

Appendix 1.1: Aircraft utilised by the RFC, RNAS, RAF and US Navy within the UK 1912-18

Manufacturer/Type	Period of Service	Role	Power Plant	Weight (Kg)	Airframe construction	Total Produced	Survivors: Global (UK)	Notes
AD Flying Boat	1917-	MR	Hispano-Suiza	1,512	Wooden hull and frame, linen covering	29	0 (0)	Two-seat patrol flying boat in RNAS service from 1917.
Airco DH 1	1915-17	F	Renault	729	Wooden frame, linen covering	173	0 (0)	Escort and patrol fighter, single-seat pusher type. Used in UK in Home Defence role until superseded in 1917.
Airco DH 2	1915-17	F	Gnome	428	Wooden frame, linen covering	400	1 (1)	Pusher type which equipped RFC's first single-seat fighter squadron in 1916. Short term success in dealing with new Fokkers but was withdrawn from service in mid-1917.
Airco DH 4	1917-19	B, Recon	RR Eagle or RAF 3a	913	Wooden frame, linen covering	1,449	0 (0)	Two-seat tractor biplane. The DH 4 was the first aircraft designed specifically for day bombing, and considered to be best single-engine day bomber of WWI. Served with both the RFC and the RNAS, in the case of the latter from Redcar and Yarmouth in the anti-Zeppelin role.
Airco DH 5	1917-18	F	Le Rhone	454	Wooden frame, linen covering	550	0 (0)	Attempt to give a tractor type fighter a good forward view. Unpleasant flying characteristics and short service career.
Airco DH 6	1916-19	T, MR	RAF 1a, Renault or Curtis OX-5	663	Wooden frame, linen covering	2,282	0 (0)	Designed as a trainer. From 1918 the Avro 504 became the standard training aircraft and the DH 6 was used to equip 34 RNAS flights around the UK's coast in the MR and anti-submarine role, although with little success.
Airco DH 9	1918-19	B	BHP or AS Puma	996	Wooden frame, linen covering	3,204	1 (1)	Development of the DH4 which suffered engine reliability problems, with consequent heavy losses. Utilised in the UK by the RNAS and RAF for coastal patrols in the anti-submarine and anti-zeppelin roles.
Armstrong Whitworth FK3	1915-16	T	RAF 1a	?	Wooden frame, linen covering	500	0 (0)	Under powered two-seat biplane which was primarily used for training in the UK.
Armstrong Whitworth FK 8	1916-19	B	Beardmore	764	Wooden frame, linen covering	588	0 (0)	Two-seat tractor which was the most widely used reconnaissance aircraft of 1917-18, equipping nine RFC squadrons.
Armstrong Whitworth FK 10	1916-1918	F, B	Le Rhone, Clerget	559	Wooden frame, linen covering	8	0 (0)	Two-seat quadruplane built for the RNAS, most of which had been scrapped by the end of the war.
Avro 500	1913-15	T	Gnome	420	Wooden frame, linen covering	?	0 (0)	Two-seat tractor biplane produced in small numbers and used by RFC and RNAS as a trainer.
Avro 503	1913-14	T	Gnome	420	Wooden frame, linen	?	0 (0)	Two-seat training seaplane, a few of which delivered to RNAS before the war.

					covering			
Avro 504	1914-33	F,T	Le Rhone, Clerget or Gnome	420	Wooden frame, linen covering	7,948	8 (5)	Important two-seat tractor biplane initially used by RFC for reconnaissance and by the RNAS as a bomber. First aircraft shot down by the Germans. Hurriedly converted to single-seat Home Defence fighter to counter Zeppelin raids. Later relegated to training.
Beardmore WB III	1918-19	F	Le Rhone or Clerget	404	Wooden frame, linen covering	100	0 (0)	Single-seat carrier-based scout, a derivative of the Sopwith Pup. An early attempt to build an aircraft exclusively for carrier-borne operations. Had folding wings and retractable undercarriage for easier storage. By October 1918 55 were in service.
Blackburn Kangaroo	1918-19	B	2 x RR Falcon	2,401	Wooden frame, linen covering	16	0 (0)	Land-based biplane anti-submarine bomber with crew of four. Used with some success from August 1918 by 246 Sq RAF flying from Seaton Carew who destroyed one U-Boat and damaged four others.
Bleriot XI / Parasol	1911-15	F	Gnome	348	Wooden frame, linen covering	?	0 (0)	The Type XI and a developed version known as the Bleriot Parasol, used in limited numbers by the RFC and by the RNAS.
