

RAF COLLEGE CRANWELL “COLD WAR YEARS”



A Cranwellian Perspective 1947-1991

In its electronic form, this document contains underlined, hypertext links to source material, including main articles from the RAF Historical Society and, where relevant, supporting data and archived video/audio clips.

[To open these links in a separate browser tab and thus not lose your place in this e-document, press control+click (Windows) or command+click (Apple Mac) on the underlined word, image or icon]

INTRODUCTION

This album attempts to fill a gap in the Feature of the Month series that appears on the Cranwellian Historical Society website. Months like April, May, September and November offer much material on exploits of the RAF and Cranwellian contributions during the past 100 years. V-E Day, V-J Day, Remembrance Day and the anniversaries of key RAF milestones such as the Battle of Britain, the Dambusters raid, the sinking of Tirpitz, the Falklands Air Campaign, etc are prime examples. The Cranwell ORBs also offer much material. But October appears to be a month that offers less material.

To fill the gap, therefore, we have departed from the norm to use October's Feature of the Month to promote Cranwellian contributions on a topic that receives less regular exposure than the aforementioned - the Cold War. Running from 1947 to 1991, the Cold War and in particular UK's Nuclear Deterrent concentrated the minds of many RAF Officers. There were no medals, few deeds of 'derring-do', just hard work maintaining peace by preparing for war.

In this album, we offer a review of Cold War history, drawing on articles in the public domain, most of which are from the RAF Historical Society proceedings of the Cold War years. Rather than taking extracts and losing the main thrust of each article, we have inserted biographies of the Cranwellian speakers with hypertext links to the main articles of RAF HS seminars; the titles of each page are the titles they used for their presentations, amplified in some instances with the seminar agenda. We are most grateful for all these contributions and trust that our endeavours to identify Cranwellian involvement does not detract from their value. Any additional contributions would be most welcome.

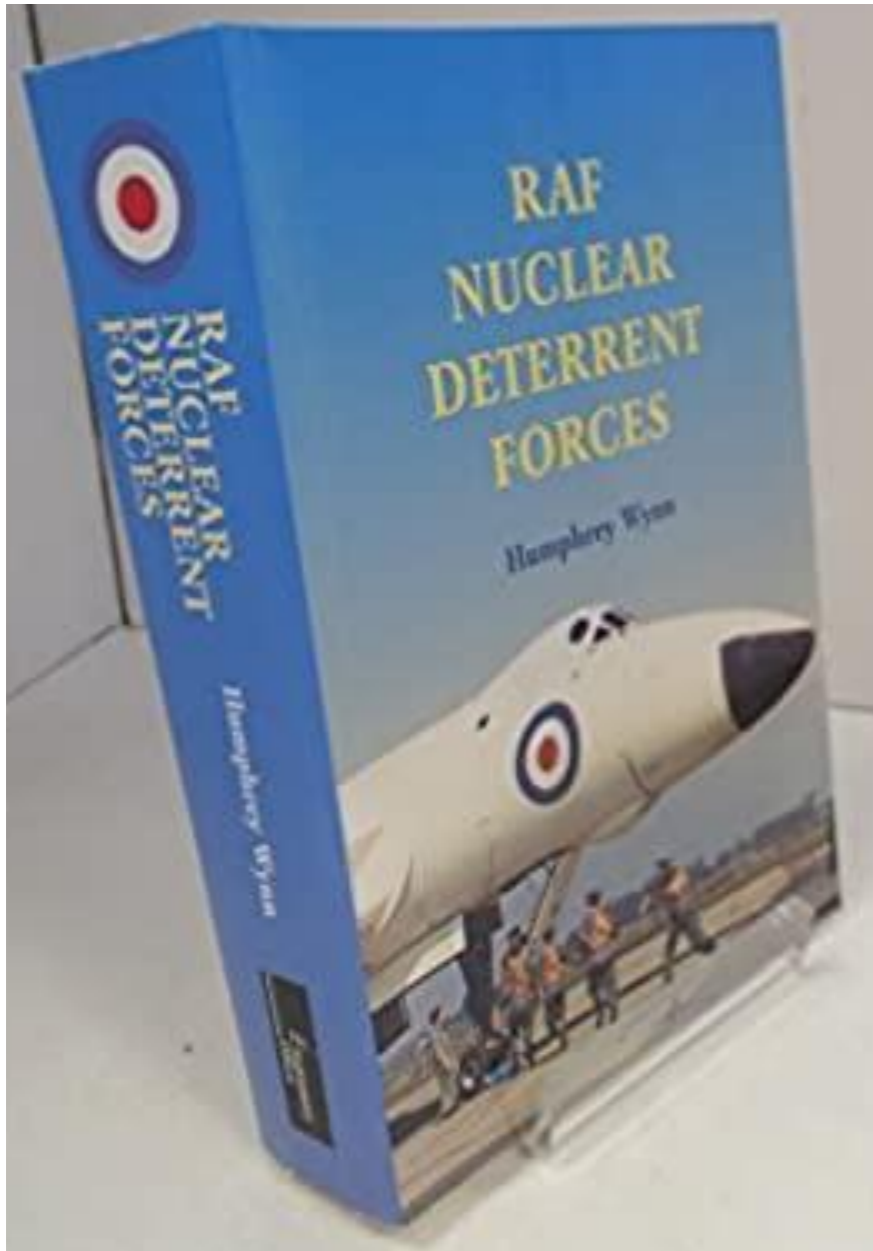
One of the guest speakers at a RAF HS seminar on the Cold War was Humphrey Wynn, author of the acknowledged manual "*RAF Nuclear Deterrent Forces*" a link for which is provided in the next slide for those wishing to purchase his book.

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RAF ROLE DURING THE COLD WAR

To complement the UK nuclear weapons which were difficult to manufacture quickly, in 1958 the RAF and other NATO nations were provided with American nuclear weapons under Project E as a stopgap measure. The UK had manufactured less than 50 of the 200 atomic and hydrogen bombs it required at that stage. The RAF V bomber squadrons took sole responsibility for carrying the UK's nuclear deterrent until the development of the Royal Navy's Polaris submarines. Following the introduction of Polaris in 1968 the RAF's strategic nuclear role was reduced to a tactical one, using the WE.177 gravity bombs. This tactical role was continued by the V bombers into the 1980s and until 1998 by Tornado GR1s.



The primary role of the RAF in the Cold War years was the defence of Western Europe against potential attack by the Soviet Union, with many squadrons based in West Germany. With the decline of the British Empire, global operations were scaled back, and RAF Far East Air Force was disbanded on 31 October 1971.

Despite this, the RAF fought in many battles in the Cold War period.

In June 1948, the RAF commenced Operation FIREDOG against Malayan terrorists during the Malayan Emergency. Operations continued for the next 12 years until 1960 with aircraft flying out of RAF Tengah and RAF Butterworth.

The RAF played a minor role in the Korean War, with flying boats taking part.

From 1953 to 1956, the RAF Avro Lincoln squadrons carried out anti-Mau Mau operations in Kenya using its base at RAF Eastleigh.

The Suez Crisis in 1956 saw a large RAF role, with aircraft operating from RAF Akrotiri and RAF Nicosia on Cyprus and **RAF Luqa** and RAF Hal Far on Malta as part of Operation Musketeer.

The Konfrontasi against Indonesia in the early 1960s did see use of RAF aircraft, but due to a combination of deft diplomacy and selective ignoring of certain events by both sides, it never developed into a full-scale war

THE ORIGINS & DEVELOPMENT OF THE BRITISH NUCLEAR DETERRENT FORCES 1956 - 1960

CRANWELLIAN SPEAKER



AVM Wilfred Oulton
College S29 Entry
Graduating July 1931
with
AG Fellowes
Memorial Prize

Humphrey Wynn

The Historical Background

Air Marshal Sir John Rowlands

The Development of the
Atomic Bomb

Air Vice Marshal W.E. Oulton

The 'Grapple' Weapons Trials

Sir Frank Cooper

Air Staff Policy

From the Floor

Air Chief Marshal Sir Kenneth Cross

The Development and
Deployment of the V-Force

Air Commodore C.B. Brown

A Station Commander's View

Professor Lawrence Freedman

Concluding Review:- The
significance of the Force

FOR ALL MAIN ARTICLES - CLICK LINK BELOW

<https://www.rafmuseum.org.uk/documents/research/RAF-Historical-Society-Journals/Journal-7-Seminar-Origins-of-UK-Nuclear-Deterrent-1945-6.pdf>. **PAGES 7 to 57**

COLD WAR INTELLIGENCE GATHERING

RAF MUSEUM, HENDON, 18th APRIL 2000



AVM Nigel Baldwin
81 Entry
Chairman RAF HS

BRIXMIS - HISTORY AND ROLES

RAF ELEMENT, BRIXMIS, 1956-59 ORGANISATION & OPS.

BRIXMIS - OPERATIONAL PLANNING & TOURING IN 1970/80s

BRIXMIS – THE VIEW FROM WHITEHALL

AIRBORNE ELECTRONIC RECONNAISSANCE, 1948 TO 1989

PHOTOGRAPHIC RECONNAISSANCE OPERATIONS

AIR SENSORS & TECHNOLOGY IN IMAGERY ANALYSIS

Gp Capt Richard Bates

Gp Capt Hans Neubroch

Gp Capt S A Wrigley

John NL Morrison

Wg Cdr David Paton

Gp Capt Philip Rodgers

Gp Capt Geoffrey & Wg Cdr David Oxlee



ACM Sir Michael Armitage
58 Entry
Seminar Chairman

CRANWELLIAN SPEAKERS



After graduating on 62 Entry at Cranwell, Dick Bates flew Meteor night fighters in Germany, instructed at the Oxford UAS and was an ADC in Coastal Command. He then served for several years in the transport world, including a secondment to the Kenya Air Force, an exchange tour with the USAF and command of RAF Brize Norton. In 1981 he was appointed Deputy Chief of BRIXMIS, before taking over as Head of the Intelligence Branch at HQ Strike Command.



Steve Wrigley graduated as a pilot from 89 Entry in 1966 and flew the Hercules with No 48 Sqn at Changi and with Nos 24 and 47 Sqns at Lyneham. From 1973 to 1975 he was an exchange officer on the Transall C-160 at GAF Landsberg. While serving with BRIXMIS in 1979-82, he flew the Chipmunk from Gatow. In his later appointments he was Defence Attaché in Oslo and Air Attaché in both Rome and Bonn.



Phil Rodgers flew Victors with 543 Sqn, and Canberras with 85 and 13 Sqns before qualifying as an imagery analyst. As such, he returned to Malta to support the resident squadrons in their tactical and maritime reconnaissance roles. During a stint at the MoD he was responsible for the co-ordination of tasking for the Joint Air Reconnaissance Intelligence Centre (JARIC) and acted as Secretary to JARIC. Following a tour at Gütersloh, supporting the Harrier Force, he became OC Ops Wg at JARIC before rejoining the DIS in London, eventually ending his career at Ramstein with HQ AAFCE.

MAIN ARTICLE - CLICK LINK BELOW

<https://www.rafmuseum.org.uk/documents/research/RAF-Historical-Society-Journals/Journal-23-Seminar-Cold-War-Intelligence-Gathering.pdf>. **PAGES 7 to 102 inclusive**

RAF AND NUCLEAR WEAPONS, 1960-1998

RAF MUSEUM, HENDON, 11th APRIL 2001

SUMMARY OF THE PREVIOUS RAFHS SEMINAR ON THE
ORIGIN AND DEVELOPMENT OF THE BRITISH NUCLEAR
DETERRENT 1945-60

AVM Michael Robinson

A VIEW FROM WHITEHALL

Peter Hudson CB

THOR

BOMBER COMMAND AND THE CUBAN MISSILE CRISIS

Wg Cdr Colin Cummings

Dr Len Scott

V-FORCE OPERATIONAL DEPLOYMENT AND READINESS

Wg Cdr Andrew Brookes

THE ROYAL OBSERVER CORPS IN THE NUCLEAR AGE

Stephen Rickitt

NUCLEAR WEAPONS TRAINING - GROUND CREW

Sqn Ldr Michael Hely

NUCLEAR WEAPONS TRAINING - AIR CREW

Sqn Ldr Ralph Devereux

ENGINEERING ON A NUCLEAR STRIKE SQUADRON

Gp Capt WJ Taylor

FINAL SURVEY

Professor Lawrence Freedman

CRANWELLIAN SPEAKER

Michael Robinson graduated from the RAF College, Cranwell in 1948 as part of the first post-war entry (Course 9 on 19 FTS). His first tour was on 45 Squadron flying Beaufighters followed by flying Brigands on Operation FIREDOG in Malaya. Then transferring to the new generation of aircraft he flew the Canberra Mk 8 in Germany and later the Victor Mk 2 in 1 Group. He had three tours associated with the V-Force. The first was as the first OC 100 Sqn when it re-formed at Wittering with Victor B.2s in 1962. The second was as Group Captain Off Ops at HQ Strike Command 1970-72 and the last as SASO, 1 Group 1977-79. The latter permitted him to qualify on the Vulcan and to renew his acquaintance with the Victor, albeit now in the tanker role.

MAIN ARTICLE - CLICK LINK BELOW

<https://www.rafmuseum.org.uk/documents/research/RAF-Historical-Society-Journals/Journal-26-Seminar-the-RAF-and-Nuclear-Weapons-1960-98.pdf> **PAGES 7 to 122 inclusive**



AVM Nigel Baldwin
81 Entry
Chairman RAF HS



ACM Sir John Willis
73 Entry
Seminar Chairman



TRAINING THE V-FORCE FOR ITS PRIMARY AND SECONDARY ROLES – LOW LEVEL TACTICS AGAINST THE SOVIET BLOC

Air Vice-Marshal Nigel Baldwin

CRANWELLIAN SPEAKER



AVM Nigel Baldwin was trained at the RAF College on 81 Entry between September 1959 and July 1962



Nigel Baldwin was one of the youngest Vulcan captains, a Flight Commander in Cyprus and later commanded 50 Sqn at Waddington; he was at the vanguard of operational training and took the first Vulcan to Exercise RED FLAG.

One of the first RAF graduates of the US Air War College, he has held a variety of staff appointments concluding as Assistant Chief of Defence Staff (Overseas). He is a founder member of the RAF Historical Society and their Chairman since June 1996.

In his presentation, Nigel recounted his experiences gained in the Vulcan Mk 2 force, which was part of the Medium Bomber Force (MBF) training system whose aim was to produce crews able to carry out their primary mission, that is individual nuclear strikes within close timing and tracking tolerances.



Vulcan K2 XH560 at RAF Wyton in 1960

MAIN ARTICLE - CLICK LINK BELOW

<https://www.rafmuseum.org.uk/documents/research/RAF-Historical-Society-Journals/Journal-20-Seminar-Training-in-Peace-for-War.pdf>. **PAGES 24 to 33 inclusive**

The 'Black Buck' Contribution

Operations Black Buck 1 to Black Buck 7 were a series of seven extremely long-range missions by Vulcan bombers of the RAF Waddington Wing, comprising aircraft from Nos. 44, 50 and 101 Squadrons against Argentine positions in the Falkland Islands, of which five missions completed attacks. The objective of the missions was to attack Port Stanley Airport and its associated defences. The raids, at some 8,000 nautical miles round trip and 16 hours flying time, were the longest-ranged bombing raids in history at that time and quite apart from the damage they inflicted, were a strategically significant reminder to the Junta that Argentina was within military reach.

The Black Buck raids were staged from Wideawake airfield on Ascension Island, close to the Equator. The Vulcan was designed for medium-range missions in Europe and lacked the range to fly to and from the Falklands without multiple refuels. The RAF's tanker aircraft were mostly converted Victor bombers with similar range, so they too had to be refuelled in the air. A total of eleven tankers were required for two Vulcans (one primary and one reserve), a daunting operational and logistical effort complicated by the availability of only a single runway at Wide-awake airfield. The Vulcans carried either twenty-one 1,000-pound (450 kg) bombs internally or two or four Shrike anti-radar missiles externally. Of the five Black Buck raids flown to completion, three were against Stanley Airfield's runway and operational facilities, while the other two were anti-radar missions using Shrike missiles against a Westinghouse AN/TPS-43 long-range 3D radar in the Port Stanley area. Shrikes hit two of the less valuable and rapidly replaced secondary fire control radars, causing some casualties among the Argentine crews. One Vulcan was nearly lost when a fuel shortage forced it to land in Brazil.

Mission	Target	Date	Primary Vulcan	Reserve Vulcan	Notes
Black Buck 1	Port Stanley Airport runway	30 April–1 May	XM598 (Reeve)	XM607 (Withers)	Performed; primary aircraft cabin failed to pressurise shortly after takeoff, replaced by reserve
Black Buck 2	Port Stanley Airport runway	3–4 May	XM607 (Reeve)	XM598 (Montgomery)	Performed
Black Buck 3	Port Stanley Airport runway	13 May	XM607	XM612	Cancelled before takeoff due to weather conditions
Black Buck 4	Anti-aircraft radar	28 May	XM597 (McDougall)	XM598	Cancelled 5 hours into flight, due to a fault in the Victor fleet
Black Buck 5	Anti-aircraft radar	31 May	XM597 (McDougall)	XM598 (Montgomery)	Performed
Black Buck 6	Anti-aircraft radar	3 June	XM597 (McDougall)	XM598 (Montgomery)	Performed; primary aircraft forced to divert to Brazil due to a broken refuelling probe
Black Buck 7	Port Stanley Airport stores and aircraft	12 June	XM607 (Withers)	XM598 (Montgomery)	Performed



Vulcan XM607 carried out the first Black Buck raid



44, 50 and 101 Squadron Badges



Victor XM717



Martin Withers
Pilot, Operation Black-Buck
RAF100 Schools Project: Operation Black Buck

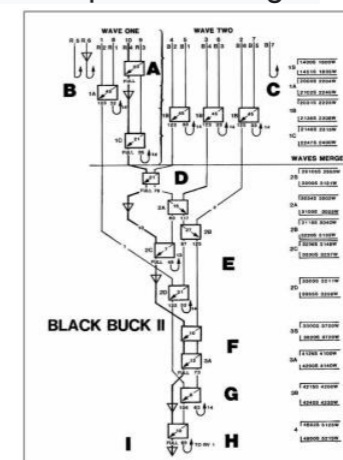


Fig 1. BLACK BUCK II refuelling plan.



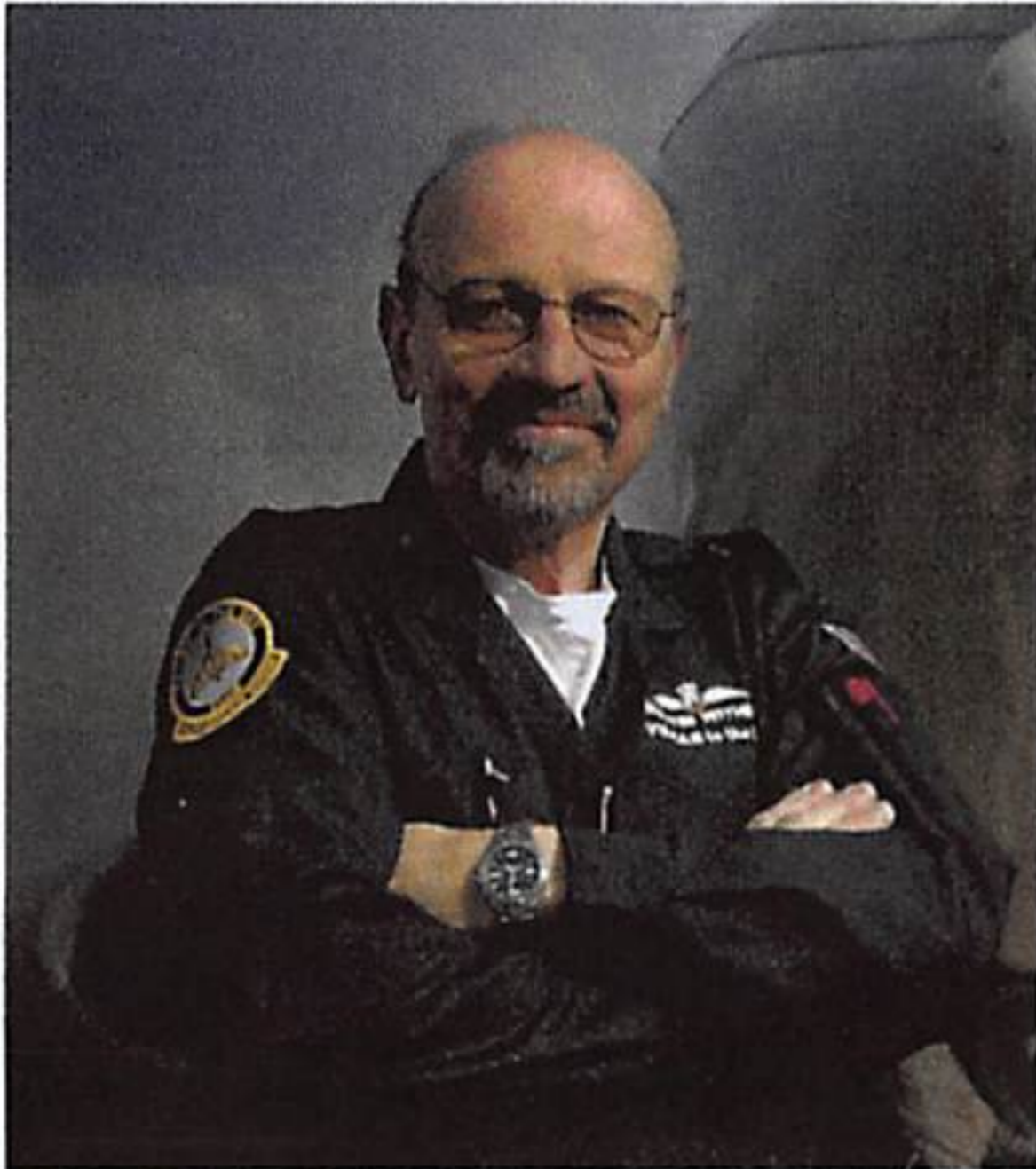
Shrike ARM



AN/TPS-43 radar

Flt Lt Martin Withers DFC

Flt Lt Martin Withers DFC



Born in Easingwold, near York in 1946, Flt Lt Withers joined the RAF in 1968 and initially instructed in the Jet Provost aircraft before commencing service in Lincolnshire flying Vulcan aircraft. During 1982, Flt Lt Withers was part of the 'Black Buck' raids to bomb Port Stanley airfield during the Falklands War. He was the captain of the reserve aircraft, but within minutes became responsible for the execution of the mission. Departing from Ascension Island, Withers flew a 3,400 mile outward leg encountering severe weather conditions, an unserviceable tanker aircraft and hazardous nighttime air-to-air refuelling. Withers had refuelled his aircraft six times on the outbound leg, but on the last refuelling the Victor tanker could not deliver the planned load. Despite short on fuel, Withers decided not to turn back as he was only 290 miles from his target and so began his descent and bombing run. Withers realised the strategic affect that his decision would have on the outcome of the Falklands War. Having completed a successful attack, Withers returned to Ascension Island. His decision making, bravery and leadership were an inspiration to his crew and his actions ensured that not only was Port Stanley airfield temporarily denied to the enemy, but the affect on the morale of the local Argentine forces was devastating. Withers had proven, after covering a distance of 6,800 miles to and from the Falkland Islands, that the Argentine mainland was within easy reach of RAF bombers. The runway at Port Stanley was repaired, but the occupying forces were never able to use it again for fast jets. For his efforts, Flt Lt Withers was awarded the DFC.

RECOLLECTIONS OF A SECRETARY OF STATE FOR DEFENCE

The Rt Hon The Lord Healey CH MBE PC

RAF MUSEUM, HENDON, 12th OCTOBER 2002

EXTRACT



Lord Healey considered the, almost bloodless, Confrontation with Indonesia to have been his most successful enterprise. While there was a constant flow of air reinforcements from the UK and elsewhere, the spearhead of any campaign would have been provided by FEAF's home team, represented here by a Tengah-based Javelin, Canberra and Hunter of Nos 64, 45 and 20 Sqns respectively.

MAIN ARTICLE - CLICK LINK BELOW

<https://www.rafmuseum.org.uk/documents/research/RAF-Historical-Society-Journals/Journal-31-Lord-Healey-Recollections-of-a-Secretary-of-State-for-Defence.pdf>. **PAGES 4 to 8 inclusive**