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**JOURNAL**

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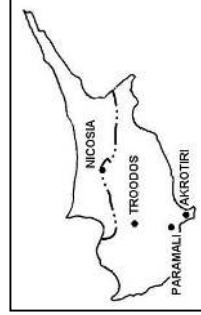
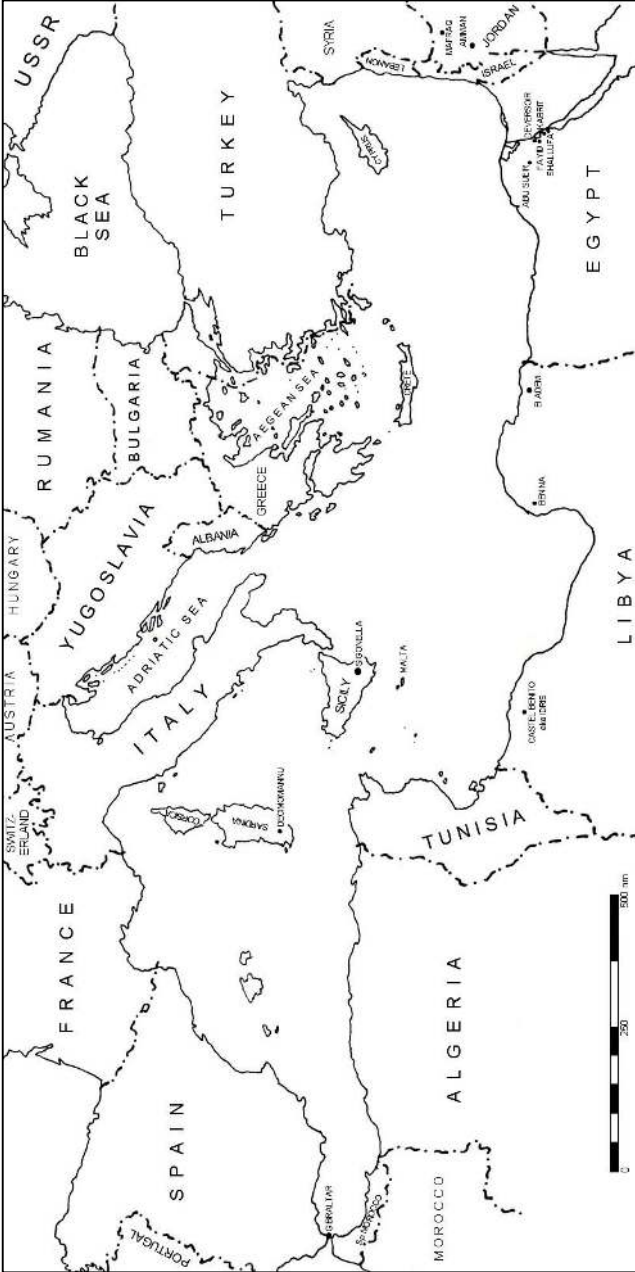
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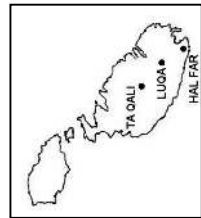


## SELECTED ABBREVIATIONS

AAR	Air-to-Air Refuelling
agl	above ground level
AHQ	Air Headquarters
AOG	Aircraft On the Ground
APC	Armament Practice Camp
ASOC	Air Support Operations Centre
CAA	Civil Aviation Authority
CATCS	Central Air Traffic Control School
EAF	Egyptian Air Force
<i>enosis</i>	Literally ‘unity’, in this case, the union of Cyprus with Greece
EOKA	<i>Ethniki Organosis Kypriou Agoniston</i> (National Organisation of Cypriot Fighters)
FS	The French Navy does not apply an HM- or USS-style prefix to its vessels, but it is common international (eg NATO) practice to annotate them as ‘FS’ - for French Ship.
ICAO	International Civil Aviation Organisation
IED	Improvised Explosive Device
IS	Internal Security
LAA	Light Anti-Aircraft
LGB	Laser Guided Bomb
MCU	Marine Craft Unit
MEAF	Middle East Air Force
MEDME	Royal Air Force Mediterranean and Middle East
MPC	Missile Practice Camp
MRS	Master Radar Station
NEAF	Near East Air Force
NKVD	<i>Narodnyi Komissariat Vnutrennikh Del</i> (People’s Commissariat for Internal Affairs)
OCU	Operational Conversion Unit
‘PM’	Member of Princess Mary’s RAF Nursing Service (PMRAFNS)
RTTL	Rescue and Target Towing Launch
SAR	Search And Rescue
SBA	Sovereign Base Area
SEAC	South East Asia Command
SMLE	Short Magazine Lee Enfield
UNFICYP	United Nations Force in Cyprus
‘243’ MHz	Emergency radio frequency reserved for survival equipment and operations but, since a listening watch was routinely maintained, also available as a convenient, if unofficial, ‘chat’ channel.



# MEDITERRANEAN THEATRE



**THE RAF IN THE MEDITERRANEAN  
THEATRE POST-WW II**

**RAF MUSEUM, HENDON, 12 APRIL 2006.**

**WELCOME ADDRESS BY THE SOCIETY'S CHAIRMAN**

**Air Vice-Marshal Nigel Baldwin CB CBE FRAeS**

Ladies and gentlemen – good morning. It is a pleasure to see so many of you here – well over 100 – so that encourages us that we made the right decision to revert to mid-week events, rather than holding them on a Saturday. Several of you, I know, are not members of the Society but are here as the guests of friends. If you like what you see, please don't hesitate to join us!

Let me give my usual thanks to Dr Michael Fopp, the Director of the RAF Museums, and his staff for the use of their splendid facilities and their usual warm welcome and help. I say this every time we meet but we would be lost without you.

In covering the RAF activities in the Mediterranean since the end of WW II, your Committee made a conscious decision not to spend much time on the 1956 Suez campaign. The Society covered that operation in one of its earliest seminars, in October 1987, and the day's events were published as Proceedings No 3. Copies are now hard to come by and, by current standards, the reproduction was poor. Nevertheless, that particular seminar included some notably authoritative contributions made by participants and we have decided to re-set the text and re-issue that volume in the spring of 2007 as Journal 39.

Our Chairman for today is Air Chf Mshl Sir Michael Knight. He retired from the RAF some seventeen years ago and immediately rejoined as a flying officer in the RAFVR to spend eight years flying young ATC and CCF cadets. He is also an honorary air commodore in the Royal Auxiliary Air Force.

Since then, amongst a plethora of distinctive appointments, he has been Chairman of Cobham plc, the Page Group and Cranfield Aerospace Ltd, and President of the Royal International Air Tattoo and of the Air League. We are most grateful to him for coming all the way from Devon to chair our day.

Sir Michael – you have control.

## THE POST-WAR RAF IN THE MEDITERRANEAN – AN OVERVIEW

### Air Cdre Henry Probert



*A Cambridge history graduate, Henry Probert joined the RAF Education Branch in 1948. During the 1960s he served in Singapore and on the Staff College Directing Staff before becoming, in 1976, Director of RAF Education. After 'retirement' in 1978 he spent the next eleven years as Head of the Air Historical Branch. He is the author of three notable books, his most recent being his acclaimed biography of Sir Arthur Harris.*

My task this morning is to provide a brief background for the many and varied activities of the RAF in the Mediterranean over the best part of half a century and to point to its achievements. It's a subject that was ably covered by Sir David Lee in *Wings of the Sun*, the last of the three invaluable post-war volumes which he contributed to the AHB history programme under my direction. Had he still been with us he would have wanted to introduce this subject himself, and what I and others will be saying today will draw considerably on the book he left behind.

Essentially the post-war story divides into three contrasting periods of time. The first of these, lasting slightly over ten years, witnessed the clearing-up of the legacy of the Second World War, during which the RAF had operated in most areas around the Mediterranean, developing a wide variety of bases. Many of these were no longer necessary and had to be disposed of, and there were also political issues, most of long-standing, which needed to be resolved if possible. Most notable of these was the dispute between the Jews and Arabs in Palestine for which the UK was still responsible under its United Nations mandate. Here the locally based RAF had much to do in co-operation with the other Services in trying to prevent illegal immigration and in preserving law and order on the ground, but by June 1948 all was seen to be of no avail and withdrawal became inevitable. All David Lee could conclude about this episode was that 'the RAF did the best of a bad job'.

Meanwhile the safeguarding of Britain's interests in Middle Eastern oil was coming to dominate our policy in the area. Amid increasingly gloomy predictions about the size of the world's oil supplies it seemed essential to protect the Suez Canal route and therefore to resist Egypt's growing demands for independence. Otherwise it would be impossible to preserve our long-standing military facilities in the Canal Zone, including the RAF's major airfields and its Headquarters. In 1951, however, Iran nationalised the Abadan Oil Refinery, Egypt abrogated its 1936 Treaty with the UK, and there were serious civil disturbances. In 1952 King Farouk was expelled by General Neguib (or 'Negwib' as Churchill called him), and in 1954 Britain agreed to depart. By 1956 the withdrawal was complete and Colonel Nasser seized the Canal. This prompted the ill-fated Operation MUSKETEER (which we covered in our first seminar eighteen years ago and whose proceedings are to be re-published.)

For the RAF in Egypt these had been unhappy years; preparations for withdrawal amidst local hostility are always difficult. But during the second period of the post-war story the Service's deployments in the Mediterranean were to be much more straightforward. Its Headquarters moved from Egypt to Episkopi, in Cyprus, and a new airfield was constructed nearby at Akrotiri to supplement the existing one at Nicosia. Two airfields from which the RAF could go on assisting Jordan against external threats were also retained, namely Amman and Mafraq – but only into 1958. To the west the RAF's presence now centred on several former Italian Air Force bases, particularly El Adem (near Tobruk) and Idris (near Tripoli), together with the long-established bases at Luqa, in Malta, and North Front, at Gibraltar.

It was this chain of airfields that enabled the RAF to provide the staging facilities for the numerous transport and other UK-based aircraft operating scheduled and other services to the Middle and Far East. Developed or improved during the later stages of the war, these had continued ever since and were still critical to exercising Britain's many responsibilities in connection with the areas around the Indian Ocean and as far a field as Singapore, Hong Kong and Australasia.

There was, of course, much more to the RAF's tasks in the Mediterranean from the mid-1950s onwards, as the build-up of the Cold War necessitated measures to defend NATO's southern flank in

the Mediterranean and Middle East. The initial framework for these were provided by the Baghdad Pact, signed in 1955 by the UK, Turkey, Iraq, Iran and Pakistan – and superseded in 1959 by the Central Treaty Organisation (CENTO) after Iraq's withdrawal. For the consequent offensive air support tasks the new base at Akrotiri was absolutely essential – with Nicosia handling the air transport in the earlier years. So between 1957 and 1975 – eighteen years – a substantial force, first of Canberras and later, from 1969, Vulcans was based there. Nuclear-capable, this was a formidable force – more about them later today. There were air defence squadrons too, first Javelins, then Lightnings, and PR Canberras had wide-ranging tasks.

Another critical but little publicised Cold War task was maritime surveillance, in co-operation with the Royal Navy, of steadily growing amounts of Soviet naval activity in the Mediterranean. This was largely generated by surface vessels and submarines using the route from North Russia and the Atlantic to and from the Black Sea, all of which NATO was anxious to monitor and learn about. So, right through into the 1980s, RAF and other NATO aircraft – including Shackletons, Canberras and later Nimrods – operated not just from Akrotiri but also Luqa and North Front.

In complete contrast there were a number of one-off military operations for which the Mediterranean route was essential. The reinforcement of Kuwait in the face of Iraqi threats in 1961 was one of these, but most were linked to the various withdrawals of British forces from overseas, including Jordan, Libya, Aden and Malta in the 1960s and early '70s and – the biggest of them all – the departure from Singapore and Malaysia, largely completed in 1971. All placed major demands on the RAF and its remaining bases in 'the Med'.

These bases, of course, posed their own local problems too. Gibraltar had to cope with the flying and border restrictions imposed by Spain. Malta was faced with growing pressures for independence, which eventually led to the RAF withdrawing twice from Luqa in the 1970s. The all-important base, however, was in Cyprus. Here the majority Greek population's long-running demands for union with Greece not only caused bitter conflicts with the Turkish minority but also much tension between Greece and Turkey themselves. During the 1950s there were the EOKA terrorist activities in support of the *enosis* campaign; then came the grant of Cypriot independence in 1960,

coupled with the establishment of the Sovereign Base Areas for the British Forces (including of course Akrotiri); and sadly there followed into the mid-1970s serious security problems occasioned by the hostility between the Greek and Turkish populations. The RAF had much to do in helping the ground troops – and in supporting the United Nations forces sent in 1964 – all of which provided major roles for the RAF Regiment and for the helicopters based first at Nicosia and later Akrotiri.

In conclusion, just a few words about the third of our periods of time – the post-Cold War era. By the end of the 1970s just two bases were left, Akrotiri and Gibraltar, both still providing invaluable staging facilities which have proved their importance in connection with the Gulf Wars and, in the case of Gibraltar, the Falklands War. Surveillance operations have continued also, and the value of the airfield facilities has been shown too in the many operational training detachments for UK squadrons, which need to be set alongside the NATO activities at Decimomannu, in Sardinia.

So there, very briefly, is my reminder of the main pattern of events that will be engaging our attention for the rest of the day.



*As with its transport units elsewhere, those of the ‘Mediterranean’ RAF could be called upon to provide humanitarian aid. In 1970, for instance, when the Palestinian Black September group precipitated a near civil war in Jordan, the RAF responded to King Hussein’s appeal for assistance, which is why this Argosy of No 70 Sqn is wearing red crosses in place of its national markings. (MAP)*

## THE RAF IN PALESTINE 1948-49 – THE WRONG PLACE, AT THE WRONG TIME

### Sqn Ldr Bruce Williamson



*Bruce Williamson was commissioned into the Air Traffic Control Branch in 1974, subsequently serving at Leeming, Gütersloh (twice), West Drayton, Mount Pleasant, Brize Norton, Uxbridge, with the CAA in London and, inevitably, at Shawbury where, since his retirement in 2001 to become an Aviation Officer, he has continued to work an instructor with the CATCS.*

This presentation will begin with a very brief descriptions of the background situation which led to an Egyptian air attack on the RAF at Ramat David and of the early development of the Israeli Air Force, before moving on to discuss the RAF's loss of a Mosquito, four Spitfires and a Tempest in combat. Finally, I will consider some of the questions raised by these incidents.

At the end of WW II, many European governments were having to cope with large numbers of Jewish refugees, many of them survivors of the Holocaust, and, because anti-Semitism was still rife in many of these countries, the possibility of encouraging these displaced persons to emigrate to Palestine had considerable appeal. To maintain a balance between the Jewish and Arab populations, however, the British, who administered Palestine under a League of Nations mandate, had imposed limits on Jewish immigration and the arrival of shiploads of illegal refugees placed Britain in an impossible situation. In response to Britain's actions, Jewish terrorist organisations began attacking British forces. On 22 July 1946 this campaign reached its peak when Irgun terrorists blew up the King David Hotel, the British HQ in Jerusalem, killing ninety-one people, including seventeen Jews. The British having made it clear that they were no longer prepared to police the mandate, the recently created United Nations decided that Palestine should be partitioned into Arab and Jewish states, a solution that the neighbouring Arab states rejected and Israel was soon being attacked from all sides in the War of Independence.



Early in the morning of 22 May 1948, a number of Egyptian Spitfire LF 9s attacked Ramat David airfield where an RAF detachment had been operating to cover the final withdrawal of British forces from the port of Haifa. The raid caught the pilots of Nos 32 and 208 Sqns recovering from the after effects of an exuberant Dining-In Night, during which it had been decided to destroy the Officers Mess to prevent its falling intact into the hands of the Israelis.

The Egyptian attack destroyed two of No 32 Sqn's Spitfires on the ground and damaged several others, but without loss of life. A second attack cost three Dakotas, including one which was shot up as it was landing, killing two of the crew, as well as destroying a hangar; a third attack did little damage. However, the RAF had responded to the first strike by mounting a standing patrol over the airfield and by the end of the day five Egyptian Spitfires had been shot down, one of them by RAF Regiment Bren gunners. The Egyptians later claimed that their aircraft had mistaken Ramat David for a nearby Israeli air base and even had the cheek to complain about aircraft in the second and third raids being shot down by the RAF.

The only really effective Arab air force arrayed against Israel in 1948 was the Royal Egyptian Air Force which was equipped predominantly with British aircraft, the most effective of these being Spitfire 5s and LF 9s. By comparison the newly formed Israeli Air Force initially comprised only a ragbag collection of old transport aircraft. To address their lack of fighters, the Israelis soon began to import Avia S-199s, a Czech-built version of the Messerschmitt Bf 109. As the aircraft began arriving in Israel, so did a number of foreign volunteer pilots, known in Israel as *Machal* – volunteers in the War of Independence. Some were Jewish idealists with a genuine passion for defending the new state; some were adventurers who just wanted to fly, whilst others just needed a job and were not too bothered about the fairly basic pay.

Clearly, it would not be unreasonable to describe some of these men as mercenaries, although this description is always avoided by Israelis when referring to the *Machal*. However, none of the new pilots liked the Avia S-199, which they nicknamed 'The Mule', many of them considering it to be almost as dangerous to themselves as it was to the Arabs. In their quest for better aircraft the Israelis obtained their first Spitfire by salvaging an Egyptian aircraft brought down by



*The Israelis acquired their very first Spitfire (possibly this one) on 15 May 1948 – the day that the new state actually proclaimed its existence – by salvaging an Egyptian aircraft that had been forced to land on a beach, having been hit by ground fire.*

ground fire and assembled two more from scrap parts left behind by the RAF, before acquiring a substantial number of second-hand aircraft from a variety of sources, notably Czechoslovakia.

As the fighting continued, the RAF kept an eye on developments by mounting regular overflights of Israel and the adjacent Arab states using Mosquito PR 34s of No 13 Sqn operating from Fayid in the Canal Zone. The high flying Mosquitos frequently made contrails which could be seen from the Israeli bases making an eventual interception almost inevitable. On 20 November 1948 a Mosquito was sighted over northern Galilee, heading in the direction of Hatzor, and an American pilot, Wayne Peake, took off from Herzliya, flying a P-51 Mustang that had only recently been re-assembled following its arrival in a crate from the USA. Peake was an experienced fighter pilot, who had flown many combat missions over Germany and was one of a number of non-Jewish Americans who flew as volunteers



*Fayid, 1949 – RG298, one of No 13 Sqn's Mosquito PR 34s, about to start engines. (MAP)*

with the Israeli Air Force – the *Chel Ha'avir*.

The Mosquito had taken off from Fayid at 1100 hrs on the, by now, routine overflight of various Middle Eastern countries, including Palestine, that took place every 48 hours. After leaving the Canal Zone, the aircraft had climbed slowly towards Transjordan then landed in Iraq to refuel. Having taken off again, the Mosquito should have climbed to maximum altitude whilst heading for northern Palestine, before turning south to follow the coast, while photographing Israeli airfields. Meanwhile, after climbing to around 30,000 feet, Peake in the P-51 was guided towards the Mosquito by another pilot who was tracking the aircraft with binoculars. Because of a faulty oxygen system, Peake had difficulty seeing clearly and he eventually descended to intercept the Mosquito at 28,000 feet over Israel – apparently misidentifying the aircraft as a Handley Page Halifax!

The Mosquito pilot, Fg Off Eric Reynolds and his navigator, N2 Angus Love, failed to spot the Mustang approaching from their rear. Having closed the range, Peake opened fire, observing strikes on the aircraft and the beginnings of a fire in the port engine, before his guns jammed after forty-five rounds. The Mosquito turned out to sea, losing altitude until it exploded at about 20,000 feet, the wreckage falling off Ashdod; there were no survivors. It is now known that ministerial

approval for the overflight of Arab countries and Israel had not been sought, and that these flights had been authorised by AOCinC RAF MEDME to provide the only real source of intelligence on regional activities. Accordingly, CAS, MRAF Tedder, ordered a halt to further overflights, until appropriate ministerial approval had been formally obtained.

A third incident began on the evening of 5 January 1949 when Israeli leaders were informed that the Egyptian government had agreed to a cease-fire to take effect at 1600 hrs on the 7th; unfortunately, this information was never passed to the British forces in the Canal Zone. By this time Israeli ground forces had already advanced over the border into Egyptian territory in the Sinai. On 6 January, the RAF decided to observe the situation on the frontier between Egypt and Israel. No 208 Sqn was instructed to prepare four Spitfires to escort a pair of No 13 Sqn's Mosquitos which were to fly a reconnaissance sortie along the border. After the aircraft had returned, OC 208 Sqn, Sqn Ldr John Morgan, decided to despatch four more Spitfires to carry out a further reconnaissance of the area the next day. The pilots were under strict instructions to avoid combat, unless they were attacked.

At 1115 hrs on 7 January four Spitfire FR 18s of No 208 Sqn, led by Fg Off Geoff Cooper with P2 Frank Close as his No 2, the other pair being Fg Off Tim McElhaw and P2 Ron Sayers, took off from Fayid and headed for north eastern Sinai. Despite some later reports to the contrary, the aircraft were fully armed and capable of returning fire. The formation had been clearly briefed not to cross the frontier into Israel, but it had also been made clear that any information they obtained if they 'accidentally' strayed over the border somewhere along the featureless desert would be most welcome. As Israeli ground forces were now positioned inside the Egyptian border, however, any route along the Egyptian side of the actual border would, at some stage, involve overflying territory now occupied by Israeli ground forces.

As the formation approached the Egyptian border, the aircraft split into two sections, Cooper and Close descending to 500 feet, with McElhaw and Sayers acting as top cover at 1,500 feet. Eventually the RAF Spitfires headed back towards the area of Rafah, unaware that some fifteen minutes earlier five Egyptian Spitfire LF 9s had attacked



*Spitfire FR 18s, TP391 and TZ233, of No 208 Sqn.*

an Israeli armoured column in that area, setting three trucks on fire. Attracted by the smoking vehicles and curious to discover what had happened, the four RAF Spitfires turned towards the scene of the attack. As they approached the vehicles, Cooper and Close descended below 500 feet to take close-up photographs of the incident, whilst McElhaw and Sayers continued to provide top cover at 1,500 feet.

The sound of approaching aircraft alerted the Israeli soldiers who were understandably quick to open fire on the RAF aircraft with machine-guns, hitting both Cooper and Close. The Spitfire flown by Close was badly damaged and, with his aircraft on fire, the pilot had no option but to bail out. Cooper saw Close leave his stricken aircraft and watched as he eventually landed some ten miles inside Egyptian territory. Meanwhile, McElhaw and Sayers descended to investigate the situation. Whilst the attention of the three British pilots was focused on seeing what had happened to Close, two Spitfire LF 9s of Israel's 101 Sqn arrived on the scene, similarly attracted by the columns of black smoke from the burning vehicles.

Leading the two Israeli Spitfires was a dour Canadian volunteer, John Fredrick McElroy, a Malta veteran who had flown in the defence of the island with No 249 Sqn in 1942. Having ended the war with a

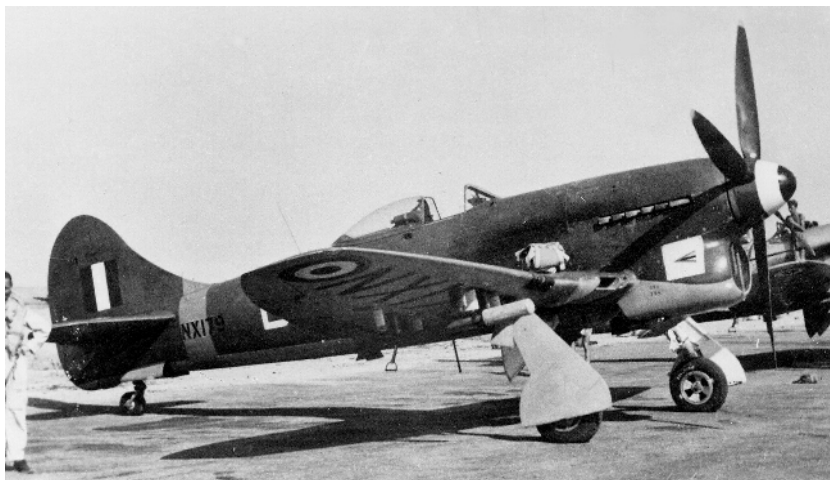


*P2 Ron Sayers, pilot of TZ228, one of four Spitfires shot down on 7 January 1949 but the only one to lose his life.*

total of thirteen enemy aircraft destroyed and a DFC and Bar, McElroy had been recruited by the Israelis specifically to fly Spitfires because of his considerable experience on type. Flying alongside McElroy was an American volunteer, Chalmers ‘Slick’ Goodlin. During the war Goodlin had completed a combat tour in England flying Spitfires alongside RAF squadrons, before transferring to the US Navy. Having been released from active duty, Goodlin joined Bell as a test pilot in 1944 and at just 23 years of age he became the prime pilot for the experimental Bell X-1, making twenty-six flights in the aircraft before the programme was taken over by the US Army Air Force, and the, then, relatively unknown Capt ‘Chuck’ Yeager. After leaving Bell, Goodlin found himself looking for work and was eventually recruited to fly for Israel.

McElroy latched onto the Spitfire flown by Sayers and opened fire, seeing strikes around the engine and cockpit and the aircraft had already begun to burn before entering a steep dive. Sayers was probably killed at the controls when he hit the ground about three miles west of where Close’s machine had crashed. McElroy then switched his attention to McElhaw, dropped in behind his Spitfire and quickly shot him down as well. McElhaw bailed out, landing five or six miles west of Close’s aircraft. Whilst McElroy had been shooting down Sayers and McElhaw, Goodlin had engaged Cooper in the remaining RAF Spitfire and after a brief dogfight shot him down too.

Sayers’ remains were later recovered by Egyptian troops and buried in the desert, close to the wreckage of his aircraft. Cooper landed safely after suffering some wounds to his leg during the engagement and, after help from local Bedouins, was handed over to the Egyptian Army, and then the RAF. McElhaw and Close were captured by Israeli troops and taken to Tel Aviv for interrogation before being released.



*A Tempest F 6, NX179, of No 213 Sqn, sporting Gp Capt Anderson's rank pennant. (Peter H T Green)*

When No 208 Sqn's four Spitfires failed to return to base, the CO decided to launch another formation to search for the missing aircraft and requested an escort from the collocated Tempest squadrons. Both of these units had recently landed from earlier sorties, however, and their pilots had already stood down to the Mess. Nevertheless, Nos 213 and 6 Sqns soon rounded up a number of pilots and a rapid briefing took place whilst the aircraft were being hurriedly prepared by the available ground crew.

Eventually, No 208 Sqn's four Spitfire FR 18s, led by Sqn Ldr Morgan, took off at around 1500 hrs to search for the missing aircraft. The Spitfires flew in the lead at 500 ft, followed by seven Tempest F 6s of No 213 Sqn led by Gp Capt Alan Anderson, acting as medium cover at 6,000 ft, with top cover being provided by eight Tempests of No 6 Sqn at 10,000 ft led by Sqn Ldr Denis Crowley-Milling. Near Rafah, Anderson spotted a number of aircraft diving to attack his formation and immediately ordered a break to starboard. When the Tempests engaged the attacking aircraft, however, they found that they were unable to return fire.

The four attacking aircraft were Israeli Spitfires led by Ezer Weizman, a native Israeli who had served in the RAF during the war,



*The wreckage of Tempest NX207 in which Plt Off David Tattersfield died when it was shot down by Israeli Spitfires on 7 January 1949.*

qualifying for his flying badge in 1945, shortly after the fighting had ended. As his wingman, Weizman had Alex 'Sandy' Jacobs, who had been born in Palestine of British parents and who had also served with the wartime RAF. The other two pilots were American volunteers, Bill Schroeder and Caesar Dangott, both of whom had flown with the US Navy in WW II. As he dived towards the formation, Schroeder singled out the Tempest flown by Plt Off David Tattersfield of No 213 Sqn, a young, inexperienced pilot who had been with the unit for only a couple of weeks. Turning in out of the sun, Schroeder quickly got on Tattersfield's tail and opened fire. Tattersfield was probably killed instantly, as his aircraft was seen to roll into a vertical dive to crash on the desert floor where it burst into flames.

As soon as he heard Anderson's warning, Crowley-Milling led his formation down to attack the Israeli Spitfires. Unlike their colleagues, No 6 Sqn's pilots found that the guns of their Tempests operated normally and they were able to open fire. On the other hand, when they attempted to get rid of their drop tanks they found that they were unable to move the jettison levers. It was later discovered that the release pins were too heavily loaded to be released, because the ground crews had over-tightened the cradle arms after each sortie to ensure that the tanks would be held firmly in place. A general melee now took place between the remaining fourteen Tempests and the four Israeli Spitfires. The experience of No 6 Sqn's Flt Lt Brian Spragg was probably typical; he later recalled:



‘My section broke, rather than turning with me, leaving me on my own. Next minute I had an Israeli on my tail. I tried to drop my tanks, but they wouldn’t come off.’

Caught up in the middle of this melee were No 208 Sqn’s four Spitfires which were fortunate not to be shot down by their own side. Eventually a frantic call for all RAF aircraft to ‘waggle their wings’ allowed them to be clearly identified. The pilots of the Israeli Spitfires soon realised the danger of their situation and disengaged, quickly retreating over the border where the British pilots were forbidden to follow, thus bringing the engagement to an end. In the subsequent debriefing it was clear that many of the RAF pilots had confused the red-painted spinners of the Israeli Spitfire LF 9s, with the similarly red-painted spinners of No 208 Sqn’s FR 18s.

The accidental dispatch of aircraft into a battle zone with unworkable guns also came in for considerable criticism from the survivors of the engagement and when the circumstances surrounding the earlier loss of four Spitfires became more widely known, emotions amongst the RAF pilots ran very high. Before long all available Tempests and Spitfires had been armed and were ready to take off to exact revenge. However, HQ MEDME refused to authorise any retaliation. Nevertheless, there are persistent rumours that certain members of No 208 Sqn later shot down any Israeli aircraft they encountered, including a number of transports, and that news of these events was suppressed to avoid escalating the situation. It should be said, however, that these rumours have never been publicly confirmed by anyone on the squadron at that time.

Back at Hatzor, many of the pilots of 101 Sqn were also decidedly unhappy with the day’s events. Almost every pilot had either flown with, or alongside, the RAF during WW II and the prevailing view was that the British would not allow the loss of five aircraft, and the deaths of two pilots, to go unavenged and that they would probably attack at dawn the following morning. That night, in anticipation of the impending attack, a number of pilots headed into Tel Aviv to their usual haunts, having decided that if the RAF did stage an attack they would offer no resistance. This attitude was not adopted universally, however, and from dawn onwards a number of Israeli pilots were strapped into their cockpits ready to repel a retaliatory attack that

never materialised.

A number of questions arise from these incidents and the following observations are offered.

First, the attack on the RAF detachment at Ramat David by the Egyptians was probably the result of a combination of poor Egyptian intelligence and bad map reading by the pilots involved – mistakes that several of them paid for with their lives.

The loss of the Mosquito was caused by very limited British intelligence on Israeli Air Force capabilities, possibly mixed with a degree of overconfidence. Had it been appreciated that the Mosquito might be opposed by a P-51, then, at the very least, one would have expected that the regular route would have been varied and the crew might have been rather more alert while flying in Israeli airspace.

The third incident was a classic example of the ‘fog of war’. McElroy and Goodlin encountered Spitfires flying low past burning Israeli Army vehicles and drew the obvious conclusion – that they were the Egyptian aircraft that had been responsible for the attack. Once that decision had been made, the die was cast, as it would have been difficult to distinguish between Egyptian and British Spitfires at firing range and in poor visibility.

In the fourth incident, a number of the pilots in the Israeli Spitfire formation must surely have known from the outset that the aircraft they were attacking were British Tempests, rather than Egyptian Spitfires and I believe this incident was simply an unprovoked attack. Although Weizman appears to have positively relished the opportunity to get one over on the RAF, not all of his colleagues were quite as enthusiastic. Several weeks later Tattersfield’s father received an anonymous letter about the death of his son. In the letter (believed to have been written by Bill Schroeder, who had shot Tattersfield down) it is clear that the author had confused the actions of some of the aircraft involved in the encounter. Nevertheless, it is equally apparent from the tone of the letter that its writer deeply regretted the part he had played in the events leading to Tattersfield’s death.

The inability of No 213 Sqn’s aircraft to return fire was almost certainly caused by simple human error. Although it has often been reported that it was official policy at the time for RAF aircraft to be unarmed, I have failed to discover any evidence of such an instruction in the declassified files and we know that Nos 6 and 208 Sqns had

loaded and cocked guns, which would have contravened such an order, so there has to be another explanation. The Tempests of No 213 Sqn had landed earlier than those of No 6 Sqn and, as part of the after landing checks, and for obvious safety reasons, the armourers would routinely have uncocked their guns. In the later rush to turn the aircraft round at short notice, the evidence suggests that No 213 Sqn's armourers had simply overlooked the need to re-cock the guns. As No 6 Sqn's Tempests had landed later, it would seem that their guns had still not been uncocked when the order was received to prepare the aircraft for another sortie. The guns would, therefore, have been left in their armed state, permitting No 6 Sqn's pilots return fire when they engaged the Israeli Spitfires.

Many years later, Gp Capt Anderson probably spoke for all those involved when he expressed his expert opinion on the final incident by commenting that:

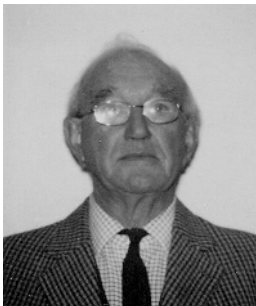
‘This fantastically misplanned operation afforded a lively illustration of how an unbeaten air force appears able, at the drop of a hat, to disregard every lesson learned in five and a half years of victorious total war. It was remarkable that only one aircraft was lost, considering that we were sent off unarmed to meet aircraft of greater manoeuvrability in a highly confused area of operations.’

It is ironic that, during the Israeli War of Independence, the RAF was attacked by both protagonists, with lives being lost as a result, despite attempting to remain neutral – the almost inevitable result of getting in the middle of someone else's war. It is also a rather surprising fact that the second Egyptian Spitfire shot down by Fg Off Tim McElhaw on 22 May 1948, was the last occasion that an RAF pilot in an RAF aircraft shot down another aircraft in an air-to-air engagement – an unusually long time ago, particularly considering the numerous conflicts in which the RAF has been involved over the intervening 58 years.

**Note:** For a more extensively illustrated account of these incidents, readers are referred to my website at [www.spyflight.co.uk](http://www.spyflight.co.uk) – click on ‘Operations’.

## THEATRE AIR TRANSPORT OPERATIONS IN THE MID-1950s

### Flt Lt Denis Burles



*Originally called up for National Service, Denis Burles was eventually commissioned from Cranwell as a pilot in 1953. He subsequently flew Valettas in Egypt, Cyprus and Malaya, and Argosies from Benson, Khormaksar and Bahrain before leaving the Service to fly for British Airways and Gulf Air. He now runs his own business looking after fine turf.*

The core function of Air Transport has always been to move and sustain other operational units, wherever and whenever required. This has been particularly relevant in the Mediterranean region where it has sometimes been necessary to re-supply permanent RAF stations as well as transient units. The map on page 6 illustrates the huge distances involved in a region almost totally lacking in railways, roads and harbours. It takes about a week for a ship to travel from Gibraltar to Egypt and there is a further 700 miles of featureless desert to Habbaniya. Air transport has therefore always been essential for the operation of all three Services throughout the region.