Bristol Boxkite	1912-15	F	Gnome	522	Wooden frame, linen covering	66	0 (0)	Two-seat pusher biplane trainer in use with the RFC from 1912 and subsequently with the RNAS until mid-1915 at the Eastbourne, Eastchurch and Hendon. First design of the British and Colonial Aeroplane Company (Bristol), the prototype flew in July 1910.
Bristol F2 Fighter	1917-32	FB	RR Falcon	877	Wooden frame, linen covering	4,470	5 (5)	Highly successful two-seat biplane fighter and reconnaissance aircraft, with both forward and rearward firing machine guns. Designed as a replacement for the BE 2, it entered front line service with the RFC in mid 1917 and remained with the RAF until 1932.
Bristol Scout	1914-16	F	Le Rhone, Clerget or Gnome	340	Wooden frame, linen covering	371	2 (2)	Single-seat biplane fighter, in 1916 the Scout was the first British aircraft to be fitted with a synchronised forward firing machine gun to see action. However, it was already outclassed in terms of performance and reverted to experimental use. Utilised by both the RFC and the RNAS. Also the first aircraft with a wheeled undercarriage to take off from a carrier.
Bristol TB 8	1914-16	F	Le Rhone or Gnome	699	Wooden frame, linen covering	51	0 (0)	Two-seat tractor biplane initially intended for the RFC but rejected by them and utilised instead by the RNAS for Home Defence duties during the early part of the war.
Caudron GIII	1913-16	T	Le Rhone, Gnome or Anzani	850	Wooden frame, linen covering	?	0 (0)	Key French designed and manufactured two-seat sesquiplane which, together with subsequent developments, equipped 40 French units but which was used in the UK as a trainer by the RNAS (124 delivered), the RFC and the US Army Air Service (192 delivered).
Caudron GIV	1916-17	B	2 x Le Rhone or Anzani	850	Wooden frame, linen covering	?	0 (0)	Twin-engine, two-seat long range bomber, 55 of which were delivered to the RNAS for long range bombing duties, operating with 4 and 5 Wings at Petit Synthe. Replaced by the Handley Page 0/100.

Curtiss H4	1914-18	MR	2 x Curtiss OX-5, Anzani or Clerget	1,360	Wooden hull and frame, linen covering	?	0 (0)	Twin-engine four-seat biplane flying boat, built under licence in the UK. Known as the 'Small America' to distinguish it from the larger H12 later taken into service, 64 of this type were operated by the RNAS from Felixstowe and Killingholme. Suffered many problems, but made important contribution to flying boat development.
Curtiss H12	1917-19	MR	2 x RR Eagle	3,315	Wooden hull and frame, linen covering	?	0 (0)	Twin-engine four-seat biplane flying boat, development of the H4. Known as the 'Large America', utilised by the RNAS for anti-submarine and anti-zeppelin patrols flying from Killingholme, Yarmouth and Felixstowe. Claimed first zeppelin shot down by a flying boat.
Curtiss H16	1918-19	MR	2 x RR Eagle	3,346	Wooden hull and frame, linen covering	?	0 (0)	Twin-engine four-seat biplane flying boat, larger developed version of the H12. Approximately 75 were ordered for the RAF, operating from Killingholme and Yarmouth in the anti-submarine role. A further 50 aircraft were flown in the UK by the US Navy, again operating from Killingholme.
Curtiss R2/R4	1915-18	T	Curtiss XV	?	Wooden frame, linen covering	?	0 (0)	Intended for use in the reconnaissance role, 100 were ordered for RNAS service in 1915. The aircraft proved to be under powered and was relegated to armament training.
Curtiss JN3	1915-18	T	Curtiss OX5	?	Wooden frame, linen covering	?	0 (0)	A total of 97 of this US aircraft were delivered to the RNAS for use in the training role.
Curtiss JN4	1917-18	T	Curtiss OX5	800	Wooden frame, linen covering	?	0 (?30)	The most famous US training aircraft of the war and inter-wars period, some 80 'Jennys' were delivered to the RNAS for training duties and 100 served with the RFC.
Fairey III	1918-35	F	Maori II or RR Eagle	1,476	Wooden frame, linen covering	486	1 (1)	Two-seat biplane reconnaissance aircraft (RAF IIIA land plane) and bomber (RNAS IIIB seaplane). Saw limited service before the end of WWI. Post war IIID had either wheels or floats and served with both the RAF and FAA, carrying out long endurance flights.
