



# Reaching for the Stars...

... from Bridlington School  
to Alpha Centauri?





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## Preface

### Marshal of the Royal Air Force Baron Craig of Radley, GCB, OBE



I have great pleasure in commending the Old Bridlingtonian Club and its project team for this work.

As the Royal Air Force, the first independent air force in the world, commemorates its centenary year, it is timely to highlight the significant contribution made by the school to the Royal Air Force over the whole of those 100 years.

It will prove for OBs, and for current and future pupils at the school, a rich source of interest and enlightenment. Beyond that it will help to contribute to the fund of information that future historians rely upon for researching, recalling and re-visiting many key moments in the Royal Air Force and the nation's story of the past century.

*Craig A Radley*



## Introduction

The Royal Air Force was formed towards the end of the First World War on 1 April 1918. It was the first independent air force anywhere in the world and, in 1918, it was also the largest. By comparison, the US Air Force was formed in 1947 and the Soviet equivalent in 1924. While no longer the largest air force, in 2018, the RAF celebrates 100 uninterrupted years.

Since its formation the RAF has played a significant role in British history, particularly during the Second World War in the Battle of Britain. From its inception the RAF and its antecedents proved a magnet for many younger Old Bridlingtonians, drawn by the excitement of flying (an attraction that has persisted over the 100 years). Their distinguished service is recorded and marked in this archival narrative. It is a tribute to them and to the RAF.

### The Archive Project

This project is not in any way a reflection on those many OBs who were in the Army and Royal Navy and other services, before 1918 or since ... but 2018 is the RAF's Centenary and not theirs!

This project was conceived in February 2016 at the annual London Branch reunion lunch held at the RAF Club in Piccadilly. All of the five OBs who created the project have, or have had, close connections with the RAF either serving in it, or in the RAFVR(T), or in a variety of roles in the Ministry of Defence (Air) or through other close military aviation connections.

The Project was called "*Reaching for the Stars...from Bridlington School to Alpha Centauri?*". It was conceived to be part of the 100<sup>th</sup> anniversary commemoration of the foundation of the Royal Air Force in 2018. Its aim is to assemble and collate information about all those Old Bridlingtonians who, since the foundation of the RAF, have served at some point in the regular RAF or RAF Reserve and related air services (including Allied and Commonwealth Air Forces) and to make that information available in a published form.

The project's principal challenge was how to source and assemble sufficient consistent information about OBs who had served (or who are still serving) in the RAF and to tell their stories. Due regard to privacy and data protection has had to be paid, relying mainly on published information. The starting point for any entry is having attended, or taught at, Bridlington School for which the OBC's annual magazine was the primary source. Some, of course, had attended other secondary schools before or after their time at Bridlington.

Thanks to the efforts of Peter Elliott, (who until recently was Head of Archives at the RAF Museum at Hendon) and Wing Commander Sue Shilladay RAFVR(T), a former staff member of the school and head of the CCF (and OBC archivist) the Project very quickly gathered several hundred names; far more than the modest 100 it had set itself as the minimum to make the project meaningful. The present count is over 400 and that is probably well below the actual number, but that can never equally probably, precisely be defined.

This document describes and draws on the archive as it presently stands. It is in no sense finished as new names are identified and further details obtained. It can be developed and expanded. It does not have the same range of information on all entries. Those who were killed in action or in service and/or for whom there are gallantry awards and other citations, usually gazetted, present the fullest information but even for those it is not totally consistent or complete. However, the entries do provide inspirational stories of achievement in the service.

## Sources used

This project began via research into the Old Bridlingtonians who were killed or decorated during the two World Wars, and subsequently while serving in the RFC, RNAS and RAF. Lists of names were gleaned from the School's rolls of honour in the library by Clive Brocklesby. The first step was to use the Commonwealth War Graves Commission's database <https://www.cwgc.org/find/find-war-dead> which gives the date of death, the cemetery or memorial on which each casualty is commemorated and, in some cases, the unit with which he was serving when he died. In general, it is far easier to find information on those who died than on those who survived, and on officers rather than on those who served in the ranks. Where known, the years at school are in brackets immediately after the name.

Information on First World War service is rather sparse, is inconsistent, and usually depends on whether a man was serving in the RNAS or RFC. The rank attained is not always known and in some cases the years at school can only be inferred. There are some personnel records held in the National Archives at Kew, but these mostly relate to their recruitment and training. RFC squadrons kept War Diaries, but the coverage is far from complete, and those for training units have not survived. The RAF Museum holds Casualty Cards for RFC personnel, together with Casualty Forms which – despite the name – mostly give details of an officer's movements between units while overseas. As much information as has been possible to gather has been included in the hope that over time it may be supplemented.

Published sources for First World War casualties include Trevor Henshaw's *The Sky their Battlefield* and Chris Hobson's *Airmen Died in the Great War*.

During the Second World War, the School magazine *The Bridlingtonian* listed OBs who were serving in the Forces, and this resource has enabled a lengthy list of names to be compiled. However, the service records for personnel who served after 1920 are held by the Ministry of Defence and access is not easy for those who are not next-of-kin. Although some basic information would have been available, the cost outweighed the benefit.

Some details were gained from the casualty index held by the Air Historical Branch of the Ministry of Defence, and the Operations Record Books (ORBs) compiled by the units concerned – held at Kew – were examined. In some cases it has been possible to trace every raid carried out by a bomber crew up to the sortie from which they "Failed to Return". The collection of ORBs at Kew is more complete than the War Diaries, but there are still gaps.

These accounts were expanded using published works, especially the nine volumes of *Bomber Command Losses* compiled by W. R. (Bill) Chorley and the three volumes of *Fighter Command Losses* by Norman L. R. Franks. Further information came from the Bomber Command Loss Cards and Aircraft Accident records held by the RAF Museum.

*The London Gazette* <https://www.thegazette.co.uk/> is the UK's official record, and announces the commissioning, promotion and retirement of officers in the Armed Services as well as the award of Honours and Decorations to personnel of all ranks. It has proved invaluable in tracing details of such personnel. The *Air Ministry Bulletin* (AMB) was, effectively, a press release issued during the Second World War giving details of the award of Decorations and Honours; in some cases, the AMBs give more complete information than the *London Gazette*, usually with short "Notes on Careers" of those mentioned. The *Air Force List*, published monthly 1918-1945 and less frequently thereafter, gives the branch, rank and date of seniority of RAF officers. Those issued between 1920 and 1938 also show the officer's unit and date of posting. The *RAF Retired List* contains brief information on officers

receiving service pensions, but does not include those who left the service at the end of the Second World War, or after completing a Short Service Commission.

Identifying those who served after 1945 has been particularly difficult, and has relied on the *Personalia* reports in the OBC magazine and the memories of former staff and OBs. Finally, the compilers have consulted a variety of published books and articles – some of them detailing the history of RAF units – adding further details to some of the individual stories.

It should be noted of course that while the Women's Royal Air Force (WRAF) was founded at the same time as the RAF (but disestablished in 1920, to be 're-born' as the Women's Auxiliary Air Force [WAAF] in 1939 and re-named WRAF in 1949) it was not until 1974 that the School became co-educational. There are only a few women in this list, but the number will surely grow as the RAF enters its second century.

### **What can we learn from these stories?**

In total, this narrative records 425 named OBs, of whom 47 are known to have been killed in action or to have died in service, for example in training. OBs flew in or supported many different aircraft types particularly during the Second World War, many with Bomber Command. In Appendix 1 are notes of all the aircraft types identified as having been flown in or by OBs, or in which they would have been trained.

We do not have details of every individual's service record and career so, for most of them, we cannot say when exactly they joined the RAF or RAFVR and for how long they served. By sorting the data by years at school (taking the year they left school as the defining date, where known) it has been possible to arrange their data and stories, by generations or eras. This enables some tentative conclusions or observations about the nature and extent of OBs' service in the RAF and related air services.

There is very little information about OBs after the Second World War who would have served in the RAF doing their National Service. From 1 January 1949, young men between 17 and 21 years of age were expected to serve in the armed forces for 18 months, and remain on the reserve list for four years. The last men entered service in November 1960, and "call-ups" formally ended on 31 December 1960 with the last National Servicemen leaving the armed forces in May 1963. After that time service was voluntary. For a great many this was not a welcome experience, nor a happy one, and it remains controversial. Perhaps for these reasons few at the time thought this something noteworthy to put on record and the shortness of this largely (but not exclusively) peacetime service reduced the incidence of citations and, rather more happily, reduced casualties of course.

Over that period, some 2,300,000 young men were called up, of whom some 1,133,000 were in the army with most of the rest in the RAF; comparatively few served in the Royal Navy. Unless exempt, most OBs leaving school between 1949-1960 would have served in some capacity; perhaps as many as half of them in the RAF. That would have been a considerable number, possibly several hundred. Not all of those we know served post-War will have been conscripts, as some will have chosen the RAF as a career either initially or after National Service and so served as regulars; and all those joining the RAF after November 1960 would have been (and are) regulars.

## **1900-1918 – “Those Magnificent Men in their Flying Machines”**

The Royal Air Force was formed through the amalgamation of the Royal Flying Corps (RFC) and the Royal Naval Air Service (RNAS). The RFC originated from the Air Battalion of the Royal Engineers in the British Army. The RNAS was its naval equivalent and many of the RAF's titles for officers have a naval ring to them - Flight *Lieutenant*, *Wing Commander*, *Group Captain*, and *Air Commodore*.

On its formation the RAF had over 20,000 aircraft and more than 300,000 personnel (including the WRAF). Following the First World War the Government set a ceiling of 1,500 aircraft (in practice reduced to just over 1,000) and the maximum number of personnel at 35,000.

We are aware of 49 individuals who served variously in the RFC, RNAS and related air services and the early RAF during the First World War. Many of them can be considered “pioneers” of military aviation and among the founders of the RAF. These are their stories.

**Cadet John William Bagley** (1911-1914) Service Number 128557

Bagley joined the RFC in March 1918 in the rank of Air Mechanic 3<sup>rd</sup> Class. His trade was recorded as Pilot (Learner) and he joined 2 Officer Cadet Wing on 8 April 1918, but was discharged just over a month later.

**2<sup>nd</sup> Lieutenant Sydney Alfred Barnett** (1913-1915) Service Number 137143

Barnett was commissioned as an Observer Officer on 23 August 1918, having previously served in the ranks.

**2<sup>nd</sup> Lieutenant R. W. Blundell** (1914-1915)

*The Bridlingtonian* reported “unconfirmed rumour - now has Military Medal and Croix de Guerre” but no trace of these awards has been found.

**Cadet Leslie Arthur Brake** (1912-1915)

Joined 1 Officer Cadet Wing in September 1917 and was posted to Egypt on 15 October, presumably for flying training.

**Alan Hodgson Burnett** (1911-1913)

Joined the RNAS in the autumn of 1917 but his service was terminated on 5 January 1918, on grounds of poor performance in flying training.

**Francis Luke Kingston Burrell** (1914-1917) Service Number 110589

Joining the RFC in December 1917 as a Pilot Learner, Burrell trained at 6 School of Aeronautics and the Armament School, then joined 2 Training Depot Station; seems not to have seen active service and left the RAF in 1919.

**Cecil John Clayton** (1915-1916)

A Canadian Clayton joined the RNAS in 1916 and trained at Redcar, Cranwell, Calshot and Felixstowe, where he flew Porte flying boats. He received a MiD in June 1918 and a DFC in January 1919. He returned to Canada in September 1919. His RNAS record includes: *Mention in Despatches for taking part in the bombing of German submarine on 3/9/17 on Seaplane 8676 off North Hinder. Report of Court of Inquiry into the loss of Seaplane 8676 on 27/12/17. The crew including this officer were picked up by HMS Meteor H 78. 'Seaplane 8676' was a Curtiss H-12 'Large America' flying boat.*

**Gordon Thomas Collinson** (1902-1906)

Collinson was posted to 1 Fighting School in August 1918 and to the Expeditionary Force later that month, returning to the UK in February 1919.

**Wing Commander William Howard Costello** (1904-1911) Service Number 705100

William Costello, “late Cadet Serjeant, Bridlington Grammar School Contingent, Junior Division, Officers Training Corps” was commissioned as a 2<sup>nd</sup> Lieutenant in the East Riding Royal Garrison Artillery in May 1914. In 1916 he was attached to the RFC and trained as a pilot, but was injured in a

flying accident on 27 February 1917. He was posted to 70 Sqn, flying the Sopwith 1½ Strutter, in March, but on the 27th was reported missing – he had been taken prisoner and subsequently spent time in several PoW camps. He returned to the UK on 2 January 1919, arriving at Leith. Between the wars, he held the rank of Captain in the Territorial Army Reserve of Officers. In June 1939, he was granted a commission in the RAF Reserve; but relinquished this on appointment to a commission in the RAFVR on 1 September. He served in the Administrative and Special Duties Branch, and was awarded an MiD in the 1943 New Year Honours List. His reserve commitment ended in February 1954.

**Cadet John Munn Deheer** (1909-1916) Service Number 137177

After serving in the ranks, he joined 1 Officer Cadet Wing on 18 April 1918. After commissioning he passed through 5 School of Aeronautics and the Armament School, before being posted to the former RNAS flying training School at Vendôme. Flying ceased at the end of January 1919.

**Edgar Roy Drabble** (1914-1917) Service Number 177852

After serving in the ranks, Drabble was posted to 6 School of Aeronautics the day before the Armistice, and was transferred to the Reserve a month later.

**Wing Commander Walter Eric Dunn** (1914-1918) Service Numbers 326356/35210

Dunn served in the RAF from 1918 up to and including the Second World War. In *The Flowerdown Link: a story of telecommunications and radar throughout the Royal Flying Corps and Royal Air Force* (by L L R Burch, c.1980), Dunn recalled: “From April the 8<sup>th</sup> 1918 – when I became 16 – I tried continually to join the RAF Boys Service having heard about the Boys Wing at Cranwell. On the 11<sup>th</sup> of November the Headmaster, after assembly, told me that the RAF had telephoned him to say that I was accepted – he smiled and added ‘You won’t be going will you – the war is over at 11 a.m.!’ I replied, ‘Yes I will, it is to be my career’”.

Dunn’s subsequent service as a Wireless Operator Mechanic included postings to Worthy Down, Howden, Khartoum, Nairobi and Malta. He was commissioned as a Signals Officer in March 1938 and subsequently served in a number of roles, most importantly at HQ 5 Group in 1943, where he was in charge of the signals arrangements for Operation ‘Chastise’ (the Dams Raid), for which he was awarded the OBE. He had previously received an MiD in the 1941 and 1943 New Year Honours Lists. Dunn subsequently acted as technical advisor for the film *The Dam Busters* and retired to Malta in 1970.

**Flight Lieutenant (?) Robert William Ferguson Dunning** (1912-1914) Service Number 84463

Robert Dunning served with the Leicestershire Regiment for four months before being commissioned on the General List for service with the RFC on 8 November 1917 and transferred to the RAF on its formation, but was still undergoing flying training in 1919. He seems not to have seen active service in the First World War. He enquired about a commission in the Regular Army, hoping to serve in the Indian Army, but was told that this was not feasible, and joined the RAF. He was granted a Short Service Commission in October 1920 and was promoted to Flight Lieutenant with effect from 1 July 1927. At the end of his full-time service he entered the Reserve in October 1929 and relinquished his commission on completion of his engagement two years later.

Dunning was commissioned into the Administrative and Special Duties Branch on 26 August 1940, but resigned his commission with effect from 28 May 1941.

**Reginald Yarrow Eccles** (1914-1916) Service Number 18238

Eccles, from Nafferton, had been an apprentice marine engineer before joining the RAF. He qualified as a pilot on November 1918 and was transferred to the Unemployed List three months later. In 1924 he was granted a Short Service Commission, and a Permanent Commission in 1929. He received an MiD in January 1941.

**Lieutenant (Honorary Captain) Arthur Stanley Elliott**

Born on 18 February 1894, Arthur Elliott became a junior officer in the Merchant Navy before joining the RNAS on 2 January 1916. He undertook a balloon course at Wormwood Scrubs; after a period of sick leave he graduated as an airship pilot and was posted to Anglesey.

In June 1917 the Senior Naval Officer at Holyhead reported that Elliott *“has displayed exceptional merit on patrol duties with S.S. [Sea Scout] airships, having carried out 36 patrols, duration not less than 1½ hours.”* In September 1917 he was commended for *“good work in landing SSZ 14 after engines had stopped.”* He was awarded the DSC in October 1917 for exceptional skill in performance of patrol duties while serving in airships. After transfer to the RAF in April 1918 Elliott served at Mullion, Bude and Plymouth and in January 1919 he was awarded an MiD for distinguished service. He was then posted to the airship station at Pulham in Norfolk. On 15 July 1919 he was flying in a North Sea class airship, NS 11, which was trying to better her own world endurance record for airships, set in February 1918 at 100 hours 15 minutes, but which had been recently broken by the airship R34. The airship exploded and fell into the sea near Blakeney. All nine crewmembers were lost, and only one body was recovered. The School’s Roll of Honour erroneously gives his rank as Commander.

**Lieutenant Arthur Farthing (1909-1913)**

Farthing was a cadet in the Artists Rifles OTC before joining the RFC in May 1917. He was commissioned in July and passed through a number of Training and Reserve Squadrons. After a brief course at the Artillery and Infantry Co-operation School he was posted to 2 Sqn in February 1918 but returned to the UK a month later *“at present insufficiently experienced for war flying”*. Farthing re-trained as an observer and was serving with 21 Sqn when admitted to hospital with influenza on 3 March 1919. He was transferred to a hospital in the UK, and then to the Unemployed List on 27 March.

**Dennis Harry Francis (1909-1913)**

Francis joined the RFC in December 1917. After a course at 1 Officers Technical Training Wing he progressed to 2 Officer Cadet Wing in March 1918. From there he was posted to 6 School of Aeronautics in May but seems not to have completed the course, being transferred to the Reserve Depot in June.

The 1911 Census shows him as a boarder aged 11, suggesting that he would have been 9 when he joined the school. After leaving school he worked, presumably as a motor engineering apprentice, at the Matchless Works in Birmingham.

**2<sup>nd</sup> Lieutenant Ronald Vivian Garbett**

Born in Scarborough on 19 August 1888, Ronald Garbett had been a pupil at Hymers College, Hull before coming to Bridlington. He enlisted in the RFC on 2 March 1916, and was called up on 29 August. He graduated as a pilot on 17 November 1917 and was posted to 10 Sqn on 12 December. He and his observer (2<sup>nd</sup> Lt B. R. Raggett) were killed in France flying an Armstrong Whitworth F. K. 8 on a reconnaissance sortie when the aircraft broke up in flight on 5 January 1918.

**Lieutenant Leonard Aspinall Greenwood**

Born on 1 March 1899, after attestation at Leeds in May 1916, Leonard Greenwood seems to have served in the Seaforth Highlanders. His move to the RFC began with the Officer Cadet Wing at Denham in June 1917, followed by the School of Military Aeronautics at Oxford. A commission in the General List was granted in July 1917 and he began flying training, graduating as a pilot on 5 February 1918. He transferred to the RAF on its formation on 1 April 1918 and was posted to 43 Sqn on the 6<sup>th</sup>. Six days later he crashed in Sopwith Camel D6514 while landing from a practice flight and died the following day (13 April 1918).

**Sam Messenger Haigh (1913-1915)**

Haigh was found medically unfit for RFC service at 5 Officer Cadet Wing in December 1917 and sent to the 7<sup>th</sup> Battalion of the London Regiment.

**Flight Lieutenant Seymour Caley Harker (1903-1909)**

Harker was working as a wireless operator for the Marconi Company in 1916, but was released by them to join the RFC. He was commissioned on the General List for service with the RFC on 27 February 1917. His father pleaded with the War Office for his son to be trained as a pilot, rather than an observer *“after having been at the Curtis (sic) Flying School in America, he has had one thing in his mind – one thing only and that is to be a Pilot”*.

He received a Short Service Commission in the RAF on 27 July 1920. At the end of his full-time service he transferred to the A Reserve on 27 July 1927; this required him to keep in flying practice, which he did at Brough. However, his transfers from Class A to Class C (non-flying), back to Class A and so on in the period 1928 to 1933 suggest that he found it difficult to find time for the training. This may be a result of his work as a Service Station proprietor: the business partnership was dissolved in 1936.

*The London Gazette* of 13 December 1938 announced that "*Flight Lieutenant Seymour Caley HARKER (R.A.F.O.) is granted a commission in class CC as Flying Officer (Honorary Flight Lieutenant) for the period 7<sup>th</sup> May 1938 to 20<sup>th</sup> Aug. 1938, with seniority of 7<sup>th</sup> Apr. 1938, and as Flight Lieutenant with effect from 30<sup>th</sup> Aug. 1938.*" This commission was relinquished on 1 September 1939, when Harker was commissioned into the RAFVR in the Administrative and Special Duties Branch and returned to the Reserve on 30 August 1945.

**Flight Lieutenant T O Harker** (1912-1916) Service Number 60209

Harker was commissioned into the Administrative and Special Duties Branch on 17 January 1942. He received an MiD in the 1943 King's Birthday Honours List.

**Frank Fitz-George Hepworth** (1914-1918)

An Airship Officer, Hepworth served primarily at Pembroke, with periods on detachment to a mooring-out station at Wexford. He was transferred to the Unemployed List on 12 March 1919.

**Thomas Shortland Jones** (1912-1915)

Jones seems to have gone from Bridlington School to Haileybury; he joined the RFC in December 1917 as a trainee pilot. Commissioned in September 1918, Jones was posted after training as an observer to the Marine Observer School at Eastchurch for further training on the Grand Fleet. After service with 233 Sqn, flying anti-submarine patrols from Dover, he was placed on the Unemployed List and relinquished his temporary commission. In 1921 he was commissioned on the General List as a member of a university Officer Training Corps.

**Maurice Baxendale Knowles** (1902-1912)

Knowles was attached to the RFC from the 2<sup>nd</sup> Battalion of the London Regiment. After flying training he joined 60 Sqn flying Nieuport Scouts and was reported missing on 7 April 1917. He became a PoW at Karlsruhe and was repatriated in 1919. Knowles was a good school friend of William Costello who had also become a PoW while serving with the RFC.

**Noel Keith Lawton** (1908-1909) Service Number 26440

Lawton joined the RFC in April 1916 as a Fitter and was commissioned in 1918 and served at Cranwell. Admitted to hospital in Sheffield with a kidney complaint in January 1919, he was transferred to the Unemployed List the following month.

**Squadron Leader Charles Fraser Laxton** (1906-1911) Service Number 75627

After service in the West Yorkshire Regiment, Charles Laxton transferred to the RFC in 1917 but did not complete his flying training before the Armistice and was transferred to the Unemployed List in February 1919. Commissioned into the Administrative and Special Duties Branch of the RAF on 1 September 1939, he rose to the rank of Sqn Ldr. He was awarded the United States Bronze Star Medal in October 1946, presumably for work with American forces.

**George Roderick Mason** (1913-1917) Service Numbers F46828/246828

Born in Edinburgh, Mason joined the RNAS in January 1918 as an Electrician and transferred to the RAF on 1 April.

**Herbert Hargreaves Mayhew** (1911-1916) Service Number 110115

After joining the RFC at Farnborough in November 1917, Mayhew went to 5 Officer Cadet Wing at St Leonards in December, then to 2 Officer Cadet Wing at Hastings a fortnight later. In February 1918, he was training at 5 School of Aeronautics, Denham and was posted to 5 Training School at Wyton in May. On 20 June 1918, he crashed his D.H.6 and sustained a broken arm.

**Cadet Norman Midgley** (1912-1914)

Midgley joined the RFC on 18 April 1917 and was posted to 2 Officer Cadet Wing on 14 May.

**Cadet George Lindsay Nairn (1913-1916)**

Nairn joined the RFC on 15 January 1918 and was immediately posted to 1 Officer Cadet Wing. However, he was found medically unfit for flying duties and posted to the 19<sup>th</sup> Reserve Battalion of the London Regiment on 31 March 1918.

**Cadet Ernest Pidd (1911-1917)**

Pidd joined 2 Officer Cadet Wing on 22 October 1917 but was found medically unfit, and was posted to the 4<sup>th</sup> Training Reserve Battalion on 19 November.

**Harold William Plows (1911-1915)**

Plows reported to 1 Officers Technical Training Wing on 20 September 1917. Like a number of his contemporaries he was found unfit for RFC service and posted to the 85<sup>th</sup> Training Reserve Battalion on 28 December.