After the cessation of hostilities in 1945 all the military forces in the Middle East, and elsewhere, were concerned with adjusting to more peaceful conditions. The first priority was the repatriation of troops and, since most of them came from, or had to pass through, the Mediterranean area, this created considerable problems for the local staging posts, not least because the RAF was also demobilising and the associated reductions in manpower and equipment caused frequent and severe shortages of both. The resulting rearrangement of the remaining men and materials meant significant increases in workload for the all transport services, both military and civilian – workloads for which they had not been designed and for which they were not prepared. While this meant additional tasking for the aircrews, much of the extra burden was carried on the shoulders of the ground crews at staging posts such as Fayid, El Adem, Idris and Luqa.

Egypt had always housed the main Headquarters for the area with

subordinate HQs spread throughout the region at, for example, Habbaniya, Aden, Nairobi, Malta and Cyprus. The theatre transport squadrons were initially based at Kabrit and equipped with modified bomber aircraft alongside the ubiquitous Dakota until 1949 when the home grown Valetta began to arrive. The Valetta had been adapted from the successful Viking which was already in service with BEA, and with the Royal Flight. The RAF specification had called for a multi-role aircraft capable of operating as a glider tug, freighter, passenger and troop carrier, air ambulance and supply dropper; it was to be capable of using rough strips and have a range of about 1,500 nm. This aircraft emerged as the Valetta C Mk I, affectionately known as 'the Pig', which would give good service until 1967. The Mk 2 was a VIP version and the T.3 a flying classroom which came later. The Viking's Bristol Hercules sleeve valve engines were uprated to 2,000 bhp apiece and, with the floor and undercarriage both being strengthened to cope, the maximum take off weight was increased to 36,500 lb. The Valetta carried an average load of 3 to 4 tons over 1,400 miles at 180 kt and, along with the strengthened floor, it also had the much safer, but still unpopular, backward facing seats.

Before going any further, I should perhaps, qualify what follows. From my CV you can see that I am fairly familiar with the flies, the dust, the heat, the sand – and with salt water soap and prickly heat. Log books and ex-squadron members, with whom I am still in touch, and lots of help from the library here at the RAF Museum, have all assisted my memory. Where there has been any discrepancy, my version has prevailed.

The RAF operated the Valetta with a three-man crew consisting of a pilot captain, a navigator and a signaller. The signaller sat in the right hand seat for take off and landing and, as dual controls were fitted, some signallers, unofficially, became embarrassingly good at doing the landings. The signaller also acted as the steward, when in flight, and although the passengers came on board with their cardboard meal boxes (containing one hardboiled egg European, or two equally hard boiled eggs Asiatic, with a corned beef or cheese sandwich and a slice of fruit cake), it was he who organised the distribution of the so-called coffee or the tepid orange-coloured water for the passengers. The crew fared a little better because the standard Heinz tin of sausage and baked beans or tomato soup could survive a



*A Valetta displaying the door used for the despatch of paratroops or supplies; this one, WJ497, belonged to the Far East Communications Sqn and was operating over Malaya. (Peter H T Green)*

bash with the fire axe to flatten the can sufficiently for it to be fitted into the space between the T1154 and R1155 radios to heat up.

The Valetta could carry: up to forty-two fully armed troops, although the normal passenger load was limited to only thirty-six people; twenty fully equipped paratroops, together with their nine parachute-borne CLEs (Containers Light Equipment) carried externally beneath the fuselage; or twenty stretcher cases with their attendants, at least one of whom was usually a lovely 'PM'. It could also carry various combinations of Jeeps, Land Rovers, their trailers and 25 pounder guns. In the Air-Sea Rescue role a Lindholme gear could be fitted to the underbelly racks, although later this gear was dispatched out of the back door in the same manner as the dropping of SEAC packs. There was also a roller conveyer system which could be used to drop 2 tons of basket containers, again out of the back door.

I had perhaps better explain that both the Valetta and the Hastings had a huge opening in the port side of the fuselage to enable large items to be loaded. The freight door and the passenger door closed this hole. For aerial delivery a panel in the freight door could be removed and it was through this hole that the packs, panniers or paratroops were dispatched.

A particularly inconvenient feature of the Valetta was its main spar, which ran straight across the fuselage, dividing the cabin into two parts – a legacy inherited from its Wellington predecessor. This

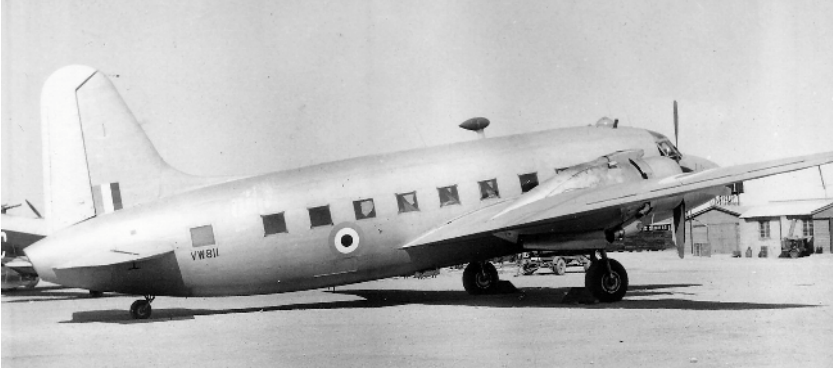
made the aircraft unpopular with those responsible for loading it because freight always had to be lifted over this spar to ensure that it was in front of the passengers. Remember that this was in an era before pallets or containers had been thought of and absolutely everything had to be manhandled. Air cooling units and cabin air conditioning did not exist, of course, and the inside of the aircraft could become unpleasantly hot. There were no fork lift trucks or other freight handling equipment outside the aircraft either and all loads had to be run up ramps, loaded off the back of a lorry or simply lifted, all by raw muscle power. To position larger items of freight forward of the spar often meant having first to remove the seats which all then had to be refitted.

Freight was secured by nets, lashing tape or hooks and chains and a large box containing an assortment of this lashing material was carried on all flights. Freight could also be carried in the under-floor holds but these were seldom used after an aircraft had freight left in its holds and subsequently forgotten, apparently until the next major servicing. The hold doors were also kept shut to keep out as much sand as possible. Even so, when an aircraft had a major servicing large amounts of sand were always swept out of these under-floor bays.

In 1949 the first priority for the RAF's new medium range transport aircraft was to re-equip the five Middle East transport squadrons then based at Kabrit. The first was No 204 Sqn (later re-numbered as 84) followed by Nos 114 and 216 Sqn with Nos 70 and 78 Sqn joining them in 1950. The theatre transport force was now fully up to strength and the Valetta became the maid of all work.

Throughout this period the Egyptians had been pressing the British Government to reduce its forces in Egypt and Kabrit was vacated in 1951. All of its squadrons were moved to Fayid which became the main transport airfield. As such, apart from managing its resident units, Fayid also handled all long range RAF transport aircraft, and civilian charter flights, arriving in, departing from or passing through the Canal Zone.

Fayid was busiest at about dawn. The resident aircraft were parked for departure in two waves: the first to take off at 0500 hrs and the second at 0530 hrs to avoid flying over the desert during the heat of the day. There was a daily 'milk run' to Luqa via El Adem and sometimes via Benina or Idris. There were scheduled services to Aden (Khormaksar) via Port Sudan; to Aqaba, Amman and both the old and



*Above, one of No 216 Sqn's Valettas, VW811, in the original all-silver finish and, below, No 114 Sqn's VW161 with the later white top to the cabin. (N D Welch)*



later the new Mafraq, to Habbaniya Main and later Habbaniya Plateau, to the Gulf and often on to Karachi (Mauripur). There were further regular services to Nairobi via Wadi Halfa or Khartoum and along the south coast of the Arabian Peninsula to Riyan, Salalah and Masirah.

The Valetta's first large troop lifts were in October 1950 when Nasser abrogated the 1936 Treaty. Riots broke out in many Egyptian towns and the Valettas were called upon to bring troops from their bases in Libya, Cyprus and Aqaba into the Canal Zone.

In 1952 an airlift of fresh vegetables had to be staged from Mafraq to the Zone because the Egyptians had cut off supplies. 1952 was also notable for the introduction of white painted tops to the fuselages of transport aircraft, which, it was claimed, reduced the temperature in



the cabin by about 10 degrees.

1955 was a busy year for the remaining Fayid squadrons, both in and out of the Mediterranean area. They took troops of the Camel Corps (minus camels) to the southern Sudan to quell a mutiny. In June of that year there was trouble in the Western Aden Protectorate and Valettas were used to fly troops down to Khormaksar and then up country. There was also trouble in the Congo that summer which involved the Valettas flying in troops and evacuating refugees to Accra, in the Gold Coast. Fayid closed at the end of 1955, by which time No 78 Sqn had already disbanded; No 216 Sqn flew back to the UK to re-equip with Comets; No 70 Sqn moved to Cyprus; Nos 84 and 114 Sqn re-located briefly to Abu Sueir before moving again in April 1956, this time to Nicosia.

I have concentrated on the Valetta because it was *the* theatre transport aircraft until 1956 when it began to give way to the Hastings with which No 70 Sqn was being re-equipped at Nicosia before being replaced in its turn by the Argosy and the Hercules.

On 26 July 1956, Nasser nationalised the Suez Canal and soon afterwards the build up for the Suez invasion began. It was during this period, when the paratroops and the RAF were living in very close proximity at Nicosia, that an order reputedly emanated from AHQ to the effect that 'Army officers are no longer to be referred to as pongos: in future all pongos are to be referred to as Army officers.'

At dawn on 5 November 1956, the Valettas led the airborne assault on El Gamil airfield and at 0515 hrs the first paratrooper left the lead Valetta. The aircraft dropped in pairs and after the drop they reformed to return to Nicosia in immaculate formation. After a 'leisurely' breakfast the re-supply Valettas, with fresh crews, took off to air drop supplies to Gamil. By early the next day the runway had been cleared and the Valettas were landing. A temporary flarepath was laid and 24-hour operations started that night. Unfortunately the US 6th Fleet insisted on remaining in the area and, because it threatened to shoot down any aircraft which came near it, the aircraft supplying Gamil had to route around where the fleet was the until 22 December, when the subsequent evacuation was completed.

In November 1956 the RAF rapidly left Amman for the new Mafraq which was not ready and no fresh supplies were available. More importantly the water supply was not ready and the sewage works had to be used for water storage. On the 10 November two

Valettas left Nicosia at dusk loaded with water and at a special overload weight of 37,000 lb. From the map you can see that politically sensitive airspace could possibly have been infringed. The aircraft climbed overhead before setting course to cross the coast of the Levant as high as possible, which would have been about 20,000 feet. No lights were shown and radio silence was maintained. Over the next few nights similar flights were made carrying fresh fruit and vegetables. Beyond log books and memories I can find no reference to these flights – but we were awarded the Mafraq tie.

That covers most of the routine occurrences but, in addition to this already substantial commitment, the Valettas were also required to move the ground equipment of fighter and bomber squadrons, and of army units, engaged in operational deployments or in association with their frequent exercises. Yet more tasking was involved in the provision of an aircraft and crew to calibrate navigation aids throughout the whole of the Middle East Command.

Throughout this period continuation training was not neglected and the chinagraph pencil line had to be kept going up the board. For squadron crews continuation training could be tedious, although it did occasionally have some tangible value. For example, before leaving the Canal Zone, the most important route training flight was the weekly one, on Friday afternoons, to Nicosia. I can't remember the official reason for this flight having to go to Nicosia every week but it was always full of chaps of all three Services who had their families in Cyprus. I don't think that this aircraft was ever unserviceable, or the weather too bad and it always returned on time. Some members of this audience may be familiar with the bad weather that Nicosia can experience and realise how vital a successful let down could be on those Friday afternoons. Or, on other occasions, being caught out by the monsoon when approaching Salalah, the resulting low cloud base making an NDB let down, in real earnest, necessary. This involved descending to decision height and, if you could see the sea, continuing in contact until the beach appeared and then climbing *up* to clear the palm trees. If the runway was in sight, good. If it wasn't then a rapid, full power, climbing 180 degree turn was called for. After months of operating in the normal eight eighths blue sky such an experience was a reminder of the colour of adrenaline!

While operating from Nicosia there were also the EOKA troubles and the Valetta was used for leaflet dropping over Nicosia city and in



*Photographs of Valettas with external loads are unusual. This one is of Malta-based VW856 toting a three-cylinder Lindholme Mk 3 gear on the rearmost (of three) fuselage stations. At left is the earlier two-cylinder Mk 2 gear slung on the forward hardpoints of VX539. Both pictures date from the mid-1960s. (Dennis W Robinson/TwilightSlides.com)*

the Troodos mountains. It was also in a Valetta of No 70 Sqn that Archbishop Makarios left Cyprus to begin his exile in the Seychelles. The vital Air-Sea Rescue standby had to be continuously maintained as well. I recall an occasion when there was a call out to look for an Auster during a guest night. The captain and navigator arrived at the aircraft in full mess kit, put on their flying overalls and away they went. On another occasion the aircraft was called out to look for a Canberra which had come down in the sea near Akrotiri. On its way back to Nicosia the aircraft was diverted to look for an Israeli civilian aircraft which had suffered an engine failure. It was found and escorted into Akrotiri. This extended flight resulted in the crew being unintentionally airborne for over seven hours.

This rather personal review has finished in 1957 and has concentrated on the activities of the Valetta. Time constraints meant that I have been obliged to ignore Gibraltar and Malta, but I understand that their contributions will be adequately covered in other presentations.

## OPERATION MUSKETEER – A PERSONAL VIEW

### AVM George Black



*George Black joined the RAF as a National Serviceman in 1950. Trained in Canada, he flew Vampires, Meteors and FAA Sea Hawks. A QFI, he later flew Lightnings with No 74 Sqn, as the CFI of No 226 OCU and as OC 111 and 5 Sqns. Command of RAF Wildenrath followed, along with staff jobs at MOD and HQs 38 and 11 Gps. More senior appointments included command of a Sector in 2ATAF, Commandant ROC and a post at HQ AAFCE. On retirement in 1987 he joined Ferranti and he is currently a Defence Consultant with BAE SYSTEMS.*

Fifty years ago, on 1 November 1956, Anglo/French aircraft carried out the first co-ordinated air strikes on the operational airfields of the Egyptian Air Force (EAF). The Suez crisis, which had dominated international headlines for the previous two or three months had begun in earnest, despite world-wide condemnation of Britain and France, particularly from the United States and Russia. The latter had even hinted that the situation being created was so serious that any military action against Egypt to recapture the Suez Canal could lead to nuclear war!

The seizure of the Suez Canal in July 1956 by Colonel Nasser, President of Egypt, aroused intense political indignation and diplomatic pressure within British and French government circles who saw nationalisation of this strategic asset as a direct threat to their longer term interests further east. Moreover, ever since it had been built the canal had always been owned by the British and French who therefore had joint responsibility for its operation.

The British Prime Minister, Sir Anthony Eden, was emphatically outspoken about the actions of Colonel Nasser and unequivocal over using all available means, including the threat of force, to retake the canal. It was this political background and the start of a rapid military redeployment of British and French forces that provoked increasing world-wide condemnation of the possible actions that were being contemplated. To a large extent this was because of economic ties

with Egypt (the Aswan Dam) and the impact on relations with Arab neighbours.

History now records that the developing situation at the time, and the likely consequences that military action was to have, had a profound and lasting effect on world affairs, particularly as regards the impact on future UK foreign policy. Indeed, many eminent politicians in the intervening years since the crisis have described Suez as the worst error ever made in British foreign policy – events in Iraq today may alter that view. Certainly the outcome led to the immediate resignation of Prime Minister Eden after he had lied to Parliament when asked to comment on aspects of collusion prior to hostilities. However, my task this morning is to focus on the military operation – Operation MUSKETEER – arguably one of the shortest in the history of conflict – and to describe my personal recollections, albeit from a Fleet Air Arm perspective.

I was about six months into my exchange tour with No 802 Naval Air Squadron equipped with the Sea Hawk fighter/ground attack aircraft and had fully acclimatised to operating routinely from the deck of the aircraft carrier HMS *Albion*. When the Suez build-up started the carrier was operating off Malta but it was soon to receive instructions to proceed east with all possible speed to a new area of operations some 100 miles off the Egyptian coast. The prospect of a passage through the canal for a goodwill visit further east, as had been planned, rapidly faded. Events moved ahead quickly and within a matter of a week or so we were joined by two other British aircraft carriers, HMS *Eagle* and HMS *Bulwark* together with numerous support ships. The French Navy also joined the gathering fleet with two more aircraft carriers and supporting vessels. At the same time massive redeployments of RAF aircraft were underway to Malta and Cyprus.

Although precise timings as to when things might happen were vague, it was abundantly clear from all the preparations taking place and the high readiness states being maintained that an air attack on Egypt was in the final stages of planning. From my perspective I knew it was getting serious when large identification stripes were painted on all the aircraft and escape maps, gold sovereigns and the traditional blood chit were stitched inside individual flying suits. But it got *very* serious when all day-fighter pilots, such as myself, had to qualify for



*Flt Lt Black's Sea Hawk FB 3, WN118 of No 802 Sqn, spreading its Suez-striped wings on board Albion. (AM Black)*

night currency operations from the dimly lit deck of an aircraft carrier.

Daily intelligence briefings, updated by recent recce flights, were given at frequent intervals throughout and one listened with great interest to the World Service of the BBC to hear the latest moves on the political front. Suffice to say that the carrier battle group was ready to launch pre-dawn raids whenever the political signal was given. Several days prior to receipt of this message an intriguing situation occurred which was to heighten tension still further as Israeli land and air forces launched surprise attacks against Egyptian troops based along their eastern border. Time does not permit me to go into detail but this pre-emptive and provocative action was halted after 48 hours following strong British and French diplomatic pressure.

Clearly this resulted in further agonising delays as increasing political anxiety over the deteriorating global situation began to sink in. However, full scale operations against the EAF began for naval air assets shortly before dawn on 1 November as the first of many waves of aircraft headed towards pre-assigned targets inside Egypt. Immediately prior to this RAF Canberras and Valiants had carried out

high level night bombing raids against the EAF airfields.

The campaign objective had three main phases, although, with the early destruction of all primary targets, in practice each of these tended to shade into the other. The respective phases were:

1. Destruction of the EAF by air attack, both in the air and on the ground.
2. Destruction of major military installations, to include storage areas, supply depots and Cairo Radio.
3. To launch an air and sea assault into Egypt in order to recapture the Suez Canal by use of land forces, supported by naval close air and sea support. This involved the first joint use of helicopters in a support role.

On paper the EAF looked a formidable threat with a strength of over 400 combat aircraft, including more than 100 new MiG-15 fighters. However, training standards, pilot experience levels and flying rates were well below those of NATO and there was poor spares backing to support operations on a daily basis. The RAF bombing raids on the early hours of 1 November got off to a shaky start with the result that none of the targets struck were put out of action. Indeed I observed the results on several of the airfields which showed the runways still intact with many of the visible bomb craters outside the airfield perimeter. Flying as Number 3 to my squadron commander on the very first dawn strike on Cairo's Almaza airfield one could clearly see large numbers of aircraft parked on the aprons and close to the hangar areas, indicating that few defensive aircraft had taken to the skies to intercept incoming attackers. The situation presented a target-rich environment, or so it seemed, but for one thing – a failure on my part to appreciate just how distracting close quarter anti-aircraft fire can be, especially if one had not experienced it previously. Training on a weapons range certainly lacked the excess of adrenaline in the system which I was to experience on all subsequent missions. It is also worth mentioning that the concentration of anti-aircraft fire, although seldom accurate, was determined and most of the squadron's aircraft had sustained minor damage before the end of hostilities. Interestingly, most of the *Flak* damage repairs were carried out effectively and quickly with the aircraft returning to service in a matter of hours.

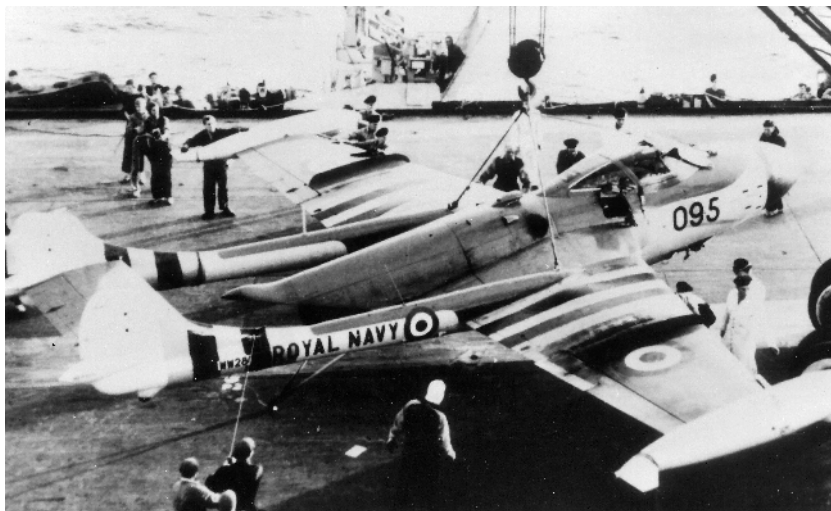
Following two days of intensive operations most of the main target complexes had been completely destroyed and it was not unusual to be tasked to a target where there was little left to attack; Cairo Radio was perhaps one of the few exceptions where multiple hidden transmitters seem to allow broadcasts to continue almost without interruption. As a result of these early successes, Day 3 saw many recce sorties being flown in preparation for the air and sea borne assault. The start of Day 4 saw most naval aircraft being tasked to escort the large fleet of transport aircraft heading towards Gamil airfield on the Egyptian coast.

Once this part of the operation had successfully been completed, tasking reverted to close air support in support of the advancing land force. I have mixed views regarding what was achieved during this phase which was poorly co-ordinated, lacked good communications and seemed to have an abundance of firepower in support of a limited range of meaningful targets. It was clear that everyone wanted a share of the action! Also, for once, there was very little ground fire to worry about. By close of play on Day 5 talk about a reluctant cease-fire was being negotiated with Britain and France following intense diplomatic pressure, not least from the UN. This was to begin at midnight on 6 November. From then on all active air and ground operations ceased, although a considerable number of armed recce sorties were flown over the subsequent two weeks along the entire length of the canal. This would frequently provoke the Egyptian gunners into opening sporadic fire, suggesting that they were perhaps unaware of the cease-fire, or plain bored!

Looking back on events, the sustained flying rates from the three British carriers was both intensive and not without considerable risk as the pressure mounted to complete all three phases of the operation as quickly and effectively as possible. Perhaps the likely knowledge that a cease-fire was in the offing added to the pressure; but I know my twenty-five operational sorties in five days left an indelible memory in my flying career.

No talk on this subject would be complete without reference to the intentional harassment that threatened the combined carrier group by aircraft from the US 6th Fleet throughout the entire period. This mostly involved carrier borne aircraft but also, on occasion, submarines which entered the exclusion zone seeking to cause





*No 893 Sqn's Flak-damaged Sea Venom FAW 21, WW281, being recovered from the deck of HMS Eagle following its wheels-up landing on 2 November – the incident in which Fg Off Olding was injured. (Andy Thomas)*

maximum disruption to operations before beating a hasty retreat outside the area.

As to the aftermath, it was arguably a military success, albeit recognising that it was against an opponent with limited resistance. However, during the five-day operation nine aircraft were lost to enemy action. Two of the losses were particularly noteworthy. First, a Sea Venom, damaged by ground fire, which landed wheels-up on HMS *Eagle* with a badly injured RAF navigator – Fg Officer Bob Olding – on board. Sadly, Bob had to have his leg amputated at the RAF Hospital at Akrotiri some three days later. The other incident on 8 November involved a Canberra PR 7 of No 13 Sqn, flown by a No 58 Sqn crew, which was shot down by a Syrian Air Force MiG-15 whilst on a recce mission. Two of the three crew members survived the incident.

In the eyes of the world, particularly the Arab world, President Nasser had emerged as the victor. But international politics and the ramifications for foreign policy, particularly as regards British

influence in the future, would change significantly.

From my personal perspective I was deeply critical of the poor command and control that had existed throughout operations. There was a total lack of co-ordination between RAF operations out of Cyprus and naval air operations off Port Said. Moreover, the perceived weaknesses in the close air support role indicated that many of the lessons learnt from previous conflicts had been forgotten, or were ignored.

In conclusion, but perhaps to give a more balanced view, an appraisal by the Chiefs of Staff suggested that, while the campaign had for the most part met the objectives and been splendidly successful, it was mindful of the circumstances under which it was fought. Knowing there was little opposition and that we had overwhelming force one was left reflecting that perhaps in overall terms certain aspects weren't quite as successful as one might have hoped. Those in the audience who have served in Whitehall will recognise the language and ambivalent style of the author!



*This wasp-waisted Sea Hawk, XE335, seen here staging through Istres, was an FGA 4 of No 810 Sqn from HMS Bulwark. (B Forward)*

## THE RAF REGIMENT

### Air Cdre Micky Witherow



*Commissioned into the RAF Regiment in 1956, Micky Witherow's service included stints in Aden, the Gulf, Libya, Belize, Northern Ireland and Germany. He commanded No 26 Sqn, No 3 Wg and the Regiment Depot at Catterick; staff appointments included stints at both Ramstein and Rheindahlen, and as Director of Personnel (Ground) and Director RAF Regiment. After leaving the RAF in 1990 he joined Coutts Consulting Group, retiring as its Director of Information Technology in 2001.*

### Introduction

For the purposes of this presentation, 'RAF Regiment' means the operational units which served in the Mediterranean theatre from early 1955 to 1996. Cyprus is my main focus today. I was never actually stationed on Cyprus myself, although I was there several times both during EOKA and subsequently.

### The Early Days

An RAF Regiment Wing HQ and two light anti-aircraft (LAA) squadrons arrived in Cyprus in early 1955 from the Canal Zone, for the defence of RAF Nicosia. Within a year, a total of three LAA Wing HQs and five LAA squadrons were on the island, some for Nicosia and others destined for Akrotiri. Meanwhile, the Cyprus Emergency against EOKA had been declared on 1 April 1955 and LAA training for the Regiment rapidly gave way to 'two on/four off' close guarding of the base. This was inefficient in force-protection terms and anathema to the Regiment, but was, sadly, a common practice in the largely National Service RAF of the day.

Nevertheless, during this early period, some sharp lessons were learned. For instance, in June 1956 Akrotiri was attacked internally by night with several timed improvised explosive devices (IEDs). Five had exploded, causing much damage, when Flt Lt Parker of No 3 LAA Wg found a sixth large IED in a maintenance hanger containing several Venoms and Meteors. He tied a cord to the IED, knowing that

it was in imminent danger of detonation, and pulled it well clear of the building before it went off – some 45 seconds after he got himself clear of it. He was awarded an MBE for gallantry. Another incident, later at RAF Nicosia, resulted in heavy casualties in the NAAFI canteen, leaving an apparently insoluble question as to how explosives could have been brought in through the tight RAF Police gate-security. Intelligent deduction a few days later by an RAF Regiment corporal who observed the checking procedures, led to the discovery that civil employees were ‘buttering’ their lunch-pack sandwiches with plastic explosives and passing straight through the gate-checks.

LAA Squadrons in 1955-56 were ill-equipped for mobile ground operations and so a field squadron was redeployed from Habbaniya to join the LAA units. Its role was to furnish mobile vehicular patrols and convoy escorts. Security duties remained pre-eminent over gunnery, but at least officers and NCOs practised their battle procedures and control and reporting, staying abreast of their primary role, which was just as well, for in July 1956 Nasser nationalised the Suez Canal and November brought the Anglo-French invasion of Egypt – Operation MUSKETEER.

### **Suez**

The near-defunct gunnery skills of the men were hurriedly worked-up, just in time to be deployed for the defence of RAF installations, although in the event, the pre-emptive Anglo-French counter-air action had ensured that the Egyptians never came. The stations had to undertake their own on-site guarding, however, which they did competently, because the bulk of the Regiment squadrons had moved off-base with their guns. The five LAA squadrons had to be supplemented by LAA batteries of the Royal Artillery, under RAF Regiment command, since the sixty RAF Regiment guns available were insufficient to cover Akrotiri and Nicosia simultaneously. Despite the RAF’s serious concerns at the lack of LAA training, the official Army report on this aspect of operations commented on the Royal Artillery’s ‘unfamiliarity with the demanding airfield air defence role’ and complimented the RAF Regiment on its ‘high standards of efficiency and, particularly, of aircraft recognition’. A good lesson from history, one might think. Nevertheless, this year (2006), fifty years later, the RAF Regiment lost its air defence role to

the Royal Artillery.

Meanwhile, No 63 (Field) Sqn from the UK was deployed to Malta for Op MUSKETEER and No 62 (Field) Sqn at El Adem established a forward observation screen for that base against the Egyptian border, only sixty miles to the east. However, only No 48 (Field) Sqn, embarking directly from the UK with the Royal Marines, saw action during MUSKETEER. Landing in the first-ever carrier-launched helicopter-borne assault, under command of the RM Commando, they seized and secured Gamil airfield as the principal airhead for the operation. The attack was not seriously resisted, following the Allied air strikes, and after brief skirmishing the remaining defenders surrendered, leaving a secure DZ for the parachute drop. However, the sudden cease-fire and withdrawal meant that No 63 Sqn never moved forward from Malta. Both UK squadrons duly returned to their home bases but very shortly afterwards No 63 Sqn moved permanently to Cyprus, followed by No 194 (Field) Sqn, also from the UK.

### **The Sandys Axe**

The 'Sandys Axe' fell in 1957. All RAF Regiment units, except for those in the UK or the Mediterranean, were disbanded. The RAF Regiment's strength dropped from fifteen Wing HQs to four and from thirty-eight squadrons to twelve, of which no fewer than three Wing HQs and seven squadrons were in Cyprus and one in Libya. Their manpower in the Mediterranean constituted 66% of the remaining RAF Regiment. In effect, had it not been for Makarios and Nasser, the Regiment would have been unviable.

### **VIP Protection**

The additional field squadrons had boosted the Regiment's capability because of their mobility, heavy fire-power and lavish communications – which were the envy of the Army. Their success led Sir Hubert Patch, the AOCinC, to appoint No 2 (Field) Sqn as the principal VIP escort and bodyguard unit for the RAF in Cyprus. Before long, the RAF's security and defence posture in this campaign became a model for future RAF air-base defence in low-intensity Internal Security (IS) operations, with particularly beneficial spin-off a decade later, in the latter days of Aden.

## **Working With The Other Services**

From time-to-time the Army sought RAF Regiment support in major operations, which, whenever possible, the RAF was happy to provide. The squadrons relished these opportunities and consequently saw action in many parts of Cyprus. In the process, it became generally recognised that the sight of RAF troops, rather than Army, tended to calm confrontational situations, such as riot-control. We do not really know why. Possibly our troops knocked sufficient Hell out of the NAAFI's on pay-night instead of the populace! In any case it was a characteristic that re-emerged during the 1963-64 and 1974 eruptions, of which more later.

During 1957, there was a request for a battalion's-worth of troops for an operation in the Troodos Mountains, to replace a RM Commando considered to be in need of 'rest'. No 3 (LAA) Wing with its two LAA squadrons in their infantry role, plus No 194 (Independent) Field Sqn from Akrotiri, exchanged duties with the Commando, which assumed Akrotiri's defence. Unfortunately during their duty, base security was breached and a hangar at Akrotiri was bombed. A Canberra and at least one Venom were destroyed, with much else besides. For the remainder of the EOKA emergency, the RAF insisted that at least one RAF Regiment squadron must always be available on-base.

## **No 194 Squadron**

There is a sad footnote to No 194 (Field) Sqn's history. As an independent unit (ie, not under command of a Wing HQ) and permanently encamped off-base from Akrotiri, so somewhat out of sight and mind of the station, No 194 Sqn mutinied in 1958. This was attributed to appalling leadership and gross mishandling by its CO. The AOCinC personally relieved the Squadron Commander of his duties immediately, and I understand that he subsequently resigned his commission. He was replaced within days by an officer who had won a Military Cross in the Aden Protectorate during 1956 and who had recently returned to the UK. After the Board of Inquiry, the new CO had most of his inherited officers and a number of the NCOs removed. One officer who was retained was the Deputy Squadron Commander, who had shown considerable courage in preventing the situation turning into an armed outbreak. The unit soon settled down, operating

successfully until the Cyprus settlement of 1960, although as soon as this had been implemented, No 194 Sqn was disbanded, albeit honourably.

### **Innovations**

During 1958 the Army in Cyprus was issued with the new self-loading rifle and Sterling sub-machine gun. The Regiment still only had the No 4 SMLE rifle and the notoriously unreliable Sten-gun. In a face-to-face encounter between a Regiment sergeant and a terrorist near Ayios Nikolaos, the NCO's Sten jammed and the terrorist escaped. As a direct result, the Sterling was immediately issued to the Regiment. Two days after its issue to No 63 Sqn, a three-man EOKA ambush was sprung from a hide 30 feet or so above the road, against a convoy under the squadron's protection. The Point Section Commander, Sergeant Hyson, immediately counter-attacked up the very steep scree-face, under fire. The enemy fled. Reaching the cliff-top and at a good 50 yards-plus range, Hyson shot one man with two aimed shots from his new Sterling, a feat impossible with the Sten, capturing him alive but seriously wounded. His Bren-gunner killed a second terrorist at 200 yards, as he was entering a house. The third man surrendered. Hyson, who was Mentioned in Despatches for his leadership under fire, later told me that he resisted a very strong urge to kill his man, then unknown to him, as he lay there. The two terrorists were duly tried and sentenced to death but were later reprieved. Hyson's man, however, was the No 2 to Nicos Samson, no less, a key EOKA figure, later to launch the July 1974 *coup* against Makarios and briefly to declare himself President, so precipitating much bloodletting and the Turkish invasion.

A further development was the emergence of RAF Sycamores and Chipmunks, and eventually Austers, as Air Observation Posts (AOPs) to cover RAF ground movements. The tactic began as a local initiative at Akrotiri whereby an RAF Regiment officer or NCO with appropriate tactical knowledge and experience would share 'spotter' duty with the pilot, whilst keeping his unit below in touch. As a result, the escorting unit could reduce its dependency upon forward picquets and the presence of an airborne OP deterred the enemy from chancing his arm.

Helicopters also began to be used for the tactical deployment of

troops. However Sycamores of No 284 (later re-designated No 103) Sqn, were the only resident helicopters in Cyprus at this time. With a scant three-passenger capacity, only tiny, lightly-equipped sub-sections of troops could be deployed per aircraft. However the Army found it difficult to grasp the appropriate disciplines for such operations, particularly the weight constraints that had to be observed. As Gp Capt John Price told this Society's helicopter seminar in 2001, on one occasion the Army's Director of Operations for Cyprus, calling a heliborne exercise, dismissed an over-laden Army contingent on the spot, replacing it with a properly prepared RAF Regiment one.