Fairey Campania	1918-19	MR	RR I, IV or Maori	1,693	Wooden frame, linen covering	40	0 (0)	Two-seat coastal patrol or carrier-borne reconnaissance seaplane. First aeroplane designed for use on board a carrier. Operated from seaplane stations at Calshot, Dundee and Portland.
Fairey Hamble Baby	1917-18	MR	Clerget	630	Wooden frame, linen covering	180	0 (0)	Single-seat anti-submarine patrol seaplane. Derivative of the Sopwith Baby, reworked by Fairey who introduced for the first time trailing edge flaps to increase wing lift. Used by RNAS during 1917-18 operating from coastal stations in the UK and abroad.
FBA Flying Boat	1914-18	T	?	?	Wooden hull and frame, linen covering	?	0 (0)	Small two-seat flying boat, 116 of which were delivered to the RNAS for training duties.
Felixstowe F2	1918-23	F, MR	2 x RR Eagle VIII	3,431	Wooden hull and frame, linen covering	249	1 (1)	Redesign of the US Curtis H4 which enjoyed immense success against U Boats and Zeppelins in the North Sea.
Farman MF7 and MF11	1913-16	Recon, B, T	Renault or Lorraine	652	Wooden frame, linen covering	?	0 (0)	Introduced to RFC and RNAS service in 1913, the MF7 was known as the 'Longhorn' because of its landing skids and the MF11 (Type 1914) as the 'Shorthorn'. Used initially in the reconnaissance role, both were rapidly relegated to training.

Farman MF20	1914-1916	Recon, B, T	Gnome	372	Wooden frame, linen covering	?	0 (0)	A two-seat land or sea plane which equipped the RNAS in small numbers, flying from Eastchurch initially and then from Belgium and in the Dardanelles.
Farman F40	1915-16	F	Renault	?	Wooden frame, linen covering	?	0 (0)	A single-seat pusher, 50 of this type were delivered for RNAS service, some operating from coastal air stations in the UK.
Grahame-White XV	1914-16	T	Le Rhone or Gnome	?	Wooden frame, linen covering	80	0 (0)	Two-seat pusher biplane, 80 of which were used by the RNAS as a trainer during early part of war, mostly flying from Chingford.
Handley Page 0/100	1916-18	B	2 x RR Eagle	3,772	Wooden frame, linen covering	46	0 (0)	First successful night heavy bomber, having suffered initial heavy losses in daylight role. Three seat biplane with folding wings to enable it to fit into front line hangars. Served with the RNAS and later the RAF.
Handley Page 0/400	1918-21	B	2 x RR Eagle	3,864	Wooden frame, linen covering	554	0 (0)	Development of 0/100, became standard equipment with the Independent Force, the strategic bombing arm of the newly-formed RAF.
Handley Page V/1500	1918-20	B	4 x RR Eagle	7,368	Wooden frame, linen covering	90	0 (0)	Largest RAF night bomber of WWI, with a crew of up to 7. Aircraft of 166 Sq Bircham Newton were waiting to take off to bomb Berlin when the Armistice was signed.
Martinsyde G.100 / G.102 Elephant	1916-18	F, B	Beardmore	815	Wooden frame, linen covering	271	0 (0)	Initially conceived as long range single-seat biplane fighter. Weight and poor manoeuvrability saw the G.100 (of which 100 were built) relegated to use as light bomber and ground attack aircraft. Subsequent development, the G.102 'Elephant' (of which 171 built) used in similar role, and as long range escort.
Martinsyde F1	1917	F	RR	?	Wooden frame, linen covering	?	0 (0)	Two-seat biplane fighter used experimentally as a Home Defence fighter by the RFC mounting twin machine guns. Stable and with good performance, it did not go into production.
Martinsyde F3	1918	F	Hispano-Suiza	?	Wooden frame, linen covering	6	0 (0)	Single-seat biplane fighter, 4 of 6 produced serving in Home Defence role in 1918. Rapidly developed into the F4 Buzzard.
Martinsyde F4 Buzzard	1918-19	F, Comms	Hispano-Suiza	?	Wooden frame, linen covering	65	0 (0)	Single-seat biplane, fastest Allied fighter of WWI, although reached squadrons too late to see active service. Used as high speed communications aircraft, the Sopwith Snipe becoming instead the standard post-war fighter.
Martinsyde S1 Scout	1915-16	F	Gnome	?	Wooden frame, linen covering	60	0 (0)	Single-seat tractor type biplane, saw approximately 6 months service on Western Front with RFC before being relegated to training duties. Initially intended for use in Home Defence role, it was also found inadequate for these duties.
Morane Saulnier N	1914-15	F	Le Rhone	444	Wooden frame, linen covering	49	0 (0)	Single-seat monoplane fighter which equipped four squadrons of the RFC.
Nieuport 12 Two-seat	1915-16	F, Recon, B	Clerget or Beardmore	550	Wooden frame, linen covering	?	0 (0)	Two-seat biplane, initially purchased from the French but then subsequently manufactured under licence in the UK. Equipped both the RNAS and the RFC.
Nieuport 11/17/24	1915-17	F	Le Rhone	375	Wooden frame, linen	?	3 (1)	French-built Single-seat fighting scouts, successive types of

Scouts					covering			which equipped the RNAS, mostly operating on the Western Front, but also in small numbers from Eastchurch.
Norman Thompson NT 2B	1917-19	T	Hispano-Suiza, Beardmore or Sunbeam Arab	1,200	Wooden frame and hull, linen covering	79+	0 (0)	Two-seat flying boat trainer which operated with the RNAS from Calshot, Lee-on-Solent and Felixstowe. Still in service at the end of the war.
Norman Thompson NT 4	1916-18	MR	2 x Hispano-Suiza	2,078	Wooden frame and hull, linen covering	50	0 (0)	Four-seat anti-submarine flying boat used by the RNAS, operating from Calshot, Cattewater, Dundee, Felixstowe, Invergordon, Killingholme and Scapa Flow.
Parnall Hamble Baby	1915-17?	T	?	?	Wooden frame, linen covering	?	0 (0)	Land plane conversion of the Hamble Baby seaplane, 74 of which were used by the RNAS in the training role.
Royal Aircraft Factory BE2	1914-19	Recon	Renault or RAF Ia	579	Wooden frame, linen covering	3,241	1 (1)	Mainstay RFC two-seat tractor type, the first to see mass production. Used from outbreak of WWI. Used as night fighters by RFC Home Defence units against the Zeppelin.
Royal Aircraft Factory BE8	1913-16	B, Recon	Gnome	?	Wooden frame, linen covering	55	0 (0)	Two-seat tractor type, initially used as a scout and subsequently as a trainer, and in the Spring of 1915 as a light bomber. Known as 'The Bloater'.
Royal Aircraft Factory BE 12	1916-18	FB	RAF 4a	740	Wooden frame, linen covering	468	0 (0)	Adaptation of BE2, single-seat fighter which saw limited service in 1916 before being relegated to the role of light bomber.
Royal Aircraft Factory FE 2	1914-18	FB	Beardmore or RR Eagle	936	Wooden frame, linen covering	2,190	1 (1)	Highly successful two-seat pusher type which saw front line service in France between 1915-18, first as a fighter and later in the night bomber and ground attack role.
Royal Aircraft Factory FE 8	1915-17	F	Gnome	405	Wooden frame, linen covering	182	0 (0)	Single-seat pusher type, outdated on entry to front line service and soon relegated.
RE 5	1914-15	B, Recon	Austro-Daimler or Beardmore	?	Wooden frame, linen covering	24	0 (0)	Two-seat tractor type, first of the RE (Reconnaissance Experimental) types to reach full production. Served almost exclusively with the RFC.
RE 7	1915-16	B, Recon	Beardmore	1,038	Wooden frame, linen covering	250	0 (0)	Two-seat tractor type, conceived as day bomber. Served with the RFC, although weak defensive armament saw it quickly superseded.
RE 8	1916-20	B, Recon	RAF 4a	819	Wooden frame, linen covering	4,077	1 (1)	Mainstay two-seat tractor type of the second half of WWI, equipping 19 Squadrons in France.
SE 5	1917-20	F	Hispano-Suiza or Wolseley Viper	630	Wooden frame, linen covering	5,205	3 (3)	Extremely successful late WWI single-seat fighter which entered front line service in April 1917.
Short Bomber	1915-17	B	RR Eagle or	2,272	Wooden frame, linen	83	0 (0)	Two-seat tractor type biplane. Development of Short 184 seaplane, delivered to 3 Wing RNAS spring 1916 and also to 7

			Sunbeam		covering			Sq RNAS late in the year. Took part in `strategic' operations as night bomber with 3 Wing from late 1916 but withdrawn from service April 1917.
Short 74	1914-15	MR	Gnome	954	Wooden frame, linen covering	18	0 (0)	Two-seat ship-borne float plane used by RNAS. Chiefly known for Cuxhaven raid.
Short 184 / 320	1915-21	TB, Recon, B	Sunbeam, Renault or RR Eagle	1,683	Wooden frame, linen covering	300	1 (1)	Highly successful RNAS two-seat biplane seaplane which became the first aircraft to sink a ship with a torpedo and was stationed at coastal bases around the UK. Later converted as a night bomber. Improved 320 variant (1918-19) used for anti-submarine and reconnaissance. Other sources suggest as many as 900 were built.
Short 827 / 830	1914-18	B, Recon	Sunbeam or Salmson	1,545	Wooden frame, linen covering	120	0 (0)	Two-seat reconnaissance/bomber seaplane, operated with RNAS from coastal air stations, seaplane carriers and armed merchantmen.
Sopwith Baby	1914-18	B and Recon	Gnome or Clerget	557	Wooden frame, linen covering	456	0 (0)	Single-seat twin-float seaplane development of the pre-war Schneider Trophy winning aircraft. Employed with little success by RNAS in anti-Zeppelin role over North Sea.
Sopwith Camel	1917-19	F	Clerget	422	Wooden frame, linen covering	5,490	2 (2)	Most successful British fighter of WWI in terms of combat kills, used by both RFC and RNAS. Also used in ground attack role. 2F1 variant developed for ship-board use.
Sopwith T1 Cuckoo	1918-23	TB	Wolseley Viper or Sunbeam Arab	999	Wooden frame, linen covering	150	0 (0)	Developed from 1916, RNAS land plane which could carry a single torpedo. Entered service too late to see action in WWI.
Sopwith Dolphin	1918-19	F	Hispano-Suiza	709	Wooden frame, linen covering	1,500	0 (0)	Fighter and ground attack aircraft that saw service from early 1918.
Sopwith Pup	1916-18	F	Le Rhone	357	Wooden frame, linen covering	1,770	2 (2)	Single-seat tractor, entered service with RFC in mid 1916. 290 served with RNAS and type carried out first deck landing on a moving ship. Also used in Home Defence role.
Sopwith Salamander	1918-19	FB	Bentley BR 2	1,139	Wooden frame, linen covering	882	0 (0)	Ground attack aircraft which entered service right at the end of WWI.
Sopwith Sneider	1915-18	F	Gnome	?	Wooden frame, linen covering	160	0 (0)	Seaplane version of the Tabloid which operated from RNAS coastal stations around the UK.
Sopwith Snipe	1918-26	F	Bentley BR 2	916	Wooden frame, linen covering	1,100	0 (0)	Development of the Camel, entered service right at the end of WWI and became the first mainstay fighter of the peacetime RAF.
Sopwith 1½ Strutter	1916-18	FB, Recon	Clerget	572	Wooden frame, linen covering	1,315	0 (0)	Used by both RFC and RNAS, a single or two-seat tractor type. Outclassed as a fighter by late 1916 and relegated to the bombing role. From early 1918 served as a trainer.

Sopwith Tabloid	1914-16	FB	Gnome	303	Wooden frame, linen covering	39	0 (0)	Single-seat Scout and light bomber, development of pre-war racer. Served with RFC and RNAS and carried out first raid on Germany
Sopwith Triplane	1917	F	Clerget	500	Wooden frame, linen covering	140	1 (1)	A single-seat triplane used exclusively by RNAS, highly manoeuvrable and with a good rate of climb but soon outclassed and replaced by the Camel.
Spad Scout (VII)	1916-18	F	Hispano Suiza	500	Wooden frame, linen covering	?	0 (0)	A highly successful French designed single-seat tractor biplane, built in limited numbers under licence in the UK for the RNAS and subsequently used on the Western Front by the RFC.
Vickers FB4 / FB 5 / FB 9 Gunbus	1914-16	F, Recon, T	Gnome	554	Wooden frame, linen covering	150?	0 (0)	Pusher type biplane scout (fighter), first 50 of which developed and built on Vickers' private initiative. Saw service with both the RFC and RNAS in France before reverting to Home Defence role. The last development, the FB 9 was used within the UK as a trainer.
Vickers FB 19	1916-17	F	Clerget or Le Rhone	407	Wooden frame, linen covering	36	0 (0)	Used primarily in UK in the Home Defence and training role.
White and Thompson No.3	1915-16	MR	Beardmore	c.1,000	Wooden hull and frame.	8	0 (0)	Two-seat anti-submarine biplane flying boat used in extremely limited fashion by the RNAS.
White and Thompson 'Bognor Bloater'	1915-16	MR	Renault	?	Wooden monocoque fuselage.	10	0 (0)	Two-seat coastal patrol biplane used in extremely limited fashion by the RNAS, operating from the coastal air stations at Eastbourne, Great Yarmouth and Killingholme.
Wight 840	1915-17	TB	Sunbeam	c.2,000	Wooden frame, linen covering	70	0 (0)	Two-seat torpedo seaplane used by the RNAS. Operated from Felixstowe in the anti-submarine role.
Wight Pusher	1914-16	Recon	Salmson	c.1,500	Wooden frame, linen covering	11	0 (0)	Two/three-seat reconnaissance seaplane with folding five-bay wings. Two on board Ark Royal in the Dardanelles, remainder at coastal stations.
Wight 'converted' Seaplane	1917-?	MR	RR Eagle or Sunbeam Maori	1,708	Wooden frame, linen covering	37	0 (0)	Two-seat biplane used by the RNAS in the anti-submarine role from early 1917, flying from Calshot, Dover and Portland.

Appendix 1.2: Aircraft utilised by the Imperial German Military Air Service and the Imperial Navy Service within the UK 1914-1918

Manufacturer / Type	Period of Service	Role	Power Plant	Weight (Kg)	Airframe Construction	Total Produced	Survivors: Global (UK)	Notes
Friedrichshafen FF 29	1914-15	B	Mercedes D II	?	?	?	0 (0)	Single engine biplane Float-plane with a crew of two which was utilised by the German navy in small-scale nuisance raids against UK shipping and coastal targets.
Gotha G.IV and V	1916-18	B	2 x Mercedes D IVa	2,391	Plywood frame with canvas covering	232	0 (0)	Long range bomber with crew of three. By late 1916 the effectiveness of Zeppelins had been neutralised by incendiary bullets and improved defences, so a special unit (Kampgeschwader 3) equipped with GIVs was established in order to bomb London, which it did from 1917 onwards.
Zeppelin (Staaken) R. VI	1917-18	B	4 x Maybach or Mercedes D IVa	11,462	?	18	0 (0)	Heavy bomber with crew of seven and endurance of between seven and eight hours. Known as the 'Giant', it took part in raids on France and the UK from 1917 onwards.

Appendix 1.3: Aircraft utilised by the RAF and Fleet Air Arm within the UK 1919-1936

Manufacturer/Type	Period of Service	Role	Power Plant	Weight (Kg)	Airframe construction	Total Produced	Survivors: Global (UK)	Notes
Armstrong Whitworth Atlas	1927-35	AC, Com ms, T	AS Jaguar IVc	1,159	Tubular metal frame, linen covering	446	0 (0)	Two-seat general purpose biplane, the first to be specifically designed for Army co operation work, it became operational in late 1927, remaining in service for six years, finally as a communications aircraft and advanced trainer.
Armstrong Whitworth Siskin	1924-32	F	AS Jaguar	828	Tubular metal frame, linen covering	534	0 (0)	Important early inter-war period RAF single-seat day fighter which was highly successful and exported.
Avro Aldershot	1924-25	B	RR Condor III	?	Wooden frame, linen covering	15	0 (0)	A heavy, day, long range bomber with crew of 5. Equipped only 99 Sq RAF.
Avro Anson	1936-68	MR,T	2x AS Cheetah	2,440	Tubular steel with spruce and plywood covering and Bakelite plywood wings	11,000	30 (16)	Introduced as GR aircraft, later adopted as principal trainer. Only one wartime military version (Mk I) survives. First RAF aircraft with retractable undercarriage.
Avro Bison	1922-29	Recon, MR	Napier Lion	1,892	Wooden frame, linen covering	63	0 (0)	A biplane reconnaissance aircraft with a crew of 3 to 4 which equipped 3 and 22 Sq RAF before passing to FAA, who operated it with 4 UK based flights. Produced in two main variants and superseded by the Fairey IIIIF in 1929.
Avro Tutor/Prefect	1935-39	T	AS Lynx	?	Tubular metal frame, linen covering	795	3 (1)	Two-seat trainer chosen to replace the Avro 504, 380 of which were in RAF service, many coming on to the civilian market at the end of their careers. Also used extensively abroad.
Blackburn Baffin	1934-36	TB	Bristol Pegasus	1,900	Composite wood and metal frame, linen covering	77	0 (0)	Two-seat carrier borne torpedo bomber. Succeeded the Ripon as the FAA's principal strike aircraft. Served with three FAA squadrons. 62 of the production run were actually converted Ripons.
Blackburn Blackburn	1923-33	MR	2 x Napier Lion IIB or V	1,833	Composite wood and metal frame, linen covering	50-70	0 (0)	Single engine biplane reconnaissance aircraft used by the FAA, either from carriers or from land bases. Replaced by the Fairey IIIIF. Equipped two UK based flights.
Blackburn Dart	1922-33	TB	Napier Lion	1,746	Composite wood and metal frame, linen covering	70	0 (0)	Single-seat carrier torpedo bomber which equipped three UK based flights of the FAA. Made the first night landing upon a carrier and a twin float seaplane version also equipped four RAF Reserve Training Schools.
Blackburn 14/24 Iris	1930-32	MR	3 x RR Condor	?	Wooden hull and frame and linen covering.	8	0 (0)	Large reconnaissance seaplane, five versions of which were built and which carried out many long distance flights.
Blackburn 20/32 Perth	1934	MR	3 x RR Buzzard	?	Metal hull and frame, linen airframe covering	4	0 (0)	Triple engine flying boat which saw limited service.
					Composite wood and			

Blackburn Ripon	1929-34	TB, MR	Napier Lion XIA	1,934	metal frame, linen covering or all metal	92	0 (0)	Two-seat carrier-borne torpedo bomber biplane which superseded the Dart in FAA service. Could also be converted for use in the long range reconnaissance role.
Blackburn Shark	1935-38	TB	AS Tiger VI	1,969	Metal structure, with Alclad monocoque fuselage and fabric covered wings	200	0 (0)	Two or three-seat biplane torpedo bomber which served with three FAA squadrons before being relegated to the training role from Lee on Solent.
Boulton Paul Overstrand	1935-38	B	2 x Bristol Pegasus	3,607	Tubular metal frame, linen covering	24	0 (0)	Uprated version of the Sidesstrand, became the first RAF aircraft to mount a power operated turret, entering service with 101 Sq in early 1935.
Boulton Paul Sidesstrand	1929	B	2 x Bristol Jupiter VIII	2,731	Tubular metal frame, linen covering	18	0 (0)	Large twin engine high performance biplane replacement for the DH 10 daylight medium bomber. Carried crew of 3-5 and equipped 101 Sq RAF at Bircham Newton.
Bristol Bulldog	1929-37	F	Bristol Jupiter	951	Tubular metal frame, linen covering	500	1 (1)	Single-seat biplane fighter, one of the last open cockpit types to see widespread service with the RAF, equipping 10 Squadrons and at one point equipping 70% of the home defence fighter force.
De Havilland Tiger Moth	1931-47	T	De Havilland Gypsy	525	Tubular steel and Spruce with Plywood and fabric covering	8,565	400+ (42)	Principal biplane elementary flying trainer in UK and Commonwealth training schools. Adaptation of a civilian design. Many survive.
Fairey Fawn	1924-29	B, AC	Lion II	?	Wooden frame, linen covering	48	0 (0)	Two-seat biplane designed to replace the DH 9 in the day bomber, reconnaissance and Army co operation role.
Fairey Flycatcher	1923-34	F	AS Jaguar III or IV or Bristol Mercury II	923	Wooden wings with linen covering, composite wood and metal fuselage, metal and fabric covered	195	0 (0)	The only British fighter in FAA service between 1924 and 1932 and both highly successful and highly significant. Land based and carrier borne variants.
Fairey Fox	1926-31	B	Curtis D12	?	Wooden frame, linen covering	35	0 (0)	Technically innovative replacement for the Fawn day bomber which included water cooled engine, metal propellor, retractable radiator and high efficiency wing aerofoils. Later models (the Mk II) was all metal in construction.
Fairey Gordon / Seal	1931-34	B, Recon	AS Panther IIA	1,590	Tubular metal frame, linen covering	270	0 (0)	A two-seat daylight bomber and reconnaissance aircraft designed to replace the Fairey III, with which it shared many design similarities. Used predominantly by the RAF but also by the FAA who renamed their variant the Seal.
Fairey Hendon	1936-39	B	2 x RR Kestrel	5,805	Tubular steel and light alloy frame, linen covering	14	0 (0)	Highly innovative in design: first RAF cantilever monoplane heavy bomber. Carried crew of 5 and equipped 38 Sq RAF. Plans to produce a further 60 aircraft were dropped in favour of other newer designs.
Fairey Seafox	1937-40	MR	Napier Rapier	1,729	All metal with monocoque fuselage and fabric covered wings	64	0 (0)	Two-seat reconnaissance biplane and spotter seaplane used by the FAA. Equipped a number of cruisers and catapult flights on the outbreak of WWII, and took part in the successful action against the Graf Spee.

Gloster Gamecock	1926-31	F	Bristol Jupiter VI	874	Wooden frame, linen covering	90	0 (0)	Single-seat day fighter which entered service with five RAF squadrons in 1926. The last all wooden RAF fighter to enter service.
Gloster Gauntlet	1934-40	F	Bristol Mercury	1,257	Tubular metal frame, linen covering	228	0 (0)	Single-seat biplane fighter, already largely obsolete by its introduction to service. Last open cockpit fighter in RAF service, which equipped 15 squadrons.
Gloster Grebe	1923-29	F	Bristol Jupiter IV	779	Wooden frame, linen covering	129	0 (0)	Successful single-seat day fighter which served with 6 RAF squadrons before being replaced by the Siskin.
Handley Page Heyford	1930-39	B	2 x RR Kestrel or Tiger	4,181	Tubular metal frame, linen covering	254	0 (0)	Four seat biplane heavy night bomber, the last biplane heavy bomber to enter RAF service, equipping 99 Sq from July 1933.
Handley Page Hinaiidi	1929-35	B	Jupiter, AS Jaguar, RR Buzzard or RR Kestrel	1,386	Wooden frame, linen covering	52	0 (0)	Four seat biplane heavy night bomber. Developed version of the Hyderabad which could carry an extra 350 lb in bombs, equipping 99 Sq RAF from late 1929.
Handley Page Hyderabad	1925-34	B	2 x Lion	4,050	Wooden frame, linen covering	45	0 (0)	Twin engine heavy night bomber which saw service with 4 UK based squadrons, starting with 99 Sq at Bircham Newton. The RAF's last all wooden bomber.
Hawker Audax	1932-41	AC, T	RR Kestrel	?	Tubular metal frame, canvas and metal covering.	650	1 (1)	Two-seat biplane close support and reconnaissance aircraft for Army co operation work. Replaced the AW Atlas and eventually became a trainer, in which role it served until 1941.
Hawker Demon	1931-39	F	RR Kestrel	?	Tubular metal frame, canvas and metal covering.	234	1 (1)	Two-seat biplane fighter, adaptation of the Hart bomber with uprated performance and armament. A later variant had a hydraulically operated turret installed in the rear cockpit.
Hawker Fury / Nimrod	1931-39	F	RR Kestrel	1,188	Tubular and high tensile rolled steel frame, canvas and metal covering.	230	3 (3)	Single-seat biplane selected as the standard fighter for the RAF, entering service with 43 Sq in 1931. Converted by the FAA for use on aircraft carriers as the Nimrod. Incorporated hydraulically operated brakes.
Hawker Hardy	1935-43	B, GR, Tug	RR Kestrel	1,452	Tubular metal frame, canvas and metal covering.	47	0 (0)	Two-seat biplane light bomber which competed in terms of performance with contemporary fighters. It entered service with 3 overseas squadrons in 1935 but was quickly relegated to home service with the Auxiliary Air Force and then became a tug.
Hawker Hart / Osprey	1930-43	B, MR, Tug	RR Kestrel	1,150	Tubular steel frame, canvas and metal covering.	969	2 (2)	Two-seat biplane light bomber which entered RAF service in 1930 and eventually equipped seven UK-based squadrons as the Hart. Fitted with folding wings and flotation gear and renamed the Osprey, it also equipped FAA from 1932 onwards.
Hawker Hind	1935-40	B	RR Kestrel	1,477	Tubular metal frame, canvas and metal covering.	692	2 (2)	Two-seat biplane day bomber replacement for the Hawker Hart, with which it shared many design characteristics.
Hawker Horsley	1926-35	B, TB	RR Condor or AS Leopard	2,163	Mk I all wooden, Mk II composites, Mk III all metal.	38	0 (0)	Single engine biplane day bomber with crew of 2, later developed as a land plane torpedo bomