed to radio silence and short of navigation aids but we took off just after midnight local time to take advantage of the cool temperatures and to minimise the possible interest of Egyptian air defence, such as it was. In our aircraft the pilot was Arthur Stroud, a Flight Commander, with myself as navigator. Stan Slater was in the second navigator seat – he was not cleared to fly at night – and a squadron leader engineer occupied the jump seat. The weather forecast was good with clear skies; the route simple, Nasser's Corner turn left, straight on until we hit the Red Sea, a right turn and continue to the Gulf of Aden then a left onto 090° and there would be Khormaksar on the nose. Great in theory. Our troubles started when it became apparent that one of our under-wing tanks was not feeding; a quick calculation at the top of climb suggested that we were not as tight on fuel as anticipated so, as this was an operational mission after all, we pressed on. A brief sighting of the Nile was our only navigation aid but we would see the Red Sea and all would be well, wouldn't it? ETA Red Sea but no ground visible, so we turn – 'It'll be all right, probably just a bit of cloud; never mind, we'll see the next turning point' – but we didn't. So, another turn, on the Doppler/GPI and ETA, onto 089°. Time to descend, no contact with Khormaksar, no ground in view and still short of fuel.

At this stage Stan Slater took an interest in his ejection seat harness, having flown with it undone whilst trying to catch up on some documents,

and our passenger suddenly discussed how exactly we got rid of the door in the event of baling out. Then rather like, 'Hello mother, hello father', it all happened; the fuel tank started to feed and a voice from the ether told us to steer 089° – a very relieved navigator smiled wanly. We flew into blown sand at 25,000 feet and eventually saw the runway at under a mile. We landed 4 hours and fifty minutes after take-off having had no definite fix in all that time. I subsequently asked the navigator of the next aircraft in the stream how it had gone. 'No problems,' he replied 'we just followed you.'

The flight to Sharjah was uneventful, although we were surprised at the bumpiness of the oiled sand runway. Just over five days after the initial alert eight crews and aircraft settled in. Once the ground crew arrived we set to load free fall bombs and to await further orders. Later in the day four B(I)8s of 16 Squadron from Laarbruch arrived to complete the detachment of twelve aircraft. It is interesting to read in other, seemingly more official, reports that we were preceded by four aircraft from 88 Squadron, then based at Wildenrath; that certainly is not the recollection of those I have spoken to. The first night was, to say the least, interesting and very, very hot. The various bars ran out of beer by 9 o'clock but fortunately a Beverley carrying spares, etc arrived the next day also bearing gifts of food and beer.

We settled down to sort ourselves out, make ourselves at home and wait for orders. The accommodation was Spartan, much of it the normal home of the 11th Hussars who had departed with their landing craft and armoured cars to Kuwait. We saw how the other half lived and didn't envy them. True there was a swimming pool filled with sea water and due to evaporation more salty and dense than the Dead Sea and hot enough to bath in if one was so inclined. There was no fresh water for showers, just sea water and that was rationed and we soon discovered that the only way to get a lather was to use hair shampoo. There were fans in the messes but only one set of rooms had some form of air-conditioning; needless to say the crews occupying them were the only ones to suffer from tummy trouble.

On 3 July the Squadron Commander, a Flight Commander and the Navigation Leader flew to Bahrein to be briefed on the situation and find out details of our role should General Kassim attack Kuwait. The welcoming words from Air Cdre Beresford, SASO Bahrein, were, 'I'd heard from the BBC that you were on your way from Germany.' This gave us very little confidence in official sources. It also quickly became clear

that existing plans were sketchy, certainly as far as the tasks to be allotted to the Canberras were concerned. Target priorities and weapon loads had to be worked out with the local Air Staff. A quick aside about security of information might highlight the SASO's comment about the BBC. We had all been briefed that on no account should we tell families or others where we might be going. I had, accordingly, told Veronica, my then fiancée back in England, that we were off 'somewhere' and I'd let her know where as soon as possible. The Beverley which brought our supplies on the 3rd carried a letter addressed to me, 'c/o 213 Squadron somewhere in the Persian Gulf.' Inside she wrote that she'd heard about our trip on the BBC.

Detailed planning back at Sharjah was greatly assisted by the number of senior and experienced members especially our Nav Leader, 'Happy' Bill Harrison, who had not only operated in the area before but had actually been based at the airfields we were likely to attack. As we remember it our primary target was Basra airfield with Shaibah and Habbaniya as alternates. We were to fly a High-Low-High profile with the final approach at very low-level before climbing to attack the runway intersection with a shallow dive-bomb release at about 6,000ft. The height was determined by the lack of any decent time delay fuses. The lead aircraft would then continue to very low-level before returning to the airfield to strafe the anti-aircraft guns and any military aircraft on the ground. I can remember that we were assured that they would be parked in a nice straight row. We were briefed to avoid all civilian aircraft and buildings. Once the runway was cut the aircraft still with bombs were to proceed to the alternates. Other possible targets were the army garrison barracks to the west of Basra, oil installations and port facilities at Basra and possibly troop concentrations bordering Kuwait territory to the west and north.

We planned to intersperse the B(I)8s with the B(I)6s in order to take advantage of their greater all-round visibility.

Would we have been successful? Well most of the pilots had not practised shallow dive-bombing or strafing since the previous November.

We were confident of our ability to navigate in the desert because of our practice LABS detachments to Idris. We would rely very much on flying at very low-level at relatively high speeds, and on surprise. We were also very keen to get on with the job. I remember a definite feeling of 'lets get at 'em' especially among the older members of the squadron. Memories of leaving Iraqi bases still lingered. There were those who would have welcomed the opportunity to settle old scores with the Arabs. So we sat

again at readiness on the ground champing at the bit.

On 6 July we were briefed on the political situation: apparently the rapid response had come as a bit of a surprise to General Kassim who now appeared to be doubting his ability to carry out his threat to invade Kuwait. The next day we began to fly armed patrols, without bombs, over and around Kuwait. The first sortie flown by Tony Wells and his crew was interesting to say the least, not only for the crew but also for those watching. It was clear that with a heavy fuel load and full ammunition trays the all-up weight of the aircraft was near its limit, especially with the restrictions caused by high temperatures.

Tony held his aircraft on the brakes as he ran up to full power. The sight of pieces of the runway flying out behind the jet pipes suggested to us watching that the oiled sand runway had not been designed with modern jets in mind. As the aircraft slowly gathered speed down the runway it soon became clear that it would be a close thing as to whether it would become airborne before it ran out of runway. Good British compromise prevailed – it didn't, but because the overshoot desert surface was very similar to the runway, it did – eventually. Back to the drawing board – well at least to the take-off planning graphs and tables. It transpired that the many limitations meant that we could not take off at that AWW after about 7.30am or before 6.00pm. If war broke out between those times some interesting decisions would have to be made.

Our armed patrols took the form of a high-level transit to the north of the Gulf followed by a low-level reconnaissance along the border between Kuwait and Iraq. A difficult task as the visibility was bad and the border ill-defined. However, pilots soon became familiar with particular oil derricks and their plumes of burning gas. No crew reported seeing any movements on the ground, nor did we see any other aircraft. But we now had a navigation aid in addition to the mark one eyeball. The Decca station worked very well and added confidence to our border forays, even though it was not that accurate at the limits of its cover. On the first day it became apparent that air-to-ground communications were difficult, especially on the frequency that was supposed to be the co-ordinator for our low-level flights over Kuwait. On the return to Sharjah at high-level all crews adopted the procedure of getting the aircraft as cold as possible. This refrigerator-like atmosphere made life a little more bearable for the hard-pressed ground crew trying to service aircraft in temperatures which exceeded 150 degrees on the runway and were often considerably more

under the fixed perspex dome of the B(I)6, even with the use of moveable sun screens.

Communications were a problem, not only in the air but also with the outside world. Papers when they arrived were very out of date; we had no HF radio in the aircraft and these were the days before the proliferation of portable radios. There wasn't even a radio in the Mess. We found one battery-operated radio and each day three of us huddled over it to hear the world news on the BBC which we then transcribed into a daily news sheet. We published not only world and home news but also local gossip, competitions, etc. We called our paper *The Daily Irritatus and Sunday Scratch* and I still have copies of the issues for 9 to 17 July.

We were a happy well-adjusted squadron who made the best of conditions as we found them. It is perhaps interesting to note that of the 28 aircrew, eleven were first tourists and well over half were single. The, perhaps inevitable, tedium was slightly relieved by the arrival of Brügger's Station Commander, Group Captain Ed Crew, whose welcome ceremony by suitably Arab-attired members of the squadron and a donkey especially hired for the occasion was delayed due to his loss of hydraulic pressure which necessitated a flapless landing and caused the subsequent brake fires which had to be dealt with by the fire brigade. It says much for the skill and hard work of the ground crew that this was the only major technical incident that we experienced throughout the detachment.

As time wore on, and it became apparent that the Iraqi forces had taken up defensive positions, we feared that we might be in for a long and uncomfortable stay. The heat and humidity was, if anything, getting worse, in spite of our getting acclimatised. The effect of blowing sand, often because of our own engine runs and take offs, did little to ease the situation. It was also apparent that the locals were beginning to resent our pre-dawn engine runs and early morning take offs. So it was with great relief that we heard on the 18 July that we were to return home. We bade farewell to our much put upon hosts and returned to Brügger via Khormaksar, Khartoum and Idris on 22 and 23 July, just over three weeks after departure. I am told that we arrived in a reasonably tidy formation in time for certain members to play hockey for the station in the RAFG cup final, which they duly won. We were welcomed back with open arms, not just by families, but also by those of the squadron who had remained behind to meet our QRA commitment.

What were our overall impressions? Well we believed that we had

proved our ability to meet a requirement to deploy, at short notice, a force of long-range, conventionally armed ground attack aircraft – even if we were unaware of the fact that we had the task. We believed that we had proved the worth of an ‘Airborne Gunboat’. We were chastened by the appalling runway, the primitive living conditions and the apparently limited resources of those operating in the Gulf area. We were generally unimpressed by the apparent lack of Command, Control and Communications but very impressed by our own squadron executives.

THE ARMY'S PART IN OPERATION VANTAGE

Miss Alex Ward OBE MA



After graduating from Oxford University with a degree in Modern History, Alex Ward specialised in Military History and The Theory of War. She joined the Ministry of Defence in 1968: later as Deputy Head of the Army Historical Branch she helped set up that organisation in its present form, after it had variously been part of the Committee of Imperial Defence, the War Office and MOD. Alex has been Head of the Army Historical Branch [(HB(A))] since 1979.

You have heard the background to this operation and know the forces and command structure which were already in-theatre. You have heard much of the overall command decision and of the air and naval activity and also some of what was happening on land in the persons of the Royal Marines. I now have to try, in the next 10 minutes, to fit into this quite complicated picture an account of what the Army contributed to Op VANTAGE.

The Army units in the Middle East Command were at their normal peacetime locations, in Aden, Sharjah and the Western Aden Protectorate, in Bahrein on IS duties and in Kenya where 24 Infantry Brigade (24 Bde) was stationed. Fortunately half a squadron of 3 Dragoon Guards (3 DG), based at Aden, was embarked in HMS *Striker* of the Amphibious Warfare Squadron while the tanks of a further half squadron were already in the Gulf, though their crews were still in Aden. Equipment and supplies were already stockpiled in-theatre as part of the plan for Op VANTAGE, including eight Centurion tanks in Kuwait, vehicles in Bahrein, stores in Aden and reserve rations in Kenya. The further Army units due to reinforce the Command during operations were also in their normal stations in the UK, Germany, Cyprus and Singapore.

The forces earmarked were brought to readiness for Op VANTAGE on 28 June and further moves were made towards concentrating them on 29th and 30th. Commander 24 Inf Bde was ordered to Aden, and providing crews for the half squadron of tanks already in the Gulf was a priority, as was movement from the UK of crews for the tanks stockpiled in Kuwait. On 30 June the order was received to implement VANTAGE, with the first

troops to enter Kuwait not before 0700 on 1 July.

The CinC's appreciation late on 30th, in the face of an apparently imminent Iraqi attack, stressed the importance of building up teeth forces in Kuwait as fast as possible, though, as the landings in Kuwait would be unopposed, no parachute drop would be required. He needed a minimum of two infantry battalions, a squadron of tanks and a squadron of armoured cars plus air support by dawn on 2 July. This force was to operate with the Kuwaiti Army. It was to comprise 42 Commando from *Bulwark*, 2nd Bn Parachute Regiment (2 PARA) from Cyprus, half a squadron of 3 DG from *Striker* made up by the tanks stockpiled in Kuwait, plus armoured cars on their way by sea from Bahrein, their crews from 11th Hussars (11 H) to be flown from Aden.

The unexpected problem concerning overflying on 30 June however meant that 2 PARA could not be moved. This meant that only the fortuitous presence of HMS *Bulwark* with 42 Commando embarked actually provided the one operational major infantry unit complete in Kuwait for the first 48 hours after the initial landing. (Though it must be noted here that 3DG claim to have landed 30 minutes ahead of the Commandos). The CinC had therefore to change his priorities to use available airlift to bring 45 Commando and 11 Hussars from Aden, thus delaying the arrival of HQ 24 Bde. He also gained agreement to move the 2 Coys of 2nd Battalion Coldstream Gds (2 CG) stationed in Bahrein to Kuwait and took up the Rhodesian offer of providing airlift for troops from 24 Bde.

Once 42 Commando had been landed, initially to occupy the airfield, it was ordered at 2000 on 1 July to occupy the Mutla Ridge – the 400 foot ridge of hard sand and stone some 25 miles north-west of Kuwait City. The conditions in Kuwait were bad, with winds like the blast from an open furnace door and sand blowing into everything and reducing visibility. The identification of hostile from friendly armour in these conditions would have been made even more difficult by the fact that both sides had Centurion tanks.

The Commander 24 Infantry Brigade, Brigadier Horsford, arrived on 1 July and set up an embryo HQ alongside that of the Kuwaiti Army Commander, Brigadier Mubarrak. A further delay had been caused to the assembly of HQ 24 Bde in Kuwait on 29/30 June by contradictory orders received by the Air Force in East Africa to the considerable concern of the GOC there. Thus on 1 July Commander 24 Bde did not have a properly

constituted HQ and only the charter of planes from East African Airways brought the rest of his HQ and signals to Bahrein. The force on the ground in Kuwait at the end of 1 July was thus limited to 42 Cdo, half a squadron of 3 DG, two coys 2 CG and a platoon of Royal Marines from *Loch Alvie*. That night, with overflying permission granted, plans were made to fly in 2 PARA from Cyprus the following night, as urgently needed infantry reinforcements.

45 Commando were put on notice to move on 29 June. At that time many of its anti-tank weapon crews were on a trip in the Hadramaut, necessitating the speedy training of replacements, and the detachment at Dhala had to be fetched by a fast convoy of RASC vehicles, which arrived back from a rough journey of some 180 miles early on 30 June. 45 Commando moved from Aden late on 1 July. Loading of stores was not done tactically. On arrival at the new airfield in Kuwait the men set off towards their position in the line. This was a feature well into the desert, some 12 miles off the main axis. On reaching the village of Al Jahara the CO set off to recce their route and on his return, at about 2130 hours, those present set off into the desert. Despite having soon to get out and push their two-wheel-drive civilian vehicles, the unit reached the area of the feature and took up an all-round defence position for the night.

Overall command was exercised by the CinC ME, first from Aden, and then, from late on 2 July, in Bahrein. Tactical command of the land forces in Kuwait was exercised by Commander 24 Infantry Brigade. Before he left Kenya, Brigadier Horsford had issued a plan for the sequence of the operation after landing in Kuwait. 24 Bde, of course, comprised 1st Battalion The King's Regiment (1 Kings), 1st Battalion The Royal Inniskilling Fusiliers (R Innisk) plus supporting troops including RE, R Signals, RAMC (a Field Ambulance) AAC, etc. The plan was:

‘A firm base will be established at Kuwait airfield by 45 Cdo or 2 PARA;

if necessary, any IS situation in Kuwait will be restored by 45 Cdo or 2 PARA;

1 R Innisk will link up with Kuwait forces on ridge astride road leading north to Iraqi frontier and prepare defensive positions;

1 Kings will prepare a defensive position on dominant ground about 10 miles south of 1 R Innisks position;

45 Cdo with one sqn 3 DG will be in same area as 1 Kings as counter-attack force;

CO 11 H will establish a screen with such elements of 2 PARA that he requires. Remainder of 2 PARA will be in Bde reserve.'

The concept of operations was that the screen should deploy to the frontier as soon as possible. It would then fight a delaying action, with air support operating if possible from Kuwait, and falling back on 1 R Innisks position down the axis of the main road. The screen would then protect the left flank of the main position. The Iraqi attack would then be held by 1 R Innisk and 1 Kings until a counter-attack was mounted by 3 DG and 45 Cdo. The Iraqi force would then be pursued back to the frontier.

The main HQ of 24 Infantry Brigade Group was to be located in 1 Kings' area, with a rear HQ in Kuwait. There would also be a Joint Administrative HQ in Kuwait, to be responsible for the organisation of the rear area. Supply forward of Kuwait would be the responsibility of rear HQ 24 Bde. The Air Commander was to be at Kuwait airfield, with a Brigade Air Support Office at Brigade Main HQ. Close daily contact was to be maintained between the Brigade Commander and the Air Commander to decide on air operations.

It was the intention for 24 Bde to fly, via a short stop at Aden, to Bahrein, where it would collect vehicles and implement this plan. Unfortunately, as we have seen, all the planning was based on what proved to be unrealistic assumptions about both particular units and the overall forces which it had proved possible to move.

On 2 July Ministers had decided to deploy additional tanks and therefore Tac HQ and a further squadron of 3 DG were put on immediate notice to move from Tidworth to Cyprus and thence Kuwait. The first new elements from 3 DG arrived in Kuwait on 3 July and were soon equipped with stockpiled tanks, linked up with C Squadron and sorting themselves out. The Regimental Journal, *Feather and Carbine*, notes that the OC of these new arrivals was unlikely to be allowed to forget that he took the squadron down the wrong lane of a dual carriageway the whole way, but his reply was, 'If the Kuwaitis want to drive on the right instead of the left, that is their funeral.' Meanwhile, on 2 July, a Tac HQ and 3 Troops of A Squadron 11 H had arrived in Kuwait and drawn vehicles. Early on 3rd July they arrived near the Kuwait-Iraq border. Over the next few days the 11 H force built up to two full squadrons, with support.

To recap, therefore, by the evening of 2 July, the actual situation of forces on the ground in Kuwait was, in addition to 42 Cdo, Sqn 3 DG, 2 Coys 2 CG and the platoon of Royal Marines of night before; now also part of 45 Cdo, Para Light Battery (less mortars and vehicles); one Sqn 11 H, elements of HQ 24 Bde and the Joint Admin HQ, with an AAC Reconnaissance Flight which had taken over six civilian Austers. Tanks of a further half-sqn of 3 DG had also landed from the *Empire Gull*, and RAC equipment, ammunition, and Armoured Cars had landed from *Redoubt*.

The CinC's intention that night (2 July) was to commit 1 R Innisks on arrival to Kuwait, holding 1 Kings initially in Bahrein in reserve. The build-up of 45 Cdo was to be completed early on 3 July and the lift of 2 PARA from Cyprus was to begin late on 2 July. Once 45 Cdo was complete, available aircraft would be used to hasten the build-up of 24 Inf Bde. The initial reports of Iraqi forces' intentions showed superiority of forces, which could still indicate a quick move which might therefore have to be met.

2 PARA had been alerted in Cyprus on 29 June to the Iraqi threat and the CO, Lt Col King, held an O Group, issuing and explaining the Movement Orders for Op VANTAGE, which he anticipated would be implemented (as the Regimental Journal noted, 'it did, as always, turn out quite differently' but the instruction was a useful guide!). On 30 June the battalion, nominally at 4-day's notice to move, was put at 12 hours by the CO, ammunition was drawn, RASC transport organised and packing materials checked. On 1 July, at 0900 hours, the battalion was brought to 10 hour's notice and the CO, hearing that the Commandos were landing in Kuwait and appreciating that no para drop was likely, adjusted his stores and equipment accordingly.

The CO and advance party of 2 PARA left for Bahrein at 1900 on 2 July, landing at 0500 hours on 3 July. The CO and Battalion Intelligence Officer visited the Joint Operations Centre but were able to glean very little operational information. Meanwhile, further aircraft brought the rest of the battalion to Bahrein and the new airfield in Kuwait. The CO arrived in Kuwait at 0900 and went to HQ 24 Inf Bde. The first half of the battalion, now in Kuwait, went to the Polytechnic Training College to await orders.

The brief the CO of 2 PARA was given was that there was no sight of Iraqi activity and that the present position of British forces comprised: a screen – 11 H and Kuwaiti Army – 5 miles south of the border astride the main Kuwait-Basra road, with the tasks of observation, and harassing and

delaying any enemy incursion; 42 Cdo on the right of the Mutla Ridge, with 45 Cdo on the left; and in reserve 2 PARA in the area of Al Jahara, ready to counter a penetration from the west and counter-attack on the Mutla Ridge.

At 1200 CO 2 PARA reconnoitred the position – followed at 1500 hours by the battalion. However, he found that the wood which part of the battalion was to occupy to the north of Al Jahara did not exist and 45 Cdo were not on the Mutla Ridge but some 5 miles behind it in reserve. Finding the battalion area occupied by Bedouin families plus goats and rubbish, 2 PARA occupied a position a mile further forward, having some cover, some way south of the Mutla Ridge. The battalion debussed and began, despite the heat, to dig in. The battalion position formed a box, with its echelon and medical support some 1½ miles in the rear. The position was complete early on 4 July, though lacking support weapons and artillery support.

By the evening of 3 July, as we have seen, the 3 DG crews had arrived for the stockpiled tanks, and the 11 H screen was in place on the frontier. 2 PARA and half a squadron of Kuwaiti tanks with 3 DG crews were moving forward to Al Jahara, and 42 & 45 Cdos were deployed in the area of the Mutla Ridge, with elements of 45 Cdo and a squadron of 3 DG on the Al Mayia feature. Kuwaiti forces were also near the frontier and on the Al Jahara-Farida track. The Para Light Battery with ten 4.2-inch mortars was in Kuwait.

As they settled-in both the 11 H and 3 DG Journals note the ease of their co-operation with the Kuwaiti armed forces: 3 DG had, after all, trained the Kuwaitis at Catterick and a number of old acquaintances were renewed. 11 H recorded that, while life was hard and often dull, they did have a splendid chance to have a swansong in armoured cars under operational, if not battle, conditions.

Reconnaissance of the Iraqi situation on 3-4 July showed that while no invasion had taken place some movement towards Kuwait was still detected and it appeared that the Iraqis were reconnoitring the forces building up in Kuwait.

On 4 July, 1 R Innisks began to arrive from Kenya, being complete in Kuwait on 5 July, with 39 Field Squadron RE. 29 Field Regt RA was en route from the UK and another squadron of 11 Hussars was coming from Sharjah – it arrived on the 5th. Also on 5 July, HQ 24 Inf Bde and Tactical Air Command moved forward to Al Jahara, and the administrative units for

24 Bde were arriving in Kuwait. 5 July also saw the start of the airlift of 1 Kings from Kenya, and 48 hours later the battalion was complete in Kuwait with all its freight.

Thus the build-up on land was virtually complete by 7 July, and it became possible for 42 & 45 Commandos to be relieved and fall back to form a reserve. 1 R Innisks relieved 42 Cdo overnight on 6/7 July and they had armour and anti-tank support from the Kuwait Army in the Battalion Group. The 2 Coys 2 CG had been able to return to Bahrein on 6 July while B Squadron 11 H had joined the screen on the frontier.

1 R Innisks noted in their Journal, *The Sprig of Shillelagh*, that they found the Commandos glad to leave the Mutla Ridge, and that they themselves spent the next week or so blasting slit trenches and command posts into the rock, with the Assault Pioneers showering everyone with rock and dust. Their co-operation with the Kuwaiti Army was also noted as good, despite their tanks' tendency to cut the Fusiliers telephone lines whenever they moved. 42 Cdo moved into reserve as a mobile heliborne force.

The Inniskillings had organised themselves on arrival at the Kuwaiti Technical College and they were followed there by 1 Kings, who in turn moved forward on 7 July to relieve 45 Cdo. Their post was an isolated piece of high ground in the desert some 15 miles from the Brigade main axis road. The position could only certainly be reached over the sand by four-wheel-drive vehicles.

After various crises in the arrival of supplies, a 24 hour convoy system with three drivers to each vehicle was organised and the delivery of water – 3,000 gallons a day – rations, ammunition, mail, etc, became reliable. Work had begun immediately on constructing the battalion defensive position, involving digging, wiring and sandbagging. Due to the heat, which had – literally – struck all units on their arrival in Kuwait at its hottest time of the year when shade temperatures varied between 120 and 149 degrees Fahrenheit, work ceased in the middle part of the day and everyone took shelter under large desert camouflage nets in the case of 1 Kings – or slit trenches covered by blankets for the first 48 hours in the case of 2 PARA. Those in the rear who had managed to get air-conditioned quarters were not entirely popular.

1 Kings 'A' Echelon was some 8 miles behind the battalion position, and its 'B' Echelon on the outskirts of Kuwait. The route between these three locations showed the strange mixture of developing Kuwait – from

skyscrapers to Bedouin homes and, in between, poor houses with large American cars outside.

The British build-up in Kuwait was complete on 9 July, at which time the total strengths ashore were 23 RN, 4,112 Army, 960 RM and 596 RAF. Meanwhile, there had been little change in Iraqi dispositions, which seemed, particularly in the border area, to be defensive: an attack was still possible, but would need reinforcing. This remained the view in mid-July and it became necessary to consider the strength and composition of forces to remain in Kuwait, and the timing of any redeployment. There was no need for further reinforcement from the UK, and some thinning out became possible. This, while not to happen before Independence Day in Iraq on 14 July, was to be announced before then.

It was agreed to leave in Kuwait HQ 24 Inf Bde with two infantry battalions (1 R Innisks and 1 Kings), TAC HQ and 1½ squadrons of tanks of 3 DG, TAC HQ and two squadrons of Armoured Cars of 11 H, a Field Regiment less one battery, and a troop of an RE Field Squadron, with air support and administrative units. 2 PARA was to pull back to Bahrein with the Para Light Battery. 45 Cdo was to return to Aden. This redeployment was approved and the first moves began on 19 July with 45 Cdo leaving by air, 2 PARA and the Para Light Battery flying to Bahrein, with a few parachutists leaving by sea in HMS *Striker*. On 21 July HMS *Bulwark* left with 42 Cdo and redeployment was complete by 22 July.

The political situation meanwhile was sorting itself out and on 20 July the Arab League accepted Kuwait's request for membership, despite the walkout of the Iraqi delegation. Arab forces were now to take over as the British forces left, and their withdrawal began on 19 September with their leaving their operational positions, this phase being completed on 28 September. British ground forces left Kuwait between 29 September and 19 October.

Op VANTAGE had successfully deterred Iraqi action but luck played a great part in getting the first troops in place, and problems had hindered the build-up which a swift invasion from Iraq would have exposed. How well the ground forces would have fared if they had had to fight in the heat, with poor visibility caused by blowing sand, recognition and communication problems, must be questioned, as must the effects of a poor IS situation and a less friendly reception.

One of the problems areas which could have had a severe effect was communications. It was the Army's responsibility to produce a Joint

Communications Plan for Op VANTAGE, the existing plan not meeting requirements. Difficulties arose from the different signals procedures used by the three Services and a lack of overall authority to sort out problems; from the late arrival of equipment and obsolescent equipment; from the number of different links required, and from local conditions which affected some equipment badly.

The heat was a problem for everyone and could have taken a much heavier toll. It was found in a significant number of heat illness cases that their food intake had been inadequate, particularly resulting in salt deficiency. The unappetising nature of Compo Rations was blamed and food discipline had to be tightened to ensure men ate properly. Tinned and fresh food were used to supplement the rations, but these caused problems with distribution, freshness, sand penetration and wastage.

Water, an absolute necessity and drunk in great quantities, was fortunately not in short supply. It was also used for cooling-off in the heat of the day and 11 H record the vision of their Tac HQ taking lunch in a canvas swimming pool. Good supplies of ice and tinned fruit juice were considered to have saved many lives, though the Inniskillings reported that the 'Peach nectar' was not popular among their more rugged veterans.

Facilities for rest and recreation were also very important and abundant. HMS *Bulwark* took parties of troops on board for the day in much appreciated air-conditioned comfort. Units also established their own rest areas by the sea or used the facilities of the Oil Company which were generously made available and men were rotated through the rest areas as often as possible and with considerable benefit.

PROBLEMS AND REQUIREMENTS OF A MOBILE HUNTER SQUADRON IN MIDDLE EAST COMMAND

Squadron Leader M J Goodfellow OBE

Michael Goodfellow was unable to participate in this seminar, but has kindly provided a paper he presented to the Central Fighter Establishment in 1962, and for which we are very grateful.

Neither 8 nor 208 is mobile in the strict sense of the word, however, each of these squadrons has become used to the idea of moving large distances at short notice, and of operating from forward airfields such as Kuwait.

Whereas mobility in Germany involved relatively short distances and the use of road transport, there are very few roads in Arabia and, as far as distance is concerned, 208 Sqn were deployed from Kenya to Kuwait – some 2,600 miles via Aden – with less than one day's notice.

During the last eleven months, including detachments, my squadron has moved eighteen times, flying over the length and breadth of the Middle and Near East, from Tanganyika to Turkey and from the Oman to Tripolitania.

As a result of all these deployments we have learnt a great deal; much, if not all, has been learned many times before, but many of us seem to have forgotten what we learnt, and it is my task today to remind you of some of these lessons. I deal with the problems under three rather well-known headings; Flying, Servicing and Administration.

Flying: The basic characteristics required of a Middle East Hunter squadron are:-

- i. To be operational in each and every fighter role.
- ii. To be able to deploy over large distances at short notice.
- iii. To settle down quickly to high intensity operations from a forward airfield.
- iv. To remain effective after long periods of inactivity, and in spite of strictly limited training facilities.

Now for the problems. First pilots – to achieve and maintain a high proficiency in so many roles, despite the training difficulties I mention:-

- i. A high percentage of experienced pilots is essential and

- ii. any inexperienced pilots posted to the squadron must, at least, be potentially above average.

When deployed at short notice over a strange route – to operate under conditions which may well be far from adequate, in terms of normal experience – sometimes getting stuck there for long periods without normal training facilities, the squadron pilot must be both:-

- i. Readily adaptable, and
- ii. capable of remaining ‘on the ball’ without the continuity that a young inexperienced pilot needs.

As for numbers of pilots: Middle East Hunter squadrons are established on a pilot to aircraft ratio of one and a half to one. This is designed to allow for the detachment of up to three Forward Air Controllers (FAC) at a time. During the Kuwait operation we were sometimes deprived of up to six pilots, for various reasons beyond our control. We felt very much understrength at that time, and still consider that FACs should be found from other sources. We think that the ratio should be held at one and a half to one, so that we can still become ‘warlike’ at short notice, without having to stop pilots from going on important courses and leave.

Some pilots were posted to the squadron with little or no ground attack experience. In order to get them up to a reasonable standard quickly and, at the same time improve the standard of the remainder, a carefully planned and vigorously performed training programme is vital. We found this very difficult to achieve in practice for these reasons:-

- i. The number of deployments.
- ii. Deployments that restricted us.
- iii. Lack of certain facilities in the forward area.
- iv. An inadequate supply of training rockets.

Since I took command in March 1961, the longest period that 208 Sqn has spent, without detachment, on any one base is six weeks (that was in Kuwait last summer). During that period, and throughout a second period in Kuwait of five weeks in Sep/Oct, our training programme was heavily restricted, in that we had:-

- i. No weapons training facilities.

- ii. A very small operational area.
- iii. Long periods of standby duty.
- iv. Large armed-recce and FAC training commitments, both to be flown within a relatively small allocation of flying hours. (Command HQ restricted monthly flying totals at that time to ease the supply problem).

As you will realise it was virtually impossible to run a properly balanced training programme; to add to our difficulties during this period six new pilots joined the squadron.

Recently, we have settled down to the routine of a two-monthly rotation between Bahrein and Khormaksar. This should solve many of our training problems because these two bases are complementary, in that flying from Bahrein requires a semi-operational approach, whereas Khormaksar – now our home base – has certain advantages for routine training.

Bahrein is not a good fighter-training base: it's a fairly busy civil airport at the centre of a control zone, and although well-equipped to handle Comets and Britannias, it has no reliable let-down-aid for Hunters. Bad weather is not uncommon, and the nearest diversion is Doha – some 80 nautical miles away in Qatar.

We are prohibited from training over Bahrein Island, the Qatar Peninsula and, of course, Saudi Arabia, and this means we have to fly more than 160 nautical miles to and from the nearest piece of land over which we can train. Nevertheless, we have recently completed a most successful training phase at Bahrein.

For example, in the Close Support role:-

- i. We ran two, admittedly small, air-to-ground APC's from Sharjah, and
- ii. followed these up with 'Live Strikes' on Ras Sadr range. Each of these was flown as a 'tactical-four' from Bahrein, and each was talked onto the target by a professional FAC from the Parachute Regiment.

In the Air Defence role:-

- i. We ran a twelve day air combat phase from Bahrein – and
- ii. practised bomber interception with both the 'Type I' Radar Convoy

at the 'head' of the Persian Gulf and a Naval Air Direction Frigate in the 'centre'.

Counter-Air, Interdiction and Reconnaissance were covered by:-

- i. Every pilot leading at least one carefully planned and properly briefed Hi-Lo strike, on targets found and photographed for us by PR Canberras in the area Bahrein to Basra.
- ii. In addition, from time to time, 'pairs' and 'fours' were detached to Sharjah to refuel for similar strikes up in the hills.

To summarise a mobile squadrons' requirements with regard to pilots:-

- i. There should be a high percentage of experienced pilots, and those that are inexperienced should be of above average ability.
- ii. The pilot-to-aircraft ratio should be held at one and a half to one, and FACs found from other sources.
- iii. Thirdly, even experienced pilots need a generous supply of rockets if they are required to stop tanks.
- iv. The Mobile Squadron Commander, should be allowed greater than normal freedom, to adapt his training programme to the facilities available.

Now for the Weapons System. Everybody loves the Hunter, it's robust, and basically a very well-developed aeroplane and, in terms of suitability, it is a satisfactory compromise between the widely different requirements of the various roles. As the years of its obsolescence 'tick by', however, Commanders are likely to find themselves having to ask more and more from it, in terms of radius of action, time over target and so on.

Recently, whilst training in the long-range strike role we have keenly felt the need for certain refinements, which we know to have been foreseen by some of you, but which we still have not got, and which will become essential if the Hunter is to be retained for several years to come. In addition to our lack of love for the 3-inch rocket, here are some other examples:-

- i. Inadequate fuel-gauging.
- ii. Lack of rationalisation and standardisation in 'weapons-switchery' – and

- iii. the limitation on aileron deflection when carrying fuel in the 'big tanks'.

The serviceability problems which bothered us most in Kuwait were those mainly due to high temperatures:-

- i. Batteries failed due to overheating and distortion.
- ii. Radio and radar equipment overheated.
- iii. The cold air units just could not cope after about 10 am.
- iv. Starters gave a lot of trouble.
- v. A large number of integral wing-tanks and hydraulic seals failed.

To summarise then on weapons system suitability; the Hunter is still very useful in the ground-attack role, but it could be flown very much closer to its theoretical limits, if certain refinements were incorporated.

Servicing: What we really need to be able to do is:-

- i. to produce high serviceability at short notice;
- ii. to be able to operate at high intensity from a forward airfield with a minimum of men and equipment, and
- iii. to be able to maintain this intensity under difficult conditions.

We are not using progressive servicing and, as a result, carry only our first-line element with us. Second-line assistance is seldom available from our hard-pressed home base, and repeated deployments introduce additional work and complication, especially in the supply and equipment spheres. Generally, therefore, the more mobile a squadron becomes, the more important both the quality and quantity of its ground-crews.

First I will deal with the quantity; the number of tradesmen initially available for an operation is limited by the shortage of air transport. In Middle East Command, as Air Cdre Cribb has already said, the Air Transport Force has to carry both the Land and Air Forces into the forward area, together with most of their equipment.

As a result of the inevitable limitation on quantity, the quality of the tradesmen is very important. This is particularly true when certain other factors are taken into account, for example:-

- i. No hangarage available. In practice, this means that some jobs are

precluded at certain times of the day. In midsummer in Kuwait parts of the aircraft are too hot to touch, either side of midday; and sandstorms didn't help much either!

- ii. No bay-servicing facilities. This proved embarrassing with regard to radio, radar and gun sight serviceability.
- iii. In the middle of the day local air temperatures around Hunters parked on black tarmac sometimes exceeded 130 degrees F. Marked physical stamina was necessary to work hard.

To summarise the manning problems. Quantity is often limited, so quality becomes all important. I think the elemental requirements of a mobile Hunter squadron are:-

- i. That it should possess a large number of tradesmen who can deal quickly with second-line tasks.
- ii. That the Engineer Officer should have completed at least one previous squadron tour, and that preferably on fighters.

Now for the basic mechanical problems. Around the Arabian coast, as you may know, metals rust and other materials rot quite quickly. I have already mentioned the effects of high temperatures; in addition:-

- i. High relative humidities cause corrosion and electrical trouble.
- ii. Blowing sand is very difficult to keep out of important places.

The net result of all this is a very much greater strain on the servicing and supply organisation.

In mobile operations you either stockpile or take it with you; in Middle East Command we do both. War stores, however, take a great deal of airlifting and, therefore, have to be stockpiled at various airfields throughout the Command. The more difficult aspects of the supply problem, which directly affect the capability of the squadrons are:-

- i. The initial quality of the stockpile and subsequent maintenance.
- ii. The 'air-portability' of the remaining equipment.

Regarding the stockpile quality; we've recently been firing rockets which had been stored in conditions similar to those of the Kuwait stockpile. A large number either 'launched late' or burned unevenly.

On the subject of portability, much of our equipment just isn't designed to be 'air-portable':-

- i. For example, it is difficult to get more than six gun-packs into a Beverley, if they are mounted on their trolleys.
- ii. Most of our ground equipment is both heavy and bulky.

When it is necessary to sustain high-intensity operations from a forward airfield, even a 12 UE Hunter squadron needs a substantial airlift. In general summary of the servicing problems, I must say that during the Kuwait operation, and the months that immediately followed, some 2/3 to 3/4 of our day-to-day problems were directly associated with supply in some shape or form. Recently, a tremendous amount has been done to ensure that the supply organisation has a proper sense of urgency and is able to work effectively. I think it is significant that for February – the first calendar month for almost a year which did not include a major move for 208 Sqn – we averaged 75% serviceability. I think that goes to show that the Command Staff have more than grappled with the problem.

Administration: As we have had to set-up shop so many times in different places, we have learned how *not* to go about it! However, we have found it necessary to theorise, and certainly we are still getting plenty of practice.

For the first eight months of my command, no adjutant could be found for me. I can't stress too highly the importance of a small, efficient administrative cell within the mobile body. Squadron and Flight Commanders must be free, at least initially, to concentrate on their operational problems.

On the subject of personal equipment, our men are required to do their job, carry their rifles and exist for two to three days on what they can carry with them. On the very first day in Kuwait we saw Commandos living comfortably on the ground, whereas our airmen, for whom we had to scrounge the basic essentials, were nothing like so well-equipped. Now, stacked and ready-to-go, are personal packs for every man; each containing a safari bed, blankets, cutlery and so on. This is an improvement, but I should very much like to see something better.

Last here, but first in fact, comes morale. The spirit during the early part of the Kuwait operation was magnificent, and it was encouraging to find how long it lasted during the phase that followed. This was an odd 'twilight phase' between an operation and an exercise; it extended for several

months in what appeared, to those remote from us, to be simply peacetime. We had our share of domestic problems at that time, and I began to envy the Royal Navy their block, unaccompanied, posting.

Overall Conclusion: In order to achieve what is required of a mobile Hunter squadron in the Middle East today, that squadron must:-

- i. Have the right number of carefully chosen men.
- ii. Be really well-equipped.
- iii. Be exercised regularly in the manner of moving quickly.
- iv. Have a well-developed unit loyalty.

SECOND DISCUSSION PERIOD

Kevin Dearman: I was rather surprised not to hear any mention of the Akrotiri Bomber Wing in the context of the Iraqi affair.

Sir Michael Knight: I was coming to that! It might be interesting to note, for the record, that four squadrons of Canberras did take part in this operation. Two, I believe, were actually detached, but No 6 Sqn, having previously made several detachments to Sharjah, decided to stay at home and bomb the Iraqi airfields from Akrotiri. Surprisingly enough, this appears not to have been recorded anywhere! The Cyprus Wing was not even in the ORBAT, and there is no mention of them in here (Air Chief Marshal Sir David Lee's *Flight From The Middle East*).

'Jeff' Jefford: For Gp Capt Dickinson – you tended to mention only RAF personalities when you were talking about your sorties. Were you in fact fully integrated with the Americans, or did you tend to fly as an RAF sub-group?

Dickinson: We always flew as integrated units. I just happened to expand on sorties I did with RAF colleagues, but most of them were fully integrated. We started off by flying our first fifteen missions or so as wing men, mostly to Americans, and then, when we got slots as leaders of pairs, we were usually leading Americans, but every now and then I got together with one or two of the other RAF chaps and I suppose that I remember those occasions rather more vividly. Overall, it was very well integrated and the Americans looked after us extremely well. So, yes, it was well integrated and we were just treated like their own people. In fact, Jock Maitland and I were both made Flight Commanders after the war ended and, since there were only four flights, I thought that a very magnanimous gesture.

'Jock' Heron: Another question relating to Korea. The appearance of the MiG-15 over the North in the early part of 1951 apparently came as a surprise, but I can't believe that the intelligence world did not know of the existence of the MiG-15 and the fact that it was likely to be deployed. Has anyone from the intelligence community got any background here?

John Herrington: I'll try to answer that one, not from the point of view of being an intelligence officer, but I have been through a lot of the relevant files in the Public Record Office. Quite early on there were rumours that

MiGs were appearing and pilots were reporting that they had seen swept-wing aircraft flying over North Korea – and this was a long time before they actually started to become involved in combat. So it didn't come as a complete surprise and I think, again from my reading into the background, that it was because of these early MiG sightings that the Americans attached such urgency to obtaining F-86s, albeit early versions. Once they realised the combat potential of the MiG-15 they began to invest huge sums of money and engineering effort in upgrading the engines, the airframe and everything else – as Dickie will bear witness – in order to try to match this new swept-wing aeroplane. The short answer then is – that the Americans had seen the MiGs, so their presence didn't come as a complete surprise, but what was a surprise was the numbers in which they eventually appeared. There were as many as 850 MiGs available on those northern airfields!

Mrs Drinkwater: Sqn Ldr Murden – your break in the Hunter at Frame 38 – were you ever able to do full flying control checks before you allowed that aircraft to become airborne?

Michael Murden: As far as I can recall – 39 years after the event – we did have the manpower to carry out the independent control checks as required by the regulations. However, sometimes, because of sickness, we had no second tradesman available so I, as Engineering Officer, had to do the independent checks myself.

For the first week in Kuwait, because of the communications problems, I could not contact the staff at Khormaksar or at Command Headquarters, so, when a minor and a major servicing became due, after first discussing the matter with the CO, I signed a 'red line entry' myself, authorising the necessary extensions. During that period many aircraft had to be flown with significant deferred defects but, before signing a 'red line entry' I always discussed the matter with a Flight Commander or the CO. I certainly used a lot of red ink and, on our return to Bahrein, the squadron pilots presented me with a box of red pens to encourage my further endeavours.

David Brown: If I might offer just one comment – I wasn't there myself, but one or two pilots who flew during the Second World War and in Korea, (Mike Crossley, for instance, who took part in the invasions of North Africa and Normandy before flying over Japan) have told me that the *Flak* over Korea was far worse than they had experienced anywhere else.

Furthermore, crews were less well prepared for it in Korea – it seemed to be the case, certainly with the Royal Navy, that nobody said anything about it. We soon tend to forget the ‘last’ war and we don’t have enough experienced people on hand to tell us how to prepare for the next one, and, from my conversations with young aviators, I suspect that this may still be true today.

Sir Michael Knight: I’m sure that is all too true. One more question?

AVM John Price: Just to follow up on David Brown’s point – the *Flak* really was incredible. What was impressive was the enormous range of types of ack-ack from every Chinese soldier being trained to fire in the air when he heard an aircraft, right through to really heavy stuff, some of it radar controlled. As to aeroplanes there were some Yak-8s, possibly Yak-9s, which pottered about and, unfortunately, the naval Sea Furies looked very much like them. I was once in a formation which was approached by, what turned out to be, Sea Furies – we initially thought they were Yak-8s, and turned into them before noticing that they had black and white recognition stripes on them. It was one of the problems, I thought – a lack of co-ordination. Ground operations were run in collusion with 5th Air Force in Seoul. I wasn’t quite so confident that carrier-based activities, certainly the Royal Navy’s carriers, were quite as well co-ordinated, and we nearly shot a couple of sailors down.

SUMMARY ON KUWAIT AND CLOSING REMARKS

Sir Michael Knight

I will attempt to summarise the main issues that arose from the Kuwait operation. It may have been ‘the operation that never was’, but there were many lessons to be learned from it. First of all, we didn’t know then, and I don’t think that we know even now, how genuine was the Iraqi threat to invade Kuwait. Kassim may merely have been testing our resolve but it may be that the UK’s speedy reaction prevented a major crisis – or at least delayed it for thirty years. In this context, I sometimes wonder how genuine was the rather longer lasting threat of an all-arms Soviet attack across the Central Region on which we all spent rather a lot of time, effort and cash. Short of opening up some very dusty files in Baghdad and Moscow, however, we may well be left in the dark on both counts.

That apart, Kuwait 1961 did present a number of interesting and pretty fundamental problems, even without a shot being fired. First, the planning, which Sir David Lee has covered so well in his splendid *Flight from the Middle East*. It is very clear that, however competently they planned for the reinforcement of Kuwait, the implementation of Operation VANTAGE (only one of more than thirty Middle East Command contingency plans) suffered its fair share of ‘buggeration’. In particular Sir David highlights two issues which have been mentioned – the problems of overflight, especially its no-notice withdrawal at a critical time by two presumed friendly nations, and the lack of timely political decision taking. He concludes that the four-day warning on which VANTAGE was based would have been sufficient to allow adequate preparatory moves to be made, including, essentially, the proper concentration of transport aircraft. In the event, however, these vital four days were whittled away by political hesitation with the result that there was virtually no interval between the receipt of authority to prepare and the order to go into Kuwait. As the CinC, Sir Sam Elworthy, later reported, the forces required for the operation were not at a sufficiently high state of readiness considering the circumstances.

Secondly, the critical inadequacy of communications – it is beyond peradventure that we simply did not have the capacity to support an operation on the scale required and, had it come to a shooting war, that may well have proved our Achilles heel. To quote Sir David Lee: ‘The first signs of overloading came early in the preparatory phase when precedences

started to be upgraded indiscriminately in an endeavour to get information and messages through. Even the highest Flash precedence was much abused and it became necessary for the CinC to ask for a procedure known as Minimise to be introduced.’ ‘It is difficult to believe’ he writes, ‘but at one time, the AOC was bundling up packets of Immediate signals and despatching them to Bahrein from Aden by special aircraft.’ It is a fact that over a 25-day period the RAF COMCEN at Aden handled 397 Flash, 541 Emergency and no less 8,799 Ops Immediate messages. None of them was an enemy contact report and the great majority therefore severely abused the rules for message handling. There was also much over-classifying of messages and documents; too many addressees were sent information copies and, Sir David writes, ‘undue verbosity proved the point that it takes much longer to be brief.’ None of the RAF or military bases between Nairobi and Bahrein were connected by landline, distances were generally too great for R/T and all military point-to-point communications depended on teleprinter links, W/T or simply air mail letters.

Problems within the air defence environment have been well addressed in the course of our discussion, the most obvious deficiency being the lack of adequate radar cover. The best the RAF could offer was a Type T Convoy but one was not available in-theatre and, had it not been for the rather fortuitous appearance on the scene of HMS *Bulwark*, we would have been very poorly placed to counter any Iraqi air threat. This clearly highlighted a requirement for a lightweight and portable air defence radar.

There were many more lessons to be learnt from the point of view of logistics and for an even greater unification of the command structure. I will quote just once more from David Lee: ‘The Kuwait operation probably did more to accelerate the co-ordination of inter-service operating techniques than could have been achieved by years of painstaking staff work.’

Finally, to bring planning, reinforcement and overflying together, perhaps I could go back to a point raised by Kevan Dearman during the discussion. There was a second deterrent to General Kassim’s plans. In addition to No 13 (PR) Sqn, there was a massive strike/attack capability available, only just out of theatre – the NEAF Canberra Wing at Akrotiri. This, however, was assigned to CENTO, which may, perhaps, have been the reason why it was not formally part of the plan. (*Sir Michael went on to regale the audience with an amusing account of how he learned that he had been promoted to squadron leader while shuttling back and forth between*

Akrotiri and Meherabad – while the Kuwait crisis was actually brewing – in an effort to complete a low-level training commitment. This episode was brought to a close by yet another urgent summons to return to base, where.)...we arrived at dawn, and were bombed up and set ready to go. Quite clearly Kevan, you and I, were the ‘other’ deterrent and the reason why Kassim didn’t invade!

Ladies and gentlemen, this has been a long, I hope fruitful and, for me, a very enjoyable, day. We have covered an immense amount of ground. I am enormously grateful to all our speakers and to you in the audience for your very active participation. All of this will, in due course, appear as one of the Royal Air Force Historical Society’s magnificent publications. Three operations in one day has been quite a lot to handle but, I hope that you will agree, every one of them was well worth recording. Very many thanks.

**IN THE ‘WHIRLIGIG OF WHITEHALL’:
MRAF LORD TEDDER OF GLENGUIN AS
‘CHIEF AUNT SALLY’ IN ‘THE HOUSE OF SHAME’
1946-1949**

Dr Vincent Orange

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My text for this evening, dearly beloved, is drawn from the writings of Air Chief Marshal Sir Ronald Ivelaw-Chapman. He wrote to Lord Tedder in December 1949 to wish him ‘all prosperity and a carefree existence’ on his departure from what he called ‘the whirligig of Whitehall.’¹ Sir Ronald had himself done time there, so we may believe that he knew what he was talking about. That text has two supporters. One is Tedder’s own extension of the initials CAS as ‘Chief Aunt Sally’ in an address to the Cambridge University Air Squadron in May 1949.² After more than three years in the job, we may also suppose that Tedder knew what he was talking about. The other supporter of my text is provided by Air Commodore Frederick Rainsford, who once disclosed, at a meeting of this very Society, that he and other senior officers were wont to refer to the Air Ministry in 1947 as ‘The House of Shame.’³

I therefore invite you to think of our hero in that whirligig, spinning around the corridors of power. He escapes briefly and joyfully to visit air force bases. He gets away more often but less joyfully to attend formal lunches, cocktails and dinners (every one the occasion for speechifying). And all the time, as Chief Aunt Sally in the House of Shame, he is trying to cope with whatever is thrown at him, either by difficult individuals or by unpredictable events.

No chief executive, especially of a world-wide organisation, inherits an empty in-tray. Consequently, on New Year’s Day, 1946, when Tedder first occupied the ‘seat of Mars’ as service head of the RAF, many fat files – all of which bred like rabbits – awaited his attention. They raised issues for which there were unlikely to be such *dramatic solutions* as the Allies had recently achieved against the armed forces of Germany, Italy and Japan in years when resources – human, material, financial – were available on a scale unimaginable in peacetime.

Instead, now that another war to end all war was over, the files on Tedder's desk were almost certain to demand *undramatic management* in years when the resources tap would be reduced to a trickle of its wartime flow. Moreover, his first two years in office were a time of what his staff called 'rundown' – a time which he more accurately described as 'gallopdn' – because nineteen out of twenty of the men and women who had served under his predecessor, Sir Charles (later Lord) Portal, left the RAF in 1946-47 – and half the survivors had less than two years service.

Tedder was, however, spared one bunch of files that help to occupy the time of a recent successor, Sir Richard Johns, who spoke to you on this occasion last year about his life as a CAS in the '90s. Unlike Sir Richard, Tedder did not have to factor media coverage into his daily routine, nor did he go home to find talking telly heads assessing his conduct, and announcing their verdict world-wide, in up to two minutes of in-depth analysis every evening. Also, when Tedder's men served abroad, they were not to be seen chatting on their cellphones to friends and family at home. Such risks to security would, I think, have appalled him.

On the other hand, as Sir Richard told you, there are now wristwatches with 'more computing power than existed in the entire world before 1961.'⁴ Tedder, who often said in later life that he wished he had been a scientist (as two of his sons became), or at least technically educated, would have delighted some expert by demanding a detailed explanation of how such a gizmo worked. Whenever he could get out of the office and into a hangar, Tedder would contentedly waste time nattering about engines and airframes; time that ought really to have been devoted to the aforementioned files.⁵

Nevertheless, seven files were rarely out of his hands for long. He would, firstly, oversee a massive demobilisation plan already being implemented in January 1946: a plan which worked far more fairly and efficiently than the organisation – if that is the word – set up for the release of men and women after the Great War. But an unintended result of this fairness and efficiency left him in charge of a force desperately short of experienced staff in every department, from cooks to controllers, pilots to policemen. Had the RAF been a private company, he often remarked, the sensible option would have been to sell up, close down and start again on a realistically small scale. Recruiting drives never prospered in his day, mainly for reasons beyond his control, and almost throughout his term of office he puzzled over what value the Service – as opposed to society at

large – might get out of short-term compulsory National Service airmen.

Secondly, Tedder tried very hard to keep alive his own ‘special relationship’ with United States airmen and soldiers, achieving on this front some excellent results, as is well known. As is *not* well known, he also tried to maintain the links forged – rather warmly, he thought – with Stalin personally and with Soviet airmen generally during two wartime visits to Moscow. In 1946 or 1947, years when Britain still had hopes of keeping alive her wartime partnership with the Soviet Union, he offered to visit Stalin again. He had in mind requesting an invitation to tour Soviet air bases and wanted to receive Soviet visitors to British air bases, privately or publicly. Unfortunately, his initiatives were rebuffed by his own government even before Soviet actions in 1948 rendered them pointless.⁶

In a third batch of files Tedder tried to balance competing needs – for ground equipment, safe storage and especially for permanent accommodation which the families of officers and men would find tolerable – in a vast network of bases stretching all the way from Scotland to Japan, via Germany, the Middle East, India and Malaya. Our resources, he frequently remarked, simply do not match our responsibilities. Given Britain’s appalling difficulties in recovering from the severe damage and immense expense of a long and total war, these were files which rarely had happy endings in Tedder’s day.

Fourthly, thousands of aircraft (like yesterday’s mistresses: recently so desired, suddenly so unwanted) were junked or returned to the United States from September 1945 onwards. As with demobilisation, however, so with aircraft: hardly had the old stock gone than a new stock was being urgently sought. A decade earlier, in the mid-thirties, Tedder had been closely concerned with a technological revolution in the design, construction, equipment and production of aircraft, as mainly wood-and-fabric biplanes gave way to metal monoplanes. Now, in the later 1940s, he found himself involved in another such revolution, as jets began to replace piston engines. In both cases, the new types would bring with them difficult and expensive consequences in maintenance, repair, training (on the ground and in the air) and operational employment. These files, fortunately for Tedder, grew fatter as well as more numerous in the ‘50s, after he had spun away from the Whitehall whirligig.

A fifth concern was his role, from June 1946, as Chairman of the Joint Chiefs of Staff. He was brought into regular contact with the War Office and the Admiralty not merely to argue the Air Ministry case (though that

was never an easy task), but increasingly to consider matters of grand strategy with his fellow chiefs – Field Marshal Lord Montgomery and Admiral Sir John Cunningham – and then to advise senior members of Clement Attlee’s government. Montgomery detested committees and despised his colleagues, who returned the sentiment with interest. The work got done, sometimes by deputies, but harmony was not restored until November 1948 when Attlee found Montgomery an important job outside England. Like Portal before him, Tedder found less time for purely air force matters than he desired and, also like Portal, one measure of Tedder’s stature as a CAS will be found in the performance of those officers on whom he relied for the day-to-day running of the service.

A sixth group of files was almost wholly personal. The Malcolm Clubs were founded for airmen in Algiers in July 1943 to honour the memory of a most gallant pilot; Wing Commander Hugh Gordon Malcolm, VC, killed over Chouigui, Algeria, in December 1942. His was the only Victoria Cross awarded to an airman in the entire African campaign.⁷ These clubs were the pride and joy of Tedder’s second wife, Topsy, and he shared her enthusiasm wholeheartedly. No military operation received more passionate attention. The clubs offered civilised comfort, such as he had sought for men under his command ever since 1915, but they were an unofficial organisation, with no Air Ministry backing, and were held to compete with (rather than complement) NAAFI’s activities. With a single exception, no clubs were permitted in Britain and they were never allowed to expand overseas on a scale the Tedders thought desirable and yet fourteen outlived them, thanks to their constant advocacy and energetic fund-raising.

Seventhly and finally, far above even the pressing concerns already mentioned, loomed the atomic bomb. This means of extinguishing life on earth now existed, thankfully in the hands of a friendly power, but another power – much less friendly – was prepared to bear the horrendous expense of creating its own bomb and Great Britain’s continued independence, quite apart from its global influence, required a matching response. Tedder therefore firmly supported Attlee’s decision in January 1947 that Britain must have her own nuclear weapons. As Tedder well knew, President Truman firmly rejected Attlee’s repeated pleas for Anglo-American control of those weapons. Planning began in 1948 for a British jet-bomber force capable of carrying them.

During the war, Tedder and an outstanding American airman, General

Carl Andrew Spaatz, had served so closely together that they addressed each other as 'Tooey' and 'Arthur', an informality very rarely countenanced by Tedder. Spaatz was appointed to command the USAAF in February 1946 and visited Tedder in June. They agreed, without informing their respective governments, to prepare bases in East Anglia for American B-29 bombers 'to cover a possible future contingency' (that is, hit targets in the Soviet Union), with 'special equipment' (that is, the atomic bomb).⁸ Two years later, when war with the Soviet Union seemed likely, adequate bases were available and Tedder informed Washington in November 1948 that the long-term use of these bases by American airmen 'was assumed'. The B-29s then sent to England were unable to carry atomic bombs, but he hoped that this fact – known to very few in Whitehall or Washington – was known to no one in Moscow.

In July 1945, Tedder knew that these and countless other files were likely to be his – if he wanted them. By then, he had in credit more than 30 years of increasingly distinguished military service, culminating in his appointment in December 1943 as Deputy Supreme Allied Commander to General Eisenhower for Operation OVERLORD, launched in June 1944 to liberate western Europe from Nazi control and assist the Soviet Union to overthrow Hitler. Together, Eisenhower and Tedder had received the German surrender at Reims on 7 May 1945. Tedder then went to Berlin as Eisenhower's representative, where he and Marshal Zhukov, greatest of the Soviet Union's commanders, in the presence of American and French witnesses, shared the honour and satisfaction of receiving a formal surrender, shortly after midnight on 9 May.

From so high a peak, where was there to go? He had several options outside military life. Were he to shed uniform, lucrative employment awaited Tedder in civilian life, notably in the whisky industry where his credentials were perfect, even though he was a light drinker. They were perfect because he had actually been *born* in a Scottish distillery and his father, an excise officer, was believed within that industry to have 'saved the day for Scotch Whisky' – and earned himself a knighthood – by his evidence to a royal commission of enquiry into whisky and other potable spirits in 1908-09.⁹

Tedder certainly considered a clean break with military life in the summer of 1945, while he was still young enough – at 55 – to make a civilian mark. He told a friend that he was 'sick to death of the killing, sicker still of thinking about it and planning it and if he never saw another

damned conference table again it would be too soon.’¹⁰ Professionally, the war had been good for Tedder; personally, the cost had been very heavy. His eldest son was dead (a pilot killed at 24 over Cherbourg in August 1940); his first wife was also dead (a welfare worker, killed at 51 when her aircraft crashed at Heliopolis, Cairo, in January 1943) and like so many men and women of his generation he could not count the number of friends gone before their time in two world wars.¹¹

As a history graduate of quite a good university, Tedder had a wide range of well-developed interests. Before the Great War, he wrote an account of the Royal Navy in the middle years of the 17th Century that is still highly regarded by specialists.’¹² After that war, he spent years of his service career listening to or writing and delivering lectures and marking essays. Having mastered these amazingly difficult skills, Tedder, as a fluent and witty writer, was ideally equipped to compose an autobiography far superior even to the valuable account of his service in the Second World War which he wrote under grave handicaps near the end of his life.¹³

Unlike most historians, Tedder had acquired management skills and dealt efficiently both with correspondence and with visitors to his office. He could argue cogently, on paper or across a table. He could keep his temper no matter how provoked; he had the rare gift of brevity (in speech or writing); and greater than these admirable qualities, he usually knew when to keep his mouth shut. I say ‘usually’ because sometimes his quick tongue cut more sharply than he intended and his taste for whimsical humour baffled some and irritated others.

Tedder often persuaded stubborn, strong-minded men to agree with him, or to let him have his way, or at least not to break with him: men as awkward to deal with as officers in the three Services (British or foreign); journalists, politicians and even civil servants. By 1945, he knew his own quality. He knew also the quality of his rivals for the RAF’s top job and rightly concluded that he himself was the man for it. On the other hand, he was mistaken in thinking that he knew the size and weight of the in-tray awaiting him and mistaken in thinking that the absence of Churchill from his life would offset the presence of Montgomery in it.

After July 1945, when Britain’s voters threw out the baby *and* the bathwater – Churchill *and* the Tory Party – Tedder’s actions would no longer be impeded by a Prime Minister who disliked him personally and had a low opinion of his professional abilities: an opinion reinforced by several of Churchill’s most destructive friends, among them a notorious,

much-criticised trio: Beaverbrook, Bracken and Cherwell. Churchill had resisted Tedder's posting to Cairo in November 1940.¹⁴ He tried to sack him a year later.¹⁵ He had appealed, in vain, to President Roosevelt to compel Tedder to make a major change in the conduct of operations before D-Day.¹⁶ He had tried very hard to have him replaced by a soldier, General Sir Harold Alexander, as Eisenhower's Deputy during the war's last winter.¹⁷ And he would have prevented Tedder's succession as CAS if he had remained in power.

One may be reasonably sure of this last point because as recently as April 1945, Churchill had sent so 'violent' a diatribe about Tedder to the Chiefs of Staff that in December of that year, the then ex-Prime Minister ordered all copies traced and destroyed.¹⁸ Tedder survived these (and other) crises mainly because his exceptional merits were recognised by men of the quality of Portal, Freeman, Auchinleck, Eisenhower and Marshall, who proved a collective match even for Churchill.

In September 1945, Tedder was promoted to the rank of Marshal of the Royal Air Force; appointed CAS Designate in October; toured the United States with his wife as official guests of the military in November; and was elevated to the peerage – in the name of his distillery birthplace – on New Year's Day, 1946, his first day in office.

But the spectre of Montgomery as Chief of the Imperial General Staff (CIGS, head of the Army), an elevation announced in January to take effect in June 1946, loomed over Whitehall. Sir Harold Alexander, who had commanded Allied forces in the Mediterranean theatre and was admired by Americans and Britons alike for his personal as well as military gifts, was Field Marshal Sir Alan Brooke's choice to succeed him as GIGS in July 1945, but Churchill had persuaded Brooke to retain that position for a further year (until June 1946) and encouraged Alexander to go to Canada as Governor-General. In the absence of Alexander, 'Brooke might have been wiser', in the opinion of two eminent soldier-historians, 'to have pressed the claims of General Sir Archibald Nye, his long-serving VCIGS who . . . had been the Army's chief executive throughout Brooke's tenure as CIGS and knew how to handle the Chiefs and Whitehall with a lightness of touch that Montgomery did not possess.' Brooke and Churchill were thus directly responsible for clearing Montgomery's path to the top, but Tedder blamed the other two wartime Chiefs of Staff – Portal and Admiral Sir Andrew Cunningham – for this disaster by failing to oppose Montgomery's appointment at a Chiefs of Staff meeting in August 1945.¹⁹

A strong word, 'disaster', but it is supported by the opinion of another eminent soldier, General Sir Leslie Hollis, Military Secretary to the Cabinet. In December 1947, Hollis told Sir Robert Bruce Lockhart (lately Director-General, Political Warfare Executive) that 'all the excellent co-operation which had existed between the Chiefs of Staff, the three Services and the Foreign Office had vanished . . . The chief culprit was Montgomery, who had been a complete failure as CIGS. Quite apart from his frequent voyages abroad to collect more honours and decorations, he was useless when he was here.'²⁰

Although Hollis's opinion, based on many hours of personal observation, carries weight, there were actually many points of *agreement* between Montgomery and Tedder in important matters. One can pay too much attention to the numerous anecdotes appearing (and reappearing) in contemporary memoirs and subsequent histories. For example, Montgomery repeatedly said that 'all modern military operations are in fact combined army/air operations', but he did not go on to claim that the army commander should direct all air forces working over land. On the contrary, he said, air power must be under centralised air control, within the framework of an agreed army/air plan.²¹ Montgomery and Tedder often agreed on the state of the armed forces: on the shortages of regular recruits, on the adverse effects of reliance on National Servicemen, on the poor pay and living conditions of officers and men, on the lack of fighting equipment and (by no means least) on the inadequate performance of Mr Albert Victor Alexander as Minister of Defence.²²

When Montgomery *disagreed* with Tedder in important matters, his case was usually strong. In February 1948, for instance, while Montgomery accepted that Britain's main weapon in a war with the Soviet Union must be air power, he argued that British troops must be sent immediately to the Continent for three practical reasons. Firstly, to hold positions on the Rhine until support from the United States became effective. Secondly, to establish and protect air bases from which the allies could mount counter-attacks. And thirdly, to prevent enemy forces from launching bomber or rocket attacks on Britain from bases close to the Channel coast. But Tedder believed (and Admiral Cunningham supported him) that British ground forces would be quickly swept aside and that effective counter-attack could come only from secure bases in the Middle East.

As it happened, Foreign Secretary Bevin agreed with Montgomery; Prime Minister Attlee with Tedder, but even today no one can say who was

‘right’. The issues were grave and it was entirely proper that the soldier and the airman should offer their political masters stark alternatives rather than fudged compromises.²³ Both Attlee and Bevin, as hardened politicians, were accustomed to dealing with colleagues who detested each other; sifting grain out of their chaff was all in the day’s work for them.

The notorious rift in the COS between June 1946 and November 1948 had little effect, in my opinion, on either the major policies of the British government or the wider world in which those policies were framed. Had the Chiefs been blood brothers, Britain’s dire financial situation throughout this period would not have improved one iota: a situation which tightly governed the *actions* of all three service chiefs no matter what *noises* they made, publicly or privately. The McMahon Act of August 1946, to reduce Anglo-American collaboration in atomic research, would still have appeared; so too the Truman Doctrine, the Marshall Plan, Soviet aggression and the Berlin Airlift. The arrival at the Chiefs’ table of Admiral Sir Bruce Fraser in September 1948 and Field Marshal Sir William Slim in November pleased Tedder, but did nothing to hurry along any faster the union of western powers which resulted in the formation of NATO in April 1949, nor did a harmonious trio of top brass prevent the Soviet Union from testing its first nuclear bomb in August 1949, nor hinder Chairman Mao’s proclamation of a Chinese People’s Republic in October. The three main pillars of British strategy in these years were not questioned by any of the Chiefs. These pillars were the defence of the United Kingdom, including western Europe; the defence of sea communications with the rest of the world; and the retention of a firm hold on the Middle East, to safeguard oil supplies and provide effective bases in the event of Soviet aggression.

Even as CAS, Tedder found time for historical writing. Within a few days of his accession, he delivered a brief but thoughtful survey of the recent war at the Royal United Services Institute.²⁴ As usual, he expressed unbounded admiration for that great South African statesman-soldier, Jan Christian Smuts, whose advocacy of ‘a peace with teeth’ as the policy of the newly-founded United Nations was echoed time and again in Tedder’s writing. Although he emphasised the RAF’s claim to the largest share of defence funds, he also urged all three Services to remember the value of combined operations. His key words for the future were ‘flexibility and speed’ because he believed that an alert David, if he made better use of scientists and technicians than in the past, would overcome a ponderous Goliath. A few weeks later, commenting on an address at the institute by

Air Marshal Sir Arthur Coningham (exceptional as both a pilot, in or out of combat, and later as a commander of tactical air forces), Tedder again underlined the need for integrated planning, training and fighting.²⁵

During 1946, Tedder received one of the most welcome invitations of his entire life: to deliver four lectures in the prestigious Lees Knowles series early the following year at his beloved Cambridge University.²⁶ The lectures were widely circulated within the RAF and Tedder personally sent copies to many commanders, British and American, with whom he had served in wartime. Smuts received his customary praise, this time for his assertion in 1941 that air power would be ‘the architect of victory.’ Tedder thought four points were of particular importance. Firstly, that conclusions about military operations must not be drawn by Britain and the United States from a ‘time of plenty’ in the last year of the war against an enemy severely weakened by conflict on a massive scale with the Soviet Union. Secondly, that air power was – and would remain – the ‘dominant factor’ in the event of another war. Thirdly, that sea power would be vital for as long as Britain remained a densely-populated island. And fourthly, that any attempt at merely passive defence would be ‘suicide’. This last point he expressed in November 1949 as ‘we would never win a match with eleven goalkeepers.’²⁷

‘I expect that most of us have seen,’ wrote Tedder in the ‘60s,²⁸ ‘reports and orders obviously worded with an eye to the future historian . . . The wording of signals and orders ‘for the record’ is a very fine art and well calculated to fox the historian.’ If Sebastian Cox (Head of the Air Historical Branch) is right, Tedder and his wartime scientific advisor, Professor Solly (later Lord) Zuckerman, have done some foxing of their own to justify their advocacy of a ‘transportation’ plan to assist the D-Day landings in June 1944 and afterwards to make the most effective use of Anglo-American air power against Germany; indeed, Robin Higham (a distinguished Anglo-American historian) has accused Tedder and Zuckerman of ‘sinister distortion’ in their handling of the information gathered by the British Bombing Survey Unit.²⁹

The Transportation Plan had generated intense passion, so in August 1947 Tedder decided to have the arguments aired in context, in a tranquil atmosphere. (How nice to be an historian who can give orders!) The *context* was an exercise code-named ‘Thunderbolt’: a study of strategic bombing issues between 1943 and 1945 lasting for four days with lectures, ‘simulated conferences’, one-act plays, wall charts, exhibitions, films and

discussions. The *tranquillity* was provided by the School of Air Support at Old Sarum in Wiltshire. All the still-serving senior British officers took part, equipped with the reports of the Tedder/Zuckerman British Bombing Survey Unit to help jog, guide, direct or even (if Cox and Higham are right) to deceive their fading memories. They were also given copies of Tedder's Lees Knowles lectures to study. Several American officers attended (though none of those most deeply concerned in the arguments) as well as 160 RAF officers, plus a few soldiers, sailors and assorted civilians: the Secretary of State for Air, the Under-Secretary, the Minister of Defence and the Prime Minister.³⁰

Although 'Thunderbolt' had historic interest, it raised in Tedder's mind three vital points for the future. One, Britain's economic intelligence about a potential enemy must be infinitely better than it was in 1939. Two, a target system causing the least general destruction – 'hangover', as Tedder called it – must be found. Hangover, he said, 'from these last two wars as we waged them really has been one over the top.' And three, training and planning must be combined. In the old days, the RAF thought of war with France because it helped to develop ideas about home air defence; whereas the Army was interested in the North-West Frontier of India and the Royal Navy in the Far East. That approach, thought Tedder, must be abandoned. The three Services must think and plan as a single defence force.

Building on the success of 'Thunderbolt', Tedder mounted another elaborate exercise at Old Sarum in May 1948. 'Pandora', as it was called, explored the prospects for scientific and technical developments to affect air warfare, with and without atomic weapons. The exercise was set seven years ahead, in 1955, and supposed a war against 'Eastland'. Tedder had taken a keen interest in the world of Boffins ever since his service as Director-General of Research and Development, at first in the Air Ministry and later in the Ministry of Aircraft Production, during 28 desperately anxious months from July 1938 to November 1940. That interest inspired him to 'headhunt' Zuckerman in July 1943 and shortly thereafter they began work on what became the famous Transportation Plan: trialled in Sicily and Italy, implemented in France, Belgium and Germany. Some American officers attended 'Pandora' and Tedder sent five copies of the proceedings to Washington, even though relations with the USAF early in 1948 were reserved and 'Pandora' revealed only too clearly how little the RAF could achieve by itself. Thanks to Soviet aggression, however, that situation was about to change dramatically.

The efforts made by the RAF during the long blockade of Berlin (from June 1948 to May 1949) represent an undoubted triumph, its 'finest hour' in peacetime. Better still, in Tedder's view, that hour was shared with the Americans. In June 1948, when the Russians forbade the Western Powers access to Berlin by road, rail or waterway, no one imagined that a city of more than two million people could be supplied indefinitely by air. No stockpiles of food or fuel existed and some public services, notably electric power, depended upon the Eastern Sector. The West was short of everything needed to mount such an unprecedented exercise on the scale required: aircraft, crews, airfields, navigational aids, traffic controllers, equipment for rapid loading and unloading and much else besides. But the Anglo-Americans had the essential will to try and help the Berliners, so recently bitter enemies, and the Berliners, trusting them, found the essential resolution to hang on. Three years is a long time in politics.

Tedder's main concern throughout was whether the Soviet Union would choose to escalate the crisis into open conflict. He was acutely aware that Bomber Command's Lincolns and Lancasters were no match for Soviet defences and their replacements – the first generation of jet-bombers – would not be in squadron service for several years to come.

He therefore tried, without success, to obtain American B-29s, for Bomber Command. At the same time, he tried, again without success, to obtain American C-54 transport aircraft to supplement his slender resources. In neither case could he afford to allow anxiety or resentment to sour carefully-fostered relations with those who turned him down. Such had been an unbreakable rule in every year since 1941, when the RAF's dependence on American aircraft was first brought home to him in North Africa. The bitter pill was easier to swallow this time because he realised that the crisis was strengthening bonds which had weakened, despite his best efforts, since 1945.

Tedder also concluded, from the absence of radio jamming, static balloons and aerial 'incidents', that the Soviet Union had decided against escalation and expected (as he himself did) that 'General Winter' would wreck the Airlift in spite of all that Allied courage, ingenuity and determination could do. If the winter of 1948-49 had been a hard one, or if Stalin had waited until October before beginning his attempt to isolate the city, the Airlift would, he thought, have failed.

Its spectacular success confirmed what he (and many fellow officers) had preached for nearly 30 years: that the RAF's particular strength lay in

flexible improvisation. So sudden and strenuous a challenge severely tested everything and everyone, especially the skill and stamina of air and ground crews, controllers, signallers, drivers, loaders and catering staffs. It lifted morale sky-high, as genuine crises often do, and Tedder's encouragement of civilian participation helped to regenerate the old Dunkirk spirit. He gladly recognised, as commanders had during the original Dunkirk, that wholehearted enthusiasm in desperate times can offset incidents of inefficiency and indiscipline.³¹ By the time Stalin gave up, the Western Union had been immeasurably strengthened and transformed into NATO by an alliance with the United States; the republic of West Germany was about to emerge; and British bases were being actively readied for a new generation of American bombers that were truly nuclear-capable.

On practically every issue that came before our Chief Aunt Sally in the House of Shame, he and Jack Slessor (Air Member for Personnel since April 1945) were agreed. When Tedder chose to retire (unlike his successors, he had not been appointed for a fixed term), Air Chief Marshal Sir John Slessor was widely regarded as the natural successor.

But not by Tedder. In June 1947, he asked Slessor to accept appointment as Commandant of the Imperial Defence College. Slessor resisted, believing that the appointment would rule him out of consideration as CAS. He was mistaken, for the incumbent Commandant was none other than Bill Slim, who would leave to enjoy the Army's top job from 1948 to 1952. Slessor, advised by such eminent persons as Trenchard, Portal and Freeman, eventually agreed to go to the College, on the understanding that it would not necessarily be his last Service job. Tedder thought Slessor had asked for an *assurance* that he would be the next CAS, a charge that Slessor denied. Nothing more was said, and the two men continued to exchange letters on important matters, agreeing as regularly as before.

In May 1949, having decided to retire at the end of the year, Tedder recommended Air Chief Marshal Sir Ralph Cochrane as his successor. Cochrane's record – in Bomber Command during the war, later as head of Transport Command, currently as head of Flying Training Command – was excellent, as famous airmen agreed. The immortal Bert Harris, for example, thought Cochrane would have made an 'outstanding' CAS and an 'incomparable' Chief of Defence Staff.³² Sir Leonard Cheshire also praised him highly.³³ Slessor, however, got the nod and promptly appointed Cochrane as his Vice-CAS.

In my opinion, the nod went the right way. Able as Cochrane

undoubtedly was, Slessor's breadth of experience, his sheer intellectual capacity and his inexhaustible energy elevated him above all other officers of his generation – not excluding Tedder, in the opinion of some informed observers.

On the other hand, Slessor was notoriously verbose (especially on paper), whereas Tedder was at times almost perversely brief. Slessor had opinions on every subject, whereas Tedder preferred not to commit himself, except on points which he thought essential. Temperamentally, Tedder was a 'hands-off' chief executive, available to subordinates for guidance; Slessor, by contrast, was a 'hands-on' man, readier to advise them. Tedder thought Slessor played favourites, was snobbish and obsessed with field sports; Slessor regarded Tedder as a lucky lightweight with an incomprehensible sense of humour and obsessed with the Malcolm Clubs, thanks to the influence of his wife, a woman whom Slessor did not admire.

The result was a very sad rift between two of the most distinguished commanders to grace the higher ranks of the Royal Air Force, in peace or wartime. In my view, although there was some truth in all their unfriendly opinions, at bottom they were quite wrong about each other. I intend to demonstrate this in biographies of both men; biographies which will, I confidently predict, appear some time during the next millennium.

Notes:

¹ Letter to Tedder, 20 December 1949: Tedder Papers (copies in author's possession).

² Tedder speech, 13 May 1949: *Flight*, 19 May 1949, p603.

³ During a seminar on 'The Berlin Air Lift, 1948-1949' in *Proceedings of the Royal Air Force Historical Society, No 6* (September 1989) pp35-92 (p55 for quotation).

⁴ Address by Air Chief Marshal Sir Richard Johns to the society, 23 June 1998, *RAF Historical Society Journal, No 19*, pp4-22 (p8 for quotation).

⁵ Author's conversations with Air Commodore Alan Deere, Wing Commander E. Bentley Beaman and Air Marshal Sir Peter Wykeham-Barnes on various occasions during and after 1981.

⁶ Draft letter, unaddressed, in Tedder Papers; author's conversations with Air Chief Marshal Sir Edmund Hudleston, April 1986.

⁷ Chaz Bowyer, *For Valour: The Air VCs* (William Kimber, London, 1978) pp301-5; 2nd Supplement to *London Gazette*, 23 April 1943; John Yoxall, 'No 18 Squadron' in *Flight*, February 1956, p166; 18 Squadron file, Air Historical Branch, Whitehall.

⁸ Spaatz Papers, Library of Congress, Washington DC, Box 27 and COS File; Lord Zuckerman, *Six Men Out of the Ordinary* (Peter Owen, London, 1992) pp93-4, 124-5.

⁹ Plaque at Glengoyne distillery – formerly Glenguin, some 20 miles north of Glasgow – unveiled by Tedder's son John (2nd Baron) on 20 April 1988. See also Final Report, 28 July 1909, of the Royal Commission on Whiskey and Other Potable Spirits: House of Commons

Sessional Papers, vol. xlix, Minutes of Evidence, pp201-3, 244-61 and Digest of Evidence of Each Witness, pp58-9. London, HMSO, 1909. Arthur John Tedder's knighthood was actually awarded in July 1909 for working out the details of Lloyd George's Old Age Pension Scheme.

¹⁰ ACM Sir Theodore McEvoy in conversation with author, 4 May 1986.

¹¹ On Remembrance Sunday, 6 November 1949, Tedder unveiled a memorial to 129 members of Magdalene College (including his son) killed in the Second World War; another memorial commemorated 65 men killed in the First World War, many of whom he had known. Hardly any of these 194 men would have been as old as 65 in 1949 and Magdalene was a small college.

¹² Dr Glenn Burgess, personal comment, 10 September 1993, citing J Morrill, *Seventeenth Century Britain, 1603-1714* (Dawson, Folkestone, 1980) pp66-67.

¹³ *With Prejudice: The War Memoirs of Marshal of the Royal Air Force Lord Tedder*, GCB (Cassell, London, 1966).

¹⁴ *With Prejudice*, pp32-33.

¹⁵ Sebastian Cox, "'The Difference between White and Black': Churchill, Imperial Politics and Intelligence before the 1941 Crusader Offensive' in *Intelligence and National Security*, vol. 9, number 3 (July 1994) pp405-447.

¹⁶ John Terraine, *The Right of the Line: The Royal Air Force in the European War, 1939-1945* (Hodder & Stoughton, London, 1985) pp622-3.

¹⁷ Denis Richards, *Portal of Hungerford* (Heinemann, London, 1977) pp243-5.

¹⁸ Martin Gilbert, *'Never Despair': Winston S Churchill, 1945-1965* (Heinemann, London, 1988) p133 and n.2.

¹⁹ Nigel Hamilton, *Monty: The Field-Marshal, 1944-1976* (Hamish Hamilton, London, 1986) pp579-82; General Sir William Jackson and Field Marshal Lord Bramall, *The Chiefs: The Story of the United Kingdom Chiefs of Staff* (Brassey's (UK), 1992) pp266-7. Tedder's opinion will appear in my forthcoming biography.

²⁰ Kenneth Young (ed.), *The Diaries of Sir Robert Bruce Lockhart, volume two: 1939-1965* (Macmillan, London, 1980) p639.

²¹ Slessor Papers, March 1946, Box 3.

²² Montgomery Papers, Imperial War Museum, London: BLM 206/13, 186/6.

²³ Ritchie Owendale (ed.), *British Defence Policy since 1945* (Manchester University Press, 1994) pp46-53.

²⁴ 'Air, Land and Sea Warfare', on 9 January 1946: in *Journal of the Royal United Services Institute, vol 91* (1946) pp59-68.

²⁵ Air Marshal Sir Arthur Coningham, 20 February 1946: 'The Development of Tactical Air Forces', *Journal of the Royal United Services Institute, vol. 91* (1946) pp211- 226.

²⁶ Delivered in Cambridge, 1947; published as *Air Power in War*, Hodder & Stoughton, London, 1948; re-printed Greenwood Press, New York, 1975. MRAF Sir John Slessor alleged (undated note in his hand) that the lectures were in fact written by ACM Sir William Elliot (as he later became) and his staff while he was ACAS (P): Slessor Papers, 28 March 1947, Box 26.

²⁷ 'Air Defence', 3 November 1949: address to Royal Empire Society, Northumberland Avenue, London; edited version in *Flight*, 10 November 1949, pp628-9; full version in microfilm K.2634, Bolling AFB, Washington DC. See also 'The Problem of our Future

Security' in *Royal Air Force Quarterly*, vol. xix, no 1 (January 1948) pp8-18 and 'The RAF in the Future', address at Christ Church, Oxford, 27 September 1948, in *Flight*, 7 October 1948, pp.444-6.

²⁸ *With Prejudice*, preface.

²⁹ Sebastian Cox, 'An Unwanted Child: The Struggle to Establish a British Bombing Survey' in *The Strategic Air War against Germany, 1939-45: Report of the British Bombing Survey Unit* (Frank Cass, London, 1998); Robin Higham, review of that book in *Choice*, vol. 36, no. 4 (December 1998) p923.

³⁰ *Air Ministry Exercise Thunderbolt: Old Sarum, August 1947, two volumes, Presentation and Report*. Prepared under the direction of Air Commodore (later Air Chief Marshal Sir) Theodore McEvoy, Director of Command and Staff Training, with the assistance of Bomber Command staff officers.

³¹ Air Publication 3257: A Report on Operation Plainfare (the Berlin Airlift) by Air Marshal T M Williams, CinC BAFO, April 1950 (PRO: AIR 10/5067). See also Ann & John Tusa, *The Berlin Blockade* (Hodder & Stoughton, London 1988); 'The Berlin Air Lift, 1948-49' in *Proceedings of the Royal Air Force Historical Society, No 6* (September 1989) pp35-92; Roger G Miller, *To Save a City: The Berlin Airlift, 1948-1949* (Air Force History & Museums Program, Washington DC, 1998); D M Giangreco & Robert E Griffin, *Airbridge to Berlin: The Berlin Crisis of 1948, its Origins and Aftermath* (Presidio Press, Novato, California, 1988); Richard Collier, *Bridge Across the Sky: The Berlin Blockade and Airlift, 1948-1949* (McGraw Hill, New York, 1978).

³² Cochrane's obituary, *The Times*, 20 December 1977.

³³ 'Sir Ralph Cochrane: Clearest Mind in the Air Force?' in Laddie Lucas (ed.), *Thanks for the Memory* (Hutchinson, London, 1989) pp.211-5. Cheshire, incidentally, thought that Cochrane should have replaced Harris as head of Bomber Command late in 1944: 'the war might have finished earlier.'

BOOK REVIEWS

Burma 1942 – The Japanese Invasion by Ian Lyall-Grant and Kazuo Tamayama. Zampi Press. Price £25.

While much has been written about the battles of the Burma Campaign that culminated in the victory of 1945 there is relatively little about the fighting retreat with which it all started. Major General Ian Lyall-Grant, who was involved throughout (and who addressed our Society at the Bracknell Seminar in 1995), and Kazuo Tamayama, a Japanese historian, have now sought to redress the balance in a most comprehensive account of the savage jungle war of 1942. Inevitably, in dealing with a campaign fought very largely by the Army, they concentrate mainly on the land fighting and their book will appeal primarily to the soldiery. They certainly do not, however, neglect the air forces, which they recognise did all they could with the minimal resources they had at hand. The air battles in defence of Rangoon in January and February 1942 are considered particularly important; thanks to the air forces not a single ship was sunk in the reinforcement convoys that reached the city. The RAF had its setbacks too, not least in the ‘friendly fire’ incident that preceded the Army’s disaster at the Sittang Bridge and later when its last remaining aircraft were caught on the ground by the Japanese air forces at Magwe. Thereafter the Army was on its own apart from the occasional Dakota and Blenheim missions to evacuate casualties and refugees and drop supplies. The key lesson of the early months in Burma, as the authors tell us, was that control of the air, or at least air equality, was essential to success on the ground, and the later years would show that lesson was well learnt.

The authors perceptively reflect too on many wider aspects of the retreat. Referring, for example, to the difficulties of knowing what to tell the public in such situations they observe that it is almost impossible to strike the right note when the enemy calls the tune: a realistic statement assists the enemy and encourages gloom and defeatism, whereas an optimistic view raises morale temporarily but draws much abuse about ignorance and complacency when things go badly – a point all too often ignored by historians writing about such matters. The readers also comment on the military leaders who learnt the business of jungle warfare in this campaign. Slim, for one, talking informally to his officers, mentioned that he and General Cowan had been at Staff College together and added, ‘I’m bound to say that some of the things we learnt there don’t seem to work too

well out here!’

While this book will essentially attract Army readers, there is much to interest all who want to know more about the much neglected early part of the Burma war when nearly everything went wrong – almost inevitably so, owing to its lowly position on Churchill’s priority list in 1941 and 1942.

HAP

The Burma Campaign Memorial Library. Descriptive Catalogue and Bibliography. School of Oriental and African Studies, London. Price £10 (£5 for veterans).

This reference work follows four years’ industry by volunteers from the Burma Campaign Fellowships Group to put together a library of books and other documents relating to the war in which they fought. Arranged in 23 sections, the one on the Air War alone lists 80 books – an indication of the scale of the project as a whole. Intended to serve as a permanent memorial to all who were involved, this collection is almost certainly unique and SOAS, its home, must from now on be recognised as an essential port of call for all historians in need of material about the Burma War. If only it had been available when I was writing *The Forgotten Air Force!*

HAP

Noble Endeavours – Three Generations of RAF Pilots authored and published by Sqn Ldr Bernard Noble, Avalon, School Road, Lover, Redlynch, Near Salisbury, Wilts, SP5 2PW. Price £12 plus £4 UK p&p.

This superbly printed book of 303 A4-size pages is mainly concerned with the Service careers of three generations of the family. Their stories, which cover almost 70 years from 1928 when Bert, the first member, went to Halton until 1997 when Kevin, the third member, joined British Airways, are told in great detail by Bernard, the second member. The only break in their involvement with the RAF came in 1944 when Bert, in Bomber Command, was shot down and killed by a German night fighter over Lake Constance; Bernard did not follow his uncle to Halton until 1946.

The author gives a clear evaluation of all the aircraft he flew: Meteor F8s in 54 Sqn, converting to the Hunter in 1955, and in the two three-year tours he spent testing fighter/transport aircraft and supply dropping at Boscombe Down. He also achieves the complex task of giving his son Kevin’s account of flying the Jaguars and the Tornados which carried Thermal Imaging Laser Designator (TIALD) pods during the Gulf War.

Kevin's experience, the author believes, is good support for his argument that since the 1960s aircraft design has concentrated on the development of electronic systems to improve aircraft handling and operational capability, but this has been bought at the price of increased complexity, design, development times and cost. This increase in aircraft complexity has placed heavy demands on the knowledge and skill required by both air and ground crews.

Also noted are the many differences in training, discipline and attitudes in the service experience of these three pilots. The author became sharply aware of these changes when he returned to the Technical Training School at Halton as a Squadron Commander in 1975. Apart from one brief visit he had not been back since passing out as an apprentice since 1949. The changes he found came as a shock to him; the emphasis on cost effectiveness, systems training, and the small amount of time in the apprentices' programmes for General Service Training which, in the author's opinion, 'gave the trainees the impression that they were technicians who happened to wear a uniform and that they would be exempt from any warlike activities.'

In the summing up of his own time in the RAF he concludes that these and other changes were so great that, 'I do not think that I would fit into the modern Air Force. Probably the young men of today would find the Service that I knew to be very strange.'

Members of the Society, both young and old, would find these three histories of the Noble family of great interest.

JD

The Colours of the Day by Patricia A Chapman. Country Books 1999; Courtyard Cottage, Little Longstone, Bakewell, Derbyshire, DE45 155. Price £12.50.

This is a very interesting assembly of stories which have been printed, thanks to the determination and competence of the authoress, supported by a local publisher who knows how to produce a good book at a reasonable price. The main subject is an experienced navigator, Pilot Officer Stan Streeter DFM, tragically, fatally wounded in April 1943 by our own anti-aircraft fire when returning from operations in a damaged Mosquito having fired off the correct recognition colours. In fairness, the authoress makes clear that this was during a period when the Sussex coast was receiving much attention from German 'hit and run' raids.

This is followed by four stories from other airmen told in their own words; they include Ken Sutton, Streeter's final pilot who survived the fatal crash having originally flown Fairey Battles with the AASF in France, and Harry Lloyd, later to become a survivor of the Japanese Prisoner of War camps. A few proof-reading blemishes do not detract from the integrity of the research and the authority of the narratives. Profits are being donated to the RAF Benevolent Fund and the Imperial Cancer Research Fund.

RW

The Western Front from the Air by Nicholas C Watkis. Sutton Publishing 1999. Price £20.

Most Society members will have seen reproductions of vertical photographs taken in France during WWI. Tens of thousands of plates were exposed during those four years and from these more than ten million prints were produced, all of them showing areas of wasteland intersected by meandering lines of trenches. To today's casual viewer these pictures are so alike as to be almost indistinguishable and, since it is virtually impossible to tell where they were taken (without access to a contemporary trench map and an ability to decipher the associated arcane grid references), they tend to be almost meaningless. As a result, the RFC's photographs have an air of detachment which is amplified by the remoteness of the viewpoint from which they were taken and they fail to convey any impression of what we all know to have been the appalling conditions on the ground.

Nicholas Watkis permits us to see through this fog of obscurity by publishing selected photographs, taken during specific battles and relating these to maps identifying which piece of ground they show and the dispositions of British troops at the time. Now that the pictures can be seen in perspective, the eye can focus on their previously anonymous content and their true significance is more easily understood. These exercises, of which there are eight, Loos, Vimy Ridge, Cambrai and so on, are preceded by brief essays on the history and interpretation of aerial photography, the whole book being printed on coated paper to ensure that the photographs are reproduced as clearly as possible

A little esoteric for some Society members, perhaps, but a valuable contribution to Service history nonetheless and strongly recommended to anyone with an interest in photo-reconnaissance in general and/or the Great War in particular.

CGJ

Pursuit Through Darkened Skies by Michael Allen DFC**. Airline Publishing Ltd 1999. Price £22.95.

This is the story of an exceptionally young and highly successful night fighter crew who were teamed together for four years; first joining 29 Squadron at West Malling on Mark I Beaufighters equipped with Airborne Intercept radar (AI), where their Flight Commander was Guy Gibson. The pilot, Sergeant (later Air Commodore) Harry White had ‘massaged’ his age and was 17, while the author barely three months into the Service and having passed a short radar course, was 18 and a half. In time each was to join that elite small circle of flyers awarded three DFCs. Sadly, Harry White was killed in a road accident when in his early 60s.

Flying initially in the night fighter defensive role, then perceived as a high priority given the shortcomings exposed during the Blitz winter of 1940/41, they later flew in the intruder SERRATE operations with 141 Squadron then commanded by ‘Bob’ Braham, again on Beaufighters and later the Mosquito. Instead of spending a ‘rest’ period at a training unit, they were more profitably engaged with the boffins at the Bomber Support Development Unit during a fascinating period.

This is not just another ‘my war experiences’ book, albeit in that context alone it is an extremely good one. Michael Allen expresses some firm comments about the first intruder squadrons being equipped with second-hand Mosquito NF IIs traded down from Home Defence squadrons, and this at a time when Bomber Command needed the best support available in their battle against the German night fighters in that critical winter of 1943/44. This highly readable book of some 350 pages is complemented by useful appendices and, being based on first-hand experience, adds to published records on wider issues.

RW

Mosquito Thunder – 105 Squadron at War 1942-45 by Stuart R Scott. Foreword by Air Marshal Sir Ivor Broom. Sutton Publishing Ltd 1999. Price £19.99.

This admirable squadron history is a natural sequel to Stuart Scott’s earlier book *Battle-Axe Blenheims* (reviewed in Journal 17) which recorded 105 Squadron’s part in the first half of the war. The author strikes a nice balance by recording the experiences of many who participated in the often hair-raising operations, supplemented by his own detailed research, this combination resulting in an attractive and comprehensive chronicle.

This jacketed hardback comprises 224 pages, including appendices, index, and burial details of the fallen. Those who served with 105 Squadron and their relatives will be pleased, while collectors of squadron histories should find this production a handsome addition to their bookshelves.

RW

Mosquito – The Illustrated History by Philip J Birtles. Foreword by John Cunningham. Sutton Publishing Ltd 1998. Price £14.99.

The Mosquito was arguably the most versatile aircraft of World War II, and in different Marks it fulfilled a variety of roles – a ‘Wooden Wonder’ indeed. This quality softback edition goes rather further than the usual ‘illustrated history’; the design and development descriptions, supported by line drawings, will appeal to the technically minded, but it is the well-structured narrative supported by lively first-hand accounts which should attract a wider readership.

The author originally worked for de Havilland in 1950s and later British Aerospace; he is Chairman of the de Havilland Aircraft Museum Trust Ltd and this is his twelfth aviation book. One for the ‘Mossie’ fans – and others.

RW

Bombers – From the First World War to Kosovo by David Wragg. Sutton Publishing Ltd 1999. Price £25.

As the title implies, it is an ambitious project to seek to cover over 80 years of history of bombers, from infancy to modern sophistication, within the covers of a very well produced book of almost 300 pages, supported by carefully chosen illustrations. Nevertheless David Wragg, a very experienced aviation author, succeeds in his objective and this is a condensed history of no mean quality.

While much of the book deals with the World War II period and the major combatants on all sides, later events are not neglected and the whole is interspersed by the author’s concise comments and summaries.

RW

ROYAL AIR FORCE HISTORICAL SOCIETY

The Royal Air Force has been in existence for over 80 years; the study of its history is deepening, and continues to be the subject of published works of consequence. Fresh attention is being given to the strategic assumptions under which military air power was first created and which largely determined policy and operations in both World Wars, the inter-war period, and in the era of Cold War tension. Material dealing with post-war history is now becoming available under the 30-year rule. These studies are important to academic historians and to the present and future members of the RAF.

The RAF Historical Society was formed in 1986 to provide a focus for interest in the history of the RAF. It does so by providing a setting for lectures and seminars in which those interested in the history of the Service have the opportunity to meet those who participated in the evolution and implementation of policy. The Society believes that these events make an important contribution to the permanent record.

The Society normally holds three lectures or seminars a year in London, with occasional events in other parts of the country. Transcripts of lectures and seminars are published in the *Journal of the RAF Historical Society*, which is distributed free of charge to members. Individual membership is open to all with an interest in RAF history, whether or not they were in the Service. Although the Society has the approval of the Air Force Board, it is entirely self-financing.

Membership of the Society costs £15 per annum and further details may be obtained from the Membership Secretary, Dr Jack Dunham, Silverhill House, Coombe, Wotton-under-Edge, Gloucestershire. GL12 7ND. (Tel 01453-843362)

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