**2<sup>nd</sup> Lieutenant Charles Stanley Read**

Charles Read joined the RFC at Farnborough in March 1917 and trained at Denham and Oxford before being commissioned on the General List. He graduated as a pilot on 21 August 1917 and arrived in France in late September joining 52 Sqn. On 15 October, flying an R.E.8 on Army Co-operation duties, his aircraft (A3642) failed to return from a sortie. No further news was received, so his death was accepted for official purposes, the CWGC confirming his death on 6 December 1917 (aged 19). Read came to Bridlington from Hymers College, and went on to Rossall School; his entry on the Arras Flying Services Memorial states that he was a member of Rossall School OTC.

**Group Captain Francis Henry Ernest Reeve (1908-1914) Service Number 15060**

Francis Reeve was commissioned into the Northumberland Fusiliers in August 1915 and was seconded to the RFC in November 1916. He served with several squadrons and was wounded while serving with 15 Sqn in March 1917. In 1919 he was – like many of his contemporaries – transferred to the Unemployed List, and was recalled for duty in April 1921. He was granted a Short Service Commission in the RAF in July 1921 and a Permanent Commission in January 1926. After a period serving in the Middle East he returned to the UK and seems to have specialised in signals. After attending the RAF Staff College in 1929, Reeve served at Headquarters in Amman, Transjordan and Palestine until posted back to the UK in 1935. He commanded 57 Sqn between July 1935 and September 1937, when he joined the Directorate of Intelligence. A return to Signals came in January 1938 and he served at HQ 60 (Signals) Group at Leighton Buzzard, which resulted in his being appointed CBE and awarded an MiD.

**Lieutenant Alexander Rentoul**

Born on 3 January 1896, Alexander Rentoul, a student for the Bar, enlisted in the Inns of Court OTC in June 1915 and was commissioned into the Yorkshire Hussars (Territorial Force) in October. After service in France, Rentoul transferred to the RFC in August 1917 as an observer on probation and trained in the UK. He returned to the Western Front and joined 25 Sqn in December 1917. Flying in a D.H.4 (A7664), he was shot down near Miraumont on the morning of 27 March 1918.

In May, it was believed that he had been wounded and was a PoW, but news came that a message had been dropped by the Germans reporting his death. This was confirmed by a report received in December 1918 via the Netherlands Legation in Berlin and the British Red Cross Society.

**Arthur Sculthorpe (1910-1915)**

After training at 1 School of Aeronautics, Sculthorpe undertook flying training and was posted to the British Expeditionary Force in August 1918. He seems to have served with 41 Sqn and in February 1919 was posted to 108 Sqn.

**Boy Donald Urwin Sellers (1915-1917) Service Number 157550**

Sellers joined the RFC in December 1917, one of many young men who would learn an engineering trade. Details of his subsequent service are not available. The RAF Muster Roll gives his second initial incorrectly as N.

**Claude Alexander Brereton Sewell (1914-1916) Service Number 177672**

After service in the ranks, Sewell was posted to 1 Officers Technical Training Wing on 4 June 1918 and 1 Cadet Wing later that month. He trained at a School of Aeronautics at Cheltenham and then at

the Armament School but the war ended before he could see active service and he was demobilised in January 1919.

**Group Captain Brian Arnold Smith (1903-1907)** Service Number 73402

After leaving Bridlington School, Brian Smith entered Trinity College Cambridge and took a First in Science. He then taught at Tonbridge School from 1911 to 1914, when he was commissioned into the Royal Garrison Artillery. Smith was injured in an accident on 13 November 1917, which led to his leaving the Army on medical grounds. A Civilian Education Officer with the Air Ministry, Smith was appointed an Honorary Wing Commander in the Administrative and Special Duties Branch in April 1939. As Principal Education Officer, RAF Educational Service, he was awarded the OBE in the 1945 New Year Honours List.

**Wing Commander Robert Gidner Spencer (1909-1911)** Service Number 77650

Spencer was commissioned into the Administrative and Special Duties Branch in February 1940 and was awarded an MiD in the 1945 New Year Honours List. He relinquished his commission on 10 February 1954 when his reserve commitment ended.

**Sextus Edward Sutcliffe (1913-1914)**

Sutcliffe was commissioned into the Northumberland Fusiliers in June 1916 and sought a transfer to the RFC the following year. He undertook pre-flying training at the School of Military Aeronautics in Oxford, then trained with 14 and 20 Training Sqns. Before joining 4 Sqn in March 1918, he spent time in hospital and was posted to 2 School of Observation in September 1918. In January 1919 he was posted to the Dispersal Area Georgetown, presumably for demobilisation.

However he either remained in the RAF or rejoined, as in 1921 he was injured when the Bristol F.2B Fighter in which he was a passenger crashed at Mallow near Fermoy. Sutcliffe transferred to the Reserve in 1923. In 1924 a man of this name sailed from the UK to Sydney, and in June 1964 Sutcliffe, of Rosslyn Park, South Australia, was appointed OBE in the Queen's Birthday Honours List, for service to civil aviation.

**2<sup>nd</sup> Lieutenant Arthur Rowland Taylor** Service Number 21456

Arthur Taylor was educated at Berkhamstead School and Bridlington School and went to America in 1913. In June 1917 he joined the RFC in Canada, where he trained at Borden and Deseronto, gaining his commission on the General List and earning his wings. He returned via Liverpool in November 1917 and, on 19 January 1918, was killed in a flying accident in Sopwith Dolphin (C3860) with 79 Training Sqn at Beaulieu: the aircraft descended in a spin and burst into flames. The Court of Inquiry determined that the accident was due to an Error of Judgement on his part, *"through stalling in a turn with insufficient height to recover, and that his death was probably instantaneous as the machine was completely smashed up."*

**John Arthur Tyacke (1910-1917)**

Tyacke entered the RNAS on 7 March 1918 and transferred to the RAF on its formation the following month. After ground training at 1 School of Aeronautics, Reading, he learned to fly at 10 Training Depot Station from June to October, when he was posted to East Fortune. He seems not to have seen active service and left the RAF in April 1919.

**Alfred Anderson Verity (1913-1916)** Service Number 93562

Alfred Verity seems to have entered the RFC in August 1917. He joined 5 Officer Cadet Wing in September and moved to 7 School of Military Aeronautics at Bath in February 1918. After further training he joined 1 (Observer) School of Aerial Gunnery on 22 June and was then posted to the Western Front in August, where he flew with 82 Sqn.

**Charles Waring Verity (1908-1914)**

Charles Verity seems to have served in the Royal Engineers before transferring to the RFC in December 1917. After completing his training he received his commission on 22 August 1918 and, apparently, joined 45 Sqn just before the Armistice.

**Harold Wardill (1901-1906)**

Wardill evidently trained as an Observer. After the School of Military Aeronautics at Reading, he was posted to the School of Aerial Gunnery at Hythe in July 1917, and then to the Expeditionary Force,

where he flew with 101 Sqn from 27 October. He was admitted to hospital on 21 January 1918 and evacuated to the UK. After a period of sick leave he was attached to the Armament School from 23 July, but was transferred to the Unemployed List on 3 April 1919.

**Cadet Stanley George Watson (1911-1916)**

Watson began his training at 8 Officer Cadet Wing two days after the Armistice, and was demobilised with effect from Christmas Day 1918.

**Percy Whiteley (1912-1913)**

Whiteley followed the usual training route: 1 Officer Cadet Wing from 14 May 1917, 2 School of Aeronautics from 15 June, then 68 and 18 Training Sqns, before completing his flying training with 80 Sqn in late 1917. He was posted to the Western Front and 65 Sqn on 16 January 1918, but in June he was admitted to hospital with 'Flying Sickness' and returned to the UK. He was transferred to the Unemployed List on 6 March 1919.

**Lieutenant Harvey Tennant Bennett Williams**

Born on 24 April 1899, Harvey Williams entered the RNAS on 3 June 1917 and trained at Crystal Palace, Vendôme, Cranwell and Manston. He transferred to the RAF on its formation in April 1918, and "*passage to the Eastern Mediterranean [was] ordered via Cherbourg – Taranto (overland route) leaving Southampton 14/4/18*".

He was awarded a Greek Military Cross Class III for work from Stavros with 226 Sqn. He was lost on 5 September 1918, flying an anti-submarine patrol in D.H.9 D2804; his observer (Lt E. C. Finzi) was also killed. Williams received a posthumous MiD.

The diary of a member of his ground crew records: "*Williams doesn't like the DH 9. Tells me that if anything went wrong he wouldn't know what the gadgets on the instrument board were for. Those were his last words, for he and little Finzi failed to return. At least Finzi does. A destroyer picked up his body next day floating. No sign of Williams or even debris from the Nine.*"

**2<sup>nd</sup> Lieutenant Frederick John Young (1915-1916) Service Number 88662.**

Frederick John Young (usually known as 'Fred') came from Chelmsford. After education at Earls Colne and Chelmsford Grammar Schools and then at Bridlington, he joined the RFC immediately after his 18<sup>th</sup> birthday in July 1917 reporting to RFC Cadet Wing at South Farnborough on 18 July. Earlier in June 1916 his headmaster at Bridlington, Arthur Thornton, had written the following letter to the army: "*Fred John Young was a pupil of the school for one year, being recommended to me from the Grammar School, Chelmsford. I have pleasure in certifying that he is of good character and has reached a standard of education suitable for commissioned rank. He is a keen sportsman, good at both cricket and football, and a good athlete. I think therefore that he is a very suitable to enter the Royal Flying Corps.*"

Young died in an accident in Gloucestershire in May 1918, flying a B.E.2e (4593) of 24 Training Sqn. The Court of Inquiry determined: "*The cause of the accident was in our opinion due to the fact that the pilot when flying in bad weather conditions, through an Error of Judgement, stalled his machine whilst turning near the ground and crashed.*"

## 1919-1929 – The Founders

After the First World War, the RAF was given a role of policing the British Empire, thought to be a cost-effective way of controlling large under-populated and undeveloped areas. For example, such operations took place in Somaliland, Iraq and Afghanistan. Some of the OBs we know of served in those theatres.

With many questioning the need for a separate air force, to keep itself visible the RAF developed the annual Hendon Air Display and created a team to compete for the Schneider Trophy, awarded annually (and later, biennially) to the winner of a race for seaplanes and flying boats. In 1936 Fighter, Bomber, Coastal and Training Commands were created.

There are 13 OBs identified who left the school in the immediate post-war period 1919-1929 and who served in the RAF prior to the Second World War. Some of those who served in the First World War, as their stories show, also served in this period. Some were killed in action in the Second World War.

The RAF Volunteer Reserve was formed in July 1936 so some in this group who are identified as RAFVR would have joined only after that time. Some, of course, would have joined the RAF as regulars just before or at the outbreak of war in 1939. And some of these certainly will have joined or been part of the RAF following the First World War as a career choice. Such men could fairly be categorised as being part of the founding generation of the RAF, along with their First World War comrades.

### **Sergeant Edwin Raymond Abell (1922-1928) Service Number 1474271**

Edwin Abell enlisted in the RAFVR in October 1941 and trained as a navigator. After training he seems to have joined 296 Sqn, based at Stoney Cross, in September 1943. The unit's role initially was transport, involving him in flights from the UK to North Africa and Italy but, from early 1944, he became involved in dropping supplies to the French Resistance. On the night before D-Day, he and his crew dropped nine paratroops near Caen as part of Operation 'Tonga' – the first stage of the D-Day invasion. On the evening of 6 June, the crew towed a Horsa glider carrying members of the 6<sup>th</sup> Air Landing Brigade to the Caen area, where it would hold the eastern flank of the invasion beaches. Abel and his crew, in Albemarle (P1501), failed to return from a supply-dropping operation on the night of 8/9 August 1944.

### **Sergeant Alfred Harold Akester (1925-1932) Service Number 1129235**

After enlisting in November 1940, Alfred Akester trained as a navigator and flew with 29 Sqn, a night-fighter unit. On the afternoon of 21 October 1942 he and his pilot, Sergeant Harold Leonard Kerr Wright took off in Beaufighter (V8229) for a non-operational flight. The Sqn's Operations Record Book states: "*Lt Brown from Anti-Aircraft Command lectured to the aircrews today. By a strange and sad coincidence a new pilot (Sgt Wright) was shot down and killed by Ack Ack fire whilst on a sector reconnaissance*".

### **Squadron Leader Ernest Reginald Brown (1918-1922) Service Number 78224**

Brown trained as a doctor and was commissioned into the Medical Branch of the RAF Volunteer Reserve in March 1940. He was awarded the OBE in August 1944; the citation reads:

*"In February, 1944, a Mosquito aircraft crashed and caught fire when approaching to land. The pilot was killed instantly but the observer was alive and rescue parties tried in turn to extricate him from the blazing wreckage. Party, after party failed and each attempt became more difficult owing to the increasing heat of the fire in the cockpit area of the wreckage. Eventually, Squadron Leader Brown, the Station medical officer, and Corporal Greenwood made a final and desperate effort as the situation had become critical because the supplies of foam were exhausted temporarily and the fire remained, unchecked for some minutes. If their effort failed it was clear that immediate amputation*

*of the observer's leg was the only way by which he could be released. Displaying extreme courage, Squadron Leader Brown and Corporal Greenwood withstood the intense heat of the flames and, by the skilful use of the tools at their disposal, succeeded in breaking away the wreckage which was trapping the observer's leg. They then removed the airman to the ambulance. While first aid was being rendered, Squadron Leader Brown returned to the wreckage to make certain that the pilot was not alive. This officer and airman displayed outstanding courage."*

**Pilot Officer Arnold Foster Cheetham** (1925-1931) Service Numbers 103550/1066202

Arnold Cheetham was born in Hull and joined the RAFVR as a pilot. He seems to have joined 149 Sqn in March 1942. After completing four operations as second pilot – a practice introduced to give new crews experience – he flew on three raids as captain of his own aircraft. On the last of these, an attack on Stuttgart on 5 May 1942, Cheetham died when his Stirling crashed near Laon in France.

**Pilot Officer Ernest Arthur Farrow** (1923-1929?) Service Numbers 1317503/142456

Ernest (elder brother of John Edward Farrow – see below) was a pilot in the Second World War, mainly flying Hurricanes. From family discussions, he apparently spent some time in the Weymouth area in 10 Group.

**Flight Lieutenant Charles Wilfred Gray** (1920-1928) Service Numbers 1062639/122326.

A native of Hull, Charles Gray joined the RAFVR in 1940 and appears to have trained as an air gunner. At the end of a tour with 50 Sqn he was awarded the DFC. The citation reads: "*Flying Officer Gray has completed a successful tour of operational duty. He has always displayed great keenness for operational flying. On several occasions his vigilance and reports have enabled his captain to take successful evasive action. Many of his sorties have been against Germany's most heavily fortified objectives and he participated in the daylight raids on Le Creusot and Milan.*"

**Air Commodore Christopher Edgar Hartley** (1924-1926) Service Number 28019

Christopher Hartley received a Short Service Commission in April 1929 and after flying training undertook the Officers' Engineering Course at RAF Henlow in 1932 and was granted a Permanent Commission in 1933. In 1940, he transferred to the Technical Branch. He was awarded the CBE in the 1957 New Year Honours List and retired on 26 November 1958, his last post being Director of Aeronautical Inspection Services.

**Leading Aircraftman Harold Edward Hartley** (1924-1928) Service Number 944034

Harold Hartley, born in Stratford-on-Avon, was training as a pilot at 4 British Flying Training School, Mesa City, Arizona when he was killed in a flying accident on 15 April 1942.

**Leading Aircraftman Herbert Cecil Hermon** (1918-1921) Service Number 614311

Herbert Hermon was killed in an air raid on Valetta, Malta on 29 April 1941. The School Roll of Honour gives the date as "May 1941" and his rank as Corporal.

**Flying Officer William Henry Hoggard** (1926-1934) Service Numbers 1358313/115259

Born at Sculcoates, Hull, William Hoggard flew Spitfires with 130 Sqn. On 26 January 1943 the Sqn escorted Venturas attacking the Morlaix Viaduct. The Sqn Operations Record Book states: "*Sgt. Ware of 'A' Flight had to return with engine trouble and F/O Hoggard came with him. On the way back they were jumped by FW190s and F/O Hoggard was shot down. Ware was damaged but made Base O.K.*"

**Flying Officer Thomas Arthur Newton** (1918-1922) Service Numbers 362547/46505

Newton was born at Newcastleton, Selkirk and was awarded the AFM in January 1932 for service in Iraq, Cyprus and the Sudan. He probably served as a flying instructor, and was killed in a flying accident in a Harvard (P5805) of 22 FTS, part of the Rhodesian Air Training Group, which crashed on 28 May 1942 near the Senale forced landing ground.

**Wing Commander Richard Dunning Pexton** (1923-1924) Service Number 72150

Pexton joined the RAF Reserve in 1935, and in 1937 began training as a pilot. He was commissioned in 1939, and served in France. In 1941 he went to Canada as a flying instructor for two years and received the AFC. The recommendation reads: "*Wing Commander Pexton as a flying instructor and Chief Flying Instructor has carried out his duties with exceptional keenness and ability. His overseas operational experience, efficiency and extreme devotion to duty have inspired confidence and set an*

*example to both instructors and pupils. His excellent qualities of character and leadership together with his ability have largely contributed to the success of the flying training at this unit”.*

As a pre-war reservist, Pexton qualified for the Air Efficiency Award. He commanded 61 Sqn of Bomber Command and was awarded a DFC in 1945. The citation reads: *“Wing Commander Pexton has displayed fine fighting spirit. He has, on frequent occasions, led squadron and station formations and the successes achieved on operations have been directly attributable to his inspiring leadership and to the fine example of courage and devotion to duty which he has set at all times both in the air and on the ground. Wing Commander Pexton has taken a keen personal interest in his air crews and has spared no efforts to ensure by training, practical instruction and demonstration, that they are fully able to perform their duties with the greatest possible efficiency. His skill in the air and his courage in the face of the enemy have always been most praiseworthy.”*

**Sergeant Gerald Sanderson** (1924-1927) Service Number 1589903.

Gerald Sanderson enlisted in December 1942 and trained as a Wireless Operator/Air Gunner, serving with 115 Sqn. His Lancaster (LM725) crashed near Haveluy near Valenciennes with the loss of all the crew, while taking part in an attack on Chemnitz on 15 February 1945.

**Flight Lieutenant Paul Silas Foster Walmsley** (1923-1926) Service Numbers 743021/66501

Commissioned in May 1941, Paul Walmsley was awarded the DFC in February 1944, for service with 619 Sqn.

## 1930-1943 and the Second World War – “The Great Generation”

Apart from Apprentices, all who joined the RAF after the outbreak of the war in 1939 were mustered into the RAF Volunteer Reserve (RAFVR). On the aircrew side, by September 1939, the RAFVR comprised 6,646 Pilots, 1,625 Observers (later designated as Navigators) and 1,946 Wireless Operators. By the end of 1941, more than half of Bomber Command's aircrew were members of the RAFVR, rising to probably more than 95% by 1945. This would explain why significant numbers of OBs who left school during the period 1939-1945 are designated RAFVR, many of them serving in Bomber Command units. (N.B. Where servicemen were commissioned from the ranks, a new Service Number was allocated, so some entries record both.)

We have identified 293 OBs whose service almost certainly was during the Second World War, whether as RAF regulars or in the RAFVR. Not surprisingly, the largest tranche of OBs we have identified served in this period, many with distinction as their stories here illustrate. Of those 293, 33 were killed in action or in service. In addition, seven of those identified as pre-1939 entrants were also killed in action or while in service.

The history of the RAF during the Second World War, and the vital part it played in defending the nation, is of course extensive and well known, needing no summary here. This was when the RAF became truly embedded in our national story and “came of age” standing alongside the other more venerable services; younger, yes, but second to none in the affection and respect in which it is held.

### **Warrant Officer Eric Leonard Armitage** (1933-1940) Service Number 1434790

Armitage enlisted in the RAFVR on 20 May 1941. He was lost on a transit flight, delivering a Mustang (HB956) from Catania, Sicily; on 24 August 1944 the aircraft crashed into the sea, 15 miles north-east of Taormina. His was the second aircraft in a formation which flew into a very heavy rain storm, and he is thought to have lost control.

### **Flying Officer Derek Wilson Aston** (1935-1938) Service Numbers 1513150/145048

Born at East Sheen, Aston served as a pilot with 415 Sqn of Coastal Command, flying Wellingtons. He was presumed Killed in Action during an anti-E Boat patrol off the Dutch coast on 30 August 1944.

### **Flight Lieutenant Herbert Cast** (1929-1934) Service Numbers 740922/83720

Born in Bridlington, Cast enlisted in 1937 and was commissioned in 1940. He seems to have spent time in Canada and then lived in Australia. Posted to India in 1944, he was awarded the DFC in April 1945, for service with 357 Sqn. The recommendation reads: *“Since joining this squadron, this officer has completed numerous operational sorties over Burma, French Indo-China and Thailand. Many of these have been executed over dangerous mountainous terrain often in adverse weather. On two occasions, Flight Lieutenant Cast has completed his mission after one engine had become unserviceable and, by his keenness and determination he has been instrumental in achieving success on many sorties.”*

In May 1945, Cast was attached to the Special Operations Executive as Air Liaison Officer. The award of a Croix de Guerre may have been made in connection with work in French Indo-China.

### **Sergeant Frank Alan Cheetham** (1933-1938) Service Number 1437917

Frank Cheetham enlisted on 10 June 1941 and trained as a navigator, serving with 454 Sqn RAAF. The squadron flew anti-submarine patrols over the Mediterranean using Martin Baltimores. On his final sortie, 19 November 1943, the aircraft reported engine trouble and was returning to base; three minutes later an SOS message was sent but contact was lost 20 miles south of Crete.

### **Sergeant George Ellis Clark** (1931-1934) Service Number 628471

Clark was born in Chester, and enlisted in December 1938. He trained as an air gunner and joined 61 Sqn at Syerston on 20 July 1943. Like many Bomber Command crews, he and his comrades were

killed on their first operational sortie. On 26 July 1943, his Lancaster (ED613) failed to return from a raid on Essen, and crashed in the Essen area.

**Acting Sergeant Arthur Kenneth Dacre** (1936-1938) Service Number 997210

Born at Keighley, Dacre was involved in a motorcycle accident on 24 December 1940 near Gatooma, Southern Rhodesia and died on 26 December.

**Wing Commander Peter Dobson** (1932-34) Service Numbers 748339/64284

Dobson was born at Scarborough, but his wartime home was in Bridlington. He initially served as a sergeant, and was commissioned in April 1941. He was awarded the DFC in July 1941 for service with 102 Sqn. His AFC (8 June 1944) would have been awarded for non-operational duty, perhaps as an instructor, while the citation for his DSO (1 May 1945) reads: *"As squadron commander, this officer has consistently displayed leadership, gallantry and determination of a high order. He has completed many sorties against a wide variety of targets. On one occasion, when approaching an enemy target, his aircraft was engaged by heavy and accurate fire from enemy ground defences and he sustained a wound in the left leg. In spite of this, he held the aircraft straight and level on its course and pressed home a good attack. Not until the enemy coast had been crossed en route for home did Wing Commander Dobson draw attention to his injury. Although in great pain and suffering from the loss of blood, he remained at the controls and flew the aircraft back to base. He displayed unbeatable determination and devotion to duty in the face of much physical distress"*.

He was also awarded two MiDs, in May 1943 and January 1944. Dobson retired from the RAF on 1 March 1970.

**Air Marshal Sir Eric Dunn** (1936-1943) Service Number 579751

Eric Clive Dunn was born on 27 November 1927 in Winchester and educated at Bridlington School leaving at the age of 16 in 1943. He excelled at sport, gaining his colours each year for rugby and cricket and winning the Victor Ludorum Shield as the outstanding sportsman at the School. He and his father, Wing Commander Walter Dunn (at School 1914-1918), were keen radio hams, and he joined the RAF as an aircraft apprentice in February 1944. After three years at 1 Radio School at RAF Cranwell, he graduated as a radio fitter (air) in second place in his entry, and was unlucky not to be selected for a technical cadetship to train as an officer. After serving in England for two years, Dunn left for Hong Kong, where he worked on flying boats.

During the Korean War, the Sunderlands of the Far East Flying Boat Wing were heavily involved in operations. Dunn volunteered to fly on many of these missions, some of them 18 hours long, to service the aircraft's radios, navigation, and electrical systems in flight. His efforts were very highly regarded and, despite his junior rank (corporal), he was awarded the BEM for his actions. Not long after returning to Britain at the end of 1951, Dunn was selected for a commission in the RAF's engineering branch. He served on a number of flying stations and was one of the first officers to specialise in guided weapons, serving at the RAF's first ground-to-air missile base at North Coates, near Cleethorpes. In February 1962, he left for Aden on a two-year appointment to command the engineering squadron at one of the RAF's largest operational airfields, Khormaksar (Aden), during a period when the station's squadrons were heavily engaged in operations in the Aden Protectorate and the Radfan.

After attending the Joint Services Staff College, Dunn was promoted to wing commander to command the engineering wing at RAF Boulmer in Northumberland, a key air defence radar station. A succession of senior appointments at the MoD and in Cyprus followed and, once he had completed the course at the Royal College of Defence Studies, he was promoted to be Air Officer Wales in command of the large RAF maintenance station at St Athan, an appointment much to his liking since he was able to make frequent visits to Cardiff Arms Park.

A year after the Falklands War, Dunn was promoted to Air Marshal and was appointed to be the RAF's chief engineer. The mid-1980s was a period of significant change in the RAF and Dunn was closely involved in studies to combine engineering and supply activities, streamlining procurement methods and reviewing the RAF's technical trade structure and career patterns. He retired in July 1986. He was awarded the CB in 1981 and KBE in 1983.

**Sergeant George Charles Dynes** (1936-1938) Service Number 1501437

Dynes enlisted in the RAFVR on 30 May 1941 and trained as a navigator. While serving with 35 Sqn he was killed in a raid on Berlin. His Halifax (W7907) was hit by flak and crashed 3 km east of Stadthagen. The seven crewmembers had initially been posted to 10 Sqn in late January 1943 and then posted to 35 Sqn on 24 March; they were lost three days later.

**Aircraftman First Class Denis Earnshaw** (1932-1937) Service Number 631813

Earnshaw was a (ground) wireless operator at RAF Stradishall and died of gunshot wounds on 18 April 1941, although the School Roll of Honour records the date as "March 1941".

**Sergeant Francis Gordon Ellis** (1934-1940) Service Number 1108093

Ellis was born in Bridlington and enlisted in the RAFVR on 23 July 1940. While serving as an air gunner with 28 Sqn he died on operations in Far East India, in Lysander (P9075) on 27 July 1942. The Squadron's Operations Record Book states:

*"27 July 1942 Flt Lt White, Sgt Grey and Sgt Hilton took off to bomb Marakai. Flt Lt White was seen to jettison bombs and glide down to force land about 1 mile from Dargai. The aircraft turned over on its back but the pilot was seen standing waving beside it. Fg Off Larsen later returned with medical supplies and saw two naked bodies lying near the crashed aircraft. 28 July Kharsadan brought in the bodies of Flt Lt White and Sgt Ellis to Miramshar early in the morning. They were buried with full military honours in Kohat Cemetery."*

**Flight Sergeant John Edward Farrow** (1927-1932)

After leaving School, Farrow served an apprenticeship as a motor mechanic before joining the RAF in 1935 as a mechanic. He later trained as a pilot and according to a report in an unnamed newspaper, while serving in the Middle East rammed a German aircraft *"and, although he did not bring him down, he did bring away with him a piece of the German machine on his Spitfire as a souvenir."*

**Flying Officer Patrick Glenville** (1929-1937) Service Number 158304

Glenville, born in Harrogate, was the pilot of a Lancaster of 189 Sqn. He was killed on 21 February 1945 in an attack on the Dortmund-Ems Canal near Gravenhorst, together with five of his crew.

**Flight Lieutenant Alan Bruce Harrison** (1931-1935) Service Number 39732

Originally from Scarborough, Harrison joined the RAF in 1937 on a Short Service Commission. He was the Navigator of an Avro Manchester of 61 Sqn, shot down by flak over Berlin on the night of 2/3 September 1941.

**Sergeant Denis Aubrey Hinchcliffe** (1934-1940) Service Number 1622991

Hinchcliffe, a native of Bridlington, enlisted on 16 January 1942 and served as a pilot with 114 Sqn of the Desert Air Force. His aircraft – a Douglas Boston – was lost over Italy on 2 October 1944, tasked with harrassing the retreating enemy. The Hinchcliffe Cup for Sabre was presented to the School by his father in 1945.

**Sergeant Kenneth Herbert Hogarth** (1932-1938) Service Number 1055990

Hogarth enlisted in June 1940 and flew as a bomb aimer with 207 Sqn, joining the unit in September 1942. His Lancaster failed to return from an attack on Nuremberg – his 19<sup>th</sup> operation – crashing at Ludwigshafen on 25 February 1943.

**Squadron Leader Tom Hoggard** (1928-1933) Service Numbers 534168/46025

Hoggard, from Driffield, was an assistant teacher before joining the RAF in 1936. In 1938, he became a wireless operator/air gunner. While serving with 110 Sqn he was awarded the DFM on 31 May 1940. The recommendation for his award states: *"In January 1940, this NCO performed excellent work as an Air Gunner in an engagement in which a formation of Blenheims was attacked by five Messerschmitt 110s for some 25 minutes continuously. He has since taken part in a further 8 operational flights displaying a high standard both in air gunnery and wireless duties. His courage and efficiency have set a fine example to all Air Gunners of the squadron.* Hoggard was commissioned the following year and awarded an MiD. In 1943 he was awarded a DFC:

*"This officer has a most meritorious record as an air gunner and staff gunnery officer. Early in his operational career he was awarded the Distinguished Flying Medal and since then he has continued to complete his duties with outstanding efficiency and courage. He has done much to train the air*

*gunners of the Tactical Bomber Force to their present high level of efficiency and, by his personal example on many dangerous and difficult sorties, has contributed in no small degree to the successes achieved. His outstanding gallantry and devotion to duty have been most praiseworthy."*

In 1949 he transferred to the Technical Branch and retired on medical grounds in January 1953.

**Flying Officer Granville Horsaman** (1933-1939) Service Numbers 1379583/153841

Horsaman was the pilot of Lancaster (RF143) of 138 Sqn, which was shot down by a night fighter in a raid on Potsdam on 15 April 1945.

**Flight Sergeant John Philip Reginald Julian** (1928-1934) Service Number 1018129

Julian, born in Scarborough, enlisted in the RAFVR on 1 September 1940. He joined 34 Sqn on 22 April 1942; on 20 August he and his crew crashed on landing and the Blenheim burst into flames. Ten days later his aircraft was reported missing on operations in India. Wreckage was subsequently found in the River Ganges.

**Sergeant Graham Douglas Lindsay** (1933-194?) Service Number 1078148

Lindsay was an Observer and was killed in a flying accident while with 21 OTU. On 14 April 1942, Wellington (R1085) was preparing to land when the propeller came off the port engine; the aircraft went into a steep turn to the left, then stalled and crashed at Woolerton near Ternhill in Shropshire, with the loss of all six crew.

**Flight Sergeant Peter Drake Martindale** (1930-1939) Service Number 1454683

Born in Harrogate, Martindale enlisted on 7 August 1941 and served as an Air Bomber (bomb aimer) with 514 Sqn based at Waterbeach. His Lancaster was lost without trace on 30 January 1944 during a raid on Berlin, which was probably only his third operation.

**Acting Squadron Leader Louis Patrick Massey** (1927-1934) Service Numbers 741367/84686

Massey served initially as a sergeant pilot and was commissioned in August 1940. He was awarded the DFC for service with 159 Sqn; the citation reads: *"Late in October, 1940, this officer was captain of a bomber aircraft engaged in a search for an aircraft believed to be down in the North Sea, when a Heinkel 115 was attacked and shot down. It was due to his initiative and skill in handling his aircraft that Pilot Officer Massey was able to press home his attack. In all of his 33 operational flights he has shown an admirable combination of courage and determination."*

A Bar to his DFC was awarded in May 1942 for service with 49 Sqn. *"This officer, who is a deputy flight commander has completed many operational flights, including a number of minelaying operations. One night in October 1941, Flight Lieutenant Massey was captain of an aircraft detailed to attack a target at Mannheim. Despite most severe weather the aircraft returned to base safely. On another occasion later he completed a mining operation despite severe weather. On the return journey he landed successfully although visibility was only about 500 yards. In March 1942, Flight Lieutenant Massey pressed home an attack on an objective at Essen, from a very low altitude. His aircraft was damaged by anti-aircraft fire but he volunteered to attack the same target the following evening."*

Massey was lost in a raid on Mingalodon, Burma on 9 October 1943; nothing was heard of the aircraft after take-off.

**Squadron Leader Robert Richard Megginson** (1927-1931) Service Numbers 741366/84708

Megginson's initial service number is immediately after Massey's, suggesting that they enlisted in the RAFVR on the same day, reportedly in 1938. He was the eldest of three brothers from Garton-on-the-Wolds who were boarders at the School; the others served in the Army. Like Massey, Megginson served as a sergeant pilot; initially with 101 Sqn and, on 13 May 1940, was posted to 15 Sqn. The unit flew Blenheims, and Megginson was commissioned in August 1940. He received the DFM in October 1940 *"for gallantry and devotion to duty displayed in the execution of air operations"* and *The Bridlingtonian* reported that it *"was the result of consistently good work in the course of 35 operational flights against the enemy, including many day-light raids during the evacuation from Dunkirk until all our men got away."*

The Blenheims were replaced by Stirlings in early 1941; Megginson had been posted away from the unit – possibly to become an instructor – but returned in May 1943 with the rank of Acting Squadron Leader, commanding “B” Flight. He received the DFC in October 1943; the citation reads:

*“This officer is a highly efficient and resolute captain. He has taken part in a very large number of sorties and has always endeavoured to press home his attacks, often in the face of heavy opposition. One night in August, 1943, Squadron Leader Megginson piloted an aircraft detailed for an operation against Berlin. Whilst over the city the aircraft was attacked by fighters and sustained damage. Despite this, Squadron Leader Megginson bombed his target and afterwards flew the aircraft to base. His skill and resolution set a fine example.”*

Megginson left the RAF on medical grounds in June 1945.

**Aircraftman First Class Richard Douglas Mollett** (1932-1934) Service Number 1151230

Mollett was training as a pilot at 1 British FTS in Texas, and crashed at Bodkin, near Terrell, after taking off on a night cross-country flight in an AT-6A Texan (known as Harvard in RAF service) on 30 November 1941. The accident report states: *“After take-off he reported to the Control tower that he was off the ground at 8:40. The control tower called back and advised him time off was 8:44, which he acknowledged. Evidently by this time he had permitted his attention to wander from flying the airplane. The airplane got out of control and fell into a spin from which he recovered but he did not have sufficient time to pull out of the dive after recovery. Airplane was only about 4 miles airline distance in direct line of take-off. Witnesses who were in the vicinity of the crash testified that the motor was running when the airplane crashed.”*

**Sergeant Claude Lambert Naylor** (1934-1939) Service Number 1101204

Naylor was the pilot of Fairey Battle L5637 of 7 Air Gunnery School. While on a target-towing sortie on 31 August 1941 the aircraft was seen to hit the sea in a steep glide or dive off Nash Point, Porthcawl, with white smoke issuing from it. Engine failure was suspected but the Court of Inquiry decided that the cause was obscure.

**Sergeant George Stephenson Needler** (1925-1931) Service Number 920736

Needler was the Wireless Operator/Air Gunner in a Blenheim of 226 Sqn and was lost on operations over the Channel on 15 October 1941.

**Pilot Officer John Martin Oxtoby** (1930-1938) Service Number 754620

Oxtoby had served in the RAFVR for less than six months when he was killed on 10 August 1940 in a flying accident at 5 Operational Training Unit, Aston Down. He was under instruction in a Blenheim (L6799) which collided with a Spitfire (L1063) and burnt out.

*The Bridlingtonian* recorded that his death came a fortnight after he had been awarded his wings: *“His home was at Holme-on-Spalding Moor, and he was a boarder for the eight years from 1930 to 1938. He was of outstanding ability, and in 1937 qualified for an ERCC Major Scholarship tenable at a university in 1937. He did not take this up but passed well into the Civil Service. In due course he joined the RAF and he was classed “above average” at the flying schools where he trained. For part of his last year at School he was Senior Prefect. He would have been 21 years old this coming Christmas Day.”*

**Flight Sergeant Eric Henry Peace** (1934-1940) Service Number 1434302

Peace, who was born in Wood Green, London was a Wireless Operator/Air Gunner serving with 97 Sqn. He was killed on 23 June 1944 during a training flight over eastern England when his aircraft collided with another Lancaster from his squadron and crashed at Cloor House Farm on Deeping Fen. Only one of the 14 men in the two aircraft survived.

**Flight Lieutenant Harold Cass Pexton** (1922-1924) Service Numbers 740293/81650

Harold Pexton was born at Whixey and served as a sergeant pilot before being commissioned in 1940. He was posted in March 1943 from 51 Sqn to 35 Sqn, part of Bomber Command's Pathfinder Force. During an attack on Hamburg, his Halifax was shot down by flak and a night-fighter; the aircraft exploded on hitting the ground, the forepart being incinerated. Two of the crew survived. The award to Pexton of a DFC (with effect from 28 July 1943) was announced on 28 July 1944.

**Flying Officer George Edward Pinder** (1923-1929) Service Numbers 1544557/188629

Pinder was born in Bridlington and enlisted in 1941. He was commissioned in November 1944 and flew as a navigator with 159 Sqn, a bomber unit in the Far East operating Liberators. He was awarded a DFC in 1945; the citation reads:

*“This officer is a courageous and skilful navigator who has participated in numerous long distance sorties over mountainous country during monsoon weather. At all times he has displayed praiseworthy courage, cheerfulness and devotion to duty, while his navigational ability has inspired the other members of his crew with confidence.”*

Pinder left the RAF in August 1946.

**Sergeant John Kirkwood Purdon** (1929-1934) Service Number 745547

A native of Bridlington, John Purdon was the second pilot of Whitley (Z6556) of 51 Sqn. Whilst taking part in a raid on Brest, the aircraft crashed at Trébeurden, Côtes-du-Nord on 4 April 1941.

**Sergeant Peter David Kirkwood Purdon** (1926-1932) Service Number 740295

Born in Hull, Peter Purdon was the pilot of a Blackburn Botha (W5031) of 3 Air Observer Navigation School, which crashed on 30 June 1941 at Enville near Stourbridge, shortly after taking off from Halfpenny Green: all three on board were killed. The starboard engine failed when the aircraft had just cleared trees at the end of the runway and the aircraft could not gain height. The Botha was notoriously difficult to fly on one engine, and the following day the unit was informed that the Bothas were to be replaced by Ansons.

**Flight Lieutenant John Henry Robson** (1931-1939) Service Numbers 1053682/121950

Born in Bridlington, Robson served as a navigator and was commissioned in May 1942. He was awarded the DFC in November 1944 for service with 139 Sqn, but was killed in Mosquito (MM132), while returning from a raid on Berlin on 15 January 1941 – his 63<sup>rd</sup> operation. The aircraft was approaching Little Staughton airfield in very poor visibility and hit a tree about a mile from the runway.

**Sergeant John Raymond Rounding** (1930-1938) Service Number 1239106

Rounding was born in Bridlington, although his parents farmed at Harpham. He enlisted on 7 April 1941 and trained in South Africa as an Air Bomber (bomb aimer). While serving with 550 Sqn he and his crew were killed on 2 January 1944 when their Lancaster (DV345) crashed at Whaphole Drove, 8 miles south-east of Spalding.

**Sergeant Joseph Peter Rowley** (1933-1938) Service Number 1579631

Rowley, originally from Derby, enlisted in October 1941 and served as a Wireless Operator/Air Gunner with 101 Sqn. His Lancaster (NN705) was brought down in France on 26 August 1944; only one of the nine crew survived. The squadron's role (Radio Countermeasures) involved carrying an eighth crew member as “specialist operator” and the ninth may have been a new pilot gaining experience.

**Leading Aircraftman Harry Swift** (1927-1934) Service Number 172048

Swift received an MiD on 14 June 1945.

**Squadron Leader Geoffrey Hugh Templeman** (1925-1934) Service Number 121392

Templeman was commissioned into the Medical Branch in May 1942, and was appointed OBE (Military Division) in the 1946 New Year Honours List.

**Squadron Leader John Cunningham Thelwell** (1920-1930) Service Numbers 925016/115063

Thelwell, born in Harrogate, was commissioned in 1942. He was awarded a DFC in May 1943 for service with 109 Sqn, the citation for which reads:

*“Between February and June 1941, this officer completed numerous offensive sorties against heavily defended targets in Occupied France. Flight Lieutenant Thelwell also completed 2 sorties against the German warships when at Brest. Since December 1942, he has participated in a number of sorties, the majority of which have been against industrial targets in Western Germany, where considerable opposition was encountered. Throughout all these operations, this officer has displayed the greatest determination and courage.”*

Some seven months later, he was awarded a second DFC, earned while flying with 105 Sqn, the citation reading: *“Flight Lieutenant Thelwell is a skilful and resolute captain who has completed very many successful sorties. One night in November, 1943, he piloted an aircraft detailed to attack Dusseldorf. Early on the outward flight a technical failure caused engine trouble. In spite of this, Flight Lieutenant Thelwell went on to the target and, in the face of heavy opposition, executed a successful attack. He displayed skill and determination of a high order.”*

Promoted to Squadron Leader, Thelwell returned to 109 Sqn for a third tour of operations and was awarded the DSO in November 1944: *“Squadron Leader Thelwell has completed more than 100 sorties, in the course of his assignments he has attacked a wide range of important and well defended targets and his successes are an excellent testimony to his great skill, courage and tenacity. He has rendered much devoted and loyal service.”*

Thelwell retired from the RAF on 7 April 1956.

**Flight Sergeant Christopher Danby Towse** (1937-1939) Service Number 1237476

Towse was born at his parents' farm at Kilham. He enlisted on 25 March 1941 and began his training on 3 October. After his basic training he began his aircrew training with 14 Initial Training Wing at Bridlington and then moved on to 2 Air Gunnery School at Dalcross and 25 OTU at Finningley. His first operational tour was with 61 Sqn at Syerston, from 3 February 1943. By July his crew had completed 25 missions and Towse was posted to No.17 I at Silverstone, as an instructor. He was awarded a DFM in September 1943:

*“Sergeant Towse has completed 27 successful sorties which include attacks on nearly every major German and Italian target. He has been ever watchful in his turret and his cool, lucid instruction, have enabled his pilot to escape from dangerous situations. Recently when his aircraft was hit by anti-aircraft fire and the navigator was killed, Sergeant Towse, by his calm behaviour and devotion to duty, was of great assistance to his captain.”*

Further instructional tours followed and, in March 1944, Towse was posted to 83 Sqn. On the night of 9/10 May 1944 his aircraft was tasked with an attack on Gennevilliers. Whilst flying low near Rouen the aircraft was hit by flak, which set the port wing alight. The pilot tried to gain height but the aircraft was then attacked by a night-fighter and the starboard wing also caught fire. Although the pilot tried to get out to sea in order to ditch; the aircraft was difficult to control and crashed into a hillside near Glos-sur-Risle. Four of the crew survived and reported that Towse had been killed by flak.

**Flight Sergeant Peter Usher** (1929-1937) Service Number 1048930

Usher received an MiD on 14 June 1945.

**Flying Officer Philip Wadsworth** (1932-1937) Service Numbers 572687/53497

Wadsworth was born in Driffield, where his parents taught in the Infant and Junior Schools. He joined the RAF as a Halton apprentice in 1937 and later volunteered for aircrew; his engineering experience made him an ideal candidate for the newly-introduced trade of Flight Engineer. After completing a tour of operations with 103 Sqn, Wadsworth was commissioned in October 1943 and joined 156 Sqn, based at Upwood. Whilst taking part in an attack on Friedrichshafen on 28 April 1944, his Lancaster (ND409) was shot down by a night-fighter and crashed into a wooded area near Engen with the loss of all seven crew.

**Leading Aircraftman Arthur John Whittaker** (1927-1930) Service Number 537645

Whittaker was the wireless operator in a Wellington of 148 Sqn which crashed in the Brendon Hills, Somerset, while returning to base on 28 November 1939. All five crewmembers died.

**Sergeant Harry Willis** (1930-1936) Service Number 971577

Willis was the Observer in Blenheim (Z6085) of 235 Sqn. While taking part in an attack on enemy shipping off the Dutch coast on 23 March 1941, his section was attacked by three Messerschmitt Bf 109s. Willis's aircraft was shot down with the port engine on fire.

**Sergeant George Greenley Witty** (1925-1930) Service Number 565438

Witty, who lived at Speeton, joined the RAF in January 1931 as a Halton apprentice (23<sup>rd</sup> Entry) and trained as an Aero-Engine Fitter. In December 1933 he passed out top of his Entry, with average

marks of over 85%. This would normally have won him a Cranwell Cadetship, but he was found medically unfit for a commission and so was posted to RAF Catterick in the rank of Leading Aircraftman; he later served in Iraq.

On his return, Witty trained as a pilot, gaining his wings in August 1938, but was killed in a flying accident while serving in France with 87 Sqn on 5 October 1939. While returning from a training flight, his Hurricane lost airspeed and spun into the ground.

**Sergeant Frank Wright** Service Number 1457557

Wright was the navigator in Lancaster (ND844) of 12 Sqn, which was shot down in an attack on railway yards at Aulnoye on 11 April 1944. The aircraft crashed at Sailly-Cambrai (Nord), near Cambrai; only one of the crew survived.

### **THEY ALSO SERVED...**

These tables show all those other OBs who are known to have served in the RAF during the Second World War but about whom little more is known – in most cases, not even their rank. Dates in this section are time at School, not years of service. It is possible that some of those listed joined the service well before the war as regulars and would belong in the previous section *1919-1929 –The Founders*. Only a few are shown as either RAF or RAFVR as those details are not known for most, although they probably would have been RAFVR.

Abell J. R. (1921-1925) Sqn Ldr  
 Ainsworth G. H. (1914-1917) Flt Lt  
 Algar J. C. (1930-1934)  
 Allen E. Flt Lt (1927-1930)  
 Allerston F. (1916-1919) RAF Regt  
 Andrews F. T. (1927-1934)  
 Andrews J. H. (1922-1941) Plt Off  
 Andrews S. C. (1931 – 1936) RAF  
 Anfield B. P. (1934-1940) Fg Off  
 Armitage K. R. (1922-1929) RAFVR  
 Askham R. T. (1921-1925)  
 Atkinson E. (1935-1940)  
 Atkinson J. R. (1927-1932)  
 Bagley R. S. (1924-1930)  
 Baines P. (1921-1928)  
 Banks N. S. (1934-1940)  
 Barker A. R. (1917-1925)  
 Barnett S. A. (1913-1915) Sqn Ldr  
 Barron R. R. (1926-1930)  
 Batchelor L. H. (1918-1922)  
 Bayes R. (1925-1932)  
 Beaumont G. S. (1932-1938) Fg Off  
 Beaver R. W. (1931-1937)  
 Bentley E. S. (1918-1925) Fg Off AAF?  
 Berry A. K. (1932-1938) Cadet  
 Best J. E. (1936-1938)  
 Best R. B. (1932-1936)  
 Beswick P. W. (1938-1939) Sgt Nav  
 Betts P. (1933-1937)  
 Biggs H. S. (1920-1926) Sqn Ldr  
 Billany G. R. (1937-1940) Plt Off  
 Booth F. F. M. (1934-1939)  
 Bowe P. W. (1921-1925)  
 Boynton T. S. (1938-1939)  
 Bracewell D. J. F. (1939-1940) Cadet  
 Brewer P. C. (1930-1935) WO, POW  
 Briggs H. S. (1920-1926) PO  
 Bringham G. B. (1920-1922) AAF  
 Bringham G. F. (1919-1929?)  
 Burton K. (1931-1936)  
 Burton R. G. (1921-1926)

Burton W. M. (1934 – 1938) RAF  
 Butler E. J. (1926-1934)  
 Caley H. U. (1931-1935)  
 Campleman G. (1936-1941)  
 Capewell A. (Master since 1935) Plt Off  
 RAFVR  
 Cartwright J. H. (1933-1938)  
 Challans R. A. (1937-1941) Plt Off  
 Chappell C. S. (1920-1926) Plt Off  
 Chew P. R. (1934-1939) WO  
 Clarke K. S. (1919-1927) Flt Lt AAF  
 Clegg A. (1919-1923) RAFVR  
 Clegg G. E. (1920-1928) RAFVR  
 Close J. (1936-1942)  
 Clough L. (1924-1928)  
 Clough M. (1934-38)  
 Clough R. (1934-1937)  
 Clunas I. C. (1932-1940) WO  
 Cocking D. W. (1935-1940)  
 Collins C. (1923-1930) Flt Lt  
 Coultas P. S. (1932-1937) Fg Off  
 Cowling L. W. (1921-1925) Sqn Ldr  
 Craven F. S. (1931-1933)  
 Crimlis F. (1926-1931)  
 Crimlis K. (1919-1926)  
 Curtis E. A. (1933-1937)  
 Davis E. G. (1935-1940)  
 Davis E. H. (1923-1928)  
 Dennis H. G. (1925-1930)  
 Dermond P. (1919-1922) Plt Off  
 Dixon S. R. (1932-1937)  
 Doran G. W. (1930-1935)  
 Dossor W. F. (1922-1924) Acting Plt Off  
 Drabble K. W. (1928-1930)  
 Duffield F. H. (1931-1936)  
 Duffield J. B. (1931-1936)  
 Dukes N. (1919-1922)  
 Durrans J. L. S. (1926-1929)  
 Eckles G. A. H. (1924-1929) Flt Lt  
 Ellis R. (1932-1935)  
 Ellis J. H. (1931-1934) Sqn Ldr

Ellis J. H. (1931-1934) Sqn Ldr  
 Ellis R (1932-1935)  
 Elsom N. D. (1938-1940) Cadet  
 Eyre E. H. (1933-1939)  
 Fargus F. W. (1919-1921) Sqn Ldr  
 Fell J. B. (1924-1931) RAF Wg Cdr  
 Fenton C. (1934-1937)  
 Ferraby D. L. (1934-1936)  
**Fitzpatrick G. R. (1936-1939) USAAF**  
 Flather D. B. (1935-1940)  
 Fowler J. W. (1928-1929) RAF  
 Freeman R. K. (1932-139)  
 Friend P. H. (1927-1931)  
**Fuchs M. (1938-1939) Czech Air Force**  
 Garbett L. P. (1912-1915) Plt Off  
 Gittins D. (1934-1940)  
 Glew P. (1929-1937) Plt Off  
 Gooder R. W. (1925-1939)  
 Gray F. (1935-1940)  
 Grinstead J. F. (1933-1939)  
 Hall D. M. M. (1929-1933)  
 Hall G. F. (1937-1941)  
 Hall K. D. (1933-1941)  
 Hardman C. J. (1923-1926)  
 Harper C (1920-1924)  
 Harper E (1928-1934)  
 Harris C. A. (1934-1939)  
 Harrop W. E. (1920-1922) Fg Off  
 Hartley H. E. (1924-1928)  
 Havercroft P. D. (1931-1933)  
 Haxby W. B. (1924-1928) Cadet  
 Hermon R. A. (1918-1921)  
 Hill A. Y. (1927-1932) Flt Lt  
 Hill E. (1922-1926) Plt Off  
 Hill J. D. (1930-1936)  
 Hirst T. L. (1922-1926)  
 Hodgson B. F. (1931-1936)  
 Holmes G. (1930-1935) RAF  
 Horner K. (1937-1940)  
 Hughes B. W. (1927-1932)  
 Humphrey J. S. (1920-1921)  
 Hurst D. G. F. (1937-1943) Ac App

Hyslop J. S. D. (1926-1928) Fg Off, RAF Regt  
 Ingle J. W. (1938-1939)  
 Jackson R. E. (1932-1938)  
 Jackson R. F. (1934-1939)  
 Jemison K. W. H. (1924-1928)  
 Jenkinson A. (1926-1934) Cadet  
 Jennis B. (1930-1936)  
 Johnson A. P. H. (1931-1936)  
 Johnson C. G. (1923-1929) RAF Regt  
 King A. (1933-1937)  
 Kneeshaw J. B. (1938-1942)  
 Lamming D. (1922-1930)  
 Lamplough W. H. (1924-1933) Flt Lt  
 Law A. (1922-1930)  
 Law W. (1920-1923) Fg Off  
 Lawty N. (1935-1940)  
 Linsley F. D. (1930-1936)  
 Linsley J. D. (1931-1936)  
 Lister C. P. (1915 – 1922) Sqn Ldr  
 Lister J. W. R. (1936-1942) Cadet  
 Lister T. M. R. (1933-1939) Fg Off  
 Lovatt G. F. (1930 – 1939) RAFVR  
 Lumb G. (1917-1921)  
 Luther A. (1921-1925)  
 Martin P. G. (1924-1928)  
 Maxwell R. M. (1932-1935) RAF  
 Maynard G. L. (1927-1932) Flt Lt  
 McGloon W. F. (1918 – 1926)  
**McLean J. K. (1917-1919) RCAF**  
 Megginson L. D. (1923-1924)  
 Metcalfe H. (1933-1939) Cadet  
 Metcalfe J. W. W. (1932-1937) Flt Lt  
 Miles D. J. (1936-1940) Plt Off  
 Millar J. W. (1933-1939)  
 Milner F. H. (1933-1937)  
 Mott S. D. W. (1930-1934)  
 Murie W. (1937-1942) Cadet  
 Nicholson T. J. (1921-1927) Cpl  
 O'Brien D. P. (1932-1936)  
 Odgers J. M. (1923-1931)  
 Organ D. H. (1930-1936)  
 Ottewell C. (1933-1940)  
 Ottewell H. (1932-1936)

Pape J. E. (1925-1927)  
 Peet G. H. (1923-1928)  
 Peet R. O. (1919-1924)  
 Percival J. (1924-1929)  
 Phillips J. W. (1933-1937)  
 Pinder J. L. (1921 – 1924) RAF  
 Plewes J. B. leB. (1931-1938)  
 Plowright J. A. (1934-1939)  
 Proctor E. E. (1915 – 1923) RAFVR  
 Proctor S. (1919 – 1925) RAFVR  
 Ralph R. C. (1933 – 1938) RAF  
 Redfern R. H. M. (1933-1939) Fg Off  
 Rennison I. W. (1932-1940)  
 Richardson E. J. (1918 – 1920) RAFVR  
 Rigby D. (1919-1920) Plt Off  
 Riley H. E. (1929-1936) Flt Lt  
 Ripley G. T. (1933-1938)  
 Ripley K. (1931-1936)  
 Roberts J. F. (1931-1937)  
 Rumsey H. R. E. (1924-1927) Sqn Ldr  
 Salmon R. H. (1934-1936)  
 Scarborough O. (1921-1929) Sqn Ldr  
 Scarr J. A. (1919-1925) Acting Plt Off  
 Schofield V. G. (1918-1925) RAFVR  
 Selby E. O. (1924 – 1927) RAFVR  
 Sharper R. (1918-1926) Flt Lt  
 Shaw K. M. (1933-1937)  
 Shaw P. N. E. (1933-1939)  
 Shepherd O. T. (1933-1939)  
 Sheppard T. H. (1914-1918) Flt Lt  
 Sherwood H. (1927-1935) Flt Lt  
 Shouler J. C. (1935-1941)  
 Sillers D. H. C. (1935-1938)  
 Smith A. C. (1920-1924) RAF  
 Smith C. B. (1924-1930) Fg Off  
 Smith C. D. (1931-1934)  
 Smith S. J. L. (1925-1930)  
 Southwick K. (1924-1930) RAFVR  
 Spink J. A. (1917-1922)  
 Stather P. C. M. (1926-1935)  
 Stephenson A. (1917-1923)  
 Stephenson H. R. (1925 – 1931) RAF  
 Stephenson K. L. (1926-1931)

Stevenson H. P. (1922-1926)  
 Steventon J. H. (1931-1937)  
 Storr D. R. (1929-1937)  
 Stow B. S. (1930-1936)  
 Stride S. J. (1936-1941)  
 Stubbs W. L. (1932-1933) Flt Sgt  
 Sugden G. D. (1939-1940)  
 Sumerling J. H. (1933-1940)  
 Tadman K. H. (1930-1939)  
 Taylor J. (1922-1924)  
 Taylor K. A. (1931-1937)  
 Temperton F. J. (1939-1940)  
 Thompson E. N. (1934-1940)  
 Thornton P. W. (1919-1922) Flt Lt  
 Threapleton A. (1919-1922) Sqn Ldr  
 Trippett R. (1917-1922) Wg Cdr  
 Ulllyott H. W. (1935-1942) Plt Off  
 Usher A. (1929-1937)  
 Walker G. R. (1930-1931) RAF  
 Walkington P. (1921-1924)  
 Waller L. (1933-1938)  
 Wardill J. C. (1929-1933) Plt Off  
 Watson J. C. (1921 – 1928) RAF  
 Watt-Wyness G. (1936-1941)  
 Welbourne G. V. (Master since 1937)  
 Plt Off  
 Whiting J. M. E. (1932-1936)  
 Wilkinson F. M. N. (1920-1925)  
 Wilkinson H. F. (1921-1928)  
 Williamson P. J. (1925-1932)  
 Williamson R. (1932-1937)  
 Wilson D. A. (1932-1939)  
 Wilson G. R. (1929-1936)  
 Wilson J. E. (1924-1927)  
 Windlass H. T. (1936-1941)  
 Wood A. (1939-1940)  
 Woodcock J. W. (1922-1924)  
 Woodcock W. H. (1921-1924) Plt Off  
 Wooler E. (1933-1939)  
 Worrall G. (1934-1938)  
 Wren H. B. (1933-1938)  
 Wright K. (1933-1936)  
 Yorke C. (1927-1933)

## Post-1945 to the present day – “*The Flying Baby Boomers?*” and the “*Millennium Aviators*”

There is little by way of detailed information on those OBs who served in the RAF after the Second World War. Only 56 have been culled from OBC magazines and other sources. For the first time we see women OBs appearing, reflecting the change to a co-educational school in 1974.

One casualty from flying is known. Ian Johnson’s death shows that flying can still be a hazardous activity. Some detailed career histories have been provided by surviving retired OBs.

**Senior Aircraftman Frances Allerston** (1999-2006) Service Number 30010414

Frances served as a Flight Operations Assistant from January 2007 to September 2012.

**Flight Lieutenant Harriet Allerston** (2001-2008) Service Number 30051017

Harriet joined the RAF in July 2008 and is still serving. She was commissioned in the Operations Support Branch; her postings have included Brize Norton, Waddington, Leuchars and Lossiemouth as well as deploying overseas to Falklands Islands, Qatar and Cyprus in support of operations and then America, Oman, Malaysia and Sicily on exercises.

**Air Commodore Stuart Burdess** (1957-1964) Service Number 507899

Burdess was commissioned in 1964 with a University Cadetship. He had 32 years’ regular service as an Engineering Officer, including an exchange tour with the USAF, tours in Germany and Saudi Arabia, and an Assistant Director role on the Eurofighter project. He was Station Commander at RAF Abingdon and attended the Royal College of Defence Studies. Burdess also qualified as a pilot, flying Jet Provost and Gnat aircraft. He maintained military flying currency throughout his career, and on retirement in 1996 was commissioned as a pilot in the RAFVR(T), continuing for 15 years to fly ATC and CCF cadets in the Chipmunk, Bulldog and Tutor aircraft.

**Wing Commander Mike Eveleigh** (1960-1967) Service Number 4335908T

Mike Eveleigh was a Day Boy at Bridlington School where he was a member of the Combined Cadet Force (RAF Section) achieving the rank of cadet flight sergeant. He joined the RAF directly from School shortly before his 19th birthday, and was commissioned into the RAF Regiment, coming top of his Junior Regiment Officers’ Course.

As a junior officer he served as a flight commander on a field squadron in the Far East and with II Sqn (the RAF Regiment Parachute Sqn). Subsequently, he held a staff appointment at a NATO Air Defence Sector Operations Centre in Germany and, following a short tour as the Second-in-Command of the Queen’s Colour Squadron, was selected as Aide-de-Camp to the Deputy Commander-in-Chief Allied Forces Central Europe in the Netherlands. Other junior officer tours were as the Second-in-Command of a Rapier Air Defence Squadron in Germany and as Station Regiment Officer at two frontline UK flying stations. He saw active service in Northern Ireland and Oman.

On promotion to Squadron Leader, he was posted to the UK Commanders-in-Chiefs’ Committee Secretariat at HQ Land, Wilton in a Joint Service Home Defence planning role. Wing Commander Eveleigh subsequently commanded the Queen’s Colour Squadron and was the first Commanding Officer to entertain HM The Queen to lunch at St James’s Palace during a period of Public Duties in London. He also gained a place for the Squadron in the Guinness Book of Records as the World Record Holder for a 24 Hour Continuity Drill Display. This feat, which still stands, was broadcast on the popular BBC ‘Record Breakers’ programme.

After two years with the Queen’s Colour Squadron he returned to II Sqn as the Squadron Commander – the only individual to have commanded both elite units. Whilst on II Sqn he completed his 75<sup>th</sup> military parachute descent. Another staff tour followed, this time at the Ministry

of Defence where he was responsible for RAF Regiment regular and auxiliary field sqn policy and plans, and for recruiting RAF personnel for Special Duties operations in Northern Ireland. He was then appointed Project Officer for the RAF Regiment's 50th Anniversary celebrations which included a televised Beating Retreat on Horse Guards and the presentation, at RAF Catterick, of a new Queen's Colour by HM The Queen, at which he was the Parade Commander. He received an OBE in 1993. During 1993 and 1994, he was the Project Officer responsible for the re-role of RAF Honington from a Tornado base into the RAF Regiment Depot. Before retiring from the RAF in 1997, he was OC Operations Wing at RAF Honington during which time he completed another parachute refresher course bringing his 'jumps' total to 85 – spoiled by only two trips to A&E.

Following retirement from the Regular RAF in 1997 he worked at HQ Air Cadets, RAF Cranwell as Head of the Ground Training Branch where his many and wide-ranging responsibilities included the Cadet Training Syllabus, Adult and Leadership Training, the Duke of Edinburgh's Award, Annual Camps and Shooting. He was Secretary-General of the International Air Cadet Exchange Association for 11 years.

He is a Past President of the OB Club and has been Chairman of the Cambridge, London and Sheffield Branches. Following his second retirement in 2014, he moved back to Bridlington and is an active committee member of the OB Club.

**Pilot Officer Wilfred D Firth** (1945-1952) Service number 2576722

One of relatively few National Service men to train as a pilot, Wilf served for two years from November 1952. A short 'grading' course on Tiger Moths at Digby was followed by officer training at Jurby on the Isle of Man. Most of his flying training took place in Canada as part of the NATO training plan, at Clareshome in Alberta and Portage La Prairie in Manitoba. He went on to the Harvard and CT-133 Silver Star. He was awarded his wings in June 1954 (6 weeks before his 20<sup>th</sup> birthday) and completed his training on single- and twin-seat Vampires at Oakington, near Cambridge.

**Senior Aircraftman Michael Franklyn Jackson** (1946-1951)

Mike Jackson did his National Service in the RAF (1956-58) and trained as a Radar Operator, hoping to be posted to the large Radar Station at Patrington; instead the RAF sent him to a small unit called Kormakiti in Northern Cyprus where he spent 19 very enjoyable months living in a tent and swimming in the Mediterranean every day.

**Flight Lieutenant Ian Michael Johnson** (1960-1967) Service Number 8024981

Johnson was commissioned in January 1969. On 11 July 1980, he was the navigator in Phantom (XV418) of 92 Sqn, which crashed near Diepholz, Germany after control was lost while filming a BBC programme.

**Wing Commander Peter M D Pugh** (1961-66) Service Number 4335704

Peter joined Bridlington School when his father, Group Captain K W T Pugh, took command of the Thor missiles based at RAF Driffield and its four deployed sites. They were there at the time of the Cuban missile crisis in October 1962. [*Launch Pad UK*, Jim Wilson, 2008, tells the story and Peter and his father are quoted therein.] He went to OCTU at RAF Henlow in June 1966 and was commissioned on 16 December 1966 moving to the Equipment Officers' Training at RAF Upwood.

His first posting was to 16 MU Stafford then to 41 Sqn equipped with Bloodhound missiles at West Raynham. The squadron was merged with 25 Sqn and deployed to RAF Brüggen, Wildenrath and Laarbruch. On return to UK he joined the Supply Staff at HQ Strike Command for over three years. His next posting was to liaison at the MOD Procurement Executive in London. After a period out of the service he re-joined the Supply Branch. He was at RAF Wittering in 1982 when the Falklands campaign started and was instrumental in organising the logistic support for the deployment of 1 Sqn Harriers.

He was posted to an MOD appointment in St Louis, USA, in 1983 and promoted to Squadron Leader. On return in 1984 he commanded the Supply and Engineering Sqn at RAF Uxbridge. After a short appointment at HQ BFFI, he joined the policy branch for the RAF Supply Branch and Trade Group 18 in 1987. Subsequently, in 1989-90 he specialised in the development of a new integrated supply/engineering management system.

He was sponsored on an MSc Course at UMIST and on return in 1993 he was promoted to Wing Commander. He left the service in 1995/96. In the last decade he has focussed on voluntary work in 'patient-on-public involvement' in the NHS and local authority. He has worked at senior level and is currently a Citizens Advice Trustee.

**Corporal Stephen Sharp (1982-1985)**

Stephen joined the RAF as a Halton apprentice and, on passing out after three years' training as a propulsion technician, was posted to 74 Sqn at RAF Wattisham which flew Phantom FGR.2 fighters. In 1990 he moved to RAF Leeming, where he worked for two years on Tornado F2 s in the aircraft maintenance hangar, another two on the Tornados of 25 Sqn and a further two in the RB199 engine bay.

**Flight Sergeant Andrew Taylor (1979-1984) Service Number A8248278**

Andrew joined the RAF on 16 July 1985; after 6 weeks' initial training at RAF Swinderby he moved to the RAF Regiment Depot at Catterick for training as a Gunner. He passed out in December 1985 and his service included Northern Ireland, Iraq, Afghanistan and Operation 'Gritrock' – the Ebola crisis in West Africa. Andrew continues to serve, having received a Long Service and Good Conduct Medal and Bar, recognising more than 30 years' RAF service.

**Wing Commander Charles (Charlie) Frederick Wray (1968-1974) Service Number 5205027D**

Charlie Wray graduated from the University of Southampton in 1977, with Second Class Honours in Aeronautics and Astronautics. He was then employed as a research aerodynamicist in the High-Speed Wind Tunnel Department at Hawker Siddeley (later British Aerospace) Brough. He was commissioned into the RAF's Engineering Branch in January 1983.

Following Initial Officer and Engineering specialist training, he was posted to RAF Leuchars as OC Missile Servicing Flight in August 1984. A further tour at Leuchars, as OC Armament Engineering Flight followed, before posting to the Tri-national Tornado Training Establishment in April 1987, as the senior of two Junior Engineering Officers, and Deputy OC. A detachment to the Falkland Islands in May 1989, again as OC Armament Engineering Flight, was followed by his posting to the MoD Ordnance Board on promotion to Sqn Ldr in November 1989. A tour in HQ Strike Command (and latterly the MoD) as the Engineering Authority for Aircrew Assisted Escape Systems, was followed in December 1994 by his posting to RAF Coningsby as OC Engineering Operations Sqn and Deputy OC Engineering and Supply Wing. Wray undertook the Basic Staff Course in July 1996.

From Coningsby, Wray was posted to USAF Air Armament Centre at Eglin Air Force Base, Florida, in March 1997 as the UK Air Armament Liaison Officer, returning to the UK in February 2000 to complete the Senior Logistics Managers' Course, before moving to the MoD Saudi Project Office in July of the same year. From December 2005 to November 2010 he served as OC Engineering/Senior Engineering Officer at the RAF Centre of Aviation Medicine, RAF Henlow, during which time he had a six-month deployment to the Falkland Islands as SO2 J4 Engineering in HQ British Forces South Atlantic Islands.

Moving to the Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) Force HQ, RAF Waddington in December 2010, initially as SO2 A4, he completed his Regular Service as Deputy Chief of Staff in the HQ, following the move from High Wycombe of Air Officer ISTAR/ISTAR Force Commander and the other 1 Gp ISTAR staff in 2012. During Operation 'Ellamy' – operations over Libya – in 2011, he was deployed for a period as both Chief of Staff Support and COS for A Flight, 907 Expeditionary Air Wing at RAF Akrotiri.

Wray retired from Regular Service in September 2012 and was appointed FT SO1 Gliders (Requirements Manager) at HQ Air Cadets as a Full Time Reservist in February 2013, responsible for managing the future of the Air Cadet Glider fleet.

The remainder are listed below alphabetically with such information as is known. It is more varied and to an extent fuller than the previous Second World War list but also more speculative in some cases. Hopefully the archive over time can fill out the details.

J. H. Barnes (1959-1960) Sqn Ldr  
 Robert Birch (1978?-1980)  
 Stuart Blackwell (1955-1962) Chief Obs. ROC 1984-1991  
 Elaine Boynton (1973-1980 and staff) Education officer  
 Peter L. Bray (Staff 1970s/1980s) Sqn Ldr  
 K. Burton (1931-1937)  
 David Cawthorn (1982-1988)  
 Richard Charnock - Admin - At School 1970s Sgt  
 Patrick Cleary  
 Geoffrey Cooke (1945-1952) National Service?  
 David M. Court (1971-1978) pilot, Harrier and Jaguar;  
 ETPS & AAEE  
 Andrew Dawson (1967-1972?) Medical  
 Angela Dickinson (1995-2002) Personnel  
 James Dickinson (1996-2003) WSO  
 Alan H. Dutton  
 Robert Farquhar (1990-1997) Telecommunications  
 Operator  
 David Featherstone (1951 -1954) FRAeS; Pilot  
 Neil Flather (1972-1979)  
 John K. Foot (1945-1952)  
 John Harvey (1948 – 1953) PTI 1956-1960  
 John Hilditch (staff 1968-1989) PTI; possibly Parachute  
 Jumping Instructor  
 James Hodgeson (1996-2003) RAF Regt  
 Stephen Hollis (1970s) WO  
 Barry A. Horton (1955-1963) Wg Cdr  
 Joanna Hughes (née Cornell) (1981-1988) CSA(V)  
 John M. Hunter (1972-1979)  
 John Malcolm Jackson (1946-1951) served 1953-1955  
 Michael McCaffery (1991-1999) Fighter Control  
 Scott Morris (2003-2008) Logistics (air movements)  
 Served 2014 - ?

David I. Neale MBE (1990-1997) Air Loadmaster  
 Mike (M. C. H.) Newman (1983-1987) Ground Telecoms  
 Technician  
 Rick Page (1969-1975?)  
 A. Mark Popplewell (1972-1979) RAF Regiment, Airman  
 Joe Redhead (1991-1998) Fighter Control  
 Harold Richardson (1943-1948) National Service 1951-1954  
 Richard Peter Robinson (1956-1963)  
 Francis Leslie Senior (1942-1947) National Service 1950-1952  
 David Sharp (School dates?)  
 Wg Cdr John (J. F.) Smith (1949-1956) "Member of the  
 original RAF Section" Henlow Cadetship  
 Peter Spear (1951-1957) Corporal, National Service,  
 served Middle East  
 Liza Peebles, née Stainton (1981-1987) Sqn Ldr  
 Air Loadmaster  
 Roger Stokes MBE (1960s) RAF Regiment Sqn Ldr  
 David W. Sutcliffe MBE (1954-1961) Wg Cdr  
 RAF Regiment 1963-1995  
 Neal Taylor (1990-1995)  
 Clive Thompson (1946-1954) Radar Operator 1954-1956  
 Alan Walker (1949-1956)  
 Tony Wells (late 1950s/early60s) RAF Regiment Fg Off?  
 John V. Wheller (Late 1950s/mid60s) - Flt Lt ATC  
 John Wilson (1945-1950) National Service 1952-1954 LAC  
 John Malcolm Wilson (1946-1951) served 1953-1955  
 John Michael Wilson (1953-1956) Accounts clerk National  
 Service?  
 Malcolm Ernest Wilson (1948-1954) LAC typist 1956 - 1958  
 David Wright (1946-1950) Marine Branch?  
 Wg Cdr Peter York OBE (1960-1966) Avionics Technician,  
 then Navigator

## Other School Connections with the RAF

In 1910, the school formed its Officers Training Corps (OTC) which, in 1948, became the Combined Cadet Force (CCF). The latter eventually had an RAF section alongside the original Army section. Teachers at the school involved in the CCF (RAF Section) were commissioned into the RAF Volunteer Reserve (Training) Branch. Some had already served in various branches of the armed service and some went on to command the School's CCF contingent.

**Keith Roy Allerston** Service Number 0216154X

Commissioned 8 September 2003

**Squadron Leader D Paul Atkinson** Service Number 0217615

After leaving Bridlington School, Paul was appointed as Deputy Corps Training Officer and promoted to Flt Lt to work with the Training Ground Team under the direction of the Wg Cdr TG and Wg Cdr Corps Training Officer. He was promoted to Sqn Ldr in March 2015. Responsibilities include the development of on-line training resources for the First Class Cadet, Leading Cadet, Senior and Master Air Cadet programmes, support for Level 3 ILM programme for the Air Cadet Junior Leaders course and co-ordinating the delivery of the BTEC Level 3 Award in Education and Training for adult staff.

**Charles Henry Ball** Service Number 64666

Commissioned 20 April 1941 Resigned commission September 1947

**Richard William (Dick) Boustead** Service Number 207402

Commissioned 21 February 1964; Service extended to 20 February 1992

**Flight Lieutenant Matt Broadley** Service Number 0216971Q

Contingent Commander at the time of going to press. Commissioning date not known but service extended to 21 March 2021.

**Wing Commander Edward Humphrey Desmond Charlton** Service Numbers 1424313/1433976

Whilst studying at Peterhouse, Cambridge, EHDC enlisted "for the Duration of the present Emergency" in November 1941 but was not called forward until 26 June 1942.

On completion of his initial training he was posted to RAF Exeter in August, and then to RAF Middle Wallop; by the end of 1942 he had been selected for training as a "Clerk, Special Duties" although he had also been considered suitable for the RAF Educational Service. A posting to RAF Uxbridge in January 1943, and time at the Air Ministry, may have involved his being interviewed for more specialised duties; by May he had been discharged "on appointment to a temporary commission" in the Administrative and Special Duties Branch.

After a brief commissioning course EHDC reported to RAF Newbold Revell for specialist training for a role in signals intelligence, which included a crash course in Japanese. Posted to India in August 1943, EHDC spent time with a variety of "Wireless Units" whose role was to listen to Japanese radio traffic and build up a picture of the enemy order of battle. Some time was also spent at the Eastern Wireless Sub-Centre, which seems to have collated the reports. EHDC returned to the UK in September 1946 and was demobilised.

He was commissioned into the RAFVR(T) for service with Bridlington School CCF in February 1949, and eventually resigned his commission on 14 September 1982.

**Charles Alfred Coomber** Service Number 65863

Commissioned 28 April 1941; Resigned commission 4 July 1944. Strangely, he does not appear in the Air Force Lists. In 1939, Coomber was teaching at the County School, St Albans (now Verulam School); 220 (St Albans) Sqn of the ATC was initially based at the school, and Coomber was a flight commander.

**Dan Curran** Service Number 211052. Commissioned 5 August 1983; Resigned commission 27 August 1988

**Flight Lieutenant John R Dibb** Service Number 207724

Commissioned before 1977; Commission resigned 2 May 1984

**Flying Officer Gerry F Everett** Service Number 0215781H

Commission relinquished 26 September 2009

**Flying Officer Mike Franklin** No further information available.

**Flying Officer Michael Gething** (1961-63) Service Number 208863

Michael Gething came to Bridlington School in the Spring of 1961, when his father took over a business on Sewerby Road. His grandfather (Kenneth Percy Maxwell) and uncle (Morrine Maxwell) were both OBs. In November 1963 when his family moved south, he transferred to Bournemouth School and joined the RAF Section of the CCF there, ending up as Cadet Warrant Officer II. Leaving school, he joined National Westminster Bank and, while working in Brighton, joined 176 (Hove) Sqn of the ATC as a Civilian Instructor. A change of job in 1971 saw him move to Ascot and he joined 2211 (Bracknell) Sqn as a Civilian Instructor, being commissioned into the RAFVR(T) in February 1972. During that time, he took over the Modelling page of the *Air Cadet News* and, later, as he moved into aviation/defence journalism, he wrote the Aviation News pages until 1979. He relinquished his commission in February 1986.

Professionally, Gething has been an aviation/defence journalist and editor since 1973, when he joined the staff of the Royal Aeronautical Society publication *Aerospace*. In October 1976, he moved to *DEFENCE* magazine where he spent 17 years, eight of them as Editor, before joining Jane's Information Group (now part of IHSmarkit) in December 1993 to edit *Jane's Defence Systems Modernisation*, later re-titled *Jane's Defence Upgrades*. In June 2003, he was appointed Editor of the *Jane's Electro-Optic Systems* yearbook. In 2012, the content of this yearbook was merged with several other yearbook titles to produce *Jane's CAISR & Mission Systems*, of which he became Editor – EO/IR Systems, retiring in November 2015. Over the years he has written many features for aviation and defence magazines, and several books, including *Air Power 2000* (1992) and *Sky Guardians – Britain's Air Defence 1918-1993* (1993).

On 10 July 2016, Gething received a Lifetime Achievement Award for Defence Journalism at the Aerospace Media Awards dinner, held at the Royal Aeronautical Society in London on the eve of the Farnborough Air Show. A Member of the Royal Aeronautical Society (MRAeS) and a Member of the Chartered Institute of Journalists (MCIJ), he is also a member of Air-Britain (Historians), the Air Power Association and the International Plastic Modeller's Society (IPMS).

**Squadron Leader Anthony Holmes** Service Number 8080750Q

Commissioning date unknown; Service extended to 21 July 2007. Holmes had served in the RAF as a Senior NCO before joining Bridlington School and had been awarded the Long Service and Good Conduct Medal.

**John Barnett Lister** Service Number 62876

Lister was granted a commission in the East Yorkshire Regiment on 5 August 1916 but had to relinquish his commission on health grounds in 1917 without seeing active service. In 1919 Lister was appointed to the Unattached List of the Territorial Force "for service with the Bridlington Grammar School Contingent, Junior Div., Officers Training Corps. He was awarded the Territorial Decoration in September 1938. Following the formation of the ATC in 1941, Lister was commissioned into the RAFVR (Training) Branch with the Service Number 62876 and commanded 252 (Bridlington) Sqn ATC, which used the School's premises.

**Russ Mayes** No information available.

**Frank Geoffrey Newsum** (Staff 1966-1989) Service Number 208077

Commissioned 11 May 1967; Commission resigned 6 October 1989

**Wing Commander Susan Shilladay** (Staff 1971-2005) Service Number 0209953M

Sue Shilladay was commissioned into the RAFVR(T) in 1978 as a section officer with Bridlington School and was one of the first three women accepted into the VR(T) Branch. The School was the first in the country to open its CCF to females when the opportunity arose, thanks to the forward thinking of the-then Contingent Commander, Wg Cdr Des Charlton RAFVR(T).

After a period as OC army section, though still wearing blue, she was appointed the first female Contingent Commander in the country in 1986 and was subsequently allowed to open a RN section,

making the CCF tri-Service, with numbers even over the three sections – highly unusual in the organisation nationally. She was promoted to Wg Cdr RAFVR(T) in 1998 after 20 years of service. When she stepped down as Contingent Commander, she was appointed mentor by HQ Air Cadets in 2014 to assist other contingents in the SCOTNINE (Scotland, Northern Ireland, Northern England) RAF cadet region, a post she continues to hold.

**Reverend Michael Stark (1944-1953)**

Michael Stark was an Air Training Corps Squadron Chaplain for 10 years and the Chaplain to the South and East Midlands Wing of the ATC for five years. He also served as a temporary RAF Chaplain on Ascension Island in 1986.

## The “Local” RAF

There were, over the years, especially in the Second World War, several airfields in the catchment area of the school and the hinterland of the town, or which had other connections with it. There is an on-line resource <http://www.airfields-in-yorkshire.co.uk> identifying nearly 40 airfields or RAF stations in Yorkshire, many in East Yorkshire or nearby in North Yorkshire, with short histories and maps of them.

Most familiar and notable perhaps were at RAF Driffield (where MRAF Lord Craig did his flying training), RAF Carnaby, RAF Lissett and RAF Leconfield.

On our doorstep in Bridlington harbour was the RAF Marine Craft Unit (No. 1104), which was an offshoot of RAF Leconfield – the “parent unit”. It dated from before the Second World War, operating seaplane tenders, and included at one time Aircraftman Shaw (aka Lawrence of Arabia) as a motor boat crewman. Some OBs will recall from their CCF days putting to sea on one of the craft as part of their experience of the RAF.

Wider afield, stations such as RAF Dishforth, RAF Leeming and RAF Linton-on-Ouse provided air experience opportunities for cadets.

Local stations were also the homes for boys at the school, many as boarders in the 1960s when nearby RAF Driffield closed. During the 1960s, as many as 20 of the boarders were from RAF families, some of whom also joined their father’s service.

## In Which They Served

The individual stories also tell us of the RAF Squadrons in which OBs served. In total 43 Squadrons can be identified. Some OBs, of course, served in more than one squadron. More interesting is that there are some squadrons where more than one OB served, notably 15, 51, 61 and 226 Sqns, and these are just the ones known about. Many of those about whom we know very little will probably have served in the same squadrons as other OBs. Most seem to have been in Bomber and Coastal Command units.

Not all were attached to squadrons, as the stories show. Some were ground personnel, engineers and supply staff, some medical, some in the RAF Regiment, or in other roles.

What follows are some of the stories of squadrons where two or more OBs are known to have served.

### **15 Sqn, RAF “Aim Sure”**

15 Sqn was first formed on 1 March 1915 as an RFC training unit, and moved to France on 22 December 1915, undertaking a reconnaissance role in support of the Army. It operated in support of IV Corps during the Battle of the Somme in summer 1916, suffering heavy losses from both ground fire and German fighter aircraft. It was again heavily committed to action in support of the offensive at Arras in Spring 1917. It re-equipped with the Royal Aircraft Factory R.E.8 in June 1917, retaining the “Harry Tate” (a rhyming-slang term for the aircraft) until the end of the First World War. On 10 May 1940, the day that the Germans invaded Holland, Belgium and Luxembourg, it flew its first wartime bombing mission: eight Blenheims bombed Waalhaven airport near Rotterdam, which had been captured by German paratroops. Towards the end of 1940 15 Sqn converted to Wellingtons and on the night of 21/22 December used them for the first time for a raid on the

dockyards at Bremen. The squadron continued to operate with Wellingtons until the following April, when it became the second unit to receive Stirlings.

The squadron subsequently flew Lancasters, Victors, Buccaneers and Tornado GR.1 and GR.4. It was disbanded on 31 March 2017.

Here are the first of two OBs who served in this unit but two World Wars apart:

**Group Captain Francis Henry Ernest Reeve** Serving with several units, Reeve was wounded while serving with 15 Sqn in March 1917. He commanded 57 Sqn between July 1935 and September 1937, when he joined the Directorate of Intelligence.

**Squadron Leader Robert Richard Megginson** Serving initially as a sergeant pilot with 101 Sqn, on 13 May 1940 Megginson was posted to 15 Sqn, flying Blenheims. The Blenheims were replaced by Stirlings in early 1941. Megginson had been posted away but returned in May 1943 with the rank of Acting Squadron Leader, commanding "B" Flight. He received the DFC in October 1943.

### **51 Sqn, RAF "Swift and Sure"**

Formed in May 1916 as a Home Defence unit, 51 Sqn was disbanded in June 1919. The Squadron reformed on 5 March 1937 when 'B' Flight of 58 Sqn was renumbered '51' at RAF Drifffield. Virginias and Ansons were flown until Whitleys arrived in early 1938, and it was with these aircraft that the unit flew its first operational missions of the Second World War. The flights took place on the very first night of the Second World War, 3/4 September 1939, and the squadron dropped leaflets over Germany. Bombing missions started in May 1940, and continued until 1942 when the squadron was assigned to anti-submarine patrols over the Bay of Biscay as part of Coastal Command. The following year, Halifaxes replaced the ageing Whitleys and the unit returned to Bomber Command as a 'main force' squadron for the remainder of the European War. The squadron subsequently flew Stirlings, Yorks, Comets, Canberras, Hastings and the Nimrod R.1. Currently based at RAF Waddington, 51 Sqn is equipped with three RC-135W Rivet Joint (Airseeker) ISTAR aircraft.

Two OBs flew with 51 Sqn during the Second World War:

**Sergeant John Kirkwood Purdon** Purdon was the Second Pilot of Whitley (Z6556) of 51 Sqn. In April 1941, while taking part in a raid on Brest, the aircraft crashed at Trébeurden, Côtes-du-Nord.

**Flight Lieutenant Harold Cass Pexton** Until March 1943, he served with 51 Sqn then went to 35 Sqn, part of Bomber Command's Pathfinder Force. During an attack on Hamburg, his Halifax was shot down.

### **61 Sqn, RAF "Per Purum Tonantes – Thundering through the clear air"**

Initially formed as a Home Defence unit in July 1917, 61 Sqn was disbanded in June 1919. The squadron was re-formed on 8 March 1937 as a bomber unit. It took part in many notable operations including:

- The first bombing raid on a German land target (Hornum, 19/20 March 1940)
- The first big bombing raid on the German mainland (Mönchengladbach, 11/12 May 1940)
- The first bombing raid on Berlin (25/26 August 1940); the attacks on Le Creusot and Peenemünde (17 October 1942 and 17/18 August 1943, respectively)
- The successive drainings of the Dortmund-Ems and Mittelland Canals (late 1944)
- The attack on Wesel just before the crossing of the Rhine (23/24 March 1945)

Beginning operations with Handley Page Hampdens, the squadron converted in July 1941 to the more modern Avro Manchester and (from spring 1942) its more successful 'big brother', the Lancaster. Four of its Lancasters each became veterans of more than 100 operational sorties,

including participation in the raid on 3/4 November 1943, when Flt Lt William Reid of 61 Sqn won the Victoria Cross. The last mission before VE Day was on 6 May 1945, when the unit's Lancasters ferried 336 ex-PoWs home to the UK from Europe. The squadron subsequently flew Avro Lincolns and the English Electric Canberra B.2, being disbanded in 1958.

Four OBs are known to have served with 61 Sqn in the Second World War:

**Sergeant George Ellis Clark**  
**Flight Lieutenant Alan Bruce Harrison**  
**Wing Commander Richard Dunning Pexton**  
**Flight Sergeant Christopher Danby Towse**

**226 Sqn, RAF** *“Non sibi sed patria – For country not for self”*

The squadron was formed on 1 April 1918 in Italy. It operated fast bombers and fighter aircraft. After the Armistice the squadron was disbanded but was reformed as a light bomber squadron, on 15 March 1937, flying Fairey Battles. Deployed to France as part of the Advanced Air Striking Force, 226 Sqn suffered heavy losses during the Battle of France, retreating westwards and evacuating from Brest in mid-June 1940. Re-assembled at RAF Sydenham, it was re-equipped with Douglas Havoc, Douglas Boston and North American B-25 Mitchell medium bombers, whilst carrying out attacks on German ports and anti-shipping strikes. Disbanded in 1945, the squadron was reformed in 1959, equipped with three Douglas Thor intermediate range ballistic missiles, based at RAF Catfoss as part of the Driffield group of Thor launch sites. It disbanded in 1963, following the deactivation of the Thor missiles.

As with 15 Sqn, two OBs served with 226 Sqn, separated by two World Wars:

**Lieutenant Harvey Tennant Bennett Williams**  
**Sergeant George Stephenson Needler**

## Postscript – reflections on 100 years

100 years may not be very long in comparison to the other two services – whose histories embrace many centuries and eras – but it embraces the lifespan and memory of most people. When the RAF was created in 1918, Bridlington School was less than 20 years old.

Gathering this archive has revealed the story of hundreds of young, and some not so young, men – and more recently women – for whom the appeal of flying has had strength and purpose.

As the RAF enters its second century, the School is already well into its second, and while the number of people entering all the armed services dwindles there is no reason to suppose that Bridlingtonians will not continue to take to the air. And perhaps, just perhaps, the future may see the first Old Bridlingtonian in space.... to reach not just for the sky, but for the stars.

The project team are:

Mike Eveleigh  
Peter Elliott  
Mike Gething  
Mike Horah  
Sue Shilladay

*OBs who have new or supplementary information about RAF OBs not so far identified, or about any of those covered in this narrative are more than welcome to provide via the Club Secretary.*

## Appendix 1

### Aircraft Types flown by OBs

This appendix comprises thumb-nail descriptions of all the aircraft types noted in the main narrative as being flown by OBs, as well as some types in which they would most likely have been trained. Those seeking further, detailed information are directed to the myriad of general and type-specific books on the subject and, of course, the internet. The team owes special thanks to Mike Gething for having compiled this set of notes, drawing on his renowned expertise in this field.

**Notes on Aircraft Nomenclature:** Until the end of 1942 the RAF always used Roman numerals (I, II, etc.) for mark numbers; 1943–1948 was a transition period during which new aircraft entering service were given Arabic numerals (1, 2, etc.) for mark numbers, but older aircraft retained their Roman numerals. From 1948 onwards, Arabic numerals were used exclusively. From 1943, role designation letters (e.g. F for fighter, B for bomber, C for cargo [transport], T for trainer, etc.) used in front of mark numbers were progressively introduced, being written with or without the word 'Mark' or abbreviation 'Mk' (e.g. F Mark III; F Mk III, F Mk 3 or just F.3).

#### **SS class non-rigid airship**

The SS (Sea Scout or Submarine Scout) class non-rigid airship (colloquially called a “blimp”) was designed in response to the German announcement, in February 1915, of the unrestricted destruction of all shipping in waters adjacent to the British Isles. A prototype was created for the RNAS by using a discarded envelope from HMA 2 (with a capacity of 20,500 cu ft) married to the fuselage (less tail unit) of a B.E.2c aircraft slung beneath as a gondola. This flew on 18 March 1915. Production versions of the SS “B.E.2c” used a larger envelope of 60,000 cu ft, being powered by a 75 hp Renault engine, giving a maximum speed of 50/52 mph and an endurance of 7 hours at full speed and 14-16 hours at half-speed. It was armed with a single 0.303 inch Lewis gun and could carry 160lb of bombs. In all, 158 airships in several variants were built, some being acquired by France, Italy and the United States.

#### **NS class non-rigid airship**

The NS (North Sea) class non-rigid airships were designed and built by the RNAS during the First World War to operate off the east coast of Britain on long-range patrols. The first-of-class, N.S.1, took to the air from the RNAS base at Kingsnorth on 1 February 1917. Developed from experience gained with earlier classes of airship, the NS class airship comprised a tri-lobe streamlined envelope with a capacity of 360,000 cu ft. At the rear of the envelope were four fins: the top fin acted as a stabiliser, while the other three identical (and larger) fins carried the rudder and elevators. The two crew gondolas were suspended under the envelope: forward was the control car, and aft was the engine car, connected by an exposed walk-way suspended on cables. The armament comprised five 0.303in machine guns and it could carry six 230lb bombs. Powered by a pair of 250hp Rolls-Royce Eagle engines mounted one either side of the engine car, each driving a 9ft diameter four-bladed propeller, the NS class had a maximum speed of 57mph and a 9,500ft service ceiling. Later a pair of 240hp Fiat engines replaced the Eagles. The NS class had a nominal endurance of 24 hours, although N.S.11 set an endurance record of 101 hours in February 1919.

The largest airship in the RNAS fleet, only 14 NS class airships were built, one (N.S.14) being passed to the United States. The last in service, N.S.7, was withdrawn in October 1921.

#### **Airco D.H.4**

Although designed by a young Geoffrey de Havilland, the two-seat D.H.4 was built by the Aircraft Manufacturing Company (Airco) and became one of the great aircraft to emerge from the First World War. Initially conceived as a reconnaissance fighter, it was most successful as a light bomber and general-purpose aircraft. The prototype D.H.4, which flew in mid-August 1916, was powered by a water-cooled six-cylinder 200hp BHP engine (later known as the Galloway Adriatic). Over its production it was fitted with several types of engine, including the Royal Aircraft Factory 3a engine; 230hp Siddeley Puma; 250 hp Eagles I/II/III/IV; 275hp Eagles V/VI/VII and the 375hp Eagle VIII. The D.H.4 was armed with one forward-firing 0.303in Vickers machine gun and a 0.303in Lewis machine gun in the rear cockpit, and could carry either two 230lb or four 112lb bombs. The RAF 3a-powered D.H.4 had a maximum speed of 117.5mph and a service ceiling of 17,500ft, with a 4-hour endurance. Deliveries began in January 1917. The RFC and the RNAS between them received 1,449 of the 6,295 D.H.4s built (4,846 being built in the United States and 26 in Belgium). The last D.H.4 unit was 55 Sqn, RAF (as the RFC had become) which withdrew the type in January 1920.

#### **Airco D.H.5**

Another Geoffrey de Havilland design from Airco, the D.H.5 was a single-seat scout (fighter) for the RFC, first flown in August 1916. It featured a slightly staggered wing configuration, the leading edge of the upper mainplane being 27in aft of the lower mainplane. Powered by a 110hp Le Rhone 9J rotary engine, the D.H.5 was capable of 109mph maximum speed with a service ceiling of 16,000ft. It was armed with a single Vickers 0.303in machine gun, set to fire outside of the propeller arc, and could carry four 25lb Cooper bombs. It entered service with 24 Sqn, RFC, in May 1917 but was soon found to be outclassed by the Sopwith Pup. It had been withdrawn from service by January 1918, after a production run of 552 aircraft.

#### **Airco D.H.6/D.H.6A**

Again built by Airco, the D.H.6 was designed by Geoffrey de Havilland as a training biplane for the RFC, housing instructor and student in a side-by-side cockpit. First flown in 1916, the D.H.6 was initially powered by a 90hp Royal Aircraft Factory 1a engine, although later examples had either a 90hp Curtiss OX-5 or 80hp Renault engine. It had a maximum speed of 70mph and an endurance of 2hr 45mins. The D.H.6A was an adaption for the RNAS, as a single-seater, carrying four small bombs. The D.H.6 entered RFC service in early 1917 but had been withdrawn by the end of the year. Some 300 were transferred to the RNAS in March 1917, which used them for anti-submarine patrols. After the Armistice, these were withdrawn from service. In all, some 2,282 D.H.6/D.H.6A aircraft were produced.

#### **Airco D.H.9/D.H.9A**

The D.H.9 was an evolution of the D.H.4 with the wings, rear fuselage, tail unit and undercarriage being identical. The forward fuselage saw the pilot's cockpit moved aft to incorporate an internal bomb cell, able to accommodate fourteen 25lb Cooper bombs and fuel tanks – it was six inches longer than the D.H.4. The first prototype, modified from a D.H.4 airframe, was powered by a 230hp Siddeley Puma engine and was first flown in July 1917. Later models were powered by 230hp Galloway Atlantic or 260hp Fiat A.12 engines. Its armament mirrored the D.H.4. Following UK trials and an initial operational evaluation with 27 Sqn, RFC, in France, it was concluded that the D.H.9's performance was not as good as an Eagle V-powered D.H.4 and it was never used operationally. The D.H.9A, however, was a different matter as it used the 400hp Liberty L-12 engine. Due to pressure on the Airco drawing office, Westland Aircraft took responsibility for the design of this installation, which included slightly larger wings. The first flight of the 'Nine Ack' (as the D.H.9A was

affectionately known) took place on 19 April 1918, by which time the RFC had become the RAF. However, due to a shortage of the Liberty engines, many early aircraft were powered by the 375hp Rolls-Royce Eagle VIII. The Liberty-powered D.H.9A had a maximum speed of 114.5mph with a 5.75-hour endurance. Armament was again one Vickers machine gun and one Lewis, with a bomb load of up to 600lb. When production of the D.H.9A ceased in 1919, 1,730 had been built by ten different British companies under wartime contracts. It went on to become a standard general-purpose aircraft for the RAF post-1919 and a further 268 were built in 1925-1926, before final retirement in 1930. RAF aircraft served in Russia supporting the White Russians in 1919, in Turkey in 1922, in the Middle East and India.

### **Airspeed Horsa**

The RAF's first troop-carrying glider, the prototype Horsa first flew on 12 September 1941. With a crew of two pilots (who assumed a combat role once on the ground), it could carry 20-25 troops (fewer if a Jeep and light towed anti-tank gun were carried). Usually towed by a Halifax bomber, when released it had a glide speed of 100mph. First used operationally in November 1942 for a raid into Norway, Horsa gliders were used during the invasion of Sicily, on D-Day, at Arnhem and, in March 1945, for the crossing of the Rhine. In all, 3,655 Horsas were built, and were retired from RAF service after 1945.

### **Armstrong Whitworth F.K.8**

The F.K.8 (the designation deriving from its Dutch designer, Frederick Koolhoven and often referred to as "the Big Ack"), was a two-seat corps-reconnaissance biplane built by Armstrong Whitworth as an alternative to the R.E.8 and first flown in May 1916. Powered by a 160hp Beardmore water-cooled engine, the F.K.8 had a maximum speed of 95mph and an endurance of some 3 hours. It could also carry up to 250lb of bombs. Some 1,650 examples were built and it served with a dozen RFC and embryo RAF squadrons on Home Defence, over the Western Front and in support of White Russian forces in 1919.

### **Armstrong Whitworth A.W.38 Whitley**

The Whitley was one of the mainstays of the RAF's medium bomber fleet for the early part of the Second World War, before being adapted for maritime patrol, glider-tug and special transport duties later in the war. First flown in June 1935, the Whitley Mk I bomber entered RAF service in August 1935, while the Whitley Mk V maritime patrol version was introduced in late 1940. The Mk I version was powered by two 795hp Armstrong Siddeley Tiger IX engines, giving it a maximum speed of 192mph, a service ceiling of 16,000ft and a range of 1,250 miles. It was armed with a single 0.303in Vickers hand-operated machine gun in each of the nose and tail positions. The Mk V had a pair of 1,010hp Rolls-Royce Merlin X engines, giving it a maximum speed of 222mph and a range of 1,650 miles (with 3,000lb of bombs). It featured a powered tail turret with four 0.303in machine guns and a single 0.303in machine gun in a nose turret. The RAF received 1,466 Whitleys of all types and, equipping over 30 squadrons, serving with Bomber, Coastal and Transport Commands.

### **Armstrong Whitworth A.W.41 Albemarle**

The Albemarle began life as a reconnaissance bomber, the prototype flying in March 1940, but became obsolete in this role by 1942. It was then used as a glider-tug and special transport duties until 1946. Powered by two 1,590hp Bristol Hercules XI radial engines, the Albemarle had a maximum speed of 265mph. The bomber version (with a crew of four) was equipped with a dorsal turret with four 0.303in machine guns, while the glider-tugs and special transports had twin hand-

operated 0.303in Vickers K machine guns mounted amidships. The 600 Albemarles built for the RAF served in seven squadrons.

### **Armstrong Whitworth A.W.660 Argosy**

Derived from the A.W.650 civil Argosy (first flight: 8 January 1959), the first military A.W.660 Argosy C.1 transport/cargo aircraft for the RAF made its maiden flight on 4 March 1961. The Argosy was designed in a 'pod-and-boom' configuration and featured 'clamshell' rear doors to accommodate the loading of vehicles and cargo. Powered by four 2,680hp Rolls-Royce (R.Da. 8) Dart 101 turboprop engines, the Argosy had a maximum speed of 268mph. It carried a crew of four with seating for 69 troops, 54 paratroops or 48 stretchers, or a maximum cargo payload of 29,000lb. Its range (with maximum payload) was 354 miles or, with a 20,000lb payload, 1,070 miles.

The RAF procured 56 Argosies, the first entering service with 114 Sqn of Transport Command in February 1962. It went on to equip a further five transport squadrons, with 70 Sqn giving up its last Argosies in 1974. Nine were then modified for flight inspection duties (Argosy E.1) and served with 115 Sqn until 1978.

### **Avro 679 Manchester**

While the Avro Manchester itself was considered a disappointment to the RAF, this twin-engined bomber gave birth to the illustrious Lancaster. Flown in July 1939, the first aircraft were delivered in 1940 (featuring a third, fuselage-mounted fin) and when production ceased in November 1941, only 200 had been built. Powered by two 1,760hp Rolls-Royce Vulture engines, the Manchester had a maximum speed of 265mph. It was equipped with nose and dorsal turrets with a pair of 0.303in machine guns each, and a four-gun tail turret. Carrying 8,100lb of bombs, it had a range of 1,630 miles. Withdrawn in June 1942, it had served with just seven RAF and two RCAF squadrons.

### **Avro 683 Lancaster**

As the failure of the original Manchester became evident, Avro evolved the design as the Manchester Mk III, equipped with four Merlin engines, the prototype (flown in January 1941) being a converted Manchester airframe. Renamed Lancaster, a second prototype flew in May 1941. Deliveries to the RAF began in December 1941 and the Lancaster soon began to outshine its contemporaries – the Halifax and Stirling. When production transitioned to the Lincoln (originally Lancaster B.IV) in 1945, some 7,377 aircraft had been built (including Canadian production), principally the B.I and B.III versions, although 300 B.II versions were built with Bristol Hercules radial engines to cover a period of limited Merlin availability. The design evolved into the Lincoln bomber, Lancastrian and York transports, and the Shackleton maritime patrol aircraft. Powered by four 1,280hp Rolls-Royce Merlin XX/XXII or 2,640hp Merlin 24 engines (B.I) or US Packard-built Merlin 28, 38 or 224 engines (B.III), the Lancaster had a maximum speed of 287mph. It was equipped with 0.303in machine guns, two each in the nose and dorsal turrets and four in a tail turret. (A twin-gun ventral turret was fitted to some early aircraft but never widely adopted.) Carrying 14,000lb of bombs, it had a range of 1,660 miles, or 1,040 miles with a single 22,000lb 'Grand Slam' bomb. Other special bombs used by the Lancaster included the aerial mine (aka 'the bouncing bomb') used in the Dam Buster raids and the 12,000lb 'Tallboy' bomb. When the RAF retired its last operational Lancaster (an MR.3 variant) in February 1954, it has served with 83 squadrons during its career. Apart from serving in Australian and Canadian units, many ex-RAF Lancasters were exported after 1945, and the last operational Lancaster (a Canadian B X) was flown in 1964. Two aircraft remain airworthy, one flown by the RAF's Battle of Britain Memorial Flight and the other by the Canadian Warplane Heritage Museum.

### **Blackburn Botha**

The prototype Botha, ordered in 1938 for RAF Coastal Command, was first flown on 28 December 1938, powered by a pair of 880hp Bristol Perseus engines. It had a maximum speed of 220mph and a range of 1,270 miles. Its bomb bay could accommodate up to 2,000lb of weapons, including a torpedo or bombs. It carried a fixed 0.303in machine gun forward and a pair of the same in a dorsal turret. The Botha entered service with 608 Sqn of the AAF in June 1940. However, once in service, it was found to be under-powered and was withdrawn from front-line operations in November 1940, reverting to training duties until 1944. In all, 580 Bothas were delivered to the RAF.

### **Bristol F.2 Fighter**

Designed as a replacement for the B.E.2c, the Bristol F.2 Fighter was a two-seat biplane which first flew on 9 September 1916. Powered by a 190hp Rolls-Royce Falcon V12 engine, the "Biff" or "Brisfit" (as it was affectionately known) had a maximum speed of 123mph and a range of some 369 miles. It was armed with one forward-firing Vickers 0.303in machine gun and a similar calibre Lewis gun in the rear cockpit, plus provision to carry two 112lb bombs. The aircraft entered RFC service with 48 Sqn in March 1917 and, by the end of the First World War, was in service with 17 squadrons. Due to its robust design, the definitive F.2B variant (upgraded in three sub-versions over time) continued in RAF service at home and abroad until 1932, when 20 Sqn in India withdrew its last aircraft. In all the RFC and RAF procured 5,125 aircraft, and it served with a total of 39 squadrons.

### **Bristol Blenheim**

Derived from the Bristol Type 142 "Britain First", the prototype Blenheim light bomber, ordered under the pre-war RAF Expansion Scheme first flew on 25 June 1936 and the Mk I (known as the "short-nose" Blenheim) entered RAF service with 114 Sqn in March 1937. Powered by a pair of 850hp Bristol Mercury VIII engines, the Blenheim I bomber had a maximum speed of 260mph and a 5½-hour endurance. A dorsal turret housed a single Vickers 'K' 0.303in machine gun with a single 0.303in machine gun firing forward. It could carry a 1,000lb bomb load. A night-fighter variant, the Blenheim IF, was fitted with a gun pack under the fuselage, housing four forward-firing guns, and early air interception radar sets. Some 1,134 Mk Is were built before production switched to the Mk IV and Mk Is served in over 50 squadrons in both bomber and fighter roles at home and overseas. The Blenheim IV bomber (known as the "long-nose" Blenheim) had a lengthened nose section to provide better accommodation for the navigator. Entering RAF service in early 1939, some 3,297 Blenheim IVs were built and served with over 50 squadrons in fighter, bomber and coastal roles. The Mk IV was powered by a pair of 905hp Bristol Mercury XV engines, giving it a maximum speed of 266mph and an 8.5-hour endurance. A dorsal turret housed twin 0.303in machine guns, with another pair in a blister under the nose (firing aft) with the single fixed 0.303in machine gun firing forward. It could carry a 1,000lb bomb load. A night-fighter variant, the Blenheim IVF, was fitted with the gun pack used by the Mk IF and early air interception (AI) radar sets, while the Mk IVL featured additional wing fuel tanks.

### **Bristol Beaufighter**

Evolved from the Beaufort torpedo bomber, the Bristol Beaufighter comprised a re-designed forward fuselage and higher-powered Hercules radial engines married to the Beaufort's wings, rear fuselage and tail unit. First flown on 17 July 1939, it entered RAF service as a night fighter (Mk IF), equipped with early AI radar equipment, in August/September 1940, and as a long-range day fighter (Mk IC). Several versions of the Beaufighter were produced: the Mk II with in-line Merlin engines, which served as a night fighter; the Mk VI and Mk X, reverting back to improved Hercules radial engines, and used as day fighters and for the anti-shipping role armed with a torpedo (when it was

nicknamed “Torbeau”) or underwing rocket projectiles. Powered by a pair of Bristol Taurus engines, the Beaufighter Mk VI used the 1,670hp Hercules VI or XVI models, giving a maximum speed of 333mph and a range of 1,480 miles, while the Mk X had the 1,770hp Hercules XVII version, with a maximum speed of 303mph and a range of 1,470 miles. The Mk I and VI were armed with four 20mm Hispano cannon in the nose and six wing-mounted 0.303in machine guns in the wings. The Mk X had the nose-mounted cannon and a dorsal mounting for a single 0.303in machine gun, plus on later versions, a fin fillet. The fuselage centreline could mount a 1,605lb or 2,127lb torpedo; while each wing could carry a 250lb bomb or four rocket projectiles. Some 5,500 Beaufighters were built for the RAF (plus 364 in Australia for the RAAF) and served in some 50 squadrons in the UK, Middle and Far East. It continued in front line service to 1950, although several Mk X aircraft, converted as target tugs (TT.10), served up to 1960.

### **Canadair (Lockheed) CT-133 Silver Star**

A licence-built version of the Lockheed T-33 jet trainer (derived from the P-80 Shooting Star fighter), some 656 CT-133 Silver Stars were produced for the Royal Canadian Air Force and other air forces. It was used as a tandem-seat trainer from 1953 through to 1976, although it continued in other support roles later for some 25 years. Many RAF pilots were trained on the CT-133 during the 1950s under an exchange posting.

The prototype T-33 first flew on 22 March 1948 and Canadair’s CT-133, powered by a Rolls-Royce Nene 10 centrifugal jet engine (replacing the original 5,400lb st Allison J33-A-35) and fitted with larger wingtip fuel tanks, in December 1952. The 5,000lb st Nene delivered a maximum speed of 570mph, a service ceiling of 47,000ft and a range of over 1,000 miles. Although no longer in military service, over 50 remain flying in civilian hands.

### **Consolidated B-24 Liberator**

One of the two leading American heavy bombers of the Second World War, Consolidated’s four-engined XB-24 Liberator prototype made its maiden flight on 29 December 1939. The Liberator found its way into RAF service as the result of a French order (rendered void by the German occupation) being taken over. The first RAF Liberator flew in January 1941 and further quantities were subsequently ordered direct. Initially operated as a transport to take ferry pilots across the Atlantic to fly the increasing numbers of US aircraft ordered by the RAF and, as a result of experience fed back to the manufacturer, the definitive bomber variant evolved. The B-24B Liberator Mk I, equipped with anti-surface vessel (ASV) radar and a pannier of forward-firing machine guns under the fuselage, entered RAF service with Coastal Command’s 120 Sqn in June 1941. With an operational range of 2,400 miles, the Liberator was able to close the ‘gap’ in Atlantic air cover against German U-boats. Further versions emerged, some with Leigh Lights for night operations against submarines, for Coastal Command use. The (B-24C) Liberator Mk II with power-operated dorsal and tail gun turrets was the first bomber version, introduced into RAF service in 1942 in the Middle East. They then moved north into Italy and the Balkans and, from January 1944, the Mk VI was used in the Far East, over Burma. Small numbers of transport variants also flew with the RAF. The Liberator Mk VI was powered by four 1,200hp Pratt & Whitney Twin Wasp radial engines, with a maximum speed of 270mph and a range of up to 2,290 miles (depending on the bomb load-out). Power-operated gun turrets in the nose, dorsal and tail positions mounted a pair of 0.50in machine guns, while the waist positions and ventral ‘ball’ turret had a single 0.50in machine gun. The maximum bomb load was 12,800lb. In all, the RAF received 1,889 Liberators of all versions, many supplied under the Lend-Lease agreement, serving with 36 squadrons. The last models (in Coastal Command) were withdrawn in 1947.

### **Curtiss H-12 ‘Large America’ flying boat**

One in the series of US-built Curtiss H-model flying boats, the first of which flew on 9 June 1914, the H-12 'Large America' (as it was known) followed earlier H-2 and H-4 models in RNAS service. When built, the H-12 was powered by a pair of 160hp Curtiss V-X-X engines but was re-engined with two 275hp Rolls-Royce Eagles I engines by the RNAS (as the H-12A), some later models having the 375hp Eagle VII (H-12B). This gave the H-12 a maximum speed of 85mph and a six-hour endurance. It was armed with four 0.303in Lewis machine guns and could carry four 100lb or two 230lb bombs under the wings. The RNAS received 71 H-12s, which were used for long-range anti-submarine and anti-Zeppelin patrols over the North Sea. They entered service in April 1917, and by October 1918 eighteen aircraft remained in RAF service. The H-12, redesigned with an improved hull, was built as the Felixstowe F.2 series.

### **de Havilland D.H.82 Tiger Moth**

Derived from Geoffrey de Havilland's earlier D.H.60 Gypsy Moth biplane trainer, the D.H.82 Tiger Moth made its maiden flight on 26 October 1931. It was to become probably the most famous biplane training aircraft in the world. Initially powered by a 120hp de Havilland Gypsy III engine, the main production model (D.H.82A) featured the 130hp Gypsy Major I engine. This gave the aircraft a maximum speed of 109mph. The Tiger Moth entered RAF service at CFS in February 1932 and by the outbreak of war in 1939, over 1,000 had been delivered, equipping 44 Elementary and Reserve FTSs, plus many more across what was then known as the British Empire. In all, 4,668 Tiger Moths were built for the RAF. Post-1945, the Tiger Moth served with 25 Reserve Flying Schools and 18 UASs. It was eventually retired from active RAF (and FAA) service in 1959, although a few remained as 'hack' aircraft.

### **de Havilland D.H.98 Mosquito (bomber/PR versions)**

Developed as a private venture design for a high-speed light bomber and built mostly of wood (hence the nickname 'Wooden Wonder'), the prototype de Havilland Mosquito in bomber configuration flew first on 25 November 1940. It was followed by two more prototypes: the second being a fighter version (described separately) and the third, the photo-reconnaissance (PR) version. The first Mosquito Mk IV bombers (or B Mk IV) entered RAF service with 105 Sqn in November 1941. The Mk IX, equipped with improved Merlin engines, followed in April 1943, with the Mk XVI (a Mk IX with a pressurised cockpit) in December 1943. The final development was a further evolution of the Mk XVI, powered by further-improved Merlins and designated B.35, entering service after VE Day. The photo-reconnaissance versions of the Mosquito were based on bomber airframes, with various camera configurations mounted in the bomb bay and extra fuel capacity, internally or externally (e.g. the PR.Mk IV was essentially the B Mk IV). The Mosquito B Mk IV was powered by a pair of 1,250hp Rolls-Royce Merlin XXI engines with a maximum speed of 380mph. It could carry four 500lb bombs but had no gun armament. The B Mk XVI used either the 1,680hp Merlin 72/76 or 1,710hp Merlin 73/77 giving it a maximum speed of 415mph and a range of 1,370 miles with its full bomb load-out of 4,000lb or up to 1,795 miles with a reduced payload. The PR Mk 34 was powered by a pair of 1,710hp Rolls-Royce Merlin 76/113 engines with a maximum speed of 425mph and a range of 3,500 miles. In all, 7,781 Mosquitos of all versions were built, including production in Australia and Canada. Some 23 RAF squadrons flew the Mosquito bomber and nine squadrons the PR version. The RAF's last front-line Mosquito operation, using a PR.34A of 81 Sqn, was flown in December 1955, although some models continued in second-line duties to the early-1960s.

### **de Havilland D.H.98 Mosquito (fighter versions)**

As noted above, the second prototype D.H.98 Mosquito in fighter configuration flew on 15 May 1941. Armed with four 0.303in machine guns in the nose and four 20mm cannon in the lower

forward fuselage, the aircraft had strengthened wing spars to take the increased load of fighter manoeuvres. Then equipped with airborne radar (A.I. Mk IV, later Mk V), this became the Mosquito NF.II night fighter, powered by Merlin engines, which entered service in January 1942. Later versions with A.I. Mk VIII centimetric radar had the machine guns removed, and were designated the NF.XII. Two further versions were built, one (the Mk XVII) being fitted with US-built radars, and improved Merlin engines. As the NF.II achieved success as a night intruder, this prompted the development of a dedicated fighter-bomber variant powered by Merlin XXI (and later Merlin 25 engines), the FB.VI. This added a bomb load in the fuselage and a hardpoint under each wing, which could carry bombs, long-range tanks or rocket projectiles. The four cannon and four machine guns were retained. The FB.VI had a maximum speed of 380mph, a service ceiling of 36,000ft and a 1,250 mile range with internal fuel.

Night fighter development continued, producing the Mk XIX (with Merlin 25 engines); the Mk XXX (Merlin 76 engines for high-altitude work); and the post-war NF.36 (Merlin 113 engines and US AI Mk X radar). All these versions dropped the machine gun armament, retaining just four cannon. The Mosquito NF.38 was the NF.36 with British AI Mk IX in place of the US radar. As noted in the bomber/PR entry, 7,781 Mosquitos of all versions were built of all marks, including production in Australia and Canada. Some 63 RAF squadrons flew the Mosquito fighter and fighter-bomber versions. The last British-built Mosquito was delivered to the RAF in November 1950.

#### **de Havilland Canada DHC-1 Chipmunk**

Designed by the Canadian arm of de Havilland as a Tiger Moth replacement, the DHC-1 Chipmunk monoplane trainer first flew on 22 May 1946. By 1951, Canadian production had ceased but the design (with some minor modifications, notably the framed canopy) was licence-built in the UK for the RAF as the Chipmunk T.10. The RAF received 735 Chipmunks, the last of which was delivered in 1953.

The Chipmunk T.10 was powered by a 145hp de Havilland Gypsy Major 8 engine, which gave it a maximum speed of 138mph and an endurance of 2hr 20min. The first Chipmunks were delivered to the Oxford UAS in February 1950 (replacing the Tiger Moth), going on to equip all 17 UAS and 20 Reserve Flying Schools, and then cadet AEFs, where many OBs enjoyed their first taste of flying. Gradually withdrawn from 'regular' RAF (as well as AAC and FAA) service in the early 1990s, they flew on with the AEFs until 1996. Two Chipmunks remain in service with the RAF Battle of Britain Memorial Flight, used to convert 'jet jockeys' onto 'tail-dragging' piston-engined flying.

**Douglas DB-7 (A-20) Boston/Havoc** The prototype Douglas DB-7 light bomber flew on 23 January 1939 but was deemed to be underpowered. A later iteration, the DB-7A, powered by a pair of 1,100hp Pratt & Whitney R-1830 Twin Wasp radial engines, was ordered by France and Belgium. After the Fall of France, the RAF took over the order as the Boston Mk I and Mk II. The latter were converted to Havoc night-fighters and intruder aircraft, entering service in 1941. Some Havocs were fitted with a nose-mounted Turbinlite searchlight to illuminate enemy fighters at night. Further improvements produced DB-7B Boston Mk III, powered by 1,600hp Wright Double cyclone GR-2600-A5B engines. It was armed with four 0.303in machine guns in the nose, with twin manual 0.303in machine gun positions in dorsal and ventral positions. It could carry an internal bomb load of 2,000 lb or a gun pack containing four 20mm cannon. It had a maximum speed of 304mph and a 1,020 mile range with maximum bomb load. This version was also ordered for the USAAF, designated A-20A. Later US versions, the A-20G and A-20J (with a power-operated dorsal turret), were produced for RAF service as the Boston Mk IV and V, respectively. In all, the RAF received almost 1,500 Boston/Havoc versions, which served with 12 RAF squadrons, the last of which, 55 Sqn, gave up its aircraft in July 1946.

### **Douglas DC-3 Dakota/C-47 Skytrain**

The military version of the civil DC-3 Dakota airliner, the C-47 Skytrain, first flew on 17 December 1935. It featured various modifications, including a cargo door, hoist attachment, strengthened floor, a shortened tail cone for glider-towing shackles and an astrodome in the cabin roof. With a crew of three or four, the C-47 carried 28 troops and was powered by a pair of 1,200hp Pratt & Whitney Twin Wasp R-1830-92 radial engines, delivering a maximum speed of 230mph and a maximum range of 2,125 miles. In its many variants, C-47 production ran to 10,174, a handful of which remain in service in smaller countries around the world. The RAF received some 1,900 C-47 Dakotas under the Lend-Lease programme, the first entering service with 24 Sqn in March 1943. In all, Dakotas served with 34 RAF squadrons and two detached flights. The last operational RAF Dakota was retired in April 1970, although one aircraft still flies with the Battle of Britain Memorial Flight as a support and training aircraft.

### **English Electric Canberra**

Britain's first jet-powered bomber, the prototype English Electric A.1 jet bomber (later christened Canberra) made its maiden flight on Friday 13 May 1949. Powered by Rolls-Royce Avon turbojet engines, with a crew comprising pilot and two navigators, it was ordered in large quantities for the RAF with construction spread across English Electric, Avro, Handley Page and Short Brothers. The production Canberra B.2 entered RAF service with 101 Sqn in May 1951. During its early years, the Canberra set many records, including being the first jet aircraft to make a non-stop trans-Atlantic flight in 1951 and establishing a world altitude record (of 70,310 ft) in 1957. It also proved very adaptable: the B.2 bomber version was succeeded by an improved B.6 and was later upgraded to B.15 and B.16 configuration; the PR.3/7/9 photo reconnaissance aircraft; the T.4 dual-control trainer; and the B(1).8 tactical intruder. Many other specialised derivatives were subsequently converted from B.2/6 models. The B(1).8 featured an offset fighter-style cockpit canopy, as did the PR.9, which also featured an increased wing span and inboard wing chord, for high-altitude operations. The Canberra B.2 was powered by two wing-mounted 6,500lb thrust Avon 101 engines, delivering a maximum speed of 570mph and a range of 2,660 miles. It could carry a 6,000lb bomb load in the fuselage and on under-wing pylons. It had no defensive armament. The PR.9 version (with a crew of two) was powered by a pair of 11,250lb thrust Avon 206 engines, delivering a maximum speed of 547mph, an operational service ceiling of 70,000ft, and a range of 5,075 miles. Over its career, the PR.9 carried a variety of wet-film and digital cameras, including an infrared version.

In all, some 900 Canberras (of all versions) were built in the UK, 782 for the RAF, and it was also produced in Australia (49) and the United States (403), where it was designated B-57 and further developed. It served in 60 front-line RAF squadrons plus the OCU, as well as some FAA support units. The last RAF Canberra – a PR.9 of 39 Sqn – was finally withdrawn from service in June 2006.

### **English Electric Lightning**

The English Electric Lightning was the only British-designed-and-built supersonic interceptor fighter to serve in the RAF. The initial P.1A prototype, powered by a pair of un-reheated Armstrong Siddeley Sapphire turbojets, first flew on 4 August 1954; with a re-engineered and refined fighter prototype, the P.1B, powered by two Rolls-Royce Avon turbojets equipped with after-burning, flying on 4 April 1957. Christened Lightning in 1958, the first production F.1 entered RAF service with 74 Sqn in June 1960, followed closely by the slightly improved F.1A model in December 1960, going to 56 Sqn. The two 11,250lb-thrust Avon 210 series engines (14,430 lb with reheat) of the Lightning F.1A delivered a maximum speed of Mach 2.1 (1,500mph), an initial climb rate of 50,000ft/min and a service ceiling

of 60,000ft. Equipped with a nose-mounted AI.23 radar, it was armed with a pair of 30mm Aden cannon and two Firestreak heat-seeking AAMs. It was a classic interceptor, although always known for its lack of range. The F.2 version brought minor improvements, and a side-by-side, dual-control version, the T.4, was produced. The Lightning F.3 was a step change, using Avon 301 series engines delivering 16,360lb of thrust with reheat, allowing Mach 2 speeds, with provision for air-to-air refuelling. It featured a squared-off fin and the guns were deleted, and the Firestreak AAMs were replaced by improved Red Top AAMs. The final version, the F.6, featured a changed wing profile, an enlarged ventral fuel tank and uprated engines, allowing a maximum speed of Mach 2.27. Later a ventral gun pack with two 30mm Aden cannon restored the gun capability, together with provision for over-wing external tanks. The T.5 trainer variant mirrored the F.6 configuration.

In all, some 337 Lightnings of all variants (including the prototypes) were built, including 14 for Kuwait and 40 for Saudi Arabia. The type was flown by 10 operational RAF squadrons and two reserve squadrons (as part of 226 OCU). The RAF's last Lightning unit – 11 Sqn at Binbrook – was disbanded on 30 April 1988, the aircraft having been “outsmarted by software”, according to one pilot.

### **Eurofighter EF.200 Typhoon**

The four-nation Typhoon was originally conceived as an air combat fighter but has since evolved as a multi-role swing fighter which (in RAF service) has all but replaced the tri-national Tornado. A twin-engined fighter with a canard-delta wing configuration, the Typhoon's origins go back to the Future European Fighter Aircraft programme of 1983, involving France, Germany, Italy, Spain and the UK. France later dropped out and, in 1986, the remaining national industries formed a joint holding company, Eurofighter Jagdflugzeug GmbH, to build the aircraft. Ahead of the prototype, BAe (now BAE Systems, the UK partner) produced a technology demonstration aircraft, known as EAP, with a prototype “Eurofighter” making its maiden flight on 27 March 1994. The name Typhoon was adopted in September 1998. Powered by a pair of Eurojet EJ200 turbofan engines, delivering 60kN of thrust (dry) and 90kN (with reheat), the Typhoon has a maximum speed of 1,550mph (Mach 2 class) and an unrefuelled range of 1,800 miles. Typhoon is armed with a single internal 27mm Mauser BK-27 revolver cannon and can carry a variety of air defence and ground attack weapons, external fuel tanks and sensor pods over eight under-wing and five under-fuselage pylons to a maximum payload of 19,800lb. It can fly a three-hour air defence CAP at a radius of 100 nautical miles (with three external 1,000 litre tanks) or conduct a low-level ground attack mission at a radius of 325 nautical miles. First deliveries (of pre-series Typhoon T.1 trainers) to the RAF OEU (17 Sqn) were made in September 2002, with the first series production Typhoon being delivered to Germany in August 2003. The RAF's first operational Typhoon F.2 unit, 3 Sqn, formed on 31 March 2006 and was declared operational in 2007. Since then, as the multi-role capability has been introduced, the designation has changed to Typhoon FGR.4. As of November 2017, a further seven RAF units (1, 2, 6, 11, 29 and 41 Sqns and 1435 Flt in the Falkland Islands) have been equipped with Typhoon. Following the Strategic Defence and Security Review 2015, there is the prospect of a further two squadrons being reformed for air defence duties.

### **Fairey Battle**

Designed to replace biplane Hart and Hind light bombers, the prototype Fairey Battle first flew on 10 March 1936, entering RAF service with 63 Sqn in May 1937, eventually equipping 22 operational RAF squadrons. Powered by early versions of the 1,030hp Rolls-Royce Merlin engine, the Battle had a maximum speed of 241mph and a range of 1,050 miles. It was armed with a forward-firing 0.303in machine gun, with an aft-firing 0.303in Vickers ‘K’ gun aft, and could carry 1,000lb of bombs. Although production of the Battle ceased in 1940, after 2,200 had been built, it remained in operational service until July 1941, after which it fulfilled many training roles.

### **Grob G 115E Tutor**

The Grob G 115 is constructed of carbon composite materials (the main fuselage and each wing spar is a single piece) with a fixed tricycle undercarriage. Primarily used for flight training, it first flew in November 1985 and is fully aerobatic. In 1998, the G 115E variant was selected by the UK MOD as a replacement for the Bulldog trainer, with 99 aircraft ordered. Powered by a 180hp Textron Lycoming AEIO-360-B1F/B flat-four, air-cooled piston engine, driving a three-bladed variable-pitch propeller, it has a maximum speed of 212mph and a service ceiling of 20,000ft. Known by the RAF as the Tutor T.1, the G 115E is used for elementary flying training by the 14 UASs and 12 AEFs throughout the UK, as well as the CFS and for elementary WSO training at the RAF College, Cranwell. All of the Tutors in RAF service are entered on the UK Civil Aircraft Register and are provided by VT Group, under a PFI. The first five Tutors were delivered to CFS on 13 September 1999, with Cambridge UAS receiving aircraft the following day. The final AEF to receive the Tutor was 10 AEF at Woodvale, in 2001. Five Tutor T.1s are also operated by the FAA's 727 NAS for trainee pilot grading at Yeovilton.

### **Handley Page H.P.57 Halifax**

Designed as a four-engined heavy bomber, the Handley Page Halifax went on to serve in the glider tug, transport and maritime reconnaissance roles. Powered by four Rolls-Royce Merlin engines, the prototype first flew on 25 October 1939, entering RAF service with 35 Sqn in November 1940. As production increased, progressive improvements were implemented to the Halifax. Powered by four 1,280hp Merlin X engines, the Mk I had a maximum speed of 265mph and a range of 1,552 miles. It was fitted with powered gun turrets, armed with a pair of 0.303in machine guns in the nose and four in the rear, and carried a bomb load of 13,000lb. On the Mk II, powered by 1,390hp Merlin XX engines, the nose turret was removed and a dorsal gun turret fitted. The Mk III, entering service in 1943, exchanged Merlin engines for 1,675hp Bristol Hercules XVI radial engines, while the tail fins were enlarged, a retractable tailwheel fitted and H2S radar added in a ventral position. One Mk III (LV907), known as "Friday the Thirteenth", of 158 Sqn flying from Lissett, survived the war having flown 128 operational sorties. The Halifax Mk V, powered by Merlin XX engines, served with both Bomber and Coastal Commands, as well as with airborne forces and special duty squadrons. The Mk VI was powered by 1,800hp Hercules 100 engines (plus additional fuel tanks) and had a maximum speed of 309mph and a range of 2,400 miles (with a reduced bomb load). It was armed with a hand-operated 0.303in machine gun in the nose and powered gun turrets in mid-upper and tail positions, each having four 0.303in machine guns. The Mk VII used Hercules XVI engines. The Mk VIII and IX were unarmed post-war transport/paratrooper versions. A total of 6,176 Halifax aircraft of all types were built, and it served with 42 RAF squadrons, as well as Australian, Canadian and New Zealand squadrons. It was withdrawn from Bomber Command in 1945, but continued to serve with Coastal Command until March 1952.

### **Hawker Hart**

First flown in June 1928, the Hawker Hart light day bomber was to become a most adaptable aircraft in the RAF in the 1930s, going on to spawn a series of derivatives, including the Audax, Demon, Hardy, Hind (see separate entry) and Osprey. A streamlined biplane powered by a Rolls-Royce Kestrel IB engine, the first of 415 aircraft built for the RAF entered service with 33 Sqn in January 1930. The single 525hp Kestrel gave the Hart a maximum speed of 185mph and a range of 470 miles. It was armed with a forward-firing Vickers machine gun and a rear-facing Lewis gun, both of 0.303in calibre, and carried a bomb load of 500lb. In all, some 21 RAF squadrons (including those of the AAF) flew the Hart, in the UK, India and the Middle East. Replaced in the UK by the Hind in 1936, it continued to serve on the North-West Frontier of India until 1939.

### **Hawker Hind**

An improved version of the Hart, the Hawker Hind was considered an interim replacement pending the arrival of the Fairey Battle. The prototype featured a fully supercharged Rolls-Royce Kestrel V engine, cut-down gunner's cockpit and a tailwheel (in place of a skid). It first flew on 12 September 1934. The Hind was introduced into RAF service with 21 Sqn in December 1935. Its 640hp Kestrel V engine gave it a maximum speed of 186mph and a range of 430 miles. It carried the same armament and bomb load as the Hart. In all, 528 Hinds were built, serving with 30 RAF squadrons (until December 1939) and 13 AAF squadrons.

### **Hawker Hurricane**

The workhorse of the RAF during the Battle of Britain, the Hawker Hurricane was the RAF's first monoplane fighter and the first to exceed 300mph. Designed by Sir Sydney Camm, the prototype Hurricane made its maiden flight on 6 November 1935. The first examples entered RAF service with 111 Sqn in December 1937. Powered by 1,030hp Roll-Royce Merlin II engine, early production Hurricane Mk I models featured a two-blade, fixed-pitch wooden airscrew before being replaced by a three-bladed constant speed propeller. The Mk I had a maximum speed of 316mph and was armed with eight 0.303in machine guns, four in each wing. The Hurricane Mk II, emerging in September 1940, was powered by a 1,280hp Merlin XX, giving it a maximum speed of 339mph and a range of 460 miles. It featured various wing armament configurations: the Mk IIA had the same armament as the Mk I; the Mk IIB had twelve 0.303in machine guns, six in each wing; and the Mk IIC had four 20mm cannon, two in each wing, plus provision for two 500lb bombs. From mid-1942, the Mk IID, fitted with two 40mm Vickers 'S' guns, was successfully used as a tank-buster in the Western Desert and, later, Burma. The Mk IV, powered by 1,620hp Merlin 24/27 engines introduced a 'universal armament wing' which could mount two 40mm guns, eight unguided 60lb RP-3 rocket projectiles, two 250lb or 500lb bombs or long-range fuel tanks. The Mk XX was produced in Canada, powered by a 1,300hp Packard-built Merlin 28 engine. In all, some 14,583 Hurricanes of all types were built in UK (production ceasing in September 1944) and Canada. Over 120 RAF operational squadrons flew the Hurricane in various roles at various times and in various theatres, plus many other support units.

### **Hawker Hunter**

The swept-wing Hawker Hunter supplanted the Meteor F.8, Sabre and Venom as the RAF's standard day interceptor from 1954 (in the UK) and 1955 (in Germany). Powered by a 6,500 lb-thrust Rolls-Royce Avon turbojet, the first of three prototypes flew on 20 July 1951, leading to the production F.1 version. The third, powered by an Armstrong Siddeley Sapphire turbojet, became the prototype of the F.2 version. The Avon-powered Hunter F.1 entered RAF service with 43 Sqn in July 1954 and the Sapphire-powered Hunter F.2 joined 257 Sqn in September 1954. The Mk 3 designation went to the modified first prototype that broke the world air speed record on 7 September 1953 when, flown by Neville Duke, it reached a speed of 727.63mph. Further development, adding extra wing fuel tanks and underwing weapons pylons, led to the F.4 version, with Avon 113/114 engines, and the Sapphire-powered F.5. Hunter F.5s of 1 and 34 Sqns took part in the Suez campaign of 1956. Between 1954 and 1959, the RAF received over 1,000 Hunters in five variants. The evolution of the Hunter continued with the P.1099 prototype, featuring a 'saw-tooth' leading edge wing, together with improved flying controls and a flying tail, and the introduction of the 10,000lb-thrust Avon 203 engine. This became the Hunter F.6, giving it a maximum speed of 715mph and a range of 1,840 miles (with drop tanks). Armed with four 30mm cannon in the lower forward fuselage, it had four pylons for external fuel tanks, bombs, rocket pods and unguided 3in rocket-projectiles. The F.6 model entered RAF service with 19 and 66 Sqns in October 1956. The P.1101 Hunter trainer

prototype, with side-by-side seating in a fuselage lengthened by three feet, flew in July 1955 and the production Hunter T.7, powered by an Avon 203 engine and armament reduced to one 20mm gun, entered service with 229 OCU in August 1958. The Hunter FGA.9 dedicated ground attack variant was a 'tropicalised' F.6 which replaced Venoms in the Middle and Far East. First flown on 3 July 1959, the type entered RAF service with 8 Sqn in January 1960, based in Aden. The Hunter FR.10, a tactical reconnaissance variant with three cameras mounted in the nose, was also based on converted F.6 airframes. First flown on 7 November 1958, it entered RAF service with 2 Sqn in March 1961. Although the various RAF Hunter versions were replaced by the Lightning, Harrier and Phantom in the 1960s, 70s and 80s, many trainers and modified single-seaters continued to serve with the RAF and FAA in training and support duties up to the mid-1990s. In all, 1,972 Hunters of all variants were manufactured for the RAF and export customers. As the RAF withdrew the type, many were refurbished and upgraded for export customers. Today, Hawker Hunter Aviation at Scampton operates contractor-owned but military-registered Hunters to provide target facilities to the RAF and other customers.

### **Hawker Siddeley (BAe) Harrier**

The concept of a vertical take-off and landing (VTOL) aircraft was initially trialled using the Hawker P.1127 experimental aircraft powered by a Rolls-Royce Pegasus turbofan engine, using four vectored-thrust exhausts, the maiden flight of which took place on 19 November 1960. A second prototype and four pre-production models followed before nine production Kestrel FGA.1 aircraft were built for a tripartite evaluation squadron (involving Germany, UK and USA) which operated from 1964 to 1965. This evolved into the Harrier, the first of six development aircraft flying on 31 August 1966. The first production Harrier GR.1 flew on 28 December 1967, powered by Pegasus 6 (Mk 101) engine, rated at 19,000lb static thrust. The two-seat Harrier T.2 trainer first flew on 24 April 1969. As the engine design progressed, the 20,500lb st Pegasus 10 (Mk 102) engine was retrofitted to the GR.1 and T.2, becoming GR.1A and T.2A models and then, for the Harrier GR.3 (from 1974) and T.4, the 21,000lb st Pegasus 11 (Mk 103) was fitted. The Harrier GR.3 had a maximum speed of 730mph (Mach=0.95) at sea level and a tactical radius of action of 400 miles. It was armed with a pair of 20mm detachable cannon pods under the lower fuselage and four underwing pylons and one fuselage hardpoint which, between them could carry up to 5,000lb of stores: fuel tanks, bombs, rocket pods or AIM-9 Sidewinder AAMs. The Harrier GR.1 entered RAF service in April 1969 with 1 Sqn in the UK, and then, from 1970, re-equipped 3, 4 and 20 Sqns in RAF Germany. Harrier GR.3s of 1 Sqn were deployed on HMS *Hermes* during the Falklands campaign of 1982. Of a total production of 278 Harriers, the RAF received 90 GR.1 (some converted to GR.1A and GR.3) versions, 24 new-build GR.3s and 17 T.2/4 aircraft. The other aircraft were acquired by the US Marine Corps as the AV-8A (some later went to Spain as the AV-8S) and when Spain retired their aircraft, they were sold on to Thailand. By 1994, the RAF had replaced its Harrier GR.3 fleet with the Harrier GR.5 (alias the AV-8B) co-developed by British Aerospace and McDonnell Douglas (described separately).

### **Hawker Siddeley (Folland) Gnat T.1**

The Gnat T.1 is a two-seat trainer which evolved from the Folland Midge lightweight jet fighter, flown in 1954, and the follow-on Gnat fighter built as a private venture and first flown on 18 July 1955, but it was not procured for the RAF. However, its potential as a high-speed advanced jet trainer was noted and 14 pre-production trainers were ordered in 1957, the first of which flew on 31 August 1959, the year Folland was absorbed into Hawker Siddeley Aviation. Designated Gnat T.1, the trainer had a longer fuselage with a tandem cockpit, an increased wing area and larger fin and tailplane. Powered by a 4,230lb Bristol Siddeley Orpheus 100 turbojet, it had

a maximum speed of 695mph (Mach 0.95) and endurance of 2hr 15mins. In all, the RAF bought 105 Gnat T.1 aircraft, which entered service with CFS in February 1962, becoming the standard advanced jet trainer with 4 FTS until November 1978. The success of the *Yellowjacks* aerobatic team from 4 FTS in 1964, led to the formation the following year of the *Red Arrows* aerobatic team, destined to become world-famous. The Gnat gave its final display with “the Reds” on 16 September 1979, after which it was retired.

### **Hunting Percival (BAC) Jet Provost**

Evolved from the piston-engined Provost, the Hunting Percival – later absorbed into BAC in 1960 – Jet Provost became the RAF’s standard basic jet trainer aircraft from 1955 to 1993. The first of two Jet Provost prototypes made its maiden flight on 16 June 1954 and a year later 10 pre-production T.1 versions were delivered to 2 FTS for trials. The T.2 (four built) was used as development aircraft. The main production model was the Jet Provost T.3, first flying on 22 June 1958, of which the RAF received 201. Powered by a 1,750lb st Bristol Siddeley Viper 102 turbojet, the T.3 had a maximum speed of 326mph and a range of 565 miles. Later, 70 T.3 aircraft received an avionics update as the T.3A. The Jet Provost T.4 (198 built) was first flown in 1960, and was identical to the T.3 but with the more powerful 2,500lb st Viper 202 engine. By the mid-1960s, the need for a pressurised variant produced the Jet Provost T.5, with a re-designed cockpit and lengthened nose, of which the RAF procured 110. First flown on 28 February 1967, the T.5 was powered by a 2,500lb st Bristol Siddeley 201 turbojet, giving it a maximum speed of 409mph and a range of 900 miles. The Jet Provost T.3 entered RAF service in June 1959, followed by the T.4 in November 1961, being withdrawn in 1992 and 1989, respectively. The T.5 model entered service in September 1969 and was withdrawn in 1993.

### **Martin Baltimore**

Designed to British requirements in 1940, the Martin Baltimore light bomber drew on the experience of the earlier Maryland. Powered by a pair of Wright Double-Row Cyclone radial engines, it first flew on 14 June 1941. Used exclusively in the Mediterranean theatre, the Baltimore entered RAF service with 223 Sqn in January 1942. The Baltimore Mk I and II were basically the same aircraft, the difference being that the dorsal gun position of the Mk I features a single hand-operated 0.303in Vickers ‘K’ machine gun and the Mk II a twin-gun installation. The Mk III saw a Boulton-Paul power-operated turret housing two 0.303in machine guns in the dorsal position, while the Mk IV and V featured a Martin-built turret. The Baltimore Mk III, using Double-Row Cyclone GR-2600-A5B engines, had a maximum speed of 302mph and a range of 950 miles. It was armed with four 0.303in machine guns in the wings, two or four 0.303in guns in the dorsal turret, and a pair of 0.303in guns in the ventral position, with a bomb load of 2,000lb. In all, the RAF received 1,473 Baltimores, serving in 10 operational squadrons, the last of which, 249 Sqn, disbanded in March 1946.

### **McDonnell Douglas F-4 Phantom II**

An Anglicised version of the American F-4 Phantom II (first flown on 27 May 1958), the F-4K was adopted by the UK for Royal Navy for fleet air defence in July 1964. By June 1965, the RAF had opted for the type as well (as the F-4M) for ground attack and reconnaissance. Based on the F-4J model, both the F-4K and F-4M were powered by Rolls-Royce Spey turbofan engines and contained many British avionics and sub-systems. The YF-4K prototype first flew on 27 June 1966 and the first YF-4M on 17 February 1967. Both versions were powered by a pair of 12,250lb st Spey 205 turbojets (rated at 20,515lb st in reheat), giving a maximum speed of 1,386mph (Mach 2.1) at 40,000ft. The maximum range was 1,750 miles, although the low-level tactical radius with 7,000lb of bombs and six SNEB 68mm rocket pods was 150 miles. The maximum ground attack payload was eleven 1,000lb

bombs and seven SNEB pods. A 20m Vulcan cannon in the SUU-13 pod could be carried on the centreline. For air defence, the standard weapon fit was four AIM-7 Sparrow AAMs semi-recessed under the fuselage and four AIM-9 Sidewinder infrared-guided AAMs under the wings. The Sky Flash AAMs later replaced Sparrows. In British service, the F-4K was known as the Phantom FG.1, joining the intensive flying trials unit, 700(P) NAS, in April 1968. Although 48 production aircraft (plus the two prototypes) were produced, just 28 went to the Royal Navy, equipping 892 NAS in March 1969 (until withdrawn in November 1978). The other 20 FG.1s passed to the RAF, equipping 43 Sqn in September 1969 for the air defence role. Later, in 1979, the ex-Royal Navy FG.1s re-equipped 111 Sqn, RAF, also for air defence. The F-4M became the Phantom FGR.2 in RAF service and 118 were delivered. It was used initially to replace Hunters and Canberras in the UK, the first operational unit being 6 Sqn in May 1969, and in RAF Germany from June 1970, starting with 14 Sqn. By the mid-1970s, the Phantom FGR.2 was re-assigned to air defence, replacing most of the Lightning fleet. One other Phantom variant went on to serve with the RAF. In the wake of the Falklands campaign of 1982, when 29 Sqn was deployed to the islands, 15 ex-US Navy F-4J Phantoms were acquired to fill the perceived gap in the UK air defence. These aircraft were 'pure' American, retaining the General Electric J79-10B turbojet engines and US systems. By rights, this model should have been designated Phantom F.3 but it was always known as the F-4J(UK). These aircraft were operated by 74 Sqn from 1984 to 1991. RAF Phantom FG.1s and FGR.2s served with 14 operational squadrons plus one detached flight in the Falklands and a reserve unit within 228 OCU. They were withdrawn in 1992, replaced by the Tornado F.2 and F.3.

### **McDonnell Douglas / British Aerospace Harrier II (AV-8B)**

The RAF's Harrier GR.5 was derived from the US Marine Corps' McDonnell Douglas AV-8B Harrier II, first flown in YAV-8B prototype form on 9 November 1978. In 1981, British Aerospace signed up as a sub-contractor on the programme, and the first of the RAF's second-generation Harriers flew on 30 April 1985. The Harrier GR.5 (AV-8B) resembled its predecessor in layout but incorporated a new wing (with leading edge root extensions), a re-designed fuselage with raised cockpit, upgraded avionics and one extra hardpoint per wing. It was powered by the Rolls-Royce Pegasus 11-21 (Mk 105), rated at 21,180lb st. It had a maximum speed of 720mph and a tactical radius with a full weapons load (9,200lb over seven pylons) of 600 miles. First GR.5 deliveries (out of the initial 60 ordered) were made to 233 OCU in July 1987, followed by 1 Sqn in the UK and 3, 4 and 20 Sqn in RAF Germany. A second batch of 34 aircraft was ordered in April 1988. By August 1990, the GR.5 had been upgraded with a forward-looking infrared (FLIR) sensor, night-vision goggles (NVGs) and the Zeus electronic countermeasures (ECM) unit, becoming the GR.7. A further upgrade to GR.9 standard involved the Harrier's avionics, communications systems, and weapons capabilities; the latter including integration of the AGM-65 Maverick air-to-ground missile, Paveway IV laser-guided bomb and the SNIPER advanced targeting pod for use in Afghanistan. The GR.9 entered RAF service in October 2006. Further engine developments saw the 23,800lb st Pegasus 11-61 (Mk 107) engine retrofitted to GR.7 and GR.9 models, being designated GR.7A and GR.9A respectively. The RAF also adopted the two-seat TAV-8B as the Harrier T.10 (13 aircraft procured) but giving it full operational capability. The upgrade to T.12 mirrored the GR.9 with the T.12A having the Pegasus Mk 107 engine. Following the 2004 withdrawal of the Royal Navy's Sea Harriers, 800 NAS re-equipped in 2006 with Harrier GR.9s, operating as part of Joint Force Harrier, alongside RAF units. In 2010, the UK's Strategic Defence and Security Review stood down Joint Force Harrier as an economy measure, the last unit flying being 4 (Reserve) Sqn, which disbanded in January 2011. Including two development aircraft, 109 Harrier II aircraft of all versions were built for the RAF.

### **Nieuport Scout**

The name 'Scout' was applied to various Nieuport biplane fighters, notably the Nieuport N.16, 17, 23, 24 and 27. The N.16 was an improved version of the N.11, powered by a 110hp Le Rhône 9C rotary engine, introduced into RFC service in 1916. The N.17, introduced into RFC and RNAS service in 1916, was powered by a 110hp Le Rhône 9J rotary engine, giving it a maximum speed of 177mph and an endurance of 1¾hr. Both the N.16 and N.17 were armed with a 0.303in Lewis machine gun on the centre section of the upper mainplane. The N.23 was an N.17 with structural changes to allow an offset forward-firing 0.303in Vickers machine gun. The N.24 was a replacement for the N.17, powered by a 130hp Le Rhone 9J rotary engine; while the N.27 featured further subtle improvements. These models served with the RFC and RAF in small numbers and were withdrawn after the end of hostilities in 1918.

### **North American AT-6 Texan (Harvard II)**

The AT-6 version of the North American Texan tandem-seat trainer aircraft is derived from the original US Army Air Corps BC-1 of 1937, which was one of the first US aircraft to be ordered by the RAF (as the Harvard I) in 1938. The AT-6, built by Noorduynd, was designated Harvard II in RAF service. Powered by a 600hp Pratt & Whitney Wasp R-1340 radial engine, the AT-6 had a maximum speed of 205mph and an endurance of almost 4 hours. Some aircraft could carry a 0.303in machine gun and light bombs for light ground attack, a capability the RAF used during the Kenyan Mau-Mau emergency in the mid-1950s. The RAF received 5,135 Harvards of all marks, served in various flying training schools in the UK and Commonwealth countries during the Second World War and up to 1955. Many are still in use as trainers, worldwide.

### **North American B-25 Mitchell**

First flown on 19 August 1941, the North American B-25 (company designation NA-82) was a light day bomber for the USAAF, named after General 'Billy' Mitchell, a US pioneer. The RAF took three major variants – the B-25B as the Mitchell Mk I (entering RAF service in September 1942), the B-25C/D as the Mitchell Mk II and the B-25J as the Mitchell Mk III. Powered by two 1,350hp Wright Double-Row Cyclone GR-2600 A-5B radial engines, the Mitchell Mk II had a top speed of 292mph and a range of 1,635 miles with a 4,000lb bomb load. Defensive armament comprised six 0.5in machine guns in nose, dorsal, ventral and tail positions; the maximum bomb load was 6,000lb. In all, the RAF received over 800 Mitchells, principally Mk II models, serving with eight squadrons plus 3 PRU. The RAF's last B-25 operation was a raid on railway yards at Itzehoe, conducted by aircraft of 98, 108, 226, 320 and 342 Sqns, on 2 May 1945. It was withdrawn shortly after VE-Day.

### **North American P-51 Mustang**

The Mustang (company designation NA-73) was designed and built by North American to meet a British requirement in 1940, and was later adopted by the US as the P-51. The first prototype made its maiden flight on 26 October 1940. Powered by a 1,150hp Allison V-1710-39 engine, the Mustang Mk I and IA (later the P-51) had a maximum speed of 390mph and a range of 1,050 miles. The Mk II (later P-51A) was powered by a 1,020hp V-1710-81 engine. The Mk I and II Mustangs were armed with four 0.5in and four 0.3in machine guns, while the Mk IA had four 20mm cannon. Under the Lend-Lease programme, the RAF received some 600 Mk I, 150 Mk IA and 50 Mk II Mustangs, the first of which entered RAF service with 26 Sqn in May 1942. These aircraft equipped 20 RAF squadrons. By 1942 the Mustang design had evolved to accept the US-built version of the Rolls-Royce Merlin engine. The Mk III (P-51B), some of which featured the bulged Malcolm hood canopy (P-51C), was powered by the 1,680hp Packard Merlin V-1650-7 engine, offering a maximum speed of 442mph and a range of 950 miles (rising to 1,710 miles with drop tanks). It was armed with four 0.5in machine guns and could carry an under-wing payload of 1,000lb. The Mk IV (P-51D) and Mk IVA (P-51K)

featured a bubble canopy, with later models being fitted with a dorsal fin fairing. The RAF received 944 Mustang Mk III aircraft (split 308 P-51B and 636 P-51C), the first examples of which entered RAF service with 65 Sqn in December 1943, and together with the Mk IV (282 received) and Mk IVA (600 received) served with 23 squadrons. The last RAF Mustangs (of 213 Sqn) were withdrawn in February 1947.

### **Royal Aircraft Factory R.E.8**

The Reconnaissance Experimental 8 (R.E.8), nick-named 'Harry Tate', was a two-seat biplane reconnaissance and bomber aircraft, designed and built by the Royal Aircraft Factory at Farnborough to replace the B.E.2. First flown in June 1916, the R.E.8 was found to be difficult to fly and considered by some within the RFC to be unsafe. Powered by a 150hp Royal Aircraft Factory 4A engine, the R.E.8 had a maximum speed of 102mph and an endurance of some 4½ hours. It was armed with a forward-firing 0.303in Vickers machine gun and one or two 0.303in Lewis guns mounted in the rear cockpit. Over 4,000 examples were built and it became the most widely used corps reconnaissance aircraft to serve with the RFC and embryonic RAF. Equipping 22 squadrons, the R.E.8 served over the Western Front, Egypt, Italy, Mesopotamia (now Iraq), Palestine (now Israel) and in support of White Russian forces in 1919.

### **Scottish Aviation (Beagle) Bulldog**

The B.125 Bulldog trainer (derived from the civil Pup) was originally designed, and the prototype built, by Beagle Aircraft, making its maiden flight on 19 May 1969. Following Beagle's demise in 1970, production was taken over by Scottish Aviation, which produced export orders (principally for Sweden). In 1972, the RAF ordered 130 Bulldog T.1 (Model 121) trainers, mainly to replace Chipmunks in UAS and AEF service, the first of which flew in January 1973. Powered by a 200hp Lycoming 360-A1B6 engine, the fully-aerobatic Bulldog had a maximum speed of 150mph and a range of 628 miles. First deliveries from April 1973 went to CFS, thence to 2 FTS and the UAS. It was withdrawn by 2001.

### **SEPECAT Jaguar**

The Jaguar was an Anglo-French military collaboration, initiated in 1965, built by SEPECAT (Société Européenne de Production de l'avion Ecole de Combat et d'Appui Tactique), a joint venture between Breguet (now Dassault Aviation) and BAC (later British Aerospace, now BAE Systems). The first prototype, a trainer version for France, flew on 8 September 1968, while the first British-built model, a single-seater, flew on 12 October 1969. Out of the 633 Jaguars built, the RAF received 165 single-seat GR.1 ground attack aircraft and 38 T.2 trainers, both powered by a pair of Rolls-Royce/Turbomeca RT172 Adour Mk 102 turbofan engines, rated at 7,305lb st with reheat. The Jaguar had a maximum speed of 1,057mph (Mach 1.6) at 32,810ft and a tactical radius of 530 miles (in a hi-lo-hi profile). It was armed with a pair of 30mm Aden cannon, plus five external hardpoints for a maximum 10,500lb of ordnance or drop tanks. Some aircraft carried a dedicated reconnaissance pod on the centre fuselage pylon. From 1978, the RAF Jaguar fleet underwent several upgrades: the GR.1 received the Adour Mk 104 (rated at 8,600lb st); then 75 aircraft received improved avionics, electronic countermeasures and provision to carry the Sidewinder AAM, as the GR.1A. Ten aircraft were modified to carry the TIALD targeting pod as the GR.1B. In 1996, further avionics upgrade to GR.3 configuration and in 1997, another avionics produced the GR.3A. Following deliveries to the Jaguar OCU from September 1973, the first operational unit, 54 Sqn, formed in March 1974. In all, eight squadrons were equipped: three in the UK and five in RAF Germany. The type was withdrawn from service in April 2007.

### **Short Stirling**

The first four-engined monoplane bomber to enter RAF service, the Short Stirling drew on the experience of the Sunderland flying boat (with several common parts). The prototype, which made its maiden flight on 14 May 1939, crashed on landing and was destroyed. The second prototype flew on 3 December 1939. Entering RAF service with 7 Sqn in August 1940, the Stirling Mk I was powered by four 1,375hp Bristol Hercules II radial engines, delivering a maximum speed of 282mph and a range of 2,330 miles. It could carry up to 14,000lb of bombs and was defended by eight turret-mounted 0.303in machine guns; four in the rear, two in the dorsal and two in the nose positions. The Mk II was proposed for production in Canada but was not built. The Mk III was powered by 1,650hp Hercules XVI engines (increasing range to 3,000 miles) and featured a new mid-upper turret. The Mk IV was a glider tug and transport variant, with the nose and dorsal turrets removed. The Mk V was an unarmed special transport variant with a lengthened nose. The Stirling Mk III was issued to 15 Sqn in December 1942 and was the Bomber Command's standard version in 1943-44. The Mk IV's first operation was towing Horsa gliders for D-Day, 6 June 1944. The Mk V began operations with 46 Sqn in February 1945. In all, the RAF received 2,374 Stirlings of all marks, which were flown by 28 operational squadrons. The Stirling's last operation as a bomber (with 149 Sqn) was on 8 September 1944, while the last Mk V transports (based in India) flew until July 1946.

### **Short Sunderland**

Developed in parallel with the civil S.23 'C' class Empire flying boats, the Shorts S.25 Sunderland was powered by four 950hp Bristol Pegasus X radial engines. The S.25 prototype first flew on 16 October 1937 and was the first British flying boat to incorporate power-operated gun turrets (with four 0.303in machine guns). By March 1938, 1,010hp Pegasus XXII engines were installed and, in June 1938, the first Sunderland Mk I aircraft entered service with 210 Sqn in the UK and 230 Sqn in Singapore. With the outbreak of war in 1939, the Sunderland soon proved a valuable asset for long-range maritime patrol and anti-submarine warfare. The Mk II, introduced in late 1941, had a mid-upper gun turret and 1,065hp Pegasus XVIII engines. This engine was retained for the Mk III, also entering service in late 1941, which featured a revised planning bottom to the 'boat' hull of the aircraft and was equipped with ASV Mk II radar. The Mk IIIA had ASV Mk III. The Mk IV version, powered by four 1,800hp Bristol Hercules 100 engines, was flown in August 1944 and renamed Seaford (only eight delivered). The Mk V was the ultimate model of Sunderland and was powered by four 1,200hp Pratt & Whitney Twin Wasp R-1830 radial engines, providing a maximum speed of 213mph. It had a range of 2,980 miles at 134mph or 13½ hours endurance. It was armed with 0.303in machine guns in nose, dorsal and tail turrets, plus two 0.5in machine guns in the beam position. Some aircraft were fitted with an additional four forward-firing 0.5in machine guns in the bow. The aircraft's heavy defensive armament earned it the nickname of the 'Flying Porcupine'. It carried a payload of 2,000 lb of bombs or depth charges, housed within the fuselage and run out on rails below the wings for launching.

Some 749 Sunderlands of all marks were produced and flown by 15 operational squadrons plus 235 OCU. The Mk V entered service with 228 Sqn in February 1945 and was finally retired from service (with 205 Sqn in Singapore) on 15 May 1959.

### **Sopwith F.1 Camel**

In 1916, Sopwith designer, Herbert Smith, came up with the F.1 as a Pup replacement. The nickname 'Camel' refers to the 'hump' over the twin Vickers 0.303in machine gun armament. The prototype F.1, powered by a 110hp Clerget 9Z rotary engine, made its maiden flight on 22 December 1916. Production F.1 Camels were powered by either a Clerget 9B or Le Rhône 9J, both delivering 110hp. These gave a maximum speed of 118mph. In addition to the twin Vickers 0.303in machine guns

(firing through the propeller arc with interrupter gear), the Camel could carry four bombs under the centre section. The 2F.1 Camel for the RNAS – with a slightly shorter wingspan – used a 150hp Bentley BR1 rotary engine as standard. The first unit to operate the Camel was 4 Sqn, RNAS, on the Western Front from June 1917, while 70 Sqn RFC followed in July. In all, 5,490 Camels of all versions were built; by the time of the Armistice, the embryo RAF had 38 squadrons equipped. By December 1919, only two units were left (70 and 203 Sqns) and the type was withdrawn in January 1920.

### **Sopwith 5F.1 Dolphin**

The Dolphin was a single-seat biplane fighter, having a backward-staggered configuration. It was armed with a pair of Vickers 0.303in machine gun armament, synchronised to fire through the propeller arc, plus one or two upward-firing 0.303in Lewis guns mounted on the upper wing centre section. The prototype Dolphin, powered by a 150hp Hispano-Suiza 8 engine was first flown on 23 May 1917. Production Dolphin Mk I aircraft were powered by a geared 200hp Hispano-Suiza 8B engine, although the Mk II (licence-built in France) used a 300hp Hispano-Suiza 8F, while the Mk III (entering production as hostilities ended) used a direct-drive 200hp Hispano-Suiza 8B. It had a maximum speed of 131mph. In addition to the guns, it could carry four bombs under the centre section. The Dolphin entered RFC service with 19 Sqn in January 1918. Although 2,072 were built, some 1,500 were in storage awaiting engines in November 1918. At that time, only five squadrons had been equipped. The type was withdrawn (from 79 Sqn) in July 1919.

### **Sopwith 1½ Strutter**

Although referred to as the Sopwith LCT (Land Clerget Tractor), it soon became known as the ‘One-and-a-Half Strutter’ as the upper wing was connected to the fuselage by a pair of short (half-length) struts on the fuselage nose plus one pair of full-length struts on the outer wings. The two-seat prototype first flew in December 1915, powered by a 110hp Clerget rotary engine, giving it a maximum speed of 100mph and a service ceiling of 15,000ft. It was armed with a single 0.303in Vickers machine gun synchronised to fire through the propeller arc – the first British aircraft to have this facility – and a 0.303in Lewis gun was fitted in the rear cockpit. Production deliveries for the RNAS began in February 1916, some of which were passed to 70 Sqn, RFC, to allow operations in July, ahead of the dedicated RFC production, which started in August 1916. While the RNAS aircraft were primarily used as bombers, RFC aircraft were used as fighters. By January 1917, the 1½ Strutter had been outclassed by the German Albatross, with the last being withdrawn from operational service in October. Some 1,500 1½ Strutters were built for the RNAS and RFC.

### **Supermarine Spitfire**

The Supermarine Spitfire has the distinction of being in RAF service before, during and after the Second World War, and also of being the only British fighter to remain in production throughout that war. Although designed by R. J. Mitchell, following Mitchell’s death in 1937, Joseph Smith took over the design of the Spitfire. The prototype made its maiden flight on 5 March 1936, powered by a 1,100hp Rolls-Royce PV-12 engine, later christened Merlin. The Spitfire’s elliptical wing gave it the lowest cross-section of its contemporaries, while still carrying eight 0.303in machine guns. The production Mk I entered RAF service with 19 Sqn in August 1938, powered by 1,030hp Merlin II or III engine, giving it a maximum speed of 355mph. The evolution of the Spitfire was rapid, most notably in powerplant development, with the Merlin being replaced by the more powerful Griffon in some versions of Spitfire from spring 1943. The ultimate Merlin-powered Spitfire Mk XVI had a 1,720hp Packard Merlin 266 engine, while the first Griffon-engined variant, the Mk XII, had a 1,735hp Griffon II and, for the final Spitfire versions (Mks 21/22/24), a 2,050hp Griffon 61/64/85 engine. Thus, the Merlin-powered Mk XVI had a maximum speed of 405mph, while the Griffon-engined Mk 24 had a

maximum speed of 454mph. The Spitfire's armament, too, underwent evolution. Initially seeing four of the eight machine guns replaced by two 20mm cannon, there was then a four 20mm cannon fit and also a fit comprising two 20mm cannon and two 0.5in machine guns. In addition, from the Mk V, there was provision under the fuselage for a drop tank and under-wing bombs or unguided rockets. In all, 20,351 Spitfires of all versions were built between 1938 and 1948. The RAF's last operational sortie was flown by a Spitfire PR.19 of 81 Sqn during the Malayan Emergency on 1 April 1954.

### **Vickers Wellington**

The Vickers Wellington medium bomber had the distinction of being the only British bomber to remain in production throughout the Second World War. Designed by Rex Pierson, incorporating the geodetic construction developed by Barnes Wallis, it first flew on 15 June 1936, powered by a pair of Bristol Pegasus radial engines. Production deliveries of the Wellington Mk IC, slightly refined from the prototype and powered by 1,000hp Pegasus XVIII engines, began in 1937. It had a maximum speed of 235mph and a range (with its maximum 4,500lb bomb load) of 1,200 miles. It was armed with a nose and tail gun turret, each with two 0.303in machine guns, and two hand-operated 0.303in machine guns in the beam position. By the outbreak of war, the RAF had six Wellington units, the first being 99 Sqn in October 1938. Both the Mk II, powered by two 1,145hp Merlin X in-line engines, and the Mk III, powered by two 1,375hp Bristol Hercules III radial engines, flew before the outbreak of war and entered service in 1941. The Mk IV was powered by Pratt & Whitney Twin Wasp radial engines. From 1942, the Mk III was the main version in Bomber Command service. The Mk V and Mk VI high-altitude versions did not go into production. The Mk X was the last of the bomber variants and, after 1945, many were converted to T.10 configuration as 'flying classrooms'. Some Mk ICs were converted to transports, designated Mk XV and Mk XVI. By autumn 1943, Wellington bombers were withdrawn from Bomber Command, but continued to serve in the Middle East and India. However, from 1942, they had begun service with Coastal Command on general reconnaissance and anti-submarine duties, beginning with the Mk VIII and followed by Mk XI/XII/XIII/XIV. Among the equipment fits were the Leigh Light, ASV radar and unguided rocket projectiles. In all, 11,461 Wellingtons of all versions were built, the last being delivered in October 1945. Some 60 RAF operational squadrons were equipped with the type, plus many training units. The last Wellingtons in RAF service, the T.10, were withdrawn in 1953.

### **Westland Lysander**

The Westland Lysander began life as an army co-operation aircraft. The prototype first flew on 15 June 1936, powered by an 890hp Bristol Mercury XII radial engine. The Mk I had a maximum speed of 219mph and a range of 600 miles. It was armed with two forward-firing 0.303in machine guns and a manual 0.303in machine gun in the rear cockpit. Stub wings on each undercarriage fairing could carry three 20lb bombs. The Lysander Mk II was powered by a 905hp Bristol Perseus XII radial engine and the Mk III by a 870hp Bristol Mercury XX radial engine. The Lysander Mk I entered RAF service with 16 Sqn in May 1938. Once in combat, it was found to be outclassed and was withdrawn from the army co-operation role in 1941. It went on to give valuable service in air/sea rescue duties and, also, as a target tug. However, the Lysander's 'claim to fame' was as a clandestine Special Duties aircraft, taking agents to and from Occupied Europe. For this, a number of Mk III aircraft were fitted with a 150 gallon long-range tank under the fuselage (giving it an 8-hour endurance), a fixed entry ladder on the port rear fuselage, and the rear cockpit was modified to take two passengers. When production ceased in January 1942, 1,372 Lysanders of all versions had been built. It served with 33 RAF squadrons and three detached flights. The type was withdrawn in November 1945.

## Appendix 2

### Glossary of Abbreviations

AAC	Army Air Corps
AAF	Auxiliary Air Force (became RAuxAF in 1947)
AAEE	Aircraft & Armament Experimental Establishment (Boscombe Down)
AAM	Air-to-air missile
Ac App	Aircraft Apprentice
AEF	Air Experience Flight
AFC	Air Force Cross
AFM	Air Force Medal
Air Cdre	Air Commodore
ASV	Anti-Surface Vessel
ATC	Air Training Corps
BAC	British Aircraft Corporation
BAe	British Aerospace
BAE	British Aerospace (as in BAE Systems)
BEM	British Empire Medal
BFFI	British Forces Falkland Islands
B(I)	Bomber (Intruder)
CAP	Combat Air Patrol
CCF	Combined Cadet Force
CFS	Central Flying School
Chief Obs	Chief Observer (ROC)
Cpl	Corporal
CWGC	Commonwealth War Graves Commission
DFC	Distinguished Flying Cross
DFM	Distinguished Flying Medal
DSC	Distinguished Service Cross
DSO	Distinguished Service Order
Ehp	Equivalent horsepower
EPTS	Empire Test Pilot's School (Farnborough, later Boscombe Down)
ERCC	East Riding County Council
FAA	Fleet Air Arm
FGA	Fighter, Ground Attack
FGR	Fighter, Ground attack and Reconnaissance
Fg Off	Flying Officer
Flt	Flight
Flt Lt	Flight Lieutenant
Flt Sgt	Flight Sergeant
FRAeS	Fellow of the Royal Aeronautical Society
FTS	Flying Training School
Gp Capt	Group Captain
GR	General Reconnaissance OR Ground attack and Reconnaissance
HMA	His Majesty's Airship
ILM	Institute of Leadership and Management
ISTAR	Intelligence, Surveillance, Target Acquisition and Reconnaissance
MiD	Mention in Despatches
MoD	Ministry of Defence
MU	Maintenance Unit
NAS	Naval Air Squadron
NCO	Non-Commissioned Officer
OB/OBC	Old Bridlingtonian/ Old Bridlingtonian Club
OC	Officer Commanding

OCU	Operational Conversion Unit
OCTU	Officer Cadet Training Unit
OEU	Operational Evaluation Unit
OTC	Officer Training Corps
PFI	Private Finance Initiative
Plt Off	Pilot Officer
PoW	Prisoner of War
PTI	Physical Training Instructor
RAAF	Royal Australian Air Force
RAF	Royal Air Force OR Royal Aircraft Factory
RAFVR	Royal Air Force Volunteer Reserve
RAFVR(T)	Royal Air Force Volunteer Reserve (Training Branch)
RAF Regt	Royal Air Force Regiment
RAFR	Royal Air Force Reserve
RAuxAF	Royal Auxiliary Air Force
RCAF	Royal Canadian Air Force
RFC	Royal Flying Corps
RNAS	Royal Naval Air Service or Royal Naval Air Station
RNZAF	Royal New Zealand Air Force
ROC	Royal Observer Corps
Sgt	Sergeant
Sqn	Squadron
Sqn Ldr	Squadron Leader
St	Static thrust
T	Trainer
TIALD	Thermal Imaging And Laser Designation (pod)
TT	Target Towing
UAS	University Air Squadron
USAAF	United States Army Air Force
USAF	United States Air Force
WAAF	Women's Auxiliary Air Force
Wg Cmdr	Wing Commander
WRAF	Women's Royal Air Force
WO	Warrant Officer
WSO	Weapons Systems Officer (formerly known as Navigator)
WSOp	Weapons Systems Operator: a non-commissioned aircrew trade encompassing specialisations such as Air Loadmaster, Air Electronics Operator and Air Signaller

## Appendix 3

### DECORATIONS and HONOURS

#### Gallantry Awards

So far, no OB has been awarded the Victoria Cross, the UK's highest award for gallantry. The following list explains the awards that have been made.

#### **Distinguished Service Order** – 2 awards

#### **Distinguished Flying Cross and Distinguished Flying Medal** -

Awarded for "an act or acts of valour, courage or devotion to duty whilst flying in active operations against the enemy". Until 1993 Non-Commissioned officers and airmen were awarded the DFM, while Commissioned Officers and Warrant Officers were eligible for the DFC. All ranks are now eligible for the award of a DFC

DFC – 7 first awards, and two OBs received "Bars" indicating that they had been awarded a second DFC

DFM – 3 awards

#### **Distinguished Service Cross** – 1 award

The DSC is awarded to officers of the Royal Navy, including those who served in the Royal Naval Air Service, in recognition of "an act or acts of exemplary gallantry during active operations against the enemy at sea."

#### **Military Medal** – 1 (unconfirmed) award

Awarded to Non-Commissioned Officers and those in the ranks of the Army, for gallantry in action against the enemy.

#### **Air Force Cross** – 2 awards

Awarded for "an act or acts of valour, courage or devotion to duty whilst flying, though not in active operations against the enemy" Typical recipients might be test pilots or flying instructors.

**Air Force Medal** – 1 award. Until 1993 Non-Commissioned officers and airmen were awarded the AFM, while Commissioned Officers and Warrant Officers were eligible for the AFC. All ranks are now eligible for the award of an AFC.

#### **British Empire Medal (BEM)** – 1 award

#### **Mention in Despatches (MiD)** – 14 awards

This may be awarded for an act of gallantry, or for service beyond the call of duty. It is one of only three awards that can be awarded posthumously.

Gallantry awards may be made in recognition of a specific act ("Immediate Awards") or for sustained gallantry over a period ("Non-Immediate Awards") such as a "tour" of operations in Bomber Command.

#### **Foreign Awards**

Greek Military Cross – 1 award

Croix de Guerre – 1 (unconfirmed) award. Both France and Belgium awarded Croix de Guerre during the First World War, and some were awarded to British personnel.

United States Bronze Star Medal – 1 award

## **Honours**

**Companion of the Bath (CB)** – 1 award

**The Most Excellent Order of the British Empire** has the following ranks:

Knight Grand Cross (GBE) – No awards

Knight Commander (KBE) – 1 Award

Commander (CBE) – 2 awards

Officer (OBE) – 5 awards in the Military Division, and 1 award in the Civil Division

Member (MBE) – 3 awards

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