### **Settlement – and Relapses**

The political settlement in Cyprus, with the establishment of the Republic and the UK Sovereign Bases, was effected in 1960. By late 1963, No 3 Wing HQ and two LAA squadrons remained resident at Akrotiri. No 5 Wing HQ at Nicosia had been disbanded; one of its squadrons was to follow on 1 January 1964 and its two remaining squadrons were destined for the Far East early in the New Year. The El Adem squadron had been deployed to the Far East in 1961.

Then, on 21 December 1963, civil war broke out between the Greek and Turkish Cypriot populations. The island's RAF Regiment units were immediately deployed to protect British lives and property. On 27 December, the UK intervened to restore order. No 3 Wg from Akrotiri, taking three squadrons under command, became the first UK unit to enter Nicosia city in battle order since the settlement; a further squadron entered the next day and a UK-based squadron reinforced them on 29 December. Wg Cdr Mark Hobden, OC 3 Wing, set up his HQ in the Ledra Palace Hotel and, securing a large-scale map of the city for his Operations Room, took a green chinagraph pencil and drew a demarcation line broadly along the natural division between the Greek and Turkish Sectors. He allotted sections of it to his squadrons to separate the conflicting communities. Thus was born the famous 'Green Line', referred to as such over the years to this day by all the subsequent forces of the UK and UN who have ever held it.

The RAF Regiment forces could not hold the Green Line indefinitely without relief and Army reinforcements, both from within the island and from the UK, were brought in and placed under command of No 3 Wing. By 1 January 1964, the Wing Commander



had under command five RAF Regiment squadrons, two armoured car troops of the 14/20th Hussars, a battery of 2nd Regt, RHA, and a company of The Sherwood Foresters. Later that month, as the Far East redeployment date loomed for the remaining two Nicosia-based squadrons, they were relieved in the line by others from the UK. HQ 3 Wg itself was relieved by HQ 33 Wg, also from the UK. Numerous ghastly incidents were quelled by direct RAF Regiment intervention, often involving serious violence and considerable bravery, recognised by awards. Among others, Wg Cdr Hobden received an OBE.

As the situation calmed, the British Army eventually took over, to hand on in turn to the UNFICYP force that was hurriedly brought together. Again, it was subsequently recorded officially that the firm but fair management of the highly volatile situation by the RAF Regiment was a significant factor in calming it. With the United Nations in control of the Green Line, Cyprus reverted to a quarrelsome peace at the political levels and a somewhat smouldering one at street and village level. But, as we all know, the balloon went up very seriously again in July 1974, when Nicos Samson conducted his short-lived *coup*. This time the RAF rescued President Makarios; RAF Phantoms were flown in; the RAF Regiment's guns were deployed in earnest at Akrotiri; RAF Regiment escort parties brought in British families to the Sovereign Bases and large-scale slaughter ensued island-wide, whereupon the British Government reneged upon its Protection obligations under the 1960 Treaty and the Turks invaded. More RAF Regiment units were flown into Cyprus to evacuate British Nationals and to protect isolated RAF units in the Troodos Mountains and elsewhere. There were again several gallantry awards made to the Regiment during this period.

The CO of No 2 Sqn RAF Regiment was on honeymoon in Greece when the conflict broke out and he telephoned HQ 38 Group to ask if his unit was being sent in from the UK, which it was. Asking for help in joining it by the quickest means, because Greece had frozen all commercial travel into and out of the country, he was helpfully advised to seek a lift with the Greek counter-invasion force that was expected to sail imminently for Cyprus!

### **Retrospective Perceptions**

I believe that post-Suez, the counter-terrorist operations in Cyprus

triggered a renaissance in RAF force protection thinking. It was not a grand design; rather it was a pragmatic, piecemeal fifty-year long evolutionary process. First lessons were successfully drawn from the Cyprus emergency and adapted for the future.

Everything hitherto had been based upon Second World War thinking, then only ten years into history. Many officers of more than that length of service had acquired something of a collective mind-set which was not always relevant to the post-war situation. Even terrorist Palestine in 1947-48 does not show evidence of serious new conceptual thinking. Eight years later, attention in Cyprus at last focused afresh upon operating in an indefinite low-intensity operational environment, against an educated, guerrilla enemy – especially after the Foreign Secretary's declaration that there was no prospect of independence for Cyprus. Palestine, with its short timetable for withdrawal, contemporary Aden, with a still-stable IS situation and its frontier skirmishing war, and Malaya, with a jungle guerrilla war, were not comparable. Cyprus was unique in its time, but was typical of what might (and did) become the pattern for the future.

So how did this early 'new' thinking manifest itself? Crucially, at HQ MEAF, a Regiment wing commander post was established early in 1957, entitled 'Command Internal Security Staff Officer'; he reported directly to SASO, with a dotted line to the AOCinC. This position was quite separate from the post of Senior Ground Defence Staff Officer (as the senior RAF Regiment officer at Command was then styled). Filled by a competent personality, who was awarded both an MiD and an OBE during his two-year tour in this unique appointment, it resulted in a critical appraisal of MEAF's security strengths and inadequacies as revealed during the first eighteen months of EOKA operations. A steady, well-considered stream of recommendations emanated, designed specifically to tackle the new situation. For example, the two main stations had shown during Suez that they could sustain a very reasonable guarding operation on-base, protected by RAF Regiment forces denying free movement to the enemy outside the perimeter. Thus, the RAF Regiment was tasked with domination of the local areas, including the villages.

RAF Police with interpreters were attached to Regiment patrols, for search and detention purposes. Specially-trained RAF Regiment Squadron Intelligence Officers and NCOs were established to work in

the local communities. The Regiment's AA Wing HQs with their Air Defence Control and Reporting capability, were particularly adaptable to support this. Added to sensible changes to their equipment scales, such as improved mobility, an effective force-multiplier emerged which served the RAF well a decade later in Aden, later still in Northern Ireland and which today has been refined further into the very versatile Force Protection Wing HQs.

This was not achieved overnight, of course, nor, despite policy issued from HQ MEAF, was it easily achieved. More often the changes emerged piecemeal at the stations, usually after bitter argument with OCs Technical and Admin Wings, who, understandably, saw guard duty as wasteful of their resources. But it happened and it worked.

### **In Memoriam**

The original Green Line in Nicosia remained but was arbitrarily extended by the Turks to divide Cyprus from Paphos in the north-west to Famagusta in the south-east of the island. They call the extensions 'The Attila Line'. A substantial reduction of British Forces in Cyprus followed, with a near closedown seventeen years later, when the Cold War ended. The last RAF Regiment squadron there, No 34, was withdrawn to the UK in 1996.

The Green Line still stands as the RAF Regiment's lasting, unmarked and, save to those in the know, anonymous memorial!

## MALTA

### Air Cdre J C 'Ian' Atkinson



*Ian Atkinson joined the RAF via Cranwell in 1947. His first flying tour was on Brigands from which he progressed via Vampires to Canberras. Career highlights included command of No 17 Sqn, RAF Luqa and AHQ Gibraltar. Since his retirement in 1983 he has worked for and/or with RAFA and the Eastern Wessex TAVRA and he was Director of the Air League 1990-95.*

Malta at the end of the of the war remained the base for the Mediterranean Fleet and an active staging post essential for air routes between the UK and Middle and Far East commands; as such it was still of considerable strategic importance. Despite the devastation of the war years, the Maltese airfields were kept going whilst the immense task of clearing the debris and reproviding necessary installations and domestic accommodation went ahead. The repatriation of personnel from SEAC was in full swing placing a heavy load on the staging post. To ease the pressure on Malta the African airfields of Castel Benito and El Adem were taking their share of the traffic and were placed under the control of AHQ Malta to co-ordinate the task. Few squadrons were in fact left in Malta at that time: No 38 Sqn with its Wellingtons to cover the search, rescue and surveillance tasks, backed by the rescue launches of No 1151 MCU, and a fighter unit, No 73 Sqn with its Spitfires, the first to be returned to the Island.

Of the five wartime airfields, Luqa, Hal Far and Ta Kali were retained with Safi housing Nos 137 and 397 Maintenance Units providing aircraft servicing and storage respectively; Qrendi was abandoned. The four stations and the other ancillary RAF units were under the command of the AOC, an air vice-marshal, with his headquarters in Valletta.<sup>1</sup>

As noted, RAF Luqa's primary role was that of staging post and remained so throughout its existence. The station was to become a 24-hour master diversion and joint user airfield, offering full support, initially including accommodation, to enable civil operators to

establish their schedules. Air traffic control was in RAF hands with area control subsequently passing to IAL (International Aeradio Limited); the Malta Rescue Co-ordination Centre was located in Luqa Operations Headquarters and, in conjunction with Italy, France and Spain, the RAF represented Malta in the West Mediterranean Search and Rescue Organisation. Two runways were used: 06/24, later extended to 7,850 feet, and 14/32 at 5,400 feet.

Luqa provided the base for the resident squadrons, No 38 Sqn having been joined by No 37 Sqn. Both were flying Lancasters and were then engaged in long range patrols to the eastern Mediterranean, initially searching for illegal immigrants to Palestine and, later, to cover the withdrawal to Cyprus and the Suez operations. These were additional to routine surveillance tasks in the Aegean and Central Mediterranean and the search and rescue commitment. The squadrons were to return to Cyprus waters when subsequently equipped with Shackletons to assist the Royal Navy in intercepting gun-running attempts during the *enosis* troubles.

Another important function of the Maltese airfields was to provide additional capacity for basing aircraft from the UK, and from Akrotiri when the Cyprus airfields became overloaded. The prime example was, of course, the Suez operation when Luqa and Hal Far absorbed four Valiant and four Canberra B.6 squadrons under a separate bomber wing at Luqa. The success of this arrangement from the operational and training aspects eventually led to regular detachments of Vulcans under the nickname SUNSPOT and for which a special dispersal was built. An example of the heavy load which could be imposed on the already busy staging post was during the height of the withdrawal phase from Suez between 20 and 24 December when 385 aircraft were handled in a five-day period with 2,212 personnel accommodated and despatched, and 7,541 meals provided along with 7,821 in-flight rations.

The value of Luqa as a training base was recognised early on and it absorbed a seemingly endless stream of visiting aircraft, both national and NATO, engaged in exercises, training detachments and individual Ranger flights. The Mediterranean climate and the facilities offered by Libya, with its bombing ranges at Tarhuna and El Adem, meant that Malta was always a popular destination and ensured that Luqa's Visiting Aircraft Squadron was probably one of the busiest in the



*Although only Luqa and Hal Far were still active when this picture was taken (if you know where to look) the scars left on the Maltese landscape by the other three airfields are still discernible.*

RAF.

Of the other two airfields Ta Kali was used by the RN until 1953 when it reverted to RAF control, serving as the base for resident and visiting fighter squadrons, including RAuxAF units for their summer camps and, briefly, by Australian and New Zealand Vampire squadrons as well as numerous training detachments. No 208 Sqn's Meteors were added at the time of Suez to replace No 73 Sqn's Vampires which had been withdrawn in 1953. The single runway was extended to 6,000 feet with hardstandings at each end.

Hal Far was passed to the Fleet Air Arm in 1946. The infrastructure was developed, including domestic accommodation, and the main 13/31 runway was extended to 6,000 feet. The airfield was used to operate and service aircraft disembarked from carriers although, it often also lodged RAF units, as it did during the Suez

crisis. In practice, there was a good deal of flexibility between the three airfields as demand for basing facilities fluctuated and for several years Hal Far also accommodated a sizeable US Navy detachment. Control of the airfield and its facilities formally reverted to the RAF in 1965.

As for the political background, 1947 had seen the granting of a degree of self-government to Malta with Britain retaining responsibility for defence and the right to station forces on the island under the terms of the constitution. Relations between the RAF and the Maltese at this time were cordial and generally remained so, despite the political strains that were to come. In this respect the formation of the RAF Malta Force in 1948, whose airmen became an important part of the RAF establishment, helped to further good relations.

Further changes in Malta's resident units had taken place in the aftermath of Suez and disturbances in Cyprus. No 39 Sqn, with its Meteor NF 13s, was disbanded, there no longer being a perceived air threat to Malta, and its number plate passed to a Canberra PR3 squadron which had been posted in from Germany in 1958. The squadron was soon involved in aerial survey work, including large areas of Libya, and, being assigned to the Southern Region of NATO, it was also engaged in keeping an eye on of the growing Soviet naval presence in the Mediterranean. No 37 Sqn's Shackletons had by now left for Aden, leaving an enlarged No 38 Sqn to cover the RAF's Malta-based NATO and national maritime responsibilities. The staging post continued to be one of the busiest in the Service and during a peak period in June 1958 it handled nearly 120 transport aircraft ferrying 4,436 Army personnel to Cyprus, 1,475 of whom stayed overnight. Thereafter movements remained at a steadier level, though still busy enough.

Meanwhile, initiatives taken by successive Maltese Governments, with the aim of becoming more closely aligned to Britain, had come to nothing. At the same time, the strategic importance of the Malta base was declining with Britain's reducing commitments further east and the growing NATO presence in the Southern Region, underpinned by the strong US commitment to the area. The prospect of UK defence reductions was clear enough. The usefulness of the base could not be denied, however, and the UK was reluctant to commit itself to a clear

future policy on Malta. All of this was highly unsatisfactory to the Maltese Government and, with Britain being the largest single employer of Maltese labour, the likely affect on the island's economy was all too evident. Local unrest led to insurrection, making it necessary to suspend the constitution. After a temporary alleviation of the situation, pressure for independence continued to grow and this was eventually conceded at the 1963 London Conference, coupled with a ten-year agreement on the continued stationing of forces; these arrangements were implemented on 21 September 1964.

By 1968 further defence reductions had taken place, resulting in a major change in the command organisation of British forces in Malta. The last CinC Mediterranean had hauled down his flag and his NATO appointment had passed to HQ Allied Naval Forces Southern Europe, then commanded by an Italian admiral, which remained in Valletta, at Floriana. The last RN ships based in Malta left later that year. The AOC, also the former NATO air deputy, departed on 30 June on the disbandment of the AHQ. No 38 Sqn had been disbanded early in 1967, the maritime reconnaissance task now being covered by periodic detachments of Shackletons from the UK which responded, in NATO terms, to COMMARAIRMED, a US rear-admiral based in Naples. No 39 Sqn had been joined in 1965 by No 13 Sqn from Cyprus, both now equipped with the Canberra PR9 with a much superior performance. No 39 Sqn was NATO-assigned to HQ AIRSOUTH commanded at the time by Lt Gen Fred Dean, USAF who, had incidentally, as Col Dean, commanded the USAAF's 31st FG in 1943 when it had flown its Spitfires from Xewkia on Gozo during the invasion of Sicily. No 13 Sqn was declared to CENTO along with the Cyprus-based bomber force, but it made sense logistically to collocate the two PR9 squadrons at Luqa.

An Air Commander, in the rank of air commodore, now exercised overall command in Malta, with all RAF units passing under the administrative control of RAF Luqa, with a group captain acting as Deputy to the Air Commander and in charge of operations; this appointment was regularised early in 1969 to that of Station Commander. The Air Commander established his HQ at Luqa with a small supporting staff, drawing on station officers for specialist advice as required. He dealt through the Heads of Service Committee in Valletta (chaired by Flag Officer Malta, with a brigadier answering for



Army affairs) on joint-Service and local policy matters, in conjunction with the British High Commissioner's staff as need be, and also, on occasion, with the Governor General – still British at this time.

To cope with the larger responsibilities, RAF Luqa was reorganised on a five-wing basis, adding supply and civil administration together with, by early 1969, the three resident squadrons. Providing maritime air coverage from the UK having proved to be an inefficient solution, No 203 Sqn's Shackleton Mk 3s flew in to Hal Far on 1 February (Luqa's main runway was being resurfaced at the time) to take on that responsibility. The strength of Luqa at the end of 1969 stood at 2,753 personnel of whom 1,700 were uniformed (208 officers and 1,500 airman, a third being RAF Malta men) and over 1,000 civilians.

The station now absorbed the outlying formations: the Master Radar Station (MRS) at Fort Madalena, with its Type 80 radar; No 840 Signals Unit at Siggiewi which provided long haul communications; the Safi-based maintenance units and the Provost and Security HQ; No 1151 Marine Craft Unit at Marsaxlokk; and the RAF Regiment at Hal Far, now a satellite airfield of Luqa, where, in addition to its usual tasks, it also ran recruit training for the RAF Malta contingent, much on the lines of the procedures followed at RAF Swinderby, complete with graduation parades with families present.

In the years since 1945 good quality functional and domestic accommodation had been built of local stone: barracks, clubs, messes and married quarters and churches, of which the Gladiator Club at Luqa and the similar building at Hal Far were impressive examples. There were good recreational and sporting amenities on-base and elsewhere on the island including: the Marsa Club; swimming at the lido at Kalafrana and from local beaches; and the RAF Malta Sailing Club at Marsaxlokk. With the 3rd Battalion of the Parachute Regiment based in Malta at that time a certain amount of parachute training over Libya and locally over the sea was possible. Encouraged by this activity, Luqa staged a jump from an Argosy which involved forty volunteers from the station being dropped into Marsaxlokk Bay, No 1151 MCU launches recovering the parachutists and providing appropriate restoratives. The Maltese islands, being a holiday resort, with Valletta as a main attraction and plenty of historical interest and



*RAF Luqa station personnel prior to participating in a practice parachute jump from an Argosy.*

variety, all set in a good climate, made for a pleasant family location. As an aside, RAF Luqa's amateur dramatic society had the unique privilege of being able to stage its productions in the *Manoel Theatre*, a gem of a theatre that had been built for the Grand Masters of the Order of Malta in the early 18th Century. Professionally, the variety of activity was both challenging and satisfying. Malta was generally held to be a good posting.

RAF participation in Maltese celebrations, such as the Independence Day Parade and special services in St John's Cathedral, together with representatives from the other Services, were all part of the Malta scene, as were national events, such as the Queen's Birthday and the Battle of Britain celebrations, which included wreath-laying ceremonies at the Air Forces Memorial in Floriana for those lost over the Mediterranean. A display by the Red Arrows over Marsamxett harbour at this time was well received. To these activities could be added liaison with the US 6th Fleet, since Luqa acted as a diversion and ship-to-shore airfield for its carrier-based aircraft and its US Marine elements would set up camp at Hal Far for exercises. On a personal note, it was a particular pleasure for me to welcome the second captain of the USN carrier *John F Kennedy* when she rejoined the 6th Fleet as we had been fellow students at the RN Staff College in Greenwich in 1959-60. As Malta seemed to be a focus for NATO and national visitors, there was a constant stream of senior officers, both



*Luqa's resident flying units circa 1970, represented by a Shackleton MR 3 of No 203 Sqn and Canberra PR 9s of Nos 13 and 39 Sqns.*

from the UK and in-theatre, arriving and departing from Luqa, all of whom needed to be met and seen off, including, in my time, three AOCinC's NEAF and, for NATO, everyone from SACEUR on down.

The newly arrived No 203 Sqn took up the task of surveillance of Soviet shipping and patrolling the waters of the eastern end of the Mediterranean and Aegean, whilst also taking part in the many NATO exercises such as DAWN PATROL. The squadron used Souda Bay in Crete and Izmir in Turkey for these activities, as well as El Adem and Akrotiri. Despite early servicing problems due to the run down of the Shackleton fleet, No 203 Sqn stood comparison with the US Navy's P-3C Orions from Sigonella and earned a good reputation.

No 1151 MCU offered target towing for the Shackletons and other aircraft amongst its varied duties. The RTTLs were on call for any emergency and from time to time responded to more distant calls for assistance, such as from the Island of Lampedusa, requesting ferrying to Malta of very sick patients. After a number of such calls, usually involving the duty Shackleton to provide top cover and, on occasion, US Navy heavy-lift helicopters, and, in the event, not so sick patients, all at great cost, an investigation was called for. The SMO was embarked in an RTTL and on arrival in Lampedusa, still resembling a

bombed site after its heavy wartime pounding, went to interview the doctor. He came back reporting chickens running around the surgery and the doctor halfway round the bend, not having been relieved for several years. Pressure was put on the Italian authorities to sort out their own problems.

Nos 13 and 39 Sqns both enjoyed a good deal of autonomy in their flying, having access to the Italian low flying areas and airfields by arrangement with the Italian Air Force and HQ 5ATAF at Vicenza. Low level night photography was practised at Filfla, the Maltese island used for bombing and shelling, and over the Libyan ranges. No 39 Sqn, also had access to Greek airfields and low level photographic opportunities through the use of Larissa as a war deployment base; likewise in Turkey, at Eskisehir, an alternative war deployment base in the 6 ATAF area, again affording access to new tactical reconnaissance opportunities. No 39 Sqn was subject to NATO tactical evaluation, usually culminating in an exercise deployment to a war operating base. This was practised for real on one occasion, to Eskisehir, which took the Turks by surprise, obliging them to turn on the lights in a hurry, since they had expected only a simulated deployment.

The national aerial survey tasking was shared by both units with No 39 Sqn covering Aden, the Protectorates and Masirah, whilst No 13 Sqn surveyed Sierra Leone, Mauritius and Kenya and also had a standing detachment at Bahrein. Occasional high level oblique cross-border surveys were also flown in Hong Kong.

No 39 Sqn was repatriated to the UK in October 1970, thus ending the valuable links it had forged with the Italian, Greek and Turkish Air Forces while operating from Malta. No 13 Sqn, being declared to CENTO, could also operate from time to time in Iran, but more frequently used Akrotiri for national tasking.

Looking to the south of Malta, on 1 September 1969, a military *coup* took place in Libya leading to loss of contact with El Adem and the desert training areas. Fortunately a back up radio link with military bases in Libya had recently been installed by No 280 SU at Siggiewi and, as the normal diplomatic wireless service operators were prevented from reaching their sets, contact was maintained with Malta by this means for something over a week. One consequence of the *coup* was greater use of Malta and Hal Far for medium range transport



*Indicative of Malta's popularity as a venue for 'week ends away' is this shot of a Varsity of No 6 FTS arriving in the late 1960s. (MAP)*

training.

Meanwhile staging post activity continued unabated with a peak of activity in December 1970 when air traffic control logged 4,564 movements, the visiting aircraft squadron handled 543 military aircraft and air movements processed a total of 1,400 incoming and 2,500 outgoing passengers, many through the Air Movements Hotel which had been established at Hal Far.

The exercise and training detachments to Luqa ranged from the series of cadet camps, through flying training detachments to major exercises, as well as Italian G.91 squadrons on exchange visits, Malta always being a popular venue. Two exercises stand out in my mind. One was the annual Malta Air Defence Exercise, linked with a Vulcan SUNSPOT detachment, with supporting ECM aircraft and Lightnings deployed for the occasion, and locally-based Canberras providing additional targets. The exercise was controlled from the MRS at Madalena reinforced by additional fighter controllers and exercise staff.

The second, and by far the largest and most important, exercise in the period was Exercise LIME JUG, held between 2 and 13 November 1970. It was a joint RN/RAF national exercise, scheduled and

conducted by CinC Western Fleet and AOCinC NEAF. The aim was to practise arrangements for the shore-based air support of naval forces in the Mediterranean. To provide a realistic background, Soviet-style air, surface and sub-surface threats were simulated. A task force of eight naval ships (Blue Forces) were to be sailed from Malta to Cyprus, experiencing threats from Orange Forces along the way. The concept was to practise the full range of air operations controlled from Malta and the air defence of naval forces only from Cyprus. It was to be controlled from a Maritime Operations Centre (MOC) set up at Luqa and under radar cover provided by MRS Madalena out to the limit of the Type 80 radar, passing then to naval and Cyprus-based radar cover when within their range. Special exercise staff manned the MOC with the Air Commander and a rear admiral heading up the air and naval teams.

Luqa absorbed some thirty-six additional aircraft comprising Nimrods, RAF and RN Buccaneers, Lightnings, Phantoms, ECM Canberras, Victor tankers, Gannets and an Argosy to augment SAR cover, plus numerous helicopters from visiting ships. Transports were parked at Hal Far, which was reactivated with full administrative support for the exercise. The load on the station was considerable, as reflected in the earlier quoted staging post figures. A rotary hydraulic arrester gear had been installed on the 06/24 runway at Luqa and Hal Far was the primary diversion in the event of the runway being blocked. Sigonella in Sicily was the closest diversion with Souda Bay in Crete at the mid-way point to Cyprus. Civil traffic continued to be accepted throughout the exercise. The exercise itself was judged successful and, fortunately, there were no accidents. The post-exercise review was held at Luqa with both Commanders-in-Chief in attendance.

Political events in 1971 now brought relations with the Malta Government to a head. Mr Mintoff had won the general election and his government, after ever increasing demands on Britain to offset the loss of revenue caused by the reduction in British forces, insisted on a revision of the defence and aid agreement, leaving the UK with little option but to plan a withdrawal. This could be accepted because the availability of longer range transport aircraft and flight refuelling had reduced the value of the staging post. Furthermore, the strengthened Southern Region of NATO, underpinned by the large US presence,

had lessened the need for the UK to maintain a base in Malta. The only anxiety was the possibility of the growing Soviet presence taking advantage of the vacuum that would be left after our departure.

Although deserved, a narrative of this length does not permit a full account of the withdrawal plan – Operation MATURE. Suffice to say that it was implemented almost in its entirety; personnel, families and equipment were evacuated, leaving only the MRS and No 840 SU, plus provision for the running of the civil airfield. Only at the last moment was Mr Mintoff, persuaded of the harmful effect of British departure on Maltese employment and the local economy, compelled to enter into a Malta Facilities Agreement (MFA) which offered basing facilities until 1979 in exchange for some increased aid to the island. Once this agreement had been signed the withdrawal went into reverse, with Nos 13 and 203 Sqns being recalled from their deployments and the RAF resuming its former tasks and responsibilities.

The situation remained unsatisfactory, however, with Mr Mintoff contriving to press for more concessions whilst forging closer links with Libya. Britain decided finally to withdraw from Malta at the termination of the MFA in 1979. No 203 Sqn was disbanded at the end of 1977, its Nimrods returning to the UK. No 13 Sqn left for the UK after the RAF had celebrated in style its sixty years on the island in 1978. The airfield was left in full working order and handed over to the Maltese authorities, manned to a large extent by former RAF Malta airmen. The Air Commander departed on 31 March 1979, thus concluding sixty-one years of RAF service in the Central Mediterranean and, indirectly, to the people of Malta.

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<sup>1</sup> The rendering of place names on the island can be problematical, with a ‘k’ and a ‘q’ commonly being used as alternatives, thus Ta Kali/Ta Qali and Krendi/Qrendi, although neither option really captures the very marked glottal stop in Maltese pronunciation. Similarly, Hal Far may be presented as one word or two (as indeed may Takali), with or without a hyphen. And then there is Valletta, which always used to have only one ‘l’, certainly until the 1950s – hence Vickers’ eponymous RAF transport aeroplane – although it has acquired a second since then. **Ed**

## GIBRALTAR 1945-82

### Air Cdre Henry Probert

Of all the RAF's many bases that have been spread around the Mediterranean over the years only one is as long-standing as the RAF itself. Admittedly in 1918 there were just a few seaplanes to be handed over by the RNAS, and not until 1932 were the first suggestions made for an 'aeroplane landing ground' to be built on the racecourse beside the north front of the Rock. Its purpose would be air defence, trade protection and staging for aircraft on their way to the East. The next few years, however, saw much discussion and few decisions, so when war came in 1939 the RAF presence was limited to flying boats engaged on anti-U-boat patrols. It took the fall of France in 1940 to concentrate minds on the building of a proper runway.

The case for this rested on Gibraltar's importance as 'the gateway to the Mediterranean, at the mercy of a very uncertainly neutral Spain' – now of course being run by General Franco. The RAF's roles were envisaged as helping the navy in fighting the Battle of the Atlantic, in controlling the Strait and in resisting German and Italian threats further east. So, over the next two years, while extra land was being reclaimed from the sea, the runway was developed for the use of land-based aircraft such as Hudsons and transitory Wellingtons – while the flying boats, of course, continued to operate from the harbour. Then, amidst all of this regular activity, came RAF North Front's biggest moment ever when on the night of 7/8 November 1942 no fewer than 650 aircraft of many kinds were parked along both sides of the runway in readiness for Operation TORCH, the Anglo-American invasion of North Africa. In his *Memoirs* Churchill called it 'Gibraltar's greatest contribution to the war'. From then on the war's main scenes of action became increasingly remote, though the RAF in Gibraltar continued to contribute to the Battle of the Atlantic and to protect essential links in the lines of supply and communication into and through the Mediterranean.

Not surprisingly, given Gibraltar's geographical situation, these two types of RAF operational activity were to remain highly significant in peacetime. It quickly became clear, however, that Gibraltar's civil flying would also have to rely on its single airfield. With civilian aviation quickly expanding in Europe as a whole,





*A visiting Sunderland of No 230 Sqn poses against the impressive backdrop of 'The Rock'.*

Gibraltar needed its own services, partly for local routes to Spain and North Africa and also to the UK. Consequently a joint-user agreement was soon negotiated whereby the RAF provided air traffic control and other aviation facilities and Gibraltar Airways and BEA handled the passenger side. Fortunately at that time relations between the British authorities and Spain were amicable, in contrast with the tensions of the earlier days of the war. So throughout the post-war era the RAF has shared the airfield with an increasing range of civilian services.

To begin with our use of it was relatively limited. There were regular detachments of Lancasters – which were replacing the Liberators in Coastal Command – for training purposes, for 'Met' operations, for search and rescue, and so on. Then, with the onset of the Cold War, maritime patrolling over the Eastern Atlantic and into the Mediterranean became essential, and in 1951 the Halifaxes of the resident unit, No 224 Sqn, began to be replaced by Coastal Command's newly introduced Shackletons. These played their part in

the growing number of NATO exercises which were taking advantage of the local facilities. Also involved in these exercises, together with their search and rescue duties, were the launches of Gibraltar's No 1102 Marine Craft Unit. Further use of Gibraltar was made in the 1950s by Vampire squadrons of the Royal Auxiliary Air Force which used it for summer camps. From time to time too there were one-off tasks, such as providing staging facilities for the Canadian aircraft used in the United Nations deployment following the Suez crisis in 1956, the recovery of the 2,500 survivors of the *Empire Windrush* fire in 1954, and the rescue of passengers and crew from the Greek cruise liner *Lakonia* ten years later.

All in all the 1950s had been a busy but fairly tranquil decade, but by about 1960 warning signs were beginning to appear from General Franco: these included intrusions into Gibraltar's airspace by Spanish Heinkels and Messerschmitts, creating obvious safety implications for both RAF and civilian aircraft, although subsequent protests did have some effect. By 1964, however, international politics were coming into it. The UK government, anxious to comply with the United Nations' policy on decolonisation, had begun talks with Gibraltar's Legislative Assembly about the possibility of granting independence, but for Spain such moves ran counter to her aims for reunion with Gibraltar. Not surprisingly the British refused to accept this view, whereupon in October the Spanish stepped up their border controls at La Linea. Soon afterwards two RAF Hunters were sent out and their pilots were only too delighted to be encouraged to engage in low flying without any noise abatement procedures.

From then on the tensions grew, with Spain trying unsuccessfully to stop NATO using the airfield. The situation was not improved in January 1966 when two American aircraft, one carrying nuclear weapons, collided over Palomares, up the Spanish coast. Later that year, during London discussions with Spain, the UK firmly insisted on its sovereignty over the whole territory of Gibraltar, and included the telling phrase 'all the ground up to the frontier fence' – which meant, of course, the airfield. Spain responded by banning RAF aircraft from overflying her territory. Yet this was immediately followed by a singularly ill-timed British government decision to disband No 224 Sqn as part of cuts in defence expenditure. The importance of the squadron's work, and the fact that it had just won the Aird-Whyte



*No 12 Sqn's Buccaneers lined up at North Front for Exercise SPRING TRAIN in 1981.*

Trophy for the third time, appeared irrelevant. Thereafter, in April 1967, Spain imposed an 'SPA' – Spanish Protected Airspace – around Algeciras, necessitating special manoeuvres by aircraft approaching and taking off from the west, and Spanish F-86 Sabres followed up with fairly regular intrusions over the airfield. The Gibraltarians quickly responded to these threats by voting almost unanimously to stay with the UK, whereupon in 1968-69 further frontier restrictions culminated in its complete closure and the stoppage of the Algeciras Ferry. Thus began the last siege of the Rock, the fourteenth since 1309.

The physical isolation now forced on Gibraltar had considerable consequences, not just for the local inhabitants, but also for the armed forces. There was greater dependence on sea and air transport, labour problems arose, local businesses were affected, security presented new challenges and so on. Civilian morale, however, was good and the respect and admiration for the ever-visible RAF was never higher. The Spanish aircraft did their country no favours with their occasional intrusions; the RAF fighter detachments and continuing NATO exercises provided welcome encouragement; RAF transport aircraft of various kinds continued to stage through; the civilian air services were well maintained, despite the harassment, and maritime aircraft from the UK, eventually including Nimrods, carried out the surveillance and other tasks previously undertaken by No 224 Sqn.

The 1970s witnessed steady growth in the amount of Soviet naval traffic through the Strait, and their ships made much use of several anchorages off the east coast of Morocco; two of these – Alboran and Melilla – were frequently reconnoitred. The importance and extent of such operations were recognised in 1971 by the reintroduction of the one-star post of Air Commander. Then, two years later, the office of Governor and CinC Gibraltar was filled for the first time by an RAF officer, the former CAS Sir John Grandy.

He was still there in 1975 when the news broke of General Franco's death. Slowly but surely Spain's new leaders now began to open discussions with the UK, not least since they wanted our support for joining NATO and the EEC, and in 1980 their Foreign Ministers met in Lisbon to consider easing the frontier restrictions. The result was an agreement in January 1982 to open the border on 20 April. Then, out of the blue, a huge spanner was thrown into the works – the Argentine occupation of the Falklands on 2 April, followed by the British decision to despatch a Task Force. Widely applauded elsewhere, this was far from welcomed in much of Latin America – or in Spain, which quickly pointed out the parallel between the Argentine claim to the Falklands and Spain's views about Gibraltar. The fact that Gibraltar was bound to be used to help the Task Force only made things worse. So re-opening of the Frontier was immediately postponed. Air Cdre Ian Atkinson, the Air Commander, well remembers the security measures the RAF had to take in Gibraltar at a time when the base was fully engaged on all its usual activities. Yet they very quickly arranged for the airfield to provide the staging facilities needed by the Hercules transports en route to and from Ascension, and by the time the war ended in mid-June they had handled no fewer than 325 Hercules sorties.

There my bit of the story ends, apart from noting that the fourteenth siege was finally lifted when the Spanish frontier was reopened in February 1985.

## OPERATING FROM 'THE ROCK'

### Wg Cdr Clive Blount



*Wg Cdr Blount joined the RAF in 1980 via a university cadetship. Trained as a navigator, his flying experience has embraced Tornados at Laarbruch and Cottesmore, instructing at Finningley and a stint at Boscombe Down. Ground tours include time spent at High Wycombe, MOD and in Kosovo. Prior to his current appointment at Shrivvenham he commanded RAF Gibraltar Apr 03-Nov 05.*

After Air Cdre Probert's learned words I feel a bit of a fraud standing up to talk to you about operating from Gib – particularly in the company of this august assembly of aviators. Sadly there are no aircraft permanently stationed in Gibraltar today, although I did manage to keep my hand in by abusing my authority to persuade visiting Squadron Commanders to give me the odd trip. Beyond that, most of my own 'operating from the Rock' was inevitably ground bound and in the course two-and-a-half years spent trying to keep the airfield running in a safe and efficient manner I became very well acquainted with most of Gib's many idiosyncrasies.

For the benefit of those who are not familiar with Gibraltar, the accompanying photograph, one of the last to be taken by a Canberra of No 39 Sqn, may be of interest. Oriented conventionally, with north 'at the top', the bulk of 'the Rock' itself is out of shot at the bottom of the picture which focuses on the runway, which is on the narrowest part of the isthmus, jutting out to the west into the Bay of Gibraltar – or the Bay of Algeciras, depending on where your loyalties lie. The broken white line indicates the approximate position of the frontier. Apart from the obvious problem represented by the proximity of the border, this picture also illustrates another of the peculiar hazards facing an aviator flying from the Rock – the fact that the runway is bisected by a dual carriageway.

This road, the grandly titled Winston Churchill Avenue, is the only road on and off Gibraltar and an average day will see some 7,000 cars and a similar number of pedestrians crossing the runway. Clearly, the



*Gibraltar's east-west runway, the white dots indicate the approximate line of the border. (MOD)*



*Pedestrian's-eye view of one of No 31 Sqn's Tornados taking off, and distracting attention from the red and white barriers which have been installed as an anti-terrorist measure.*

maintenance of a reliable barrier system is vital to prevent a catastrophe but this is easier said than done in the hot, salty and often windy environment. Equally critical is the risk of Foreign Object Damage and to minimise this a robust anti-FOD policy is maintained and the runway is swept before every movement.

Of late the road has presented yet another potential problem since it provides easy access to the aircraft operating areas, and thus the opportunity for terrorist attack, particularly by a vehicle-borne suicide bomber. To counter this I arranged for the local service police to be equipped with armoured Land Rovers and for the erection of an extensive system of protective concrete barriers. I was advised by both the CAA and Strike Command, that these barriers should be painted yellow and red. Since yellow and red are the colours of the Spanish flag, however, I made my own 'risk analysis' and opted for red and white – which just happen to be Gibraltar's colours!

Air Cdre Probert mentioned the Spanish Prohibited Airspace instituted in the mid 1960s. Despite the UK's close relations with Spain, especially as joint members of NATO, the SPA is still in force. Prohibited Area 117 is closed to all aircraft (except Spanish it

appears!) although a slight relaxation of the rules does permit a practical approach and departure track for civil aircraft. On the other hand, Spain's Restricted Area 49 prevents this approach track being used by military aircraft which are obliged to fly a much tighter pattern – which can be an interesting exercise, particularly for the captain of a C-17. Gibraltar itself sponsors no protected airspace – a provision that our forebears neglected to consider when the extent of British Territorial Waters was agreed in 1714!

The first Flight Safety Inspector to visit during my time as Station Commander described Gibraltar as 'a Flight Safety theme park' – it has everything! Perhaps the most obvious problem is the Rock itself and, apart from hitting it, the effect it has on the approach path can create significant hazards. When the wind is from the southern quadrant, as it often is, especially with summertime sea breezes, the turbulence created by the Rock is very severe and makes for a difficult final approach, particularly for larger aircraft. This problem has been well researched and documented, however, the earliest analysis I have come across dating from as early as 1931.

Other interesting local weather phenomena include the 'split wind', with simultaneous easterlys at the 27 threshold and westerlys on 09, and the famous 'levanter' cloud, linked with moist easterly winds that have travelled over the Mediterranean. Gibraltar is also home to some 30,000 herring gulls and is a major stopping off point on the biannual migrations of European species on their way to and from Africa. It is to the considerable credit of Gibraltar's Bird Control Unit that birdstrikes are actually very rare.

Another respect in which the airfield is unique is the proximity of 'the rest of' Gibraltar. There is precious little clear airspace and aircraft movements can easily be curtailed by considerations as unlikely as the presence of a tall-masted yacht in the marina and commercial marine traffic. On one memorable occasion an enormous oil rig was towed slowly across the extended runway centre-line just 1.5 miles from the threshold when the visibility was little more than that – and without a word to Air Traffic Control!

Gibraltar is also expanding and land is at a premium, leading to extensive reclamation schemes on which to build new developments. Since these proposals can be perilously close to the runway, the Station Commander is routinely consulted over planning applications





*Typified by this Boeing 757 of Monarch airlines, North Front handles a substantial number of civil movements, courtesy of the RAF, and this number seems likely to increase. This picture also serves to illustrate the potential hazard represented by marine traffic adjacent to the runway.*

and he will soon become an expert on ICAO rules for the preservation of Flight Safety. There were a number of contentious proposals during my time. One involved an industrial estate which was to have included a rubbish tip, with all that would have implied in the context of birds, while another would have created a huge marina with twelve-storey hotels very close to the eastern side of the airfield. All of this involves extensive negotiation and, inevitably, a degree of give and take, whilst educating non-flyers into the problems associated with aviation, but refusing to compromise over issues directly impinging on Flight Safety.

While not representing a ‘hazard’, another significant local factor, is the relationship with the Government of Gibraltar and its perception of ‘Gibraltar Airport’. The airfield is, and always has been, a *military*

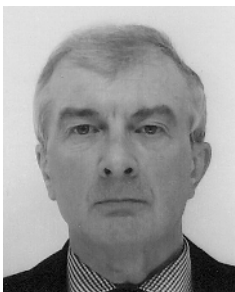
airfield made available by the Governor for civil operations, and the local government often has to be reminded of this arrangement! A development that was underway when I left (and I am not sure how far it has progressed since) was a tripartite discussion aimed at opening the airport to Spanish routes, providing direct immigration into Spain, in exchange for relaxation of the long-standing airspace and other operating restrictions. While gaining agreement between the Spanish, British and Gibraltarian lobbies will be difficult enough, I am fairly confident about one issue. Under previous arrangements the extra cost of involved in supporting civil operations has been borne by the MOD, which is to say the UK taxpayer, and I doubt that that arrangement will be acceptable if there is to be a significant increase in commercial flights.

What of RAF Gibraltar today? In brief, it is maintained as one of several Permanent Joint Operating Bases and its specific function is to support joint operations either as a Staging Post, a Forward Mounting Base or a Forward Operating Base. Nominally established to support only military flying between 0800 hrs and 1700 hrs it routinely handles some 1,600 military movements per year. This is achieved with a Service cadre of just forty-four personnel on the airfield and a further seventy or so performing joint functions elsewhere around the Rock. The RAF presence may be numerically small but its profile within the community is very high – and rightly so. The Gibraltarians remember only too well when the airfield was their only lifeline during the time when the border was closed and regard the RAF with some affection. Symptomatic of that affection was the RAF's being granted the honour of mounting the Guard at the Governor's residence on Battle of Britain weekend in 2005 – which was also the first ever all-female Guard. This degree of public support is vital – as the Service operates within the community and thus relies heavily upon their vigilance, their co-operation and their good humour.

In this context, the recent reinstatement of the Battle of Britain Open Day helped to cement relationships, provided some compensation for the RAF's, often noisy, presence on the Rock and, in the process, raised some £7,500 for the RAFA Wings Appeal and local charities. Although very much reduced in size you may rest assured that the RAF still maintains a firm foothold in the Western Mediterranean.

## CYPRUS AND CENTO

### AVM Nigel Baldwin



*AVM Baldwin entered the RAF via Cranwell to become a Vulcan pilot for most of his flying career before commanding RAF Wyton. His more senior appointments included stints at the MOD and HQ Strike Command, his final appointment being Assistant Chief of Defence Staff (Overseas). Since leaving the RAF in 1996 he has been actively involved in a number of ex-Service organisations, notably 'Combat Stress', of which he is Chairman, and the RAF Historical Society which he has now run for some eleven years.*

Let me say straight away that I am indebted to our Vice-President, Sir Freddie Sowrey, for his help in putting together this background to the RAF's involvement with CENTO. So what was CENTO? – and what was the Royal Air Force doing as a part of it? CENTO – the Central Treaty Organisation – was created, on 20 August 1959, from the previous Baghdad Pact.

During the immediate post WW II period, our nation was, not to put too fine a point on it, exhausted and broke. Remember some of those drab black and white images on TV of Her Majesty the Queen's wedding in 1947. By the early 1950s, to quote Air Chf Mshl Sir David Lee – late lamented founder member of our Society – in his 1989 book *Wings in the Sun*:

*'... it had become apparent to Great Britain that she could no longer afford the level of Armed Forces which would be capable of fighting a major conflict on the scale of World War II without the support of powerful allies. The era of global defence treaties had dawned with the emergence of NATO – the North Atlantic Treaty Organisation.'*

Encouraged by the United States, on 12 January 1955 Iraq and Turkey had signed a bilateral mutual defence treaty; this agreement was also encouraged by Her Majesty's Government, conscious as it was of the importance of the Gulf oilfields and the need for their



*When the UK joined the Baghdad Pact the backbone of the in-theatre RAF was provided by Venoms. This one, seen at Nicosia, is WR382, an FB 4 of No 6 Sqn. The structure in the background is of particular interest – it is a portable canvas Bessonneau hangar of WWI vintage still earning its keep in 1955. (MAP)*

protection. Three months later, on 4 April 1955, Britain joined Iraq and Turkey in what became known as the Baghdad Pact; Pakistan and Iran coming in shortly afterwards. In Sir David Lee's words: 'Thus NATO and the Baghdad Pact together stretched in a continuous line from Norway to Pakistan.'

The Pact's HQ, along with its permanent secretariat, was initially established in Baghdad, although circumstances would dictate that this arrangement would last for only four years.

But what of the Royal Air Force? Whereas Turkey, Iraq, Iran and Pakistan had very large standing armies, the last thing HMG wanted to do was to commit considerable numbers of soldiers to the Middle East. On the other hand, the Soviet Union, quoting Sir David again, posed a '....considerable nuclear threat to the countries of the new Pact and....none of them, other than Britain, possessed either bombers or nuclear weapons with which to confront this threat.'

Conveniently, the new RAF airfield at Akrotiri, in what became one of the Sovereign Base Areas in Cyprus (and thus British territory), was approaching completion and was ideally positioned to accommodate a substantial resident air force. So, in July 1956, the Chiefs of Staff approved the provision of four Canberra light bomber squadrons, one photographic reconnaissance squadron plus some maritime support aircraft. The four bomber units (Nos 32, 73, 6 and



*A Canberra B 2 of No 73 Sqn. (MAP)*

249 Sqn) were deployed to Akrotiri during 1957 – all equipped with the Canberra B 2. They were supported by No 13 Sqn – also equipped with the Canberra – this time the PR7.

At this stage, the aircraft were armed with conventional bombs only – each B 2 could carry six 1,000 lb bombs. For the next four years, any nuclear requirement would have had to have been met by flying aircraft and weapons direct from the United Kingdom. Some Command and Control top cover was provided by having some RAF staff officers in the Pact's HQ in Baghdad and an air vice-marshal, later an air marshal, was appointed as the UK's Permanent Military Deputy (PMD).

In July 1958, there was a military *coup* in Iraq (resulting in the removal of the King and of the Prime Minister – the King was later assassinated). This dealt a body blow to the Baghdad Pact 'upon which the Western Powers had set great store for the future security of the Persian Gulf and its oil production.'<sup>1</sup> The secretariat moved to Ankara where, on 20 August 1959, the HQ re-opened for business under its new title of the Central Treaty Organisation (with Air Mshl Sir Paterson Fraser as the UK's first PMD).

Encouraged by the Shah, the US signed bilateral pacts with Turkey, Iran and Pakistan promising the involvement of American forces in the event of Soviet aggression. Pakistan tried to take advantage of the agreement in their wars against India but were smartly told that CENTO was there to deter the Soviet Union and

### Warsaw Pact – not India!

It is Sir Freddie Sowrey's view (Sir Freddie was the last UK PMD) that the command structure existed only 'on paper in a pigeon hole.' The Council of Military Deputies oversaw a multi-national military planning staff, with an American three-star Chief of Staff. The main task of the staff was to plan exercises. For such events, the main strike forces were Akrotiri's Canberras and aircraft from the US 6th Fleet.

Throughout the life of CENTO, responsibility for the mounting of exercises rotated between the Treaty countries in the area. Some, typically air defence exercises, in which the RAF's Canberras were often used as targets, were for the benefit of an individual nation on its home ground. Others were joint affairs, the major annual naval exercise, for instance, being alternately hosted by Iran or Pakistan and timed to coincide with the quite substantial fleet deployments that the Royal Navy, in particular, was still able to make in those days. The Turks participated by sending a few units, perhaps a couple of submarines, through the Suez Canal. A CENTO search and rescue exercise could be held anywhere – the UK once hosted one in Scotland! There were even cross-national 'skill at arms' competitions. Such events helped with the standardising of procedures and communications, and the growth of mutual confidence. From an RAF point of view, all of these activities provided opportunities to demonstrate its professionalism.

Although the Canberras had been at Akrotiri since 1957, approval to arm them with nuclear weapons came only slowly and it was 1960 before work began on building the required local storage facilities. The SSA (Supplementary Storage Area – note the deliberately imprecise terminology – a practice that was associated with nuclear weapons throughout their service with the RAF) became operational on 28 November 1961 to accommodate the British designed and built 1,900 lb RED BEARD tactical atomic bombs – one for each of thirty-two Canberras. This made NEAF independent of, the then, Bomber Command which was no longer required to ferry weapons out from the United Kingdom. The position then stabilised until, early in 1969, when the Canberras were replaced by two squadrons of Vulcan B 2s armed with the WE177 thermonuclear weapon, or twenty-one 1,000 lb iron bombs which could be delivered in lay-down mode or from medium and high levels.



*Vulcans of Nos 9 and 35 Sqns at Akrotiri in 1969.*

The CENTO/NATO relationship was complex. The Turks regarded NATO as their principal defence treaty and thus alliance; US bases in Turkey came under the NATO banner. Consequently, Turkish enthusiasm for CENTO was muted. Pakistan seemed to slant any support they provided towards what they regarded as aggression by India. Iran (although not a member of NATO) saw that alliance as the main bulwark against Soviet aggression and itself as a main plank of deterrence. Certainly all three countries profited from the supply of Western defence equipment. For example: Pakistan received F-86s, B-57s and F-104s; Iran acquired M47 tanks, F-86s, F-4s and C-130s (and ultimately even F-14s); and Turkey operated the F-84, F-86, F-100 and the C-130. All three countries were given considerable help in setting up Command and Control systems.

CENTO was seen as the link between NATO and SEATO (the South East Asian Treaty Organisation). At the time, the British Government considered CENTO to be vital to regional security. CENTO would not have come into being without UK and US involvement. In particular, successive American administrations



*A Vulcan of the NEAF Bomber Wing poses over the parched and scrubby terrain, of Cyprus.*

perhaps disappointing that no Arab country ever joined CENTO. The reason given at the time was that CENTO was too western orientated whilst they were looking for a more neutral position between the two power blocs.

From the UK's point of view all of this came to an end early in 1975, shortly after the Turkish invasion of north Cyprus in July 1974. With the invasion 'producing the astonishing situation of two NATO allies (Turkey and Greece) fighting each other in Cyprus while a third ally (Great Britain) was in occupation of part of the island!',<sup>2</sup> our Near East and CENTO commitments changed for good. It was deemed sensible to withdraw our nuclear weapons systems back to the United Kingdom.

Shortly afterwards, Great Britain cancelled her declaration to CENTO. The organisation ran on to 1979 (the year the Shah of Iran was deposed). With Pakistan then leaving as well, CENTO became defunct and thereafter defence agreements between the US, the UK and the countries of the region had to be negotiated on a bilateral basis.

#### **Notes**

1. Lee, Sir David. *Wings in the Sun* (London: 1989).
2. *Ibid.*

regarded the continental countries close to the USSR as of great importance. As we look back on the period, it must be true that, at the very least, the threat of nuclear strikes into the Caucasus would have complicated Soviet defence planning. It was



## CYPRUS – CANBERRAS

### Wg Cdr Barry Dove



*Barry Dove joined the RAF in 1961 and trained as a navigator. His flying experience involved Canberras in Cyprus, FAA and RAF Buccaneers and, as OC 15 Sqn, Tornados. Ground tours included HQ 1 Gp, HQ RAF Germany, HQ AAFCE, MOD, the Cabinet Office and with the DS at Bracknell; his final appointment before leaving the Service in 1997 was with the Defence Export Services Organisation.*

The basing of Canberras in Cyprus started in 1956 when No 13 Sqn, having moved from Egypt in January, re-equipped with the PR 7 in May of that year. The squadron had little time to settle in before it was back in action over the skies of its former home during the Suez campaign. Several aircraft sustained damage due to enemy fire and one was lost. On 6 November 1956, the last day of the Suez campaign, Canberra WH799 took off from Akrotiri for a photo-recce sortie. The purpose of the mission was to monitor a reported build up of Soviet supplied combat aircraft in Syria. Unfortunately WH799 was shot down by a Syrian Air Force Meteor F 8 supplied by Britain. The surviving crew members were repatriated after treatment in Beirut Military Hospital. No 13 Sqn replaced its PR 7s with PR 9s in 1961 and in 1965 took its aircraft to Malta.

Although No 13 Sqn had been the first Canberra unit to be based on Cyprus, I shall focus on those that flew the bomber version from the island between 1957 and 1969. My personal experience is of the period 1963-66 when, on my first tour, I was a navigator on No 249 (Gold Coast) Sqn. My presentation will discuss: the build up of the Canberra Wing; the aircraft's roles, equipment, weapons, training and operations; some significant occurrences; and the final years leading to disbandment in 1969.

In 1955 it fell to Britain, and in particular the Royal Air Force, to provide a form of armed insurance against any aggression aimed at the Baghdad Pact nations. The area to be defended in an emergency was quite beyond the operational scope of the Venom, the RAF's principal

attack aircraft in the Middle East at the time. It was therefore decided in 1956 to re-equip four Venom squadrons with the Canberra and to base them on Cyprus under the operational control of Air Headquarters Levant. After a delay, due to the Suez campaign, when seven UK-based Canberra squadrons operated from Cyprus, the re-equipment got underway. No 32 Sqn's Canberra B 2s, arrived in January 1957 to be followed by No 73 Sqn in May and, by the end of the year, the other two units, Nos 6 and 249 Sqns, had also traded-in their Venoms for Canberras, in June and September, respectively.

Unlike previous re-equipment exercises, when the pilots and groundcrew had simply converted to a new type, this time the process involved complete replacement of all aircrews and many of the groundcrew as well. Each squadron had an establishment of eight aircraft and ten crews. The technical personnel had a variable amount of experience; on No 249 Sqn, for example, one-third were from the original unit; one-third came from other Canberra units on Cyprus, with the rest being posted-in direct from the UK. Of the total, only half were specifically Canberra-trained.

Life was fairly rugged in those early days as Akrotiri still lacked permanent buildings and most personnel were accommodated under canvas. No 249 Sqn was particularly unlucky and had been given a piece of rocky ground on which to erect its tents, borrowing a pneumatic drill from the Royal Engineers to help in the task. It was not until 1959-60 that permanent air traffic control and air operations facilities for the multi-squadron Flying Wing were ready for occupation, permitting the tents, caravans and huts to be abandoned.

For the newly arrived squadrons there was a considerable gap to bridge between low-level ground attack and medium and high-level bombing and they trained hard to achieve the necessary combat-ready status. There were frequent practice bombing sorties and navexes over Libya, deployments to RAF Stations in the Persian Gulf and to air bases in Turkey and Iran, along with detachments to the staging posts at Habbaniya and Basrah in Iraq. One of No 249 Sqn's first tasks was to send a Canberra to Nairobi to collect the squadron's silver and other property. Staging via El Adem and Khartoum, the aircraft returned with the hoard four days later, having been liberally decorated with mini-elephants – the squadron badge is a running elephant – courtesy of the ground staff at Eastleigh.



*A Canberra B 6 of No 6 Sqn. (MAP)*

In the last weeks of 1959 Nos 6 and 249 Sqn were re-equipped with ex-Bomber Command Canberra B 6s; the other two squadrons retaining their Mk 2s for the time being. Training continued, the Canberras carrying out frequent 'bombexes' in which they attacked Cyprus from all altitudes to provide interception practice for the visiting Hunter, Javelin and, later, Lightning squadrons from the UK. During long-range navigation training the emphasis was on locating pinpoint targets from medium and low level.

Locally, the years between 1958 and 1960 were dominated by the EOKA campaign for union of Cyprus with Greece. This led to a heightened ground defence posture at Akrotiri due to the terrorist threat. This situation was resolved on 21 September 1960 when Cyprus became an independent republic which, six months later, joined the Commonwealth. Britain, however, retained title to two tracts of land, one encompassing Akrotiri and the other the Army base at Dhekelia, these being designated as Sovereign Base Areas (SBA). Internationally, a chilling reminder of the potential of the Cold War was given in a MEAF memorandum, which suggested that Cyprus would be a prime target in time of war. It read:

'In the event of war it is expected that the enemy will have a large, efficient and balanced force capable of striking at RAF Akrotiri by air, land and sea. The station would be a target for the employment of all types of modern weapons, including nuclear missiles. Paratroops could be dropped on or near the airfield by day or night. In the event of local uprisings and internal strife, sabotage and attacks by armed bands, with little or no warning, is to be expected.'

On 1 March 1961 the Near East Air Force (NEAF) was formed with its HQ at Episkopi. It was soon faced with a crisis when, in July, Iraqi troops began making hostile movements towards Kuwait. In response elements drawn from two squadrons of interdictor Canberras (Nos 88 and 213 Sqns) were deployed briefly from Germany to Sharjah in the United Arab Emirates. Meanwhile, in the event of hostilities breaking out, the Akrotiri-based Canberras had also been assigned targets in Iraq. The Kuwait crisis never escalated, however, and the two deployed squadrons soon returned to Germany, although, for a time, No 6 Sqn was held at readiness to reinforce the remaining forces in the Gulf in case the need arose.

Having mentioned the Cold War and treaty obligations it is appropriate to introduce the nuclear weapons issue at this point. In 1956, when plans were being laid to develop Akrotiri as a forward base for V-bomber detachments and a permanent home for Canberras, they included provision for nuclear weapons storage. However, it was the early 1960s before Britain's commitments to the Baghdad Pact led to the permanent deployment of nuclear weapons at Akrotiri, a development which implied a significant change of role for the resident Canberra squadrons. As in the Far East, British planners saw nuclear weapons as the most cost-effective way of contributing to allied defence of the region. However, it was thought that the weapons would be used only in a global war between the Soviet Union and the Western allies. The risk of escalation, if limited nuclear war were to break out in the Middle East, would be far too great to plan for any such conflict. It is worth noting that the British Chiefs of Staff rejected advice in a 1956 report, not long before the Suez crisis, that nuclear weapons should be employed in a limited war against Egypt.

By 1960, facilities were available for sixteen RED BEARDS to be brought to Akrotiri in a crisis and stored temporarily. On 28 November 1961, a permanent facility, the Supplementary Storage Area (SSA) at nearby Cape Gata, became available to hold thirty-two RED BEARDS. These 15KT weapons weighed 1,950 lb apiece and each Canberra could carry one in the bomb bay. Two RAF Regiment squadrons defended the Cape Gata installation as part of their protection of the base. Because of the post-independence SBAs, Akrotiri and Cape Gata were technically on British soil, however, this did not eliminate political sensitivities, as the Cypriot government

under Archbishop Makarios was neither especially pro-British nor a member of CENTO. A British Air Ministry official wrote in 1960 'all possible measures should be taken in Cyprus to conceal the arrival and storage of nuclear bombs .... whether they be inert, drill or the real McCoy.' A few years later a plan of Akrotiri was published in a local newspaper; luckily the SSA was identified as 'Soldiers and Sailors Accommodation'.

The arrival of Canberra B 15s and 16s in 1961 gave the Akrotiri squadrons a nuclear role, which was implicit in their new collective title of the Akrotiri Strike Wing. The B 15s were allocated to Nos 32 and 73 Sqns whilst Nos 6 and 249 Sqns received the B 16s. Both versions were modified B 6 airframes strengthened for low-level operations in general but particularly for the nuclear delivery manoeuvre associated with the Low Altitude Bombing System (LABS). Both aircraft had a crew of three: a pilot, a navigator/plotter and navigator/observer. The nav/plotter sat behind the pilot in the 'Black Hole of Calcutta' with a BLUE SILK Doppler, a Ground Position Indicator (GPI Mk 4A)), Rebecca/Eureka range and bearing equipment, a Marconi radio compass, an STR18 HF radio and an ORANGE PUTTER tail warning radar for company. The navigator/observer's role, lying prone in the nose of the aircraft, was map reading at low-level and operating the bombsight for medium level bombing.

The Mk 15 could carry its crew of three plus one, as it had three ejection seats and an occasional fold-down seat alongside the pilot. The Mk 16 had ejection seats only for the pilot and the nav/plotter, the nav/observer having to make do with the fold-down seat. With no ejection seat the observer relied on a flying suit, which had an integral parachute harness, and a chest parachute that clipped onto two hooks. His escape from the aircraft was via the entrance door which could be opened from the inside by turning a handle at least three and a half turns clockwise.

The third ejection seat had been removed from the Mk 16 to make way for the BLUE SHADOW sideways-looking radar. This new device was not popular with the navigators for several reasons. First, the navigation table had to be folded up to check that the system was working. This obscured the BLUE SILK display and, inevitably, the Doppler would choose that moment to unlock, and thus drive the GPI



*One of No 249 Sqn's Canberra B 16s displaying its BLUE SHADOW aerial on the starboard side of the forward fuselage, the only external feature that distinguished it from a B 15. (MAP)*

read-out off the edge of the chart. Secondly, the radar output was burnt onto specially impregnated paper that had a nasty habit of producing clouds of smoke when it went wrong. Finally, it only looked to starboard, to a range of about 60 miles – consequently, to be of any use, the aircraft had to fly anti-clockwise around the Mediterranean, which meant that we became very familiar with the outline of the southern coast of Crete.

The re-equipment of all four squadrons with B 15s and 16s was completed in early 1963 and marked the start of the period during which the Cyprus Wing possessed its greatest potential. The Canberra had a credible low-level strike (ie nuclear) capability, with the LABS delivered RED BEARD, and a wide range of attack (ie conventional) options, employing medium level 1,000 lb bombing, shallow dive bombing and low level rocketing; in addition No 249 Sqn had a target marking role using 4.5-inch parachute flares and target indicators.

Allied to routine weapons training were regular squadron detachments and solo training exercises (known as Lone Rangers) to all points of the compass: west to Malta and Gibraltar, and occasionally the UK; north and east to Turkey, Iran (Tehran), Pakistan, Bahrain (Muharraq), the UAE (Sharjah), Oman (Masirah) and Aden; south and west to El Adem and Idris in Libya or on to Khartoum and Nairobi via the bottom left hand corner of Egypt, known as 'Nasser's Corner'. It is not surprising that at the end of his tour in 1963 a Squadron Commander reported that 'the variety of flying opportunities combined with the holiday atmosphere of Cyprus

at peace added to the enjoyment for all Squadron members and their families.’ This is when I actually appeared on the scene, in August 1963, but that had not been the original plan for my future.

Although originally earmarked for the single-navigator Canberra B(I)8 in Germany, my course on No 231 OCU at Bassingbourn was reshuffled to meet the need for a three-man crew for Cyprus. I drew what I thought was the short straw and was posted to No 249 Sqn as a navigator/observer. The nuclear weapons course at the Bomber Command Bombing School (BCBS) at Wittering followed the OCU and, as the observer, I had to learn how to carry out the ‘last minute loading’ of the RED BEARD. This involved a large flask that contained the central core of the weapon, discreetly referred to as ‘the physics package’. The whole thing was not dissimilar to the shape of the Jules Rimet Football World Cup, ie a ball on the end of a pole with a flat bit at the bottom! To get this core from the flask into the weapon, a handle was attached to the base plate; the device was then lifted with great care out of the flask and offered up to the weapon. It was then locked into place and the handle removed. A tricky operation at the best of times but with the well-used equipment at BCBS the odd dummy physics package did occasionally end up on the hangar floor. The procedure was affectionately known as ‘playing gynaecologist to an elephant’.

Armed with this invaluable knowledge, I arrived at Nicosia in a British Eagle Britannia early one hot summer morning and thence by RAF 39-seater Bedford coach to Akrotiri ready to enjoy this seemingly idyllic location. However, the peace did not last long and hostilities between Greek and Turkish Cypriots erupted in late December 1963. The UN presence in Cyprus dates from that time, although it was the 1974 troubles that cemented the island’s division into a Turkish North and a Greek Cypriot South. The aftermath of December ‘63 meant that there was a dusk-to-dawn curfew for most of the following year. For us, that was an inconvenience, rather than a real problem. We could, for instance, still travel to the north of the island and enjoy the delights of Kyrenia by day. Despite the continuing UN presence, the curfew had been lifted by 1965 and most of the previous freedoms had been restored. Generally speaking the situation remained that way for the rest of the Canberra era.

Back to 1963 and, with the B15/16 re-equipment complete, the

wing settled into a training and exercise routine that was broadly similar on all four squadrons. The station worked six days a week, mornings only, from 7 am to 1 pm. We flew Monday to Friday, with Saturday mornings devoted to target study, 'last minute loading' practice and lectures on the weapon in preparation for the annual visit by the Weapons Standardisation Team. Crews had targets in the so-called 'soft underbelly' of the Soviet Union but, unlike the Canberras stationed in Germany, there was no QRA. My crew had a target near Tashkent, in Uzbekistan, which would have involved a hi-lo sortie of about 1,500 miles; the planned recovery base was Peshawar, about 600 miles away in Pakistan's North West Frontier Province.

Night flying took place on a fairly regular basis and the crews working day was adjusted accordingly. Most of the local area flying used the weapons ranges at Episkopi Bay and Larnaca. LABS by day, medium level bombing and shallow dive bombing (SDB) by both day and night took place at Episkopi using 25 lb practice bombs. LABS involved pre-computing the release parameters before take-off, these being set by the navigator on the release computer at the rear of the aircraft. Approaching the target at 250 feet, at a pre-determined point the pilot began a 3g pull-up until the bomb was released automatically to be thrown forward by about two miles. To gain maximum possible separation from the weapon before it detonated, the aircraft continued its looping manoeuvre before rolling off the top to recover to low-level heading away from the target. Should the automatics fail, the technique was to proceed to the actual target before starting the manoeuvre, releasing the weapon about 120° into the loop in the so-called 'over-the-shoulder' mode before escaping.

Medium level bombing differed little from the techniques used during WW II; although the bombsight had improved, the same 1,000 lb bombs were in the inventory. Shallow dive-bombing started from a circuit height of 5,000 ft before diving towards the target at 30°. The navigator/plotter called out the heights in the dive down to the release point when the aircraft was recovered for another pass – quite exciting at night.

Low level rocketing was practised on the Larnaca Range and was also an exciting event. From a circuit height of 1,000 ft the aircraft made a descending turn to 100 ft or less and accelerated to 350 kt for the run in. The fixed aiming point was lined up to track over the



ground up to the target and when they coincided the firing button was pressed. Only single rockets were fired on the range but the operational load was two pods with frangible noses, one on each wing weapons station, each carrying thirty-seven 2-inch rockets. Firing a full salvo of seventy-four rockets in this attack profile produced an elliptical pattern of about 1,000 ft by 40 ft and was ideal for attacking lines of unprotected aircraft or vehicles. Following firing the aircraft turned away sharply to avoid ricochet damage as the rockets impacted.

Bombing practice with thousand pounders was carried out on El Adem range in the Libyan Desert. This could be a single aircraft operating from El Adem or a bomber stream from Akrotiri led by No 249 Sqn crews dropping 4.5-inch parachute flares at medium level followed by coloured target indicators in true Pathfinder tradition. Weapons training locally was complemented by regular detachments to El Adem, Idris (for Tarhuna range) and Sharjah (Exercise POTAGE), using Rashid down the coast south of Dubai.

There was involvement with CENTO nations, Iran and Pakistan, through Exercises SHAHBAZ and SHAHIN, and detachments to Tehran and Karachi (Mauripur) provided target practice for the local air defenders. Combined exercises were held to test the squadrons' efficiency in the nuclear and conventional roles. An example of this was Exercise TOTEM, a global alert exercise held in February 1965. Elements of the Akrotiri Wing were required to assume the nuclear role for the first 48 hours of the exercise, with aircrew being brought to various states of readiness until Phase One was completed. During Phase Two the aircraft were dispersed. My own log book shows that on 25 February I flew to Masirah with OC 249 Sqn, Sqn Ldr John Sutton; we returned to Akrotiri, via Tehran, on the 27th.

The Lone Ranger programme provided invaluable experience and taught the crews a great deal about operating alone away from home in some fairly remote parts of the world. Well before satellites and mobile phones allowed communication from almost anywhere, crews simply submitted their flight plans and set off to make use of the many RAF stations and international airports east of Suez. Where possible we took full advantage of what the location had to offer. For example, Malta had smoked hams, Aden duty free electrical goods and cameras, Masirah crayfish tails and swordfish steaks, and Nairobi carved wooden animals. Things did not always go according to plan,



*Canberras of No 249 Sqn over Malaya in 1965.*

however, and No 6 Sqn lost an aircraft and crew returning from a Nairobi. The aircraft suffered a major structural failure and crashed when it flew through an embedded cumulonimbus cloud while descending into Khartoum. Lone Rangers to Nairobi were sensibly suspended for a while, the only downside being that it was my crew's turn next, so I never did sample the delights of that part of the world.

As will have become clear by now, life for the Cyprus Canberra community was never dull, such was the scope of our normal activities and the variety of additional tasks, large and small, that regularly came our way. One of the biggest was in 1964-65 when the Cyprus squadrons replaced the Canberra B(I)8s from Germany that had been rotating through Kuantan for two months at a time as part of the UK's response to the Indonesian Confrontation. Operating from a tented camp on the east coast of Malaya was an entirely new experience for everyone. Apart from the Kuwait crisis of 1961, the Malaysian experience was the closest the Cyprus Canberra Wing ever came to going to war. Aircraft were loaded with 1,000 lb bombs, crews were briefed, issued with pistols and Maria Theresa dollars and put on stand by – but they were never used.

There were several other significant occurrences on the wing during the mid- to late-1960s. No 249 Sqn carried out trials with the



*With the imposition of centralised servicing,, individual unit markings were replaced by a Strike Wing emblem featuring one of Akrotiri's trademark pink Flamingoes standing in a representation of the local lake while being struck by lightning but, as this picture shows, you can't keep a good squadron down and No 249 Sqn's elephant had reappeared on the fin of this aeroplane, and probably on others too. (MAP)*

new Lepus flare at El Adem in September 1964 and it eventually replaced the 4.5-inch flare in 1967. Ground environmental and flying trials with the new nuclear weapon, the WE177, took place in 1964-65 when weapons were loaded and the aircraft taxied around the airfield to monitor temperature and vibration. Instrumented rounds, minus the 'physics package', were flown on a series of sorties nicknamed 'CONFECTIONARY'.

At much the same time, the French AS30 radio-guided air-to-ground missile was added to the B 15's weapons inventory. The first squadron firing took place on 20 October 1965 when Fg Off Brian Cable of No 32 Sqn guided a missile to the target at El Adem range. Other innovations included 'pop-up' bombing and trials with the SFOM gun sight and, finally, the dogma of centralised servicing for the wing was introduced at the end of 1966 – but it did not last long. In mid-1968 the runway at Akrotiri was closed for repair and the central servicing force was split into four with each squadron being allocated its own personnel. Morale and serviceability soared and very few sorties were lost over the next four months or so, even though the squadrons spent much time away from Cyprus at a variety of places including Malta, Sharjah and Nicosia.

These were Indian summer times for Akrotiri's Canberras but the end was in sight. It had been the intention to re-equip two of the squadrons with the TSR2 but that project was cancelled in 1965 and the US F-111 was ordered instead. That order was also cancelled, in January 1968, when the Labour Government decided to buy Phantoms and Buccaneers. In the event Akrotiri's Strike Wing was replaced by two squadrons of Vulcans from the UK. The beginning of the end for the Canberra came on 10 January 1969 when a disbandment flypast was held. Shortly afterwards No 6 Sqn left to be re-established at Coningsby with Phantoms. No 32 Sqn was next to go, disbanding on 3 February, followed by No 249 Sqn on the 24th and No 73 Sqn on 3 March.

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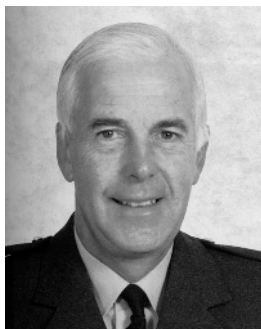
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## AIR DEFENCE IN CYPRUS

### Air Chf Mshl Sir Michael Graydon



*Entering Cranwell in 1957, Sir Michael first flew as a QFI before moving on to Lightnings with No 56 Sqn and No 226 OCU and subsequently commanding No 11 Sqn, RAF Leuchars and RAF Stanley. Staff tours included stints with NATO at Brunssum and Mons, at the MoD and as SASO 11 Gp. His senior appointments included AOCinC Support Command, AOCinC Strike Command and, ultimately, CAS. Since leaving the Service he has become a Non Executive*

*Director of Thales plc and is active in a number of other fields, including the Air Cadet Council, the RAeS and the Battle of Britain Memorial Trust.*

After Suez in 1956. there was no resident fighter squadron in Cyprus. At that time, no doubt scarred by Suez and diverted by the increasing tensions of the Cold War, HMG felt able to ignore any air threat to Cyprus. Static air defences were however, retained, and with the need to exercise these defences, UK based fighter squadrons regularly deployed to the island. No 43 Sqn with Hunters, for example, spent some time at Nicosia; Lightning Sqns started to deploy in the 1962-63 timeframe as well, but in 1964 No 29 Sqn's Javelins became permanent residents on the island.

That year I personally deployed twice to Cyprus in Lightning F 1As using Air-to-Air Refuelling (AAR), from Valiants initially, and later the Victor. This was my first initiation to the ongoing tensions between the Turkish and Greek communities. Two incidents come to mind; one when tensions were running very high at a Greek village, a Lightning was called in to 'wire' the area, which it did with reheat booming, producing a level of noise previously unknown in Cyprus. So impressed were the locals that they forgot what it was that was causing the problem and the whole thing cooled down. Frightened or entertained? The result was all that mattered.

The second incident arose when one of our number was scrambled



*‘...a large square fighter with a big red tail...’ – a legacy of No 56 Sqn’s 1963 season as the ‘The Firebirds’ aerobatic display team.*

to intercept Greek RF-84Fs which were making their presence felt with apparent impunity. Suddenly a large square fighter with a big red tail – 56 still sported one from its recent Firebird days, inserted itself quietly and menacingly between the RFs. A large thinks bubble arose from the Greek cockpits; then they dropped their tanks and shot off at full throttle, no doubt convinced that the Turks were after them. We often wondered whether they had the range to reach Rhodes safely.

In 1964 UN forces were deployed throughout Cyprus. Although the EOKA threat might have been over, in reality its protagonists continued to exist in many parts of the island. There were still checkpoints on many roads manned by the Greek Cypriot army and the Turkish Cypriots were in the main confined to enclaves, in many cases living in wretched conditions.

All UK air forces had been centred at Akrotiri with only air traffic control remaining at Nicosia. At Mount Olympus, nearly 6,000 ft up, the Type 84 radar gave superb coverage over most of the approaches to the island. This radar was operated by a detachment from No 280 Signals Unit which was based at Cape Gata, within the SBA at Akrotiri, and equipped with a Type 254 radar with associated height finders. There were light anti-aircraft guns from Nos 27 and 34 RAF

Regiment Sqns and airfield defence was provided by Nos 37 and 94 Sqns RAF Regiment. Add to all of this No 112 Sqn's Bloodhounds and, as a point defence system for the SBA, it was, for its time, an impressive combination.

In 1967 the Javelins were replaced by the Lightnings F 3s of No 56 Sqn. Having returned to the squadron from the OCU as a Flight Commander, in early May 1967 I led the last four aircraft to redeploy from Wattisham to the island. As you have heard, four squadrons of Canberras, one of Argosies and sundry helicopters were based at Akrotiri which, added to the unending stream of Britannias and shiny new VC10s in transit made it one of the largest and busiest stations in the RAF.

In June 1967 the Six-Day War erupted. Sir David Lee in his authoritative history *Wings in the Sun*, states: 'Neither Cyprus nor the RAF was involved in the short but fierce conflict, but it served to maintain the tension and instability never entirely absent from the Near East. It was one good reason for maintaining the air defences of the island and the SBAs in particular, as there was no guarantee that the ramifications of the conflict would not spill over and affect Cyprus.'

He was spot on. The Six-Day War for No 56 Sqn felt remarkably close to home. We were at cockpit alert for most of it with something less than sixteen operational pilots. The temperatures were well into the 30<sup>o</sup>sC and there was no cover for the aircraft other than a locally made cloth canopy which regularly blew away when the wind got up, as it always did in the afternoon. Six days was quite long enough. I doubt if we could have maintained this level of combat readiness much longer without running real risks in the flight safety field.

1967 emphasised what was the dawning on the wider world of the implications of flexible response – MC14/3. Prolonged conventional war had been neither expected nor resourced in the era of nuclear confrontation, the MC14/2 period of the Cold War. This had now come home to roost. MC 14/3 presaged profound changes. Hardening programmes, dispersal, airfield ground defence, the whole gamut of responses against air and ground attack which would prevail in the TACEVAL era and dominate RAF life for the next twenty-three years.

This might be the moment to ponder the value of air defence in Cyprus in this timeframe. At the higher levels, the prevailing wisdom

was that there was no air threat to the SBAs. I can well remember being told this back in Fighter Command when the transfer of No 56 Sqn meant a reduction in the UK's ORBAT. An understandable reaction under those circumstances. This view was based on the belief that for the Soviets to attack Cyprus would be too far and too dangerous, and for the Middle Eastern countries to do so was unthinkable

On No 56 Sqn in 1967, we were rather less sanguine – and so, I believe, was the higher authority at HQ NEAF, at least once the Six-Day War had come and gone. It was not without interest that the Arab nations were convinced that the RAF had supported the Israeli Air Force. They simply did not believe that such devastating attacks on Egypt, Syria, Lebanon and Jordan could have been mounted solely by the Israelis. So much so, that we had to provide photocopies of our Log Books to be sent to London to provide part of the evidence provided to certain Arab nations to prove that we had not been involved. Tension was very high in the theatre at that period, and remember, not much later there was a *coup* in Libya.

So, No 56 Sqn continued to practise the classic role of air defence against the Soviet-style long range bomber, and with the Lightning's acceleration and the Red Top missile giving a head-on capability it would no doubt have performed well. But increasingly we were addressing the low level threat from fighter bombers and we trained for this with hard evasion down to 250 feet. This was in marked contrast to the then syllabus in the UK in which even air combat was given minimum attention. It certainly helped to be able to write the syllabus in direct co-operation with an HQ whose staff could actually see the airfield from their office windows, no doubt making them feel a little closer to the action than might have been the case back home.

This low level evasion training was facilitated by the splendid Canberra squadrons, who benefited equally from these exercises, of course, as did the later Vulcans which, whilst disadvantaged with their low level restrictions were something else again at height.

This tight air defence set up, especially the proximity of the players – the fighters, the Bloodhound SAMs, the SU's radars and the offensive forces – made for exceptional briefing and debriefing opportunities and we were high up on the learning curve. When reinforced by Sea Vixens, which happened on occasion, or by





*One of No 56 Sqn's Canberra T 4s, WE188, on a visit to Malta – on a ham run perhaps. (MAP)*

additional Lightnings from UK, this point defence was as good as could be found anywhere in the world with pulse radars.

The Lightning F 3, which replaced the Javelin with its four Firestreaks and a pair of cannon, was armed with only two Red Top missiles. The Red Top did provide a head on capability and a much better angle-off than the Firestreak but, whilst recognising that the threat for which this aircraft was designed was the high flying bomber, to give it just two missiles and no gun was crazy. You will recall that both the F 1A and F 2 Lightnings had always had cannon and that the F 6 which replaced the F 3 was retro-fitted with guns in the ventral tank. I hope they know what they are doing with Typhoon.

There were further benefits for the resident fighter squadron. A simulator in close proximity; three Canberra aircraft on the unit for target work and, may it be said, the Malta ham run at Christmas. The Lightning squadron operated, on much the same basis as those in UK, in shifts over an extended period. In the early days there was no hangar as later adorned Golf Dispersal at Akrotiri. Wooden huts prevailed; QRA was conducted from these huts with the armed aircraft parked in the open facing in a safe direction towards the Akrotiri lake. Only major servicing was carried out under cover. All other servicing was on the dispersal and often in temperatures rising towards 35°C. The ground crew were, as always, magnificent but the spares situation for a Lightning squadron relying on supply from the UK was precarious. AOG was more in evidence than was sensible, and aircraft were classically robbed for spares with all the problems that that entails. I have no doubt that when No 74 Sqn was deployed to Tengah



*A Lightning F 3 of No 56 Sqn, XR750, over the coast of Cyprus.*

that this proved to be a similar challenge. Golf Dispersal was close to runway 27 and the ten-minute QRA requirement was easily met.

AAR was a quite regular provision, either when aircraft were deployed from UK or when en route to or from the Far East. Exercises were often planned around the Victors' visits and this obviously extended the F 3's loiter time and the general effectiveness of air defence in Cyprus. Each year an MPC was conducted back at Valley and No 56 Sqn would be reinforced by a unit from UK over this period to the mutual benefit of all concerned – although we were never in any doubt that priority for AAR in war would be reserved for the UK.

There were regular scrambles. The Soviets were not disinterested in the SBA, as evident from the regular diversions from track of Russian airliners and military transports en route to Egypt. We should not forget that this was the period of massive Soviet support to Egypt which continued up to and including the 1973 War. Other aircraft penetrating the area of interest were Egyptian and American – predominately 6th Fleet – the latter remaining sublimely oblivious to the British presence in that part of the world. In 1968 Greek Cypriot human rights abuses – there are no other words for it, albeit such phrases were not in vogue at the time – again resulted in the massacre of Turkish Cypriot men, women and children at Kophinou, causing the Turkish nation to come very close to sailing with an invasion force. Turkish RF-84Fs, in the main, flew reconnaissance missions

over Cyprus predominately mapping and photographing potential landing beaches. Interestingly, these appeared to be primarily in the Famagusta area. Was this a feint in the light of later events in 1974?

During my time, we spent nearly six months at Nicosia while the Akrotiri runway was being dug up. Aircraft for servicing were landed and taken off from the parallel taxiway which was, as many will know, a pretty good size; and it remained the crash diversion airstrip throughout this period.

Low level air defence at night was challenging in the Lightning. The Mediterranean after sunset is mighty dark. There are no lights in sight. The first experience of chasing a Buccaneer doing 500 knots at low level – *very* low level – at night produced the first of my many grey hairs. The pressure error for the altimeter at high speed was, as I recall, more than 300 feet at low level and the technique involved closing on the target, a few hundred feet above it, and then bunting down until the Red Top missile acquired. Often the indicated altitude was between 300 and 400 feet *below* sea level. There must be a better way. There was. It was called pulse Doppler.

In fact, there were occasions when the weather reduced the performance of No 280 SU's various radars and this coupled with the AI Mk 23's weaknesses at low level, caused some thought to be given to employing the Bloodhound as first line of defence at low level.

And so life went on with the F 3s eventually being replaced by the F 6 but in 1974 something happened. I hesitate to cross swords with Sir David Lee but in his description of what he calls the Turkish Invasion of Cyprus he misses a key matter. He suggests that thoughts of *enosis* – union with Greece – had virtually disappeared; and that Turkey fostered the impression that *enosis* was about to happen. He did not comment on the continuing attrition of Turkish Cypriots by the Greek Cypriot right wing even after Kophinou; he did not appear to recognise that many Turkish Cypriots were confined to enclaves under conditions of great hardship, and he failed to mention that in the early summer of 1974, a right wing terrorist, Nicos Sampson, supported by the Colonels of Greece and EOKA thugs deposed the Greek elected President, Archbishop Makarios, in a *coup*. They set about systematically settling old scores; first with pro-Makarios Greeks – just how many Greek Cypriots died in this first outrage will never be known but the so-called 'missing' Greek Cypriots from Turkish

operations are most likely those who were murdered by Sampson and his cohorts; they then started on the Turkish Cypriots. Far from this being Turkish propaganda, their worst fears had been realised. The Turks appealed to the United Kingdom for help. You know our response; it was not our finest hour.

The Turks call the operation the 'Intervention'. An invasion implies a desire to annex a country or at minimum to change its government. In fact, what Turkey wanted was to ensure the safety of Turkish Cypriots and her southern flank and, under the circumstances of the time, when the UK had abrogated its responsibilities and the UN was wringing its hands, the only way to achieve this was by establishing a Greek-free zone to her south.

During the war, which was carried out very effectively by the Turkish air and ground forces, I understand that Turkish pilots called up the RAF on '243' assuring them that they would keep out of the Akrotiri area. No 56 Sqn was reinforced by the Phantoms of Nos 6 and 41 Sqns. Aircraft were maintained at high readiness and armed but kept on the ground. This must have been both frustrating and not a little scary.

The 1974 operation killed CENTO. Fixed wing aircraft were repatriated to the UK in early 1975, leaving only a token presence on the SBA. Despite the regular deployment of UK-based fighter squadrons for APCs, air defence has remained largely in limbo, although in Gulf War I, Akrotiri once again hummed and bustled and it did so again in Gulf War II.

The U-2s come and go. The Middle East rumbles and erupts. And Cyprus is still divided. Theories abound as to whom or what promoted the 1974 Greek Cypriot *coup*. Whether we will ever again see an air defence capability of any significance in Cyprus, only time will tell. The runway remains a vital asset; the region is volatile and nuclear weapons in uncertain hands are on the horizon. I can see a real benefit for stability in the Middle East of a NATO base offering a range of capabilities including humanitarian. If there were a solution to the Cyprus dispute, then this might happen. A real chance was lost when the Greek Cypriots rejected the Annan plan. I hope they will think again.

## CYPRUS AND THE VULCAN

### AVM Nigel Baldwin

For the RAF of the early 1970s there were some major changes afoot. Most important was the fundamental change in NATO doctrine from that of massive retaliation to flexible response. That meant, not only the end of QRA – Quick Reaction Alert – for me and my Vulcan and Victor colleagues at Waddington, Scampton, Cottesmore and Wittering. (QRA, of course, had meant one crew from each squadron, with a nuclear armed aircraft, at 15 minutes readiness, 24 hours a day, seven days a week). The change in stance led to the run on of the Vulcan force which was to retain both its lay down nuclear strike potential and its ability to deliver up to twenty-one 1,000 pounders.

The withdrawal of the Canberras of Nos 6, 32, 73 and 249 Sqn from Akrotiri began in January 1969. They were immediately replaced by eight Vulcan B 2s of No 35 Sqn from Cottesmore, followed by eight more of No 9 Sqn in March. It was declared from London that they represented a strike (ie nuclear) force for CENTO – although this failed to prevent the BBC from reporting that the Vulcans would be a ‘NATO’ asset.

Nos 9 and 35 Sqn set up shop at the south east end of the airfield at Akrotiri, both units being commanded by wing commanders. An overarching HQ Bomber Wing, also under a GD wing commander, and with supporting navigation, radar bombing and electronic warfare staff officers, was established nearby. That wing commander also commanded the first- and second-line engineering facilities – so a very similar arrangement to the centralised servicing practised at V-bomber bases in the UK.

It is appropriate to make a slight digression here. For many years people had argued for the greater efficiencies that would ensue if at least first, and some second, line tradesmen could ‘belong’ to the flying squadrons, rather than to the station’s centralised engineering establishment. People like to belong – and most ground crew would surely have preferred to be part of a famous unit, like No 9 or 35 Sqn, rather than being embedded within an amorphous mass. By the time I was appointed to command No 50 Sqn at Waddington, some ten years later, I had three engineering officers (including the first female V-Force JEngO) plus a hundred airmen and, and most importantly, an

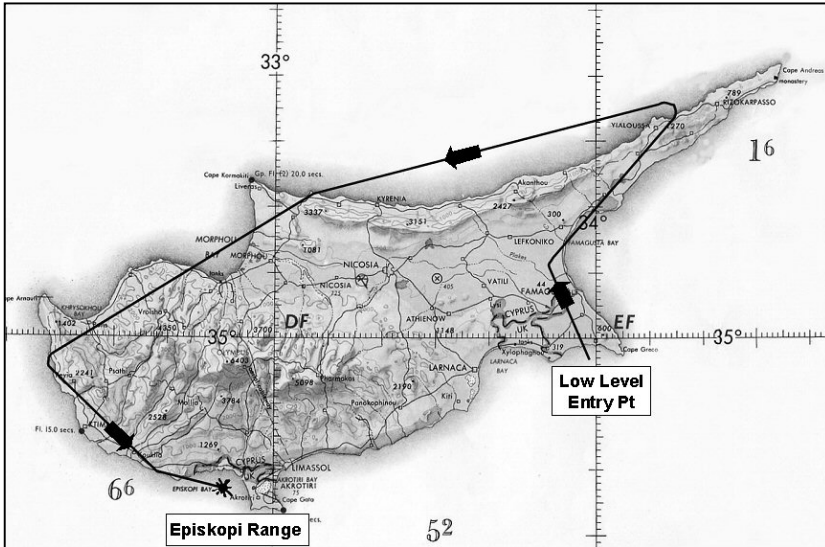
Aircraft Servicing Chief (ASC) for each of 'my' aircraft. Known as semi-autonomous servicing, this had become the standard. But, back to Akrotiri where the aircraft were 'owned' by Bomber Wing who 'employed' all of the ground tradesmen and allocated aircraft to squadron crews. Many of the training exercises were planned by Bomber Wing too – that sometimes led to disagreements between the various wing commanders and sometimes the squadron leader Flight Commanders also got involved!

Being a Near East Air Force (NEAF) asset, we were commanded and controlled by the AOCinC NEAF at Episkopi and not by the AOCinC Strike Command at High Wycombe. On the other hand, because the two NEAF Vulcan squadrons were obviously only a small part of the whole of the RAF's V-Force, and so far away from the centre of the UK-based logistic chain, there was much dialogue, and sometimes inevitable tensions, between the respective HQ staffs.

When I arrived on No 35 Sqn in November 1970, as a soon-to-become squadron leader Flight Commander, the squadron had already been at Akrotiri for nearly two years and was well established with full ground and flying training programmes in place – all monitored by Bomber Wing and Episkopi.

The V-Force, by this stage, was well into flight simulation. Since the earliest days of the Vulcan, all pilots had been trained on, what were for the time, sophisticated simulators at the Operational Conversion Unit. Once operational on the squadrons, all pilot teams of captain and co-pilot had to do a three-hour exercise every month to retain their category. The MOD had recognised that if squadrons were going to be deployed permanently to Cyprus, the cost of dismantling, transporting and re-siting a simulator would just have to be accepted. And so it was – the alternative, of flying back to the UK every month, was just not practicable. During my time, much imaginative work was done to link up the navigators' ground trainers (that of the nav plotter and the nav radar) and that of the fifth member of the crew, the air electronics officer with that of the pilots. Thus practice war missions could be flown; this much improved the training and testing of critical crew co-operation especially during the tense moments of attacking a heavily defended target.

Flying training around Cyprus was, of necessity, very limited. At home, we had got used to flying the UK low level route – essentially a



*The standard, and somewhat undemanding, Cyprus low-level route.*

clockwise circuit of the UK, usually at 500 ft above ground level, beginning at the Isle of Wight then running across Dorset and Somerset, on up through Wales and the Lake District to the western isles of Scotland before heading back down across the Lowlands and the Yorkshire hills to somewhere near Doncaster to finish just south of the River Humber – unless one was going on to drop a practice bomb in the Wash.

In Cyprus, the geography was much more constraining. Having done an almost obligatory two-hour high level navigation stage (usually to the west of Crete and back at about FL450 using limited nav aids), we then descended abeam Akrotiri under Gata Radar to enter a 250 mile low level route that ran anticlockwise around the island, again, usually at 500 ft agl. We began the low level stage near Ayia Napa just south west of Famagusta – in the days when Ayia Napa was a quiet fishing village with pristine sands and not a ‘squaddie’ in sight – attacking, with an F95 camera, two or three targets, often a glistening white painted village church. To keep airframe fatigue consumption as low as possible, we usually cruised along at 240-250 knots with the engines set at not much more than idling rpm, certainly no more than 80%, then accelerated to 350 knots

as we neared the target. At the end of the route, we ran into Episkopi bombing range (within easy sight of the AOCinC and his staff at HQ NEAF) and dropped a 28 lb practice bomb on to the sea target. Bombing accuracy was assessed in real time by a Range Safety Officer – often a squadron junior aircrew officer. We would then set up a low level pattern and usually complete six attacks before recovering to Akrotiri for 30 or 40 minutes' CT – continuation training – in the instrument and visual circuit, mainly for the benefit of the pilots of course.

Nowadays, when we travel by air to Cyprus, we land at the substantial airfields at Larnaca or Paphos. Back in the 1970s, only Nicosia (a joint RAF and civil airfield with an 8,000 ft runway) was available for us as a Plan 2 Diversion<sup>1</sup> so we always had to keep sufficient fuel for the hop there – only 60 miles, but with the Troodos Mountain range in the way. We usually used the military airfields of Adana in southern Turkey or Souda Bay in Crete as much more distant Plan 1 Diversion.<sup>1</sup> But these were very seldom used, not least because the weather factor at Akrotiri, certainly by Lincolnshire standards, was usually wonderful. Nevertheless, we were always conscious that Akrotiri's one runway could be blocked – probably by one of No 56 Sqn's Lightnings which always seemed to be requesting 'priority' landings as a result of what appeared to be a permanently critical fuel state. Or by a magisterial Belfast of Air Support Command who always expected landing priority. Had the one runway been blocked, most of us had calculated that we could get the Vulcan down safely on the 60-foot wide parallel taxiway – which, considering the Vulcan had a wheel span of just over 32 feet I realise, now that I am a little older, might actually have been a bit difficult on a dark night in a cross wind....

While the weather was wonderful, for at least half of the year, if not more, that actually meant it was hot. Akrotiri had a reliable 30°C midday temperature; Nicosia was even hotter. Cockpit temperatures on the ground and while flying the low level route soared. We coped by using lightweight flying suits and air-ventilated suits, and had large cold air trolleys which blasted freezing air into the aircraft while we did the start up checks – which usually took an hour, unless the aircraft had been primed for an alert. There was a rule that, once the door was closed, we had to be airborne within fifteen minutes. We



then normally climbed to above FL400 – in about fifteen minutes and, during the two-hour high level navigation stage got the cabin as cold as we could bear before descending for a couple of hours or so at low level. Frost used to form on the inside of the cockpit blister. Dehydration was a major concern: we carried several two-gallon plastic bottles of orange juice and drank it constantly while airborne. None of it seemed to come out the other end.

We planned most squadron flying with early morning take offs – not too difficult in NEAF when the working day, even for staff officers, began at 0700 hr. The low level turbulence built up heavily by midday and aircraft fatigue management became a fine art. Each aircraft's consumption of FI – its individual Fatigue Index – was closely monitored from a white 'black box' in the bomb bay roof and recorded – by aircraft and by individual captain's name. Graphs were conspicuously displayed at HQ Bomber Wg so everybody soon knew which pilots were rough and which were smooth.

One major difference between operating under HQ NEAF and HQ 1 Gp was their approaches to fighter affiliation exercises. In the UK there were strict rules, such as bank angle not to exceed 30° during manoeuvres. In Cyprus, there were no such restrictions. Moreover, to the south of Akrotiri lay a large area of restricted airspace which we could book to exercise with our Lightning friends of No 56 Sqn (or the occasional visitors when the residents were away).

Being collocated meant that, unlike in the UK, we could follow up with face-to-face de-briefs. At home, it was difficult to use communications jamming to confuse the fighter controllers; again, there were fewer restrictions in Cyprus. To give the Lightnings a run for their money, we could exploit the Vulcan's extraordinary manoeuvrability at high altitude, using low IAS, high power and maximum peacetime 'G' to fly steep climbing turns with remarkably small turning radii. If the Lightning did manage to creep astern, we could jam their AI radar to prevent missile release. We learned a great deal about fighter evasion from these sorties: a well flown Vulcan could usually outmanoeuvre a single Lightning, although a well flown pair was a different matter – always assuming that they had enough fuel, of course.

In order to widen the training available, and being denied the opportunities of low-flying from Goose Bay in Canada and of



*Luqa was a frequent destination for Akrotiri-based Vulcans; this one was photographed there in 1970. (MAP)*

detaching to Omaha, Nebraska to use Strategic Air Command's low level routes, we used to send an aircraft back to the UK every Monday. The squadrons took alternate weekly slots to operate from Waddington. We would plan to fly three trips, Tuesday to Thursday, around the UK low level route, have a long weekend catching up at home and delivering oranges and Cypriot wine, before returning to Akrotiri on the following Monday. Each squadron crew was scheduled to fly a UK Trainer every six months.

Relations with our UK hosts were not always as smooth as they should have been. They reached a nadir during my time when, on one occasion, we taxied in to the usual NEAF Vulcan parking slot near the control tower at Waddington to read out of the cockpit window a large, newly painted notice, signed ostentatiously by the Station Commander, to the effect that, although visiting aircraft were welcome at his station, they should not expect to get any engineering assistance from his ground crew! Mind you, this charming thought might well have been a response to a practice implemented at Akrotiri where the current OC Bomber Wing had decreed that any visiting Vulcans from Waddington were to be parked at the dispersal as far from where 'his' Vulcans were parked as was geographically possible! Happy days.

Other airfields welcomed us, whether it was the Shah of Persia's Tehran/Meherabad, Malta's RAF Luqa, Bahrein's RAF Muharraq; or indeed Mauritius' Plaisance International. The latter normally

handled just one South African Airways Boeing 707 a week so when my crew arrived a huge crowd welcomed us. I was on national TV with two hours of landing – and being asked why I was bringing nuclear weapons to Mauritius! When we left we were given the whole of Mauritian airspace to fly around the island at low level before setting off for Gan on our way back to Akrotiri.

There was an early expectation that the Vulcans would roam all over the Middle and Near East, and to the Far East. The aircraft had long legs and a high cruising speed, certainly for the time. It took about two hours to get to Malta or, going the other way, three-and-a-half to Bahrein, routing via Turkey and Iran; then four to Gan and another four to Singapore/Tengah. In addition to Mauritius, I got as far as New Zealand with my crew.

Another out of the ordinary destination came about as a result of Nos 9 and 35 Sqns both adopting Cheshire Childrens' Homes in Ethiopia. We took it in turns, on alternate years, to visit that desperate country laden, not with bombs, but with medical supplies (especially to combat polio) and toys for the children. Ron Dick, now AVM, who captained the first Vulcan visitor, tells me that it is the only time he has ever seen hardened Vulcan crew chiefs in tears.

From many of these airfields, we were able to mount low level training exercises. Probably the most productive were those based on Luqa, Meherabad and Masirah, usually involving detachments of four aircraft for a week or a fortnight. From Malta we would fly low level routes, sometimes using the Vulcan's fairly basic Terrain Following Radar, around Sicily and on up the west coast of Italy into the Plain of the Po, attacking targets with the F95 camera. From Tehran we flew across the moonlike, uninhabited plateaus of Iran and, from Masirah, over the desolate and mountainous areas of Oman. Excellent training and wonderful alternatives to the boring old 'anticlockwise around Cyprus' route.

And then there were Command and Station readiness exercises when, just as in Strike Command back in the UK, all aircraft and crews had to be generated in the nuclear strike role to a very tight timescale. Held at immediate readiness over several days, the exercise would invariably conclude with a mass fly off – sixteen Vulcans scrambling would get everybody's attention. On one occasion I recall our imaginative Station Commander, Air Cdre John Stacey, ordering

the Akrotiri air traffic controllers to go off the air for our recovery. Sixteen Vulcans joined the visual circuit and landed, controlled solely by an Aldis lamp from the tower. Very exciting, and something that would never have happened at a UK V-bomber base!

Like all operational stations at home, Akrotiri had an annual surprise visit from Strike Command's TACEVAL (Tactical Evaluation) team, reinforced in our case by staff officers from HQ NEAF. Kevan Dearman, who was a Flight Commander on No 9 Sqn, has reminded me of our first TACEVAL experience. All Vulcan crews were initially generated in the strike (ie nuclear) role and he and about half a dozen others were then sent off to Luqa to demonstrate force dispersal. The crews remaining at Akrotiri were re-generated in the conventional role with seven live 1,000 lb free fall bombs – this was before we had received retarded tails. After a hi-lo profile, the target was a specially prepared raft in the sea some distance from Akrotiri. The attack profile, known as a '2J', required the aircraft to run in fast at low level and pull up and level off at 2,500 ft just before release. All the crews were tired, hot and weary after several days on alert and coping with intruder activity (organised by one of the resident British army regiments from Episkopi or Dhekelia) but, to everyone's surprise, the lead Vulcan in the stream sank the target with its middle bomb. The resulting delay while a new target was laid on, with the aircraft circling in the heat, was not welcomed but John Stacey was ecstatic – and Akrotiri scored a creditable TACEVAL result.

I referred earlier to the routine anticlockwise low level route around Cyprus that too many crews got blasé about. After we had all landed after one Command exercise, Air Cdre Stacey called a station exercise, just as we were shutting down and making plans to go to the Ski Club on Ladies Mile. Instead the aircraft were turned around and regenerated in the conventional role, armed with twenty-one 1,000 lb bombs. For the 'fly off', a couple of days later, our exhausted armourers and crew chiefs had to download the thousand pounders and replace them with 28 lb practice bombs. But, and here's the really imaginative twist, the Station Commander ordered the Wing Nav Officer to find us targets on the Cyprus low level route which we were to fly clockwise ie *backwards*! That really set the cat amongst the pigeons – and the bombing results were awful. It was from this fly off that we returned to Akrotiri with a 'silent' air traffic control tower.



*Flypast to mark the departure of Air Cdre Stacey in 1971.*

So, in summary, for those of us at Akrotiri in the early 1970s, times were good. It was especially so for those of us who had had only Lincolnshire, and perhaps Rutland, in our address books. I remember a very positive visit by the new Prime Minister, Edward Heath, (his predecessor, Harold Wilson, had never visited the RAF anywhere). The CENTO alliance, although a bit suspect politically, gave us a good excuse to range over the Middle East. Akrotiri, with its air commodore Station Commander and its Vulcan Bomber Wing, operating quite independently of Strike Command in the UK, plus its resident Lightning, Hercules and Wessex squadrons, its RAF Regiment Wing and Bloodhound SAMs, was an exciting place, even if all the aircraft were parked in neat rows on the dispersals at night, despite Colonel Gaddafi being just up the road with his Soviet-supplied *Badgers*. There was A real synergy at Akrotiri, not least because, certainly for the first time in my experience, just about all the elements of air power were together on one station.

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<sup>1</sup> In essence, a Plan 1 Diversion caters for adverse weather conditions at base, which means that it needs to be far enough away to ensure that it will not be affected by the same weather system. A Plan 2 Diversion involves a relatively local option to cover an otherwise serviceable airfield becoming unavailable at short notice, the classic case being that the aeroplane in front has blocked the runway for some reason.

## BUCCANEERS OVER BEIRUT

### Air Cdre Ben Laite



*Commissioned in 1963, Ben Laite trained as a navigator and completed flying tours on the Vulcan (Blue Steel), Phantom and Buccaneer. Most of his staff work was in the fields of tactical and maritime reconnaissance and strike/attack operations. He was Director of Cranwell's Department of Air Warfare and later Assistant Commandant of the RAF College. His final appointment was as a Director at the Personnel Management*

*Agency. In 1983 he was OC 208 Sqn and thus commanded the Buccaneers assigned to Op PULSATOR.*

In September 1983, elements of the British Army stationed in Beirut were perceived to be at risk. Operation PULSATOR was mounted to cover the detachment of six Buccaneers, from Lossiemouth's Nos 12 and 208 Sqns, to Akrotiri whence they were to provide air support for British Forces deployed in the Lebanon (BRITFORLEB).

Operating alongside their American, French and Italian counterparts, the 102 officers and men of the UK contingent of the multi-national peacekeeping force in Beirut, had been occupying a block of flats in the Hadath area of the city since the previous February. Their primary role was to prevent the many local factions (which included Druze militia, Shi'ites, Sunnis and the Lebanese Army) from destroying the city as they fought each other. Unfortunately, by September the situation was getting worse, not better, and it seemed that the peacekeepers were likely to become targets themselves. The morale of the American element (Marines deployed ashore) was maintained by the close proximity of the US 6th Fleet, also known as Carrier Task Force 60 (CTF60), which could field well over 100 fixed-wing combat aircraft. Similarly, the French forces ashore were reassured by the presence of the aircraft carrier FS *Foch*<sup>1</sup> and its air wing of Etendards. These shipborne aircraft could, in theory at least, retaliate in response to any direct or indirect

threat to the ground forces. This was not the case for BRITFORLEB and their morale was deemed to be suffering because they felt extremely vulnerable and isolated in their part of the city where they lacked any means of support, ground or air. Hence MOD's decision to deploy attack aircraft to Cyprus.

The types considered were the Tornado, the Jaguar and the Buccaneer. The prime requirement was the ability to deliver an extremely accurate attack, the aim being to achieve maximum effect whilst minimising the risk of collateral damage or injury to friendly forces. The threat to BRITFORLEB was assessed to be from either long-range artillery or an assault from within the city itself. While the Tornado's on board nav/attack system could certainly provide much of the required degree of accuracy, it was ruled out because of its poor radius of action, its inability (at the time) to deliver Laser Guided Bombs (LGB) and a still untried deployment capability. The Jaguar had an accurate navigation system and it could deliver a precision attack using LGBs, but it lacked the ability to laser designate the target. The third option, the Buccaneer, had an extremely basic navigation and attack system but it was the best option in terms of LGB capability in that it could both designate the target and deliver the weapons. The Buccaneer was chosen.

The Warning Order, which was issued on 8 September, specified operations in support of the British peacekeeping force in Beirut and stressed the need for accurate weapon delivery. This drove the selection of crews towards those with overland laser designation (ie Pavspike) experience. Unfortunately, while No 12 Sqn was familiar with Pavspike procedures, it was all in the anti-shipping role and thus largely inapplicable. By contrast, there was some overland Pavspike experience embedded within No 208 Sqn but this was at least two years old as the unit was currently engaged in converting to maritime operations. Nevertheless, six crews were drawn from across the two squadrons, although it was evident that the necessary degree of expertise was concentrated at the squadron leader/Flight Commander level.

With OC 208 Sqn appointed as Detachment Commander (Det Cdr), Lossiemouth's personnel began to prepare the aircraft, plan the deployment route, organise Intelligence briefings, issue small arms and attend to personal administrative details. On 9 September several

Hercules flew into Lossiemouth where they were rapidly loaded with stores before departing for Cyprus with a contingent of Buccaneer ground crew on board. The Buccaneers took off the same day, in three pairs, each of which linked up with a Victor tanker which accompanied them, non-stop, to Akrotiri. All aircraft were on the ground in Cyprus within 24 hours of receipt of the Warning Order.

At Akrotiri, the first tasks were to find our domestic accommodation, open up the facilities allocated to the detachment and prepare the aircraft for their intended sorties. On the following morning, the Air Commander (Air Cdr) Cyprus gave a briefing to all deployed aircrew at AHQ Episkopi. While he clearly had a firm grasp on the overall picture, the aircrew were somewhat confused by the various permutations on just who might be shooting at whom, from where and why. Worse still, details of the air scenario, and in particular the air threat, were very sparse. One issue which was very clear, however, and one which would dominate both the planning and the conduct of any operations was Rules of Engagement (ROE). There were four of them, although they would have been better described as 'Possible Scenarios for Action.' They were:

ROE 1*	Show of Strength.
ROE 2*	Reaction to Attack (Bombardment).
ROE 3	Immediate Defence.
ROE 4*	Reaction to Attack on Multinational Force.

\*Required Ministerial Approval

After the briefing, and in discussion with the Air Cdr, it became obvious that there was little or no Buccaneer experience at Episkopi which meant that the AHQ lacked the necessary expertise to raise tasks or to direct operations. Indeed, the Air Cdr had requested that an Air Support Operations Centre (ASOC) should accompany the deployment but for some reason none had been forthcoming. Another issue that required urgent attention was the relationship with CTF60, sitting just off Beirut, with the USSs *Dwight D Eisenhower*, *Iwo Jima* and *Austen* along with many other ships. There was also the Marine Amphibious Unit (MAU) that had been put ashore at the International Airport. Effective tasking of the Buccaneers would require close co-ordination with CTF60 so deconfliction of routes and the associated air traffic procedures were high priority issues for resolution by the air





*The Buccaneer dispersal at Akrotiri.*

staff.

For the Buccaneer Detachment itself, the order of business was:

- Establish an ASOC, of sorts – even a one-man operation (probably all we could afford) would be better than nothing.
- Decide on comms requirements and draw up a Communications Plan.
- Identify a suitably experienced Air Liaison Officer (ALO) to be with CTF60 aboard either the *Eisenhower* or the *Iwo Jima*.
- Begin planning ‘showing the flag’ sorties under ROE 1.
- Brief the Forward Air Controller (FAC) who was about to join BRITFORLEB in the block of flats in Beirut, on standard operating procedures for ground laser designation for Buccaneer air attacks.
- Develop a Concept of Operations for all sorties under each of the ROEs.

The Buccaneer Detachment Commander (Det Cdr) decided to establish an ASOC within the AHQ at Episkopi and man it himself. This would leave the senior detachment Flight Commander, in charge of the flying crews and aircraft at Akrotiri, responsible for the effective leadership of that part of the operation. The ASOC was established within the Episkopi Air Operations Centre by

commandeering two of the desks and designating them 'Buccaneer Operations.' The Buccaneer Det Cdr obtained a dusty copy of ATP27 (Manual of Tactical Air Ops) from the publications library and added it to the equipment on the desks. The communicators quickly installed an HF radio facility within the console and two separate networks were established, one embracing the more important units of CTF60 and the other a direct link to COMBRITFORLEB. In concert with the staff at Episkopi, the fighter controllers at Troodos devised a Communications Plan that would deal with all phases of any sortie likely to be flown by the Buccaneers, that is to say: departing Cyprus, transiting through CTF60's airspace, overflying the FAC in Beirut and re-entering the fleet's air cover before recovering to Akrotiri.

One of the detachment's Flight Commanders possessed the requisite experience and skill to be the Air Liaison Officer so he was initially despatched to the *Iwo Jima*, although he was soon transferred to the *Eisenhower* where he could exercise more influence. To take his place at Akrotiri, a Buccaneer navigator, an overland Pavesprike designation expert, was urgently flown in from RAF Germany. By now, the detachment was confident that it could mount ROE 1-style 'show the flag' sorties, the aim being to demonstrate to BRITFORLEB that air power had arrived and was on hand to help if required. The crews had planned a scenic route across the city including at least two passes across the block of flats housing the British contingent. The stationing of an ALO with CTF60 had proved to be extremely effective in terms of deconfliction, not only with the US Navy's fixed wing aircraft, but also, and even more crucially, with its intensive helicopter traffic. The Buccaneer crews were all cleared to fly at 100 feet Minimum Separation Distance, which, in terms of avoiding other aeroplanes, was deemed to be the safest height to fly over the water – no other aircraft, fixed- or rotary-wing, operated at that height. The available intelligence suggested that there was no co-ordinated air defence network within the city whereby one group might alert another of an impending attack. If there were to be any reaction, therefore, it was likely to be sporadic and late.

The major problem with the showing-the-flag sorties turned out to be a conflict of aims. COMBRITFORLEB was delighted that his troops would see some friendly air power but, although he applauded the raising of the morale of his own troops, he thought that the sorties



*With a Union Flag in the foreground, one of the Op PULSATOR Buccaneers overflies the block of flats occupied by BRITFORLEB on 11 September 1983. (via Peter March)*

should also make a show of solidarity with the Lebanese Army. To the south of Beirut there is a high ridge which overlooked the block of flats. On top of the ridge stands the village of Soukh Al Garb, which, because of frequent militia activity there, obliged the Lebanese Army to maintain an almost permanent presence in the area which, in turn, meant that they were at risk. COMBRITFORLEB felt that the planned overflights of his block of flats could easily be diverted to encompass a flypast of the Lebanese Army in the Soukh Al Garb area. The Commander British Forces Cyprus (CBFC) and the Air Cdr jointly vetoed this suggestion, directing that the sorties should be restricted to the 'British' block of flats followed by a run across the city.

Accordingly, on 11 September, a pair of Buccaneers took off from Akrotiri and headed for the Lebanon, via CTF60's airspace, to coast-in at the International Airport. Having overflown the flats in Hadath they flew on across the northern part of the city before turning to fly back to Hadath on their way back to Cyprus, again via CTF60, the whole sortie taking just 40 minutes.

During the sortie, the crews established radio contact with the FAC at Hadath, but a new voice came on the air identifying himself as COMBRITFORLEB and ordering the Buccaneers to change their route and to fly to a grid reference. Fortunately, the Air Cdr and Det Cdr were monitoring radio traffic in the AHQ at Episkopi and it was quickly established that the co-ordinates were those of Soukh Al Garb. Apart from increasing the risk to the Buccaneers, in issuing such an instruction COMBRITFORLEB was clearly exceeding his authority, not least because his order contravened the current ROE. The Air Cdr was immediately on the radio to order the crews to stick to their briefed plan, ie to overfly *only* the flats and the centre of the city, and to ignore orders from any other source. Communications were less than perfect and there was some lingering doubt as to whether the crews had heard the countermanding instructions; this was dispelled at the subsequent debrief when it became clear that the crews had flown the prearranged profile. A second pair flew the same profile some two hours later also with strict instructions to fly only the pre-briefed route.

With all four aircraft safely back at Akrotiri, there followed a lengthy dialogue between CBFC and COMBRITFORLEB but the latter stuck firmly to his view that the Buccaneers should have threatened Soukh Al Garb to show solidarity with the Lebanese Army. Despite a degree of lack of confidence in the reliability of the radio link between Episkopi and Beirut, it was considered that the situation warranted a repeat performance and another pair flew the same profile on 13 September. Again, all went well – the US Navy was very co-operative and COMBRITFORLEB agreed, albeit reluctantly, not to attempt to retask the Buccaneers. The comms problems had not been solved but had improved somewhat.

While these showing-the-flag sorties were being flown, work was progressing on a concept of operations for ROEs 2, 3 and 4. The aircraft fit was relatively straightforward with LGBs, Pavespikes pods, ALQ-101 ECM pods and AIM-9 air-to-air missiles under the wings and, to provide a back up option, 4 × 1,000lb retarded bombs in the bomb bay. We were also pressing for as many aircraft as possible to be fitted with ALE-40 chaff/flare dispensers.

The requirement under ROE 2 was to retaliate if the flats came under fire – Cyprus was most likely to learn of this via a call from the

FAC on the HF net, or a FLASH signal from COMBRITFORLEB himself, telling the ASOC what had happened, what damage had been sustained and what response was required. The ASOC would relay all of that information to the Buccaneer detachment at Akrotiri while ordering the aircraft to scramble. All that the crews had to do was go and do it.

While this sounded fine in theory, there were two significant problems. First, reaction times, which, in reality, were governed by the available secure communications links between Episkopi and Akrotiri. These were appalling, relying upon an intermittent DSSS<sup>2</sup> system or a FLASH signal. What was needed was a dedicated secure voice connection between the Buccaneer Detachment Ops Room and the AHQ. Within a couple of weeks it had been provided and it had been extremely reassuring to observe the RAF's machinery lumbering into action to sort things out.

The second problem was rather less straightforward. Once the Buccaneers had been ordered off, the crews needed to know exactly what it was that they were supposed to hit, and how they were supposed to hit it.

Dealing with the second, 'how?', question first, the most important factor was the need to minimise collateral damage. This clearly required a precision attack which, in turn, meant Laser Guided Bombs – the reason why the Buccaneer had been chosen in the first place. It was reasoned that the most likely targets would be artillery positions which would almost certainly not be visible to the FAC in his block of flats, which ruled out ground-based laser target marking. This drove us towards airborne laser designation but the difficulties inherent in acquiring and designating small land targets from low level were well understood and this rendered the Buccaneer's standard toss tactic unattractive, if not unusable.

I should perhaps explain that 'tossing' a bomb involved a minimum of two aircraft, a 'bomber' and a 'designator' both of which approached the target at low level. The designator would stay low and, having identified the target, direct a beam of high-intensity light (laser) at it from a pod carried under its wing. Meanwhile the bomber would have pulled up into a steep climb, releasing the bomb to fly on upwards before arcing over to fall back down into the 'basket' of reflected laser energy. As soon as the bomb's guidance system was



*Wg Cdr Laite explains the workings of the Paveway LGB's guidance system to FOSNI (Flag Officer Scotland and Northern Ireland).*

able to detect that it was 'in' the basket, its integral controls adjusted its flight path so that it homed onto the source of the reflected illumination – the target. While that was a reasonably viable option against something as large and distinctive as a capital ship at sea, it was far less practical against a small, and quite possibly camouflaged, land target that would be very difficult to identify.

To improve the chances of target acquisition it would be necessary to fly higher, but accurate illumination required the designator to be close to the target. These requirements could be combined by approaching at a relatively high altitude, to afford the designator more time to search for and locate the target, and then diving steeply while marking it. To work, this would require an absence of cloud, to permit visual target acquisition, and a benign air defence environment. The seasonal weather could be expected to provide a better than even chance of clear skies and the MOD assessment was that the defences were likely to be confined to SAM-7 and small arms fire.

The upshot of all this was a sortie profile that involved a pair of aircraft departing Akrotiri at 100 feet and staying at that height until they had coasted-in, at which point they would climb, in close formation, aiming to be at 11,000 feet, and offset laterally from the target, to permit it to be acquired. Once identified, both aircraft would roll into a 40° dive with the pilot of the designator putting his weapon aiming boresight on the target. His navigator would then place the crosswires on his TV display over the aiming point, proclaim that he was 'Happy!' and switch on the laser. The pilot of the other aircraft, who had also been boresighting the target visually, would release the bomb at 7,000 feet allowing both aircraft to turn away while continuing to descend to low level for the recovery to Cyprus. The designator would continue to illuminate the target, enabling the LGB

to home onto the reflected energy, until the bomb impacted. The only snag with this plan was that the *Buccaneer* was not actually cleared to release an LGB in a 40° dive.

Before this locally-conceived profile could be formally adopted, therefore, it would be necessary to validate the overall concept and to confirm that no problems would be encountered in dropping the bomb. The Det Cdr requested the assistance of a weapons specialist from the Central Trials and Tactics Organisation (CTTO) who was to supervise a small trial to be conducted on Episkopi Range, expending, ideally, six LGBs (one for each crew). The CTTO specialist arrived from the UK and the trial was carried out, although only three bombs were actually allocated. All three attacks, against a hessian-covered frame target, were completely successful and thus confirmed that it would be possible to acquire a small target and that a 40° dive release was a practical proposition.

Its feasibility having been confirmed, the planned profile became the preferred option, provided that the weather held and that the Syrians, with their more capable air defence systems, did not encroach too far into Lebanon. In the meantime, CTF60 had published a concept of Combined Air Operations which afforded *Buccaneers* participating in attack operations over the Lebanon priority over all other air traffic. All of which had answered the second question – ‘*How* were the *Buccaneers* going to hit their target?’

Still unresolved, however, was the first question – ‘What was the target to be?’ If COMBRITFORLEB reported that he was under fire, would he actually know where from? The various factions operating in and around Beirut fielded a wide variety of artillery pieces, which meant that, within a radius of about 20 miles, there were large numbers of guns, of many different calibres, any or all of which could threaten the British flats. Current Intelligence briefings indicated that the preferred operating pattern for the gunners was to fire off a few rounds in quick succession and then move. Since the response time for an air strike would be of the order of 45 minutes, it was clear that, even if it had been possible to identify which gun had been fired, it would probably be long gone before the *Buccaneers* arrived on the scene.

It was rumoured that the US forces were able to detect an incoming artillery round, track its trajectory and calculate the position from

which it had been fired. We were never able to establish whether there was any truth in this tale but the RAF never benefited from such a capability – perhaps because it did not exist or, if it did, because it would have been too difficult to disseminate the time-sensitive information to the relatively remote Buccaneer Detachment.

On the other hand, it became apparent that CTF60's routine intelligence output noted the co-ordinates of some of the larger, permanently manned, artillery sites, sometimes supplemented by photographic imagery. In consultation with the Air Cdr, it was agreed that it would be worth pre-planning attacks against these permanent sites on a contingency basis, regardless of whether they had fired the offending rounds or not. The flaw in this approach was that these permanent, big-gun emplacements were all Syrian backed and there was no hard evidence to indicate that the Syrians were actually shelling the city and to have delivered a 'counter' strike against non-participating Syrian forces could well have provoked an even worse response. Nevertheless, after referring the question to London, the MOD approved the pre-planning of such sorties with the specific proviso that Ministerial approval would be needed prior to execution.

When the Buccaneers first arrived at Akrotiri they had found a Phantom squadron already in residence on an Armament Practice Camp and these had been included in the forces assigned to Op PULSATOR, their function being to provide Air Defence (AD) for the attack aircraft. The most obvious ways of employing the fighters would be to fly them as close escorts or to provide sweep sorties ahead of the strike to ensure air superiority. This was not as easy as it seemed, however. Apart from having to dovetail the activities of the Phantoms with those of the Buccaneers, there was the more critical problem of co-ordinating the type of no-notice sorties that we envisaged with CTF60's air controllers and, quite possibly trigger-happy, self-defence systems. The necessary procedures would inevitably have demanded extensive use of the radio and the Buccaneer crews preferred to stay as silent as possible. CTTO's recommendation was that the Phantoms should mount Combat Air Patrols (CAP) no closer than 10 miles from the Lebanese coast and even this would have put them sufficiently close to CTF60's airspace to make co-ordination a constant concern. Since there was very little likelihood of any of the in-country factions being able to mount an





*One of the Op PULSATOR Buccaneers at readiness with an LGB and an ALQ-101 ECM pod visible under the starboard wing. (G R Pitchfork)*

airborne defence, however, the escort option was not pursued and the AD commitment was confined to a pair of F-4s on standby to fly CAP sorties near the coast if/as required.

Having sorted out the concept of operations, the comms plan and the targeting, the Buccaneer crews settled down to a standby routine punctuated by practice alerts. The normal state involved two crews at 30 minutes readiness, two more at an hour and the third pair on call but, because Pavesprike designation was only possible in daylight, readiness was only maintained between sunrise and sunset. Practice alerts were entitled Exercise KELLY; initiated by BRITFORLEB, they were transmitted to the ASOC at Episkopi thence up to the Air Cdr for Command Post procedures before being relayed to Akrotiri where the crews would hastily plan the specific task before boarding their aircraft and taxiing to the marshalling point. Generally speaking, reaction times were pretty good. In order to rehearse short notice co-ordination with CTF60 we eventually introduced Exercise TEPHRITE. In essence this was a KELLY followed by getting airborne and flying to a point just short of the coast near Beirut but sensitivities were such that we were not authorised to practice TEPHRITE procedures until the later stages of the operation.

In the meantime, and predictably, it had soon become apparent that it was impractical to expect one individual to cope with manning the

ASOC and two Operations Officers were flown out from Lossiemouth to join the detachment. One of them was assigned to the Buccaneer Ops desk at Akrotiri while the other went to Episkopi to work shifts in the ASOC with the Flight Commander who had been deployed aboard the *Dwight D Eisenhower* but who had since returned to Cyprus. This was the final link in the chain and this state of orderly preparedness was maintained for some time while a watchful eye was kept on the visibility and cloud base which were critical to our 11,000 ft concept. By January 1984 seasonal deterioration meant that favourable weather conditions could not be guaranteed and it was increasingly likely that the attack profile would have had to revert to a shallow dive or a lay down delivery from low level, accepting the inevitable degradation in accuracy.

In the event, of course, neither option was ever exercised in anger, although the French did mount an air strike. On 22 September, at least two waves of Etendards were launched from the FS *Foch* to attack an artillery site outside Beirut. While the French claimed that this operation had been successful, the Buccaneer Det Cdr was able to make his own assessment while aboard the *Foch* a few days later for a 'co-ordination meeting' (aka lunch); in reality, the attack appeared to have achieved very little, probably the result of inadequate intelligence on the target.

On 30 September, an official cease-fire was declared in the Lebanon. Nevertheless, the detachment continued to mount the standby for some considerable time, although the readiness state was relaxed to two crews at two hours and two at four hours. The reduction in tension provided the opportunity to relieve some of the original personnel and this eventually settled down to a two-monthly rotation which was sustained until the detachment was finally withdrawn.

During this cease-fire period, there were several significant events. One was the replacement of COMBRITFORLEB, the original incumbent being relieved due to exhaustion. Another was the provision of ASMA<sup>3</sup> which transformed the business of communicating securely with MOD, HQ STC and HQ 18 Gp. There is always a downside, of course, and in this case ASMA also meant a proliferation of reports and statistics that had to be compiled and submitted 'up the chain'.

Of far greater consequence was the use of a truck loaded with explosives to carry out a suicide attack on the US Marine HQ at Beirut Airport on 23 October. This cost 241 American lives while a simultaneous attack on the French barracks killed fifty-eight paratroops. RAF Chinook and Wessex helicopters, which were also assigned to Op PULSATOR, played a crucial role in ferrying some of the more seriously wounded from Beirut to the Military Hospital at Akrotiri. A few weeks later, in December, Druze militia used state-of-the-art SAMs to shoot down two US Navy aircraft over the Chouf Mountains. The Americans responded by launching a large package, containing defensive aircraft and twenty-six bombers, sixteen from the USS *Independence* and ten from the *John F Kennedy*, against ground targets in the Lebanon. The attack aircraft delivered unguided Rockeye cluster bombs from 40° dive attacks at 520 knots.

The results of those attacks are not known but the choice of weapons and the attack profiles flown were clearly of interest to the Buccaneer Detachment whose standby requirements had, by this time, been further relaxed to just two crews at four hour's readiness. Had any attack sorties been required at this stage it was clear that, the deteriorating weather aside, the recently demonstrated presence of more sophisticated SAMs in the area meant they would have had to be flown entirely at low level. The readiness state was increased temporarily on 11 January when BRITFORLEB's block of flats was hit by tank fire. However, the tension was greatly eased when the local Druze Militia Commander immediately apologised in person to COMBRITFORLEB for the 'stray' shell!

After the cease-fire had been sustained for several days, the Rules of Engagement were amended as follows:

ROE 1*	Show of Strength.	Remains in Force but no longer deemed likely.
ROE 2*	Reaction to Attack (Bombardment).	Not in force – inappropriate during cease-fire.
ROE 3	Immediate Defence.	In force but needs Ministerial approval.
ROE 4*	Reaction to Attack on Multinational Force.	Not in force – inappropriate during cease-fire.

The new rules, along with the reduced standby commitment, meant

that the detachment now had sufficient spare capacity to be able to introduce a local flying programme and, since they were in the Mediterranean, the opportunity was taken to mount several training missions employing maritime attack procedures against the large numbers of naval vessels that were concentrated in the vicinity. A number of real reconnaissance sorties were also flown against the *Kirov*, a relatively recent addition to the Soviet fleet. The detachment was also able to carry out airfield attacks against Akrotiri, practice-bombing at Episkopi and fighter affiliation exercises with the Phantoms.

By late January/early February, the British peacekeeping forces were being helicoptered from Beirut to the Royal Fleet Auxiliary *Reliant* for a night's sleep twice a week. On 8 February, the entire force was redeployed, first to *Reliant* and then to Akrotiri. By the beginning of March, the flats in Hadath had been completely evacuated. The Buccaneer Detachment began planning its return to Lossiemouth, all six aircraft eventually flying home on 26 March, staging through Sigonella and Nice. In all, the deployment had lasted 6½ months during which the Buccaneers had flown 733 hours 55 minutes on PULSATOR-related sorties.

On their departure from Akrotiri, the GOC Cyprus, Maj Gen Sir Desmond Langley, said: 'The Buccaneers provided a vital part of the force required for peacekeeping operations in the Lebanon and the detachment from Lossiemouth has been most professional.'

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**Notes:**

<sup>1</sup> The French Navy does not apply a prefix to its ships, in the style of HMS or USS, but it is common international practice, including within NATO, to identify them as 'FS' – for French Ship – hence the FS *Foch*.

<sup>2</sup> DSSS (Direct Sequence Spread Spectrum) was a secure voice facility but, being operator-dependent, rather than automatically switched, its capacity was limited, which meant that it could not be relied upon to be immediately available when required.

<sup>3</sup> ASMA (literally, the HQ STC-sponsored Air Space Management Aid) was a computerised electronic information storage system which provided secure communications links between VDU terminals which could be deployed globally, even aboard HM ships. To the operator, it was very much like sending emails, although ASMA began to be deployed as early as the mid 1970s – long before the availability of the Internet. It was eventually superseded by a more up-to-date network after more than thirty years of invaluable service.

## DISCUSSION

**Air Chf Mshl Sir Michael Graydon.** Just a little vignette to amplify a comment relating to Ezer Weizman that cropped up in Bruce Williamson's very interesting presentation. I got to know Weizman extremely well when I was CAS; he made a number of visits to the UK at that time and I also had the privilege of being entertained in his own home when I visited the Israeli Air Force. We kept in touch for a number of years after that and I know how much he valued his time in the Royal Air Force and how much he respected the Service. This was well illustrated at a farewell lunch, hosted by the Prime Minister, John Major, to mark the end of an official visit to the UK made by Weizman when he was President of Israel. I was present on that occasion and I recall that after the meal the PM and the Foreign Secretary both made fairly heavy duty speeches to do with international relations in the Middle East, progress with the Palestine problem and so on. Come the President's turn and everyone expected him to carry on in much the same vein, but no. When he stood up he said that he wasn't going to talk about the peace process, he was going to talk about the best air force in the world, the Royal Air Force. So, while I would hesitate to take issue with Weizman's reported satisfaction at scoring a victory over the RAF in 1948, I would put that down to youthful enthusiasm and pride in a new nation – and a new air force presented with an opportunity to make its presence felt. Taking a longer term view, however, I have no doubt about his deep respect for the RAF.

**Gp Capt Hans Neubroch.** As an aside, I recall that, in 1946, while waiting for a proper job, I was running an RAF gliding club in Germany. We employed a number of ex-*Luftwaffe* people to service and air test the gliders. Among them were a pair of lieutenant-colonels who disappeared in that August to fly for the Israelis.

I have a question, relating to the loss of a Lancaster, reportedly shot down in the Canal Zone by Israeli Spitfires – probably in late 1948. Can anyone shed any light on that incident?

**Sqn Ldr Bruce Williamson.** Afraid I can't help; that's the first I've heard of the loss of a Lancaster to the Israelis.

**Wg Cdr Colin Cummings.** I am not aware of this one either. While



*Not actually the one in question, but the remains of another Lincoln that came to grief at Shallufa in 1948-49, probably one of three that suffered a collapsed undercarriage.*

it is not a precise match, I think that we may be talking about a Lincoln of No 148 Sqn which was hit by one of No 213 Sqn's Vampires during a fighter affiliation exercise in May 1950. Both aircraft were lost; everyone was killed, eleven lives in all, including the Polish pilot of the Vampire and a young ATC cadet who had been gaining air experience in the bomber.

**Gp Capt Kevan Dearman.** I was fortunate enough to do two tours in Cyprus and I would offer a comment on the SSA during the Canberra era. Prior to its completion there was an extraordinary outfit called the Tropical Trials Unit, which actually held one or two RED BEARDS. This was at the time that Archbishop Makarios went to Egypt to consult with President Nasser, which just happened to coincide with a visit to Akrotiri by the remarkably well-informed defence correspondent of the *Daily Express*, Chapman Pincher. When Makarios returned to Nicosia he held a press conference at which he stated, quite forcibly, that he would never allow nuclear weapons on the island of Cyprus. Meanwhile, the British European Airways Trident was unloading copies of the *Express* that proclaimed 'Nuclear Weapons On Cyprus' – and there was not even a hint of protest –

which just goes to show what a very clever politician Makarios was!

**Gp Capt Jock Heron.** In the context of Cyprus, there have been some occasional references to Nicosia but I think that it is worth recording that it actually made a substantial contribution to the RAF's presence on the island. I am thinking, for instance, of a period of particularly intense activity between mid-1958 and early-1959, sparked by the assassination of King Feisal in Iraq and a period of political unrest in the Lebanon. We had three-and-a-half Hunter squadrons stationed at Nicosia, the 'other' half of No 208 Sqn being at Mafraq in Jordan (*This was Operation FORTITUDE. Ed*). In addition there was a continuous flow of Beverleys and Hastings supporting British Forces in the area, and a steady stream of USAF and US Navy aircraft coming through in association with the 6th Fleet and the US Marines who had gone ashore in Beirut. All of this while continuing to handle the commercial traffic created by BEA and Olympic Airways, because Nicosia was a joint user airfield.

**Air Chf Mshl Sir Michael Knight.** Yes, you're absolutely right. We could, perhaps, have said more about the constant, and indeed growing, value of Cyprus as a permanent UK presence in the Middle East where it provides a base for regional reinforcements and a contingency facility in the event of evacuation of British nationals from any of the potentially unstable surrounding nations. (*Sir Mike was clearly prescient, since, before this appeared in print, Cyprus would have again provided sanctuary for several thousand refugee Brits – this time escaping another outbreak of violence in the Lebanon. Ed*)

**Air Cdre Graham Pitchfork.** Another facet of the British, and primarily RAF, presence in Cyprus that time has not permitted us to address is its value as a regional centre for information gathering, in other words 'intelligence'. The associated signals units on the island, especially those on Mt Troodos, were originally established during the Cold War to monitor the Black Sea area and the surrounding Warsaw Pact countries. Almost overnight, of course, with the launching of the first Gulf War in 1991, the focus of interest became the Middle East and I think it worth acknowledging, just for the record, the considerable value represented by the intelligence facilities on Cyprus.

**James Pettigrew.** No mention has been made of operations related to the IRA and the traffic, rumoured to involve the supply of arms, between the Mediterranean and, ultimately, Northern Ireland. I believe that Nimrods, and perhaps Shackletons, played an important part in tracking these consignments.

**Graydon.** Yes, the IRA's Mediterranean links, and specifically those to Cyprus, were well known to the security services. A lot of IRA men, and no doubt women, have found their way to Cyprus over the years, for all sorts of purposes, but generally speaking we were able to keep track of them. Even so, there was a possible attempt to mount an attack on Akrotiri when Ken Hayr was there in the late 1980s, and we should not forget the incident in Gibraltar at much the same time, when Sir Peter Terry was Governor, when the SAS shot three would-be IRA bombers.

**Air Cdre Ian Atkinson.** In that connection it is also perhaps worth mentioning that, with several thousand expatriate Argentinians in Andalucia, there was always the possibility of an incident in Gibraltar during the Falklands War. Indeed a frogman team with limpet mines was actually picked up by the Spanish who subsequently informed the British Embassy.

**Knight.** We didn't say too much during the day about the Kuwait crisis of 1961. Kuwait is, of course, outside the area we were actually dealing with; nevertheless, the Mediterranean area was heavily involved in the reinforcement exercise which was complicated by the sudden imposition of overflight bans by Turkey – a NATO ally, and a member of CENTO – and by the Sudan. All of which caused, I think, a lot of people to reconsider the sort of problems that could arise when planning contingency operations.



## CHAIRMAN'S CLOSING REMARKS

### Air Chf Mshl Sir Michael Knight

You were promised a wide ranging seminar and you will not have been disappointed. I would like to congratulate both the speakers and the audience for offering such detailed, informative and entertaining reminiscences, backed up by solid research, all of which will serve to produce yet another first class seminar ready to take its place in that indispensable and growing body of work, the publications of the Royal Air Force Historical Society. It would be difficult, if not largely repetitive, for me to attempt to summarise the day's proceedings with any degree of coherence – even if I were capable of so doing. So, if I decline to do so, this in no way trivialises either the content or the presentation of the many excellent contributions we have been privileged to hear today and I am sure that I speak for all of us if, on behalf of the Society, I again congratulate and thank all of the contributors to today's seminar.



*One of the more obscure aspects of the British presence in the Middle East during the 1950s were certain diplomatic restrictions placed on civil-registered aircraft. As a result, those flying under contract to the Air Ministry, undertaking trooping flights for instance, were obliged to masquerade as military aircraft, which accounts for the curious appearance of this York. While still bedecked in the house colours of its operator, Skyways, it has had its civil registration, G-AMRJ, painted out in favour of roundels and the military serial XG897. Similar anomalies could occasionally be observed on sundry Vikings and Hermes at the time. (Chris Ashworth)*

## THE MEDITERRANEAN BASIN AS A TRAINING ARENA

**Wg Cdr Jeff Jefford**

Among the many facets of post-war activity in and around the Mediterranean basin that we did not have time to cover in the course of the recent seminar was the extensive use that was made of the area for training by units based elsewhere. It was the use of these facilities that meant that the majority of post-war aircrew were able to have their horizons widened by being able to spend some time at one or other of the RAF stations scattered throughout the region.

Set up in Cyprus in 1948, the earliest dedicated RAF training unit in the Mediterranean was No 26 Armament Practice Camp (APC). While locally-based target-towing Beaufighters were also available in Egypt for routine training, No 26 APC provided concentrated air-to-air firing practice, at squadron strength, for fighter units based in the Canal Zone and the Levant. The numbered APC existed only until 1951 but, following its disbandment, the same facilities continued to be operated by RAF Nicosia.

Meanwhile, the Canal Zone itself acted as host to a succession of Bomber Command Lancaster, and later Lincoln, squadrons, whose routine detachments to Shallufa went by the name of Exercise SUNRAY. These provided opportunities to fly in a different environment while using the local bombing ranges, working with the fighter squadrons based in Egypt and, occasionally, carrying out live firing at Nicosia. SUNRAY also served, in effect, to exercise a



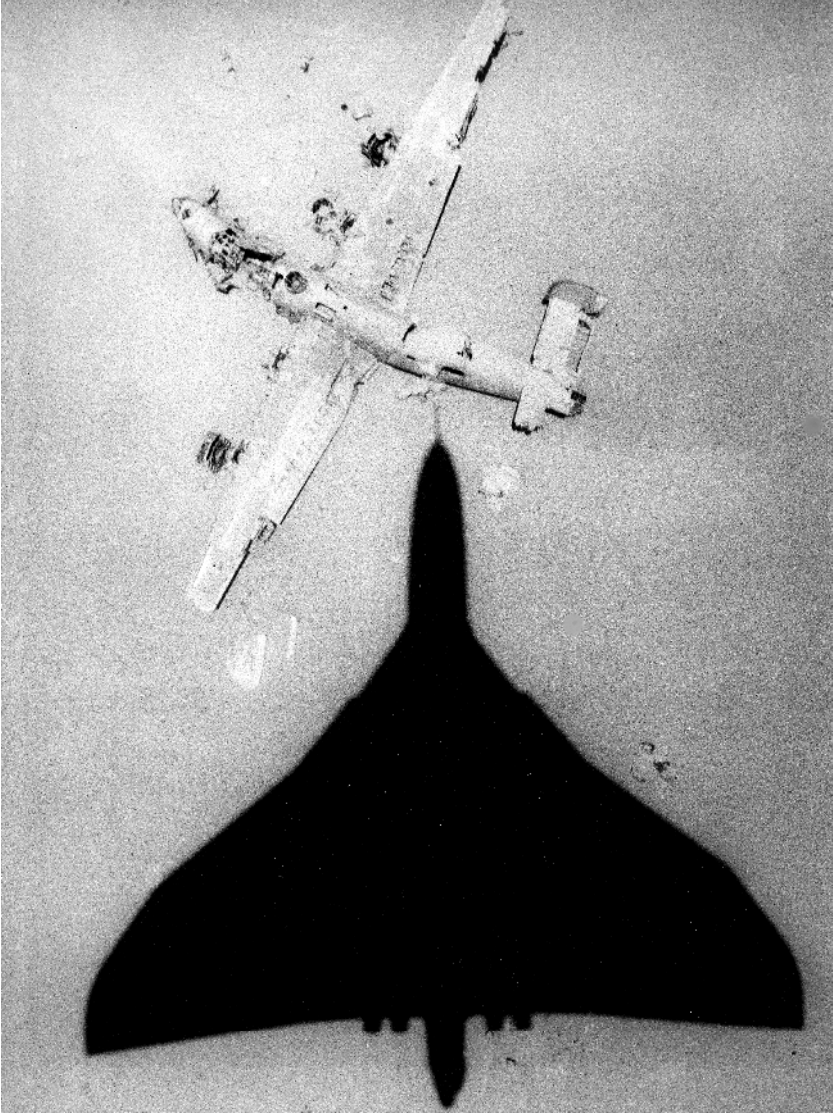
*Beaufighter target tugs at Nicosia in 1949. (MAP)*

regional reinforcement capability and this was exploited in November 1953 when the unit that happened to be in Egypt at the time, No 49 Sqn, was redeployed to Eastleigh (Nairobi) to assist in the anti-Mau Mau campaign.

Following the RAF's withdrawal from Egypt, Jordan and Iraq during the 1950s, Cyprus became the focus of activities in the eastern Mediterranean with Nicosia, and later Akrotiri, continuing to offer training facilities for squadrons now based as far afield as Germany and the UK. In fact this practice had begun long before the contraction process had gained any momentum. As early as the summer of 1955, for instance, six squadrons of Sabres, deploying two at a time with twelve aircraft each, had flown out to Nicosia, staging through Italy, Greece and Turkey. Each two-squadron element spent about three weeks in-theatre, during which further detachments were mounted to Amman, Habbaniya and Abu Sueir.

In the aftermath of the Suez campaign of 1956, deployments of UK-based Hunter, Javelin, Canberra and V-bomber squadrons served to bolster the island's defences while providing opportunities for live firing and bombing. In later years the hosting of APCs became a regular feature of Akrotiri's annual routine and as often as not there would be a UK- or Germany-based squadron of Lightnings or Phantoms in residence using the opportunity to qualify its pilots against the gunnery standards laid down by SACEUR in the NATO classification scheme. Ever since the early 1980s those same clear, and relatively secluded, Cypriot skies have also provided the venue for the Red Arrows to do their initial annual work-up practice.

While the RAF may have been evicted from Egypt in 1956, it still retained a presence in Libya, at Idris (renamed from Castel Benito in 1952) and El Adem. Both had been operating as staging posts since the end of WW II but, the loss of Egypt had led to their being developed to house training detachments, both airfields being provided with adjacent bombing ranges. Thereafter both: accommodated periodic detachments from squadrons based both locally and from further afield; served as destinations for overseas training flights carried out by aircraft of Flying Training Command; hosted bombers from Germany and the UK engaged in 'Lone Ranger'-style exercises that involved individual crews landing away and carrying out weapons training on the El Adem or Tarhuna Ranges;



*Locating the wreckage of the B-24 'Lady Be Good' in the desert some 400 miles south of Benghazi was a favourite exercise for Canberra and Vulcan crews operating out of El Adem. (Tony Fairbairn)*



*Vampire F 3s of No 601 Sqn at Ta Kali in 1952.*

and provided the airheads for tactical re-supply missions for transport aircraft operating in support of Army units exercising in the desert. A reduction in the overall scale of operations permitted the closure of Idris and Tarhuna in 1966. Four years later, shortly after Col Gadhafi had staged his successful *coup*, the RAF was invited to comply with the Revolutionary Council's polite suggestion that it might care to leave El Adem.

Despite this setback, we still had Malta, and Gibraltar, and both continued to provide facilities for intra- and inter-theatre deployments. The confined space, the limited weapons ranges and the potential complications represented by the proximity of Spanish airspace meant that, to operational units, Gibraltar was the less attractive option. Nevertheless, ever since the late 1940s, it has served as a regular destination for a never-ending stream of Wellingtons, Varsitys and Dominies, mostly carrying navigators and AEOs approaching the end of their basic training courses or while subsequently being refreshed, with Malta providing an alternative to ring the changes, and/or to cater for the non-availability of 'Gib'.

Malta, later supplemented by Gibraltar, also provided the venue for RAuxAF summer camps. The FAA had blazed the Mediterranean trail for reservists in 1950 when No 1830 Sqn RNVR flew its Fireflies out from the UK to spend a fortnight at Hal Far. Two years later the air force followed suit, Nos 501, 601, 604, 605, 608, 612 and 613 Sqn each spending time at Ta Kali in 1952. They were followed in 1953 by Nos 500, 601, 604, 609 and 616 Sqn and by Nos 500, 600, 601, 604,



*Vulcans of No 50 Sqn at Luqa in 1964 during an Exercise SUNSPOT, successor to the SUNRAY of Lincoln days.*

611 and 615 Sqs in 1954. The focus switched to North Front in 1955 which hosted Nos 501, 502, 603, 605, 607, 608, 613 and 614 Sqs. It was intended that all twenty RAuxAF squadrons should spend some time in the Sun in 1956 and Nos 500, 504, 600, 601, 604, 609, 610 and 611 Sqs succeeded in visiting Ta Kali while Nos 501, 602, 603, 605, 608 and 614 Sqs made it to Gibraltar. Unfortunately, the Suez crisis prevented any further deployments; the remaining six units had to make do with a camp in the UK and the disbandment of the RAuxAF in 1957 put an end to the whole enterprise.

While training facilities at Gibraltar were relatively limited, Malta could provide rather more opportunities and throughout the 1960s and '70s bombers were detached to Luqa, individually or at squadron strength, (eg Vulcans practising their regional reinforcement commitment under Exercise SUNSPOT), in order to fly over Libyan (until 1970) or Italian low-level routes. Similarly, fighter squadrons would be deployed to Luqa to fulfil their live air firing obligations.

The RAF finally left Malta in 1979 but by that time it was already well-established at Decimomannu in Sardinia where Canada, Italy, Germany and the USA had established a joint training facility under NATO auspices as early as 1957. The Canadians had withdrawn in 1970, just as the British were being obliged to relinquish their last foothold in North Africa and as the future of the UK's presence on Malta was becoming increasingly uncertain. The RAF took over the

Canadian slot which gave it access to the two ranges at Capo Fresco, one air-to-air, the other air-to-ground. These were used extensively by Lightnings, Phantoms, Jaguars, Harriers and Tornados until the RAF finally withdrew in 1998.

This withdrawal had been made possible by the remarkable progress that had been made in the field of simulation which had significantly reduced the need for the expenditure of live ordnance. Indeed, this sort of technology had already been available at Decimomannu for some time. An instrumented range had been introduced which provided facilities for the manoeuvres executed by suitably equipped aircraft to be recorded while they engaged each other in mock combat. These recordings could then be played back on the ground so that the 'fight' could be reconstructed in 3D and viewed from a variety of perspectives thus permitting the 'firing solutions' to be analysed and criticised and lessons drawn.

In the post-Cold War era, with the availability of increasingly realistic and sophisticated synthetic devices, the training arena that the Mediterranean used to represent, and which had been so essential for so many years, is no longer needed – although the Red Arrows still like to go to Akrotiri in the spring.

## FEEDBACK

**Item 1.** Tony Mansell offers some amendments to his Journal 36 paper on the 'Origins of Aircrew Who Fought in the Battle of Britain':

- a. Page 67 omitted to say that No 248 Sqn was not shown in AMO A.741/1945 but was added to the list of Battle of Britain fighter squadrons by AMO A.544/1946.
- b. When calculating the number of British RAF pilots on page 78, the 604 men referred to there include eleven American and nine Irish nationals – who were mentioned, but not quantified, on page 72.
- c. Note 4 to Table 1 should show the totals of Halton and Cranwell apprentices as 101 and 10, rather than 103 and 8 (with acknowledgements to Air Cdre A J B Clements).

**Item 2.** Following publication of the discussion that followed Capt Eric Brown's address at the 2005 AGM, Society, member Frank Haslam queried the speaker's statement to the effect that he had interrogated Himmler in 1945. The problem was that, although Himmler had been arrested on 21 May, his true identity was not established until the evening of the 23rd and he had committed suicide before midnight, leaving precious little time for interrogation. Capt Brown acknowledges that, although 'interrogate' had been a useful enough word under the circumstances pertaining in 2005, in terms of what had actually happened in 1945 'identification interview' might have been a more historically precise term and he has offered the following amplification of the events of sixty years earlier.

'When I flew into Germany just before the capitulation, I made contact with our 2nd Army HQ on Lüneburg Heath where I met Maj Tim Bryce, an Intelligence Officer, who, noting that I was on a roving commission in Schleswig-Holstein, advised me that Heinrich Himmler was believed to be in that area, probably in disguise to avoid capture.

I heard no more of this until later, when I was operating in the vicinity of Celle airfield. On 23rd May I was contacted by 2nd Army and told that I was to be driven to the village of Barnstedt (*about 12 km south of Lüneburg – Ed*) where I was to rendezvous with Maj Bryce at 1900 hrs. On meeting Bryce he told me that a German Sgt Heinrich Hitzinger had been taken into custody. His identity papers were suspect and, after questioning, he had claimed that he was really Heinrich Himmler but positive identification was still needed.

Bryce had called me because he knew that I had seen Himmler in person at pre-war Nazi parades and felt that I might be able to confirm his identity from his general demeanour. I said that I thought that I could do better than that if he would let me ask the prisoner one or two key questions and then note the reactions I got in return. This was agreed and the reply I received from the prisoner (as outlined on page 11 of Journal 36) convinced me of something of which I was already pretty certain – that this was indeed Heinrich Himmler.'



**OPERATION SHALLOW – KINESHMA; 57°40'N, 42°20'E**  
**by Wg Cdr Geoffrey Richards;**  
**edited by Gp Capt Ian Madelin**

*This is a companion piece to Air Cdre Phil Wilkinson's account, in Journal 36, of No 151 Wg's exploits in northern Russia in the autumn of 1941. It is rather a different story and what follows is one of the few surviving accounts of a little known episode which began in late September when the author, then a flying officer Hurricane/Spitfire pilot was ordered to report to a vessel lying alongside at Gourcock on the Clyde.*

It was a small, rusty merchant ship on which extra cabins had been attached to the deck for our use. They appeared to be secured by half-inch screws. We asked the carpenter how safe they were. He assured us that they would go over the side with the first fresh breeze but, he added, they would take part of the deck with them as that wasn't very secure either. The ship's destination was secret, but large crates being swung aboard were boldly marked 'ARCHANGEL'. There were four officers on the mission, two pilots – Bill and myself, Norman, an engineer, and Ron Poole, a radar expert. Since we could not be told where we were going we were not issued with cold-weather gear. When the Captain told us of the sort of temperatures we could be expecting we realised that a pair of Wellingtons would not be adequate and sent off priority signals to the Air Ministry. The reaction was slow. Our cold-weather gear caught up with us six months later when we were on our way home.

The ship berthed in Archangel on 12 October. By this time Moscow was in range of German guns. As the military situation worsened we were held on board for a further week while our orders changed daily. But Ron Poole, the radar expert had been taken off with his equipment. We heard his story later.

He was taken to a field not far from Archangel where he set up his radar. With Russian officers looking on he stared hopefully at the screen. After a while two blips appeared heading straight for them. He did a quick calculation and announced, 'Gentlemen, unless they change course, two aircraft will pass overhead in exactly three and a half minutes.' They all rushed outside and, dead on time, the aircraft appeared. Magic! They jumped up and down and shouted with delight,

then returned in high glee to the radar cabin. Ron noticed that the blips then disappeared off the screen at a spot about 17 miles distant. 'There is an airfield there,' he said. The atmosphere in the cabin suddenly turned grim and Ron was carried off to prison as a spy. It took the Air Attaché a week to get him out.

*Still on board, the author picks up the story:*

From the ship we watched in horror as the crates containing our Hurricanes were unloaded. They had been carelessly stowed and some emerged with broken rudders and some with bent wing tips. A number of crates had been stove in and we could only guess at the damage inside them. A young liaison officer came on board and introduced himself as Nicolai Nicholievitch. When pressed for information he demonstrated the Russian fondness for negatives by saying: 'Nobody doesn't know nothing.' He invited us to what he said was the best restaurant in Archangel town, a five mile walk away along a railway line and across a ferry. I remember nothing about the meal. What sticks in mind were the sanitary arrangements. The lavatory was at the end of a corridor. You were of course perfectly at liberty to use it, but you were equally at liberty to use the corridor. Along the walls there was ample evidence that the second choice was the preferred one.

*The party left the ship on the evening of 19 October and travelled slowly by train along bomb-damaged lines with frequent lengthy halts, one of nearly 24 hours. They arrived at their destination, Kineshma, four days later and were taken to a hotel that seemed to have been requisitioned for their exclusive use. The next morning they went down to the station to watch the crates being off-loaded. The engine had left, leaving only the low-loading rolling-stock. There was only one unloading point so the wagons had to be brought alongside one by one but with no engine it was not clear how this was to be done. It turned out to be very simple. As each wagon was emptied hundreds of men were summoned. They swarmed around it like ants round a dying beetle and pushed. Slowly the train began to roll and when in position chocks were placed on the rails to stop it. By now the mission of the group was clear. They were to oversee the assembly of the Hurricanes, test-fly them and give*

*the Russian pilots a conversion course. The author takes up the narrative again:*

By 26 October there were a number of wingless Hurricanes lying on their bellies at the railway station. It was time to get them moving but to do this it was necessary to get the undercarriages down. They jacked one up while I sat in the cockpit but the jacks were not long enough. So they dug holes in the ground beneath, sloping at the rear edges, until the wheels could go down in them and lock. Then they roped the tail to the back of a truck and set off to tow the aircraft backwards over three miles of dirt road rather worse than the second-rate roads one might encounter in the Australian outback. Some others were dragged to the airfield on sledges, and that was before the first snowfall.

Apart from the Station Commander, a *podpolkovnik* (lieutenant-colonel), and Arnold, the political officer, we were allowed to deal directly with only two other Russian officers, Bogdanov the test pilot and Boris the engineer. While the Hurricanes were being brought to the airfield and assembled I delivered a daily morning lecture, via our beautiful translator Olga, who had only a limited technical vocabulary. Eventually I was reduced to sitting in an imaginary cockpit operating an imaginary stick, rudder, throttle, flaps, undercarriage and pitch control. Everyone enjoyed themselves hugely and, had it not been for the dampening presence of Arnold, we might have become quite chummy. Boris, I believe, knew what I was talking about but I doubt if the rest of them did. I learned later that most of the pilots were illiterate and couldn't read figures either. I was later reduced to sticking bits of red paper on the instrument dials to indicate when things might get dangerous.

By now our party of airmen had settled-in and when I wasn't lecturing I wandered around talking to them and getting to know them. They were a splendid bunch, all Halton trained and first-class tradesman. One of them, Taylor by name, was an excellent pianist able to play almost anything one asked for by ear. One evening after dinner he played the Czarist national anthem. Our waiter, Dada Greisha, who had become like an uncle to us all, stood to attention with his back to the wall while the tears rolled down his cheeks.

Within a couple of days we had three Hurricanes ready except for

the airscrews. Either the Rotol kit for fitting them had not been sent or had been lost. Norman made drawings of the necessary tools and the local blacksmith was given the task of making them. On 3 November I was able to take the first of our aircraft up. I enjoyed myself. I beat up the airfield and the hotel and fired the guns into the Volga. There were dozens of Russians watching and it was pure chance that made my landing feather-light and perfect. The airfield surface was some way short of ideal. It had been constructed in a day and a half by the simple expedient of removing the hedges between three fields.

Meanwhile winter had arrived. Temperatures dropped steadily,  $-10^{\circ}\text{C}$  in early November,  $-27^{\circ}$  in December,  $-38^{\circ}$  in early January and  $-46^{\circ}$  before the month was out. With the winter came the snow and a new sort of flying. The airfield disappeared and it was not possible to keep the landing area clear. So they rolled a runway of flattened snow and edged it with black flags for it was impossible to judge one's height over the featureless white ground. Once airborne one had to transfer immediately onto instruments for the initial climb, as the sky merged into the snow leaving no visible horizon. An Airacobra test-pilot who arrived after us failed to realise this. He took off and flew straight back into the ground.

The low temperatures affected our bodies too. Breath condensed on our eyelashes forming icicles whose weight made the eyelids almost too heavy to hold open. The hairs inside the nostrils froze into rigid needles that pricked the other side. There was also the sanitary problem. The Russians had built a privy out on the field but like all Russian lavatories it soon ceased to be a point and became an area. It was the worst I ever saw. But the demands of the bladder will not be denied and at  $-40^{\circ}$  one does not take chances. The drill was to take one glove off to undo a couple of buttons, put the glove immediately back on, so that both gloved hands could now encircle and insulate the threatened member, then take as little time as possible and quickly get everything wrapped up again.

The aircraft's problems were even more severe. I took off one morning with the temperature at  $-25^{\circ}$  or so and tried, as usual, to throttle back at 400 feet. The throttle wouldn't move. I had no alternative but to remain at full throttle as the speed built up. To land I switched the engine off and hoped to make it on a long glide. This was not as dangerous as it might sound. The airscrew was still windmilling



*The British and Canadian Governments eventually supplied the USSR with almost 3,000 Hurricanes.*

so there was a fair chance that, if I switched it on, it would start again. I finally floated across the hedge with a dead prop.

The next problem arose when one of my airscrew blades came loose and flew off leaving me with an asymmetrical propeller. The vibration was horrendous and I

continued to shake for some time after. Norman and I checked the others and found that a number of blades were loose. The *podpolkovnik* was worried. His reputation was in danger. Earlier Norman had produced two fully armed aircraft for Bill and me that we had intended to hold at permanent readiness to scramble in case the airfield was attacked. The colonel had vetoed the idea and no one would give us starter batteries for them. So Norman struck a deal with the colonel: the solution to the airscrew problem in exchange for starter batteries. He solved the problem by bolting the blades in place. We discovered that, on installation, the blades were screwed into place in a cementing compound. Rotol did not know – why should they? – that the compound broke down at temperatures below  $-30^{\circ}$ .

As the temperatures fell lower the oil in the sump got thicker and eventually froze. One morning, as Boris was starting an engine, there were some odd noises and thick oil began pouring down the side of the fuselage. We then started to get frozen oil-drives. The following day when I went out to the airfield I saw that a Russian engineer had devised what he thought to be an ingenious solution. He had a large fire burning merrily under the nose of a Hurricane. In fact the Russians already had a solution because they got the same problem with their own aircraft. It was something like a giant primus stove with two thick hoses leading from it, one placed in the air intake and the other under the engine cowling.

The most serious problem of all had nothing to do with the weather. The Russians, having watched half a dozen Hurricanes being assembled, reckoned they could do it themselves. They smuggled some away to a hangar on the other side of the airfield that we were not allowed into, and it was there that they slung the parts together. Eventually they wheeled the first one out and asked me to test it. I gave them a flat refusal – ‘*Nyet, nyet.*’ They seemed offended until I pointed out that they had put the tail fin on back to front, and had omitted to put the rudder on at all.

Then a Russian pilot was killed. He had been sent off in an unrefuelled aircraft and his engine died just after take-off. I found myself becoming more vigilant and cautious. Just as well. When the next aircraft was wheeled out of the Russian hangar I was asked to air test it.

‘Is she full of fuel?’

‘Da.’

‘Oil?’

‘Da.’

‘Coolant?’

‘Da.’

‘Take off the wing strips.’ (These are 12-inch wide strips of metal that cover the gap between the wing stubs and the mainplane proper.)

They were affronted. ‘Do you not trust our Russian workmanship?’

‘Of course I do. But every pilot makes his own checks on an aircraft before he tests it.’

They cheered up a little and took the strips off. I peered into the gap. Where the oil tank should have been there was just a vacant space. They were crestfallen and wheeled her back into the hangar.

Once Bill flatly refused to fly an aircraft that the Station Commander wanted flown. A Russian pilot had spun her in. When we got to her both mainplanes were bent up at crazy angles and the engine was lying in the snow about 20 yards away. I don’t know what they did to the wings but, whatever it was, the noises from the hangar indicated prolonged use of a blowlamp and a sledge hammer.

I do know what they did with the engine. The 1,200 hp Merlin is attached to the airframe with twelve bearer bolts. All twelve had

sheared in the impact. The Russians balanced the engine on the broken ends of the sheared bolts and welded it all together. They wheeled her out. A Russian engineer squinted along the leading edge of each wing and said, '*Horosho.*' (Good.)

The Station Commander sent for Bill and asked him to test it. Bill refused. The *podpolkovnik* said, 'We train our pilots to fear nothing.' Bill asked if one of his fearless pilots was going to fly it. He didn't answer, so Bill explained what might happen if the aircraft flew. Sometime – probably within the first two hours – the pilot would open the throttle and see his engine fly on ahead without him. I never found out what happened to that aircraft.

In fact we got on very well with the Station Commander who was really a kindly old gentleman, whose moods alternated between vast amiability and haughty aloofness. But officialdom never let up. They had never wanted us there in the first place but Churchill had refused to send the Hurricanes unless we were accepted too. Maybe they were determined to demonstrate that they did not need foreign expertise, only foreign products. Perhaps there were historic reasons for their mistrust but to exercise it on us was absurd. We had brought 100 Hurricanes, which Britain could ill-afford, at considerable risk to life and shipping on the arctic passage, yet they seemed to construe it almost as a hostile act. The NKVD followed us everywhere. The Russians believed nothing we told them. For example, they asked us what was the Hurricane's range. We told them (I may misremember the details) that at -4 boost and 1,800 rpm she would fly 450 miles in still air. Not true, they said. They believed she would do 600 miles. To prove it they sent a pilot off to an airfield 500 miles distant with orders to fly there direct and return at once. We never heard of him again.

Norman, in despair, finally had an idea that worked. If there was something vital for the Russians to know he would write it down, put it in an envelope, seal it with wax, write on it in bold letters 'FOR BRITISH EYES ONLY', and lock it in the safe that the Russians had provided for us in our bedroom. In this way we found that the Russians would know it within 24 hours – and believe it.

Towards the end it was clear that the Russians could not wait to see us go. But that was true only of officialdom. The ordinary Russians we met were different. When we first arrived, everyone was courteous but wary. But Boris, their test pilot, had become a great friend and the

people in the hotel where we spent a lot of our time found they liked us, and this surprised them. They were sorry to see us leave and some of them wept at our departure.

We left Kineshma on 3 February 1942 and travelled by train, via Moscow and Archangel, to Molotovsk, another White Sea port, boarding our ship there on 10 February. The port was ice-bound. On the 16th the ice-breakers got busy. It was a slow journey banging along a narrow lane they had cut through the floes and it was not until the 23rd that we were clear. We headed for Murmansk to await the rest of our convoy and finally set sail for home on 1 March. On the 18th Scotland appeared on the horizon. We berthed between the bleak shores of Loch Ewe, surprisingly, on exactly the same latitude as Kineshma.

**Postscript.** Shortly before we left we heard that a number of Airacobras were on their way and one crate labelled 'AIRACOBRA' had arrived. The erection party had been delayed, but that may have been a deliberate Russian ploy. They wished to prove that their own expertise was adequate. It did not quite turn out that way, but that is another story.....

*Geoff Richards actually told that story in the Spring 1976 edition of The RAF Quarterly under the title Bogdanov's Test-Flight. It read as follows:*

Twenty-five years ago it was. Twenty-five years on the 18th of January. And I can picture it all now, as clearly as I can picture Groucho's walk or the silhouette of a Spit. The airfield ten feet deep in snow, with a runway, not cleared, but simply rolled hard and edged with black flags. You see, you can't judge your height over snow, and there is no horizon. So every landing is a sort of photographic negative of a night landing, with the ground white and the flares black.

Bogdanov was a compact, alert major, with an earthy sense of humour, the 'hands' of an angel, and a lot of medals. In the three months we had been together in this way-out bend of the Volga he had taught us a lot about snow-flying and we had taught him a fair bit about flying Hurricanes.

The only other character in the cast was the Station Commander. He was a lieutenant-colonel, a *podpolkovnik*, of, as it seemed to me



then, venerable age and benign nature. I shall never forget his sad smile as he told me, after one of my Hurricane exhibitions, that he would assuredly bury me in Russia.

The Christmas present arrived in December. It was a large crate with 'AIRACOBRA' written on the outside. I don't suppose many of you remember the Airacobra. Taken all round it is probably better forgotten. It was an ambitious aircraft for its day, but its ambitions outstripped its talents. For a start, the engine was behind the pilot, and if you applied the brakes too hard it tended to nudge you in the kidneys, or so the pessimists said. Then it had a new-fangled tricycle undercarriage. Perhaps we were not used to the idea, or perhaps its legs were too long or something, but its landing run always looked to us like a bath-chair out on a jag. Last, it was all electric. Nothing hydraulic or pneumatic about this baby; switches activated her every operation.

For some reason the *podpolkovnik* went all temperamental and proprietary over his Airacobra set. National pride, I suppose. He had accepted us as the Hurricane experts, but he took the view that American aircraft were as foreign to the British as they were to the Russians. So, when we offered our help, he declined it with icy thanks and added, with some hauteur, 'We have our own methods for dealing with foreign aircraft.' Nor was his formal rejection of our aid an empty gesture; he had us escorted from the Airacobra hangar at the point of the NKVD.

But during the evening vodka sessions we heard a great deal about the engineers' difficulties. The undercart, for example, worked on the cuckoo-clock principle. The wheel recesses were guarded by little doors which opened to let the wheels out and closed again when they were safely back home. The Russians found that by some inexplicable electrical quirk the doors had mistaken their function and were slamming themselves inhospitably in the very faces of the lifting wheels. Then there were problems with the flaps. They were operated by a simple two-way switch: UP or DOWN. By some error of circuitry the Russians had offered the pilot two equally unstable alternatives: port up, starboard down; or starboard up, port down.

Throughout it all the Station Commander kept a brave face. In addition, I fancy, he organised a security clamp. For two weeks his engineers either avoided our company or drank their vodka with

sealed lips, starving our curiosity. It was on the evening of 16 January that the security curtain was twitched aside. The CO, with a vodka in each hand and a gleam of triumph in each eye, announced:

‘The Airacobra flies tomorrow.’

We were startled. ‘Have you solved all the problems?’

‘There are fifteen things we do not yet understand. Our test pilot will find out about them in the air.’

We did not argue. The Station Commander, conscious of the value of a good curtain-line, had left. Bogdanov seemed unworried. But we were not wholly reassured.

Now, by the standards of 1941, Bogdanov was a good test-pilot. He believed in taking it gently. None of this straight off the ground in a climbing roll in a brand-new aircraft stuff for him. His ploy was to roar down the runway till she unstuck, then cut the throttle and drop her back again. So he climbed aboard, tested the controls, ran the engine hot, and opened up to about three-quarters throttle.

She obeyed his every touch. Nose down she trundled, nose level she galloped down the runway. She unstuck, sank back, and ran and ran and ran. Brakes are not much help on rolled snow. She was still rolling at about 20 mph when she hit the snow bank at the end of the runway. One of the things Bogdanov had not known was that her unstick speed was considerably higher than the Hurricane’s.

They pulled her backwards out of the snow. She seemed undamaged except that the nose-wheel leg had a nasty kink in it. While we stood and surveyed her, the Station Commander despatched a runner. In the falling dusk we left her, stranded and forlorn. As we drove away we met a blacksmith armed with a storm-lantern, a blow-lamp and a large hammer. The runner had delivered his message.

Bogdanov was cheerful in the bar that night. On the whole his first run had been a success. The damage was slight and easily repaired. Besides, he knew a new fact, the unstick speed, and this reduced what you might call the X-factors to fourteen. He seemed to believe that this significantly shortened the odds against a successful maiden flight on the morrow.

We escorted him back to her side the following morning. Perhaps ‘escorted’ is not the best word, redolent as it is of the pomp of a firing party or a funeral cortege. But then, as memory comes flooding back ..... let me say just that it would not have seemed the best word to

Bogdanov. He was bubbling with that blend of confidence, elation and excitement that is familiar to any pilot of any nationality. When we arrived the mechanics were just removing the thawing equipment that was always needed when the temperature fell below minus forty and the oil froze solid in the sump. The two great hoses had been removed from the air-intake and the engine cowling, and the giant Primus stove and fan that fed hot air through them was being wheeled away. I must admit she looked good – except for those extraordinary legs. We examined her front leg. There was a blued-steel bruise on her shin where the kink had been, but at least the leg looked straight to the naked eye.

Bogdanov slipped happily into the cockpit.

Perhaps this is the moment to explain about the automatic boost control. You see, it was one of the things that Bogdanov didn't know about. And we didn't know that he didn't know about it. And even if we had known, we didn't know that the Airacobra didn't have one because we had not been shown Pilot's Notes.

You know how it is with atmosphere: the higher the thinner. So the higher you climb the harder the supercharger has to work to supply the engine with air. But if it were allowed to pump with the same vigour at ground level it would pump more pressure than the engine could take, and something would have to give. The automatic boost control took care of this problem. You could push a Hurricane's throttle wide open at any height, and a cunning little aneroid saw to it that the engine was not overloaded. The Airacobra did not have this refinement. The pilot was supposed to keep an eye on his boost gauge and handle the problem himself.

So there was Bogdanov, all ready to go. He held her on the brakes till he reached about half-throttle and, when she started to slide, he released her. Also, with a firm, smooth thrust, he opened the throttle wide. That take-off would have dropped the jaws of even a 1970 Farnborough crowd. One moment, there was an Airacobra quivering at half-throttle. Next moment, in a blizzard of screwed-up snow, she was gone. We side-stepped the blizzard in time to see her racing up the runway trailing this induced snow-wrack behind her like a bridal train. She left the ground and her climb steepened in a dramatic parabola. She must have made a record climb to 1,000 ft. that was not broken till the Hunter.

It was at about 1,200 ft. that she exploded. Not dramatically you understand, but in a deliberate sort of way. First the air-intake fell off. Then a feather of flame showed itself behind the cockpit. Then Bogdanov fell out. Shedding little bits as she went, the Airacobra whirled away heading for the eternal snows. We were not worried about her. We were too busy worrying about Bogdanov, for his parachute had not been seen to open.

We found him at last, his parachute lying limply on the edge of the tidy hole he had drilled in a blessedly deep drift. He was concussed, but nothing more.

We visited him as he lay in bed with the top half of his poor old head apparently held together by tape, like a bound cricket bat. We didn't tell him how it had happened because, at that time, we didn't know ourselves. But there was something we could have told him, and did not. We thought he was not ready for the news. A signal had been received the day after his flight. It read:

THIRTY AIRACOBRA COMMA WITH ERECTION AND  
TESTING PARTY COMMA LEFT ARCHANGEL TODAY  
FOR YOUR BASE STOP ONE CRATE AIRACOBRA  
SPARES DESPACHED TO YOU LAST MONTH STOP  
ACKNOWLEDGE SOONEST STOP END OF MESSAGE

*Postscript.* Readers of this Journal will already have met Geoffrey Richards, the account of whose experiences as The Airman at Arnhem appeared in Journal 34. Both this and the Arnhem piece are taken from a privately printed autobiography, written when he was in his 70s at the urging of his daughter, herself ex-WRAF, which he recorded just for his family. The Editor gratefully acknowledges their permission to reproduce these excerpts in the Society's Journal. Geoff Richards died in Australia in 2005, then in his 87th year.

## BOOK REVIEWS

**Drop Zone Borneo** by Roger Annett. Pen & Sword; 2006. £19.99.

As Lord Healey comments in his Preface to this book, the victorious Confrontation campaign of the mid-1960s remains too little known in the UK. It was fought, largely by British forces, in support of Malaysia and Singapore against Indonesia's invasion of the Borneo territories, and constituted, in Healey's view, 'the most successful use of armed force in the twentieth century'. As an example of how to control its use, in order to win hearts and minds at minimal cost, this operation was without parallel.

Yet, partly thanks to the remoteness of Borneo, but much more importantly, the prominence of the ghastly campaign being waged by the USA in Vietnam at the same time, it received scant publicity and since then has received little more. Certainly there have been some books, including those listed in the short bibliography, but the air operations in support of the land forces have gone largely unrecognised. Roger Annett's book describing the roles of the fixed-wing transport squadrons based at Changi and using forward bases in Borneo, mainly at Labuan and Kuching, is therefore particularly welcome. I was forcibly reminded when reading it of earlier tropical jungle operations which feature in the RAF's air transport history, most notably in Burma in the 1940s and Malaya in the 1950s – and perhaps I should add the work of our present-day supply squadrons in connection with the Middle East. There is a significant continuum in such activities within which the Borneo campaign merits an honoured place, and Roger Annett has done the job in fine style.

Having recently graduated from Cranwell, his first posting was to Changi with the re-formed No 215 Sqn, which was equipped with the newly introduced tactical transport aircraft, the Argosy. Here he did a full tour as a co-pilot before returning home in 1966 and quickly finding that nothing the RAF was now able to offer him could match the challenges, the excitement and the comradeship of active operations. He therefore switched course into the computer industry and only in so-called retirement has he turned his attentions to writing down the RAF experiences that he still remembers so well. So, with the help of former colleagues and with guidance by historians towards the written records, he has painted a vivid and compelling picture of

the operational realities of those days.

Understandably he dwells much on the *Argosy*, which has rarely received much tribute elsewhere, but he certainly does not ignore the significance of the work of the other types of RAF transport aircraft. Much of the book, therefore, is devoted to the realities of the difficult kinds of flying they were all engaged upon. Their biggest challenge came down to finding the way to all sorts of destinations in order to deliver personnel and supplies; unpredictable tropical weather and dangerous, often uncharted, terrain below posed constant risks and Annett draws on his own experiences flying the *Argosy* during the critical years to give the reader an excellent feel for the conditions they faced. In using the present tense to describe many of the incidents he brings to them an effective sense of immediacy – while at times the sudden switching between present and past can be disconcerting, the reader's attention is firmly held throughout.

Woven into the book, alongside the operational flying, as one would expect, are vivid impressions of the environment in which Annett and his colleagues lived and worked. He gives his well remembered recollections of Singapore and life at Changi, of the forward bases in Borneo and the local people, of route flying to other parts of the Far East; and the stories he tells are often laced with aircrew humour. So overall we have here a fascinating account of an important aspect of the RAF's last major operation in the Far East, one which – surprisingly and impressively – cost no direct casualties. Centred upon one of the RAF's lesser known squadrons, No 215, it deserves to be read not just by the many Service people who personally recall their years in the Far East Air Force of the 1960s, but by all who are convinced that the tasks undertaken by the British Armed Forces in that distant part of the world during the post-war years were thoroughly well done.

**Air Cdre Henry Probert**

**RAF Little Rissington; The Central Flying School Years, 1946-1976** by Roy Bagshaw, Ray Deacon, Alan Pollock and Malcolm Thomas. Pen and Sword; 2006. £29.99.

*RAF Little Rissington* is a handsome, weighty, 11"×9½", 320-page hardback. It is lavishly illustrated with some 300 photographs of aeroplanes, personalities and incidents, all set within the text so that

they appear alongside the relevant passage, apart from the fifty that are in colour which are presented in a separate section. All of these pictures are very well reproduced and thus preserve the generally excellent quality of the originals, even the informal snapshots taken on the flight line – none of your out-of-focus Brownie Box efforts here. Indeed the whole book reflects far higher production standards than one normally associates with this publisher.

When writing the history of an RAF unit one's basic sources are the Operations Record Book and the log books and personal recollections of those who were involved. In other words, a mixture of hard fact and anecdote and the author has to make a decision as to how the latter is to be presented. Should these tales be reduced to their essentials and then re-told so as to preserve the central theme while discarding the accompanying hyperbole, or should they be reproduced, more less verbatim, with, where applicable, minimal wordsmithing to polish out the more uncomfortable flaws in the syntax? This book is unusual in that it was co-written by four people, all of them ex-RAF, in effect a committee, and they have clearly gone for the second option. The upside of this is that the book is underpinned by numerous personal accounts (some 150 individuals made contributions) and these lend a great deal of authentic 'atmosphere' to the unfolding story. There are two downsides. One is repetition, because individuals tend to tell the same stories, or invoke the same images. Thus we are told, for example, at least three times, that Trenchard set and marked his own exam paper in 1912, and a succession of pilots tell us that the salient characteristic of the JP3 was 'variable noise, constant thrust' – mildly amusing the first time but once is really enough. The second problem is that the book is presented as a chronology with a chapter devoted to each year, but the personal contributions often cover a two- or three-year period. As a result one may read, for instance, of the way in which an internal reorganisation of the school affected an individual several pages before one learns that the change had been introduced.

I suspect, however, that this will be of little consequence to the majority of readers, many of whom are likely to be Little Rissingtonians of some kind and/or CFS alumni who will tend to focus on the ten pages or so that reflect their personal experience and they should have no problem relating what they read to what they

remember. The consumer with little or no personal involvement, however, like myself, may find that, for the reasons noted above, reading the book from cover to cover, as I did, can occasionally be a little confusing. On the other hand, it rewards the casual browser because one can open it at almost any page and immediately become involved in some interesting, and often amusing, yarn.

Because the CFS, which is at the heart of this book, had, at various times, out-stations at Kemble, South Cerney, Fairford, Ternhill and elsewhere, the unit's structure was relatively complex and unstable and, although these changes are recorded in the narrative as they occur it can be a little difficult to keep track of them. Indeed I think that the authors may occasionally have confused themselves, eg on page 86 where 'the CFS' is noted as having only two Provosts in June 1956 – I am pretty sure that this should have said that there were only two 'at Little Rissington'; there would have been another twenty or more at South Cerney. I think that it would have been helpful if the school's fluctuating size and shape could have been summarised in an appendix. The appendices that are provided are extremely comprehensive and include: trophy winners; aerobatic team members; a list of all aircraft allotted to the CFS during the period covered, including dates of receipt and disposal; and brief details of serious accidents. These are topped off by an excellent index.

To their credit, the authors seem to have made no attempt to whitewash their account and the story is told warts and all. It is evident, for instance, that becoming a QFI was far from being a universal ambition and that staff/student relationships were not always what they might have been. Some folk clearly enjoyed the course (at least in retrospect) while others still harbour a few reservations. Courses tended to develop a corporate identity and many felt the need to let off steam at their final Dining-In Night, so there are numerous tales of outrageous behaviour, involving pyrotechnics, strippers streakers and the like. And then there was the course which was invited to contribute towards the establishment of a new rose garden and showed its respect for the institution by donating a truckload of horse manure – and a first-hand account (from Air Chf Mshl Sir Paddy Hine, writing as a far less responsible junior officer) of how the CFS acquired its famous top hat, and so on, and on.

As an aside, I was interested to learn of the CFS's intermittent



involvement in the selection of high-visibility colours for training aeroplanes. Over the years the kaleidoscope has been given the occasional shake and we have progressed from silver with narrow yellow bands, via 'dayglo' orange patches and reflective red stripes, to red, white and grey. How could we get it wrong so often? As we now know, of course, the right answer was black – or at least, that it is the current fashion.

There is something here for almost everyone. Many contributions have been made by airmen, so there are plenty of tales from the perspective of the flight line and the barrack block, so it is not all about the view from the cockpit and the Officers Mess. The authors are to be congratulated on their efforts because the book is very readable and I am quite sure that in many instances this will have reflected their editorial skills. Do not be misled by any of my observations; I have no hesitation in recommending this book.

**CGJ**

*PS I know that the CFS is a pilots playground but that's no reason to dismiss its navigators altogether. There is a photograph on page 138 of the eight-man team that set off to 'trap' the Southern Rhodesians in 1962 as they prepared to board the Varsity that would take them to Salisbury and back. Everyone is identified by name, even the guy who looked after the accommodation, with the notable exception of the nav, which is a bit rude. Just for the record, he was Flt Lt T A Spurling. Now, how hard was that?*

**French Eagles – Soviet Heroes; the Normandie-Niemen Squadrons on the Eastern Front** by John D Clarke. Sutton; 2005. £19.99.

In 1942, General De Gaulle gave the Soviet Air Force a *Groupe* (three *escadrilles*, or flights, of twelve men) of Free French fighter pilots. That he did this, given his history of obstinacy concerning the control of Free French forces in Britain, is interesting. The author could be right to suggest that the strengthening of Franco-Soviet relations as a counter to any Anglo-American hegemony in the post-war world may have been a factor. The *Groupe* adopted the title *Normandie* and became the *Normandie-Niemen* in recognition of its contribution to the battle involved in the crossing of the river of that name. They were offered the choice of American, British or Soviet

aircraft and chose the latter flying, it is said here, Yak-1Ms and Yak-9Ts before receiving the excellent Yak-3 after it came into service in 1944. It was a wise choice, because the Yaks gave good accounts of themselves as fighters and the -9T's 37mm cannon made it useful in the ground attack role. The *Groupe* acquitted itself very well in action, commencing in the Smolensk area in March 1943 and fighting over the enormous tank battles on the Kursk salient in July of that year. They served with distinction through other campaigns – often escorting Pe-2 bombers and Il-2 *Shturmoviks* – expanding to four *escadrilles* after becoming a Soviet Air Regiment. Their reinforcements included pilots from France's African colonies, ex-Vichy men among them after Operation TORCH. In 1945 they flew back to Paris in forty Yak-3s which Stalin had given them. This book will interest French readers as an account of the success of their compatriots in the air but a British readership, whilst acknowledging that, may have more direct interest in what it has to say about equipment and conditions of service with Soviet forces in WW II.

The narrative resembles a well-kept RAF Form 540, written in diary mode, with author's commentary, covering events in the air and on the ground. The sources used include veteran's reminiscences, accounts assembled by Igor Eichenbaum, the Secretary of their association, and the wartime *Normandie-Niemen Service Journal*, which seems to correspond to Form 540. German attitudes to the presence of French airmen, apart from the respect which they earned in the air, are summed up in Keitel's order that captured *Normandie* pilots should be executed and their families deported to concentration camps. The Soviets lived up to one unpleasant aspect of their regime where *Normandie* groundcrew were concerned. The *Groupe* had brought along their own mechanics but they had to be sent back later. This seems to have been a move initiated by the ever-present political officer attached to military units in case Soviet groundcrew were ideologically compromised by contact with their more cosmopolitan French colleagues. No doubt the Frenchmen were relieved because their living conditions and food, unlike those of their pilots, were very poor – a situation which was common to Soviet groundcrew as well.

Do I have any gripes? Well, I have a problem with the Yak-1M in this book and, to a lesser extent, with the Yak-3. We are told that *Normandie* received -1Ms in January 1943, that the -1M had fuselage

and canopy modifications in December 1941 and a plate between pages 116 and 117 has a silhouette which is labelled Yak-1M. Post-*glasnost* research shows that the Yak-1M prototype first flew in February 1943 and that the -1M did not go into series production but served as the basis for the development of the Yak-3, which was lined up for production circa October 1943, not January 1943 as stated here. In 1942 the Yak-1 had undergone fuselage and canopy modifications of the type described in the book, emerging as the Yak-1b. Hence I think *Normandie* must have been originally equipped with Yak-1bs and the silhouette shown is of that variant. However, the book is well written, has good photographs, helpful appendices, one of which provides data on the range of aircraft which Yakovlev produced as variations on his Yak-1 theme (but see comments about the Yak-1M and Yak-3 above) and three pertinent maps. The price is too steep for me but there is enough here of general interest to merit a trip to the library.

**Dr Tony Mansell**

**Black Arrow Blue Diamond – Leading the Legendary RAF Flying Display Teams by Squadron Leader Brian Mercer AFC\***. Pen & Sword; 2006. £19.99.

Sqn Ldr Brian Mercer's was almost a household name in the late 1950s and early 1960s when he flew as a member of No 111 Sqn's iconic Hunter formation aerobatic team and later led the superlative Blue Diamonds of No 92 Sqn. He has written an extremely readable memoir of his time in the Royal Air Force, during which he served on no less than six fighter squadrons and escaped the world of the staff to continue flying. He later became a senior captain with Cathay Pacific, an airline which was something of a home from home for ex-RAF fighter pilots. His book captures exactly the spirit and nature of the early jet days, when 'wartime attitudes were still in vogue', accidents were accepted as a fact of life and men and equipment were pushed to their limits and often beyond.

Brian Mercer sheds much light on the day-to-day life of the fighter squadrons of the '50s, graphically describing the challenges of operating aircraft with very limited endurance and 'no worthwhile navigation aids', often in dreadful weather conditions. He paints a compelling picture of Fighter Command before the Sandys Axe was

swung. He is pithily critical of that and of other decisions of government that resulted in the failure to continue the development of potentially world-leading fighter types, besides the tardy introduction of swept-wing, transonic aircraft. He offers an interesting glimpse of the pursuit of excellence in air-to-air gunnery, when he led the 1962 Fighter Command team that wrested the Guynemer Trophy from the RCAF. At the same time, he is right to highlight the slowness of the Service to introduce an air-to-air missile, such as Sidewinder. In fairness, that failure may not be due solely to Treasury parsimony or to political interference. It does, to an extent, reflect the innate conservatism of many of the Meteor and Hunter generations who would later be slow themselves to embrace and exploit such innovations as inertial nav/attack systems or laser guided bomb technology.

The chapters of this excellent book dealing with formation aerobatics are especially valuable, written as they are by one of the most experienced pilots and leaders of his generation. Brian Mercer writes fluently and in great detail of the path to perfection followed by successive teams. He may be forgiven a hint of irritation that Treble One seems to have acquired almost a generic monopoly where Hunter aerobatic teams are concerned. Instead, he shows clearly that a continuing, relentless process of innovation and polishing may have begun with the Black Arrows but continued unremittingly into the Blue Diamonds era. All in all, his chapters on Fighter Command and its aerobatic teams will provide invaluable colour to those who come to study the Cold War RAF. In addition, his description of life on a FEAF fighter squadron – and of life after the RAF – are readable and paint an interesting picture.

This is an engaging story, well told. Those with an eye for detail will harumph at the carelessness of the proof reading evident in the introductory pages and appendices. However, elderly fighter pilots will appreciate the large font chosen by the publisher which, although delivering 30% fewer words than is normal on each of this book's 223 pages (plus thirty-eight black and white photographs), will obviate the use of reading glasses by the vain.

**AVM Sandy Hunter**

**From Bouncing Bombs to Concorde – the authorised biography of**

**Sir George Edwards OM** by Robert Gardner. Sutton Publishing; 2006. £19.99

The halcyon age of British aircraft design was full of characters such as Frederick Handley Page, Roy Chadwick and Teddy Petter. We won't see their like again, which is a pity. It is nothing like as evocative to know that the father of the Eurofighter Typhoon or F-35 Joint Strike Fighter was probably a huge computer.

George Edwards was right up there with the 'greats' of British aviation, and therefore this biography is an essential contribution to the historiography of international aviation. As a former journalist and Head of PR at BAC, Robert Gardner is ideally placed to provide a comprehensive and measured picture of Sir George's life from 'hard-arsed engineer' to chief designer whose successes included the Viscount, the Valiant, the VC-10, the BAC-111 and Concorde. His ultimate appointment to the exclusive Order of Merit was well deserved.

Gardner's book is a rich treasure trove of fascinating details and captivating vignettes. Sir George was a more than adequate leg-spin bowler, playing with the teenage Bedser twins at Woking Cricket Club. He used his knowledge of back-spin to ensure that Barnes Wallis' bouncing bomb was rotated backwards before release so that it skidded and bounced higher than normal just like a cricket ball. This aspect remained highly classified for years – good job the Germans didn't play cricket!

The reproduction quality of photo illustrations leaves something to be desired but that is a small price to pay for the wealth of historical detail in this meticulous book. There are good quotes, some of which are especially pertinent today. For example, Whitehall has never been overly fond of facts getting in the way of political imperatives. When Mutt Summers, Vickers' test pilot, returned from Germany in 1937 with depressing news about the quality of the latest *Luftwaffe* dive bomber, the Secretary of State wrote to the Vickers' chairman saying, 'Kindly tell your pilots to mind their own bloody business.'

Overall, Robert Gardner has written a fine tribute to Sir George. My only disappointment is that the book tells us so little about Sir George as a human being. He comes across as a two dimensional figure who works wonders, but we are not allowed to see behind the veil to understand his personality. He designed aeroplanes, he played

cricket, and he had patience and perseverance when it came to dealing with politicians and his counterparts on the world stage. But how did he let his hair down? It is left to Sir John Major's Foreword to tell us that when he first met Sir George at the Oval, he was a 'modest, undemonstrative man, a flat cap perched on his head, his vowels less precise than his remarkable mind, he sat quietly watching the cricket.' Perhaps you don't need to kick ass to get on, whatever the management gurus say, or perhaps the demands of modern aviation dictate that we will never see the like of Sir George again. Whatever, if you are at all interested in how Britain designed and built world-beating aircraft in its heyday, this book should be on your shelf. Highly recommended.

**Wg Cdr Andrew Brookes**

**The Life and Times of Roy Hastie, DFC, AE** by Peter Lovatt. Compaid Graphics (T'otherside, Drumacre Lane East, Longton, Preston, PR4 4SD; Tel 01772 612711); 2006. £9.50.

The 'Ordinary Man, Super Pilot' prefix to the title of this 187-page softback is a very sincere and painstaking tribute to an erstwhile colleague. I am sure that the author would make no claim for it to be a literary masterpiece: it reads rather like a scrap-book of aviation, laced with social matters and a few relevant scraps of WWII history. Roy (or Robert or 'Jock') Hastie became a sergeant pilot in 1941 and flew with No 53 Sqn (Hudsons) in Coastal Command on anti-sub sweeps, convoy escort duty and coastal strike; thence to the USA's east coast for more of the same. Having returned home, it was back again to Nassau to fly B-25s and B-24s at a Coastal Command OTU. His skill on the Liberator brought him a commission and (to him, initially) an unwelcome posting to No 223 Sqn within No 100 (Bomber Support) Group with which he was to fly for the remainder of the war. It was in this latter phase that he met the author, one of his gunners, who clearly kept in touch with Hastie up to the latter's death in 1979. Now, twenty-seven years later, he devotes his time to Hastie's memory. Thus the first half of the book is put together from remembered conversations and correspondence with the author drawing on his own recollections for the second half.

In addition to the documentary evidence of Hastie's above average quality as a pilot, there is enough in the story to paint a picture of a

fairly colourful character. Thus, on his first solo, to the instruction ‘complete one circuit only’, he does two; the tail wheel of his Hudson was ‘prone to scrape the sand dunes’; he was well able to talk his way out of landing at the wrong airfield whilst working with the Americans (despite his having qualified as a nav); he was highly commended by his CO at Nassau for ditching successfully in a B-25 when beset by a very tricky situation; and – AND! – he had the temerity to report an incorrect position after all possible aircraft were checked for deliberately and noisily buzzing the Duke of Windsor’s quarters. (Mmm...)

All this was great fun, but when Lovatt gets into the Bomber Command period (October 1944 on), he gets rather carried away with the detail. Every operation in which Hastie’s crew took part, spoofing and protecting the main force – throughout a whole tour – is described. Much of this could have been condensed and presented as a table – and fifteen of those sorties are also supplied with a descriptive chart as Appendices.

Better editing would have helped. Something strange happened between pages 17 and 19; similarly, there might be an omission between pages 22 and 23. I am sure that Lovatt must realise that it was not the case that ‘the V2 campaign was the prime reason’ for Hastie joining No 223 Sqn. The unit’s purpose within No 100 Gp – like that of No 214 Sqn – was to cut main force losses to a minimum by jamming across the electronic spectrum. And, although we come across Fg Off this and Flt Lt that, the CinC is ‘Arthur Harris’.

On balance, a most loyal tribute from one crew member to another, marred by an overenthusiastic approach to the Bomber Command period.

### **AVM Jack Furner**

**A Summer Bright and Terrible. Winston Churchill, Lord Dowding, Radar, and the Impossible Triumph of the Battle of Britain** by David E. Fisher. Shoemaker & Hoard, Emeryville CA; 2005. £14.99 (*but see [www.Amazon.co.uk](http://www.Amazon.co.uk)*).

Air Chief Marshal Sir Hugh (later Lord) Dowding was one of the great commanders of the Second World War. Yet this 272-page volume is only the fourth book to be devoted entirely to Dowding as man or commander, as distinct from books about the Battle of Britain.

The answer to this apparent enigma is not far to seek. To digress for an instant: Isaiah Berlin, late Oxford professor of philosophy, distinguished between the hedgehog and the fox, as between someone who knows one big thing and someone who knows a lot of small things. In this view, Dowding was a hedgehog: he was the commander of one single, supreme moment in British, or world, history. It may be that everything else in his life was a sort of apprenticeship, a training for this crisis. But it is the culminating moment of his career that attracts attention. That done, there is little more to be said. Unless, like the present author, another writer 'discovers' Dowding and is so filled with admiration, or curiosity, that he too must have his say.

The author of this book is, on the face of it, an unlikely biographer of Dowding. He is listed as a professor of cosmochemistry and environmental sciences at the University of Miami. And his PhD is in nuclear physics. However, as (presumably) a sideline, he teaches courses in 'theories of war and peace and the impact of science on history.' He seems therefore, albeit obliquely, well qualified to write about Dowding and the winning of the Battle of Britain. It is a mere happenstance that he came across a book about the Battle in an Edinburgh bookshop while attending a conference; and this led him to find out more about Dowding.

His admiration for his subject develops in the course of the book as almost a personal thing. He concludes by not doubting at all that Dowding saved Western Civilisation. This Dowding accomplished by marrying the latest scientific discoveries in the radio detection of distant moving objects in the air with an air defence system made possible by the development of the new monoplane fighters. This, the scientific aspect of Fighter Command and the Battle, is the feature that appeals to the scientist in him and at the same time commands his admiration of Dowding.

But there is another facet of his subject's personality that has Fisher scratching his head: his belief in the spiritual world. Dowding believed, and wrote, that the deliverance of Dunkirk, like the victory against the *Luftwaffe*, was due to the intervention of Divine Providence. So did many thousands of people. But Dowding went further. 'Dowding had no doubt that he was literally marching arm in arm with the Lord of Hosts...Later that summer, his own wife, Clarice, would appear to him, confirming all this. And yet, while his mind was



wandering amid the faeries and cacodaemons, his feet remained planted firmly on the solid ground.’ Fisher explains the paradox, or seeming contradiction, thus: ‘Somehow the spirit voices cleared his mind rather than clouding it,’ and leaves it at that.

Fisher has done his research. His discussion of the relations between Dowding and Trenchard is excellent. Similarly his analysis of Lindemann’s wacky ideas, which so much influenced Churchill, and his treatment of the relations between Lindemann and Churchill. And he has a good grasp of Dowding’s strategic ideas.

On the other hand he shows some strange lapses. ‘At the time of the Munich Agreement in 1938, Dowding had ... neither radar, Spitfires, nor Hurricanes.’ He is at times confused between strategy and tactics. And he has Harris at Bomber Command in 1940.

The least compelling parts of his book are like scenes from a novel, which he has created to dramatise Dowding’s spiritual visions.

The Churchill of the title is presented in his familiar Churchillian colours. But the author does not shrink from siding with Dowding where there is conflict. Over the lack of an immediate answer to the night bombing of British cities: ‘Dowding’s refusal to acquiesce to Churchill’s demands for immediate help in the autumn of 1940, Dowding’s willingness to admit to his helplessness when indeed he was helpless, left a rankling bitterness in Churchill’s heart.’ On Dowding’s resistance to Churchill’s demand that more fighters be sent to France: Churchill, though admiring of people who stood up to him when proved right, ‘never forgave him.’ There seems to be no evidence for these views, and Fisher offers none. He does observe, however, that when Churchill came to write his war memoirs he ‘forgets’ to mention the clash over France. But he does quote Dowding’s view of the omission: ‘you couldn’t expect the man to admit that he nearly lost us the Battle of Britain before it began.’

The ‘impossible triumph’ of the Battle is in a sense his tribute to Dowding, for Fisher only shows it as an impossible triumph by neglecting the facts. I think it fair to say that general informed opinion today agrees that, whereas it was a ‘close run thing’, and that it could have been lost – it certainly would have been if Sholto Douglas and Leigh-Mallory had been running the show – the advantage was entirely with Fighter Command for as long as Dowding and Park kept their heads and maintained their strategic and tactical aims.

In summing up the achievements of his subject, his crucial decision over fighters for France aside, the author observes that, if Dowding had been *only* the man who pushed through the development of the eight-gun fighter, or *only* the first military man to understand the promise of radar, or *only* the man who provided Fighter Command with the supporting facilities that permitted it to operate so effectively, or *only* the man who understood what was at stake in the battle – and thus set in place the strategy that won it – he would take his place among the heroes of the Second World War. But, as Fisher, makes clear, Dowding did *all* of these things.

Should you buy this book? Yes, if you are a Dowding admirer. To learn more of the Battle? – no. Out of curiosity? – ask your library to get it and then judge for yourself.

**Jack Dixon**

**My Flying Circus** by Richard Leven. European Atlantic Publications (4 St Paul's Way, London, N3 2PP); 2006. £8.99.

Richard Leven joined the RAFVR in June 1940. Having gained his 'wings' as a sergeant pilot, he subsequently flew no fewer than 127 sorties on Blenheims, Mosquitos and Mitchells, being accompanied on more than 100 of these by his regular navigator, Mike Nolan. On three occasions while flying Blenheims, his was the only crew to return from a mission.

During his time in the RAF, Leven had some contact with a number of prominent RAF personalities, including Percy Pickard, Hughie Edwards, Paddy Bandon, Johnnie Johnson and, among the more senior commanders, Stevenson, Atcherley, Embry and Douglas, and he offers us the occasional, sometimes unflattering, comment on some of these officers. Some of his other observations are also interesting, for example, 'I sensed that they (*the Maltese*) blamed us for the War and would have liked the Italians to win as they considered us intruders on their island' – which is markedly at odds with the impression that one is usually given.

By early 1945 Leven had been taken off operations to command No 91 Staging Post and, for me, it was at this point that the book really began to take off. While descriptions of bombing missions can be exciting, there is an inevitable sameness about them. What caught my attention was Leven's impressions of the inhumanity involved in

the last weeks of the war. As a bomber pilot, he had done more than his fair share of delivering death and destruction, of course, but in that detached, arms-length fashion that is peculiar to the way in which airmen wage war. On the ground, he was to see things 'up close and personal' and thus in a very different light, coming across instances of civilians being killed, murdered really, by our own troops, of Dutchmen, Frenchmen and liberated Russian PoWs wreaking vengeance on their tormentors, of widespread looting and so on. And then there was the sobering experience, which he describes, of visiting Belsen shortly after it had been discovered.

Having spent some time in Berlin and Warsaw, Leven was finally discharged in 1946, by then a squadron leader wearing the ribbons of the DFC, DFM and Belgian CdeG. At this stage one is just over halfway through the book and, although, there is little more of direct relevance to members of this Society, I found that I just kept on reading. Leven never found a comfortable place in conventional post-war society and while the rest of his life was very colourful, it was essentially tragic. Although tempted once or twice, he never married and one wonders whether his eccentric life-style might not have been caused by, or been the result of, a lack of domestic stability. He tried acting, worked as clown, ringmaster and musical director in a circus, had an intermittently successful career as an impresario and as a stockbroker and even had some of his poetry published. But he came off second best in brushes with corrupt policemen and was eventually declared bankrupt. After that he was virtually destitute and scraped a living by playing the piano in pubs and clubs, sometimes living in a caravan, which could mean being 'moved on' like the gypsy that he had almost become.

Along the way he discovered that he had 'the gift' and was able to read palms (and even had some ability as a 'healer') and in later years he made his living by doing just that with often uncanny accuracy and his reputation was such that he was consulted by many whose names will be familiar. Indeed Leven drops names like confetti, among them Guy Burgess and Blunt with whom he had some acquaintance, both during and after the war. Contrary to Mrs Thatcher's assertion in 1979, to the effect that there had been no previous investigation into Blunt's association with the other three members of the spy ring, Leven tells us that he had been interviewed, specifically in this

connection, as early as 1972. One of his interviewers was a female intelligence officer – one Stella Rimmington – and there’s another ‘name’.

From the acknowledgements at the beginning of this 270-page softback, it is clear that a number of people had a hand in its composition, leaving one to wonder just how ‘auto’ this autobiography really is. After all, while the story is told in the first person, Leven can hardly have exercised much editorial control himself, because he died in 1997. One notable omission is much sense of ‘period’, because there are very few dates, sometimes making it difficult to fix events within a contemporary setting in a tale that spans some forty-odd post-war years.

Despite Leven’s undeniably fine wartime record, *My Flying Circus* does not really tell us anything that we did not already know about the RAF so it is not essential reading. Nevertheless, his life was so remarkable that the book is well worth the asking price.

**CGJ**

**Men of Power: The Lives of Rolls-Royce Chief Test Pilots, Harvey & Jim Heyworth** by Robert Jackson. Pen & Sword; 2006. £19.99.

Books about test flying are remarkably few and far between and it is more often the case than not, that most of those addressing the subject are autobiographical and concern the exploits of aircraft manufacturers’ pilots. Names like Beamont, Duke, Waterton, Twiss and Lithgow come readily to mind, each the author of volumes dealing with flight testing to the edge of contemporary aircraft performance. They were writing largely in the first two post-war decades and their work is often, but not always, characterised by a degree of understatement and self-deprecation that is typical of their generation. Perhaps a notable exception is *Jet Flight*, by John Grierson, a Gloster Aircraft Company test pilot in the 1940s. He wrote frankly of the huge stresses experienced by the pioneers of the jet age, all from the perspective of his own wartime career.

Little is known to have been written about the engine manufacturers’ test pilots, whose vital work resulted in the development of the first production jet power plants that entered service with the Meteor in 1944. Indeed, even the manufacturers’ own publications are often silent about the identity of those whose courage

and skills were drawn on during the war years and in the decade that followed. Had it not been for the unremitting efforts of this small band of pilots, none of the successes of the British aircraft industry in the post-war years would have been possible. It is a remarkable fact that two sons of one Derbyshire family were to be counted among the handful of test pilots who ushered in the jet age, each rising to be Chief Test Pilot of Rolls-Royce Ltd.

Robert Jackson has done much to fill a significant gap in the literature of experimental flying by his splendid book in which he gives a vivid account of the careers of Harvey and Jim Heyworth. That he enjoyed the unqualified support and encouragement of the Heyworth family, most notably of Jim Heyworth himself, makes for a book which combines great insight with the accuracy and crisp writing style that is his hallmark. He sets every phase of the brothers' careers exactly in its context, much to the benefit of his readers.

Harvey Heyworth completed a short service commission in the 1930s, becoming a Rolls-Royce test pilot in 1936. He was much involved in the development of the Merlin, before being recalled to the Colours on the outbreak of war. He commanded No 79 Sqn during the Battle of Britain and until 1941 when he returned to Rolls-Royce. He was awarded the AFC in 1946. Twelve years younger than his brother, Jim Heyworth left medical school in June 1940, having volunteered for service in the RAF. He flew two tours on No 12 Sqn, being awarded the DFC and Bar, before being posted to join the Rolls-Royce test team. Both brothers remained with the company after demobilisation, Harvey becoming Chief Test Pilot in 1951 and Jim in 1955.

Robert Jackson's 192-page account (with 116 photographs) of the careers of the Heyworth brothers is masterly and does justice to the importance of their contribution to the development of jet engines of the power and reliability that became commonplace by the late 1950s and 1960s. Harvey was the first man in the world to fly 1,000 hours jet-propelled, a feat for which he was the inaugural winner of the Guild of Air Pilots and Air Navigators' Derry and Richards medal.

From the point of view of the Royal Air Force, the contribution of Harvey and Jim Heyworth cannot be exaggerated. The legacy of their dedication and skill may be found in names like Derwent, Nene, Avon and Conway; the Service, and those who flew the aircraft powered by

these engines, owe a huge debt to them. *Men of Power* fills a significant gap in the literature of 20th Century aviation with great style and clarity. It is gratifying to know that the surviving Heyworth brother approves of it!

### **AVM Sandy Hunter**

**The History of Changi** by Henry Probert. Changi University Press; 2006. Available in the UK at £10, inc p&p, from Wg Cdr Jerry Evans, 'Lilac Cottage', Bank, Lyndhurst, SO43 7FD – cheques made out to the RAF Changi Association.

Air Cdre Probert wrote the original version of this book when he was stationed at Changi in 1964. It sold well and, following the RAF's departure, it continued to do so via the Changi Prison Museum. With the opening of the new commercial airport, a revised edition was clearly overdue and this 132-page A5 softback is the result.

While the interest of most readers will lie in the RAF era, the air force was actually in residence for less than a third of Changi's modern existence which can be considered to have begun in 1927 when it was selected as a site for some of the artillery batteries that were to defend 'Fortress Singapore'. The book starts here and the first chapters deal with the way in which the site, then largely jungle and swamp, was gradually cleared and drained to permit roads to be laid, barracks to be built and the guns, three of them massive 15-inch naval pieces, installed. It was all to no avail, of course. A few rounds were fired before the island fell but the Changi area and its barracks soon became a camp for 50,000 POWs. Many were subsequently shipped to Thailand and elsewhere until May 1944 when those who remained were incarcerated in and around the infamous civilian gaol. Built to accommodate 600 prisoners, it now held some 11,700 men crammed into less than a quarter of a square kilometre.

By this time the POWs had already been put to work levelling and draining what was to become Changi airfield. The army reclaimed its real estate in 1945 but in April 1946 title passed to the RAF and in 1949-50 the makeshift wartime airstrips were replaced by the properly engineered north-south runway which would become familiar to resident and transient RAF folk for the next twenty years. Changi was the regional transport terminus, and, apart from handling Transport Command aircraft maintaining the link with the UK, it operated its

own squadrons of tactical transports, working its way through Dakotas, Valettas, Hastings, Agosies, Andovers and, eventually, Hercules, plus the Shackletons of No 205 Sqn and some target-towing Meteors. Among its other functions, Changi also parented out-stations, like Labuan, housed HQ FEAF and provided sophisticated hospital facilities for all FEAF personnel.

The book is illustrated with more than fifty maps/site plans and photographs, some of the older examples inevitably reflecting the indifferent quality of the originals, although this rather adds to their 'period' feel. Along the way, the story covers the station's contributions to the Malayan Emergency of 1948-60 (Operation FIREDOG), the abortive Brunei Revolution of 1962 and the subsequent 'Confrontation' with Indonesia which lasted until 1965. Errors? The only one I spotted concerned the '20 Wessex of 27 Sqn' that reinforced FEAF for Exercise BERSATU PADU in 1970; they were actually ten of No 72 Sqn. But this is a mere niggle.

Where the book really scored, for me, was the nostalgia trip that it induced. Over the post-war quarter-of-a-century that the RAF lived in Singapore it created splendid social and recreational facilities which were intensively exploited and enjoyed by the expatriate military community. One could, and did, venture into the city and up-country, of course, but there was always plenty to do on-base in the various clubs and Changi's facilities were the best of the lot. The fact that there were more than 2,000 children attending schools at Changi in the early 1960s provides some idea of the scale of the enterprise. And then there were the 24-hour tailors in Changi Village, the sophistication of the Changi Broadcasting Service, the murals painted during the war (and still preserved today) and much more. But what had seemed at the time to be so permanent and substantial, turned out to have been merely a passing phase. By 1971 reality had intruded; the UK had accepted that it was punching above its weight and had withdrawn from east of Suez.

The final chapter tells of the reclamation of a large area of land adjacent to the old airfield in order to create Singapore's state-of-the-art Changi International Airport. Although this meant that many features of the RAF station disappeared, along with much of Changi Gaol, there is ample evidence to mark our passing. For instance, what used to be the Lloyd Leas married quarters is now a correctional

facility, but it is still on Cosford Road.

If you were ever stationed on Singapore, but especially if you served at Changi, you will enjoy this trip down memory lane.

**CGJ**

**Hurricanes over Russia.** Atoll Productions (64 Gore Rd, London, SW20 8JL; Tel 0208 540 0700). Cheque/PO £11.99.

Not a book this time, but a DVD. In essence, this 30-minute disc amplifies and illustrates the story previously told by Air Cdre Phil Wilkinson in Journal 36. The early and late sequences are recent and in colour, and include shots of restored Hurricanes in flight, of events held in London and Murmansk in 2005 to commemorate the 60th Anniversary of VE-Day and of the annual wreath laying ceremony at the Soviet War Memorial in Lambeth in that same year. Sandwiched in between, the bulk of the presentation is provided by an interesting collection of contemporary black and white photographs and film clips (mostly IWM stock) showing No 151 Wg in transit to and from the USSR and while operating from Vaenga; apart from the Hurricanes, these include some brief clips featuring I-16s and Pe-2s. Where original material is lacking, as in the take off from HMS *Argus*, the gap has been filled by some quite convincing computer-generated images. There are also fleeting glimpses of one or two documents and of some of Topolski's sketches – although the magic of DVD allows one to freeze the picture without the loss of clarity associated with (*at least my*) VCR.

First hand recollections are contributed by eight veterans, groundcrew as well as pilots, whose accounts are set in historical perspective by such recognised authorities as Antony Beevor and Richard Overy, whose participation in the project serves to endorse its significance. Sales will benefit the RAF Benevolent Fund.

**CGJ**



## **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 £18 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)

### THE TWO AIR FORCES AWARD

In 1996 the Royal Air Force Historical Society established, in collaboration with its American sister organisation, the Air Force Historical Foundation, the *Two Air Forces Award*, which was to be presented annually on each side of the Atlantic in recognition of outstanding academic work by a serving officer or airman. The RAF winners have been:

1996	Sqn Ldr P C Emmett PhD MSc BSc CEng MIEE
1997	Wg Cdr M P Brzezicki MPhil MIL
1998	Wg Cdr P J Daybell MBE MA BA
1999	Sqn Ldr S P Harpum MSc BSc MILT
2000	Sqn Ldr A W Riches MA
2001	Sqn Ldr C H Goss MA
2002	Sqn Ldr S I Richards BSc
2003	Wg Cdr T M Webster MB BS MRCGP MRaES
2004	Sqn Ldr S Gardner MA MPhil
2005	Wg Cdr S D Ellard MSc BSc CEng MRaES MBCS

### THE AIR LEAGUE GOLD MEDAL

On 11 February 1998 the Air League presented the Royal Air Force Historical Society with a Gold Medal in recognition of the Society's achievements in recording aspects of the evolution of British air power and thus realising one of the aims of the League. The Executive Committee decided that the medal should be awarded periodically to a nominal holder (it actually resides at the Royal Air Force Club, where it is on display) who was to be an individual who had made a particularly significant contribution to the conduct of the Society's affairs. Holders to date have been:

Air Marshal Sir Frederick Sowrey KCB CBE AFC  
Air Commodore H A Probert MBE MA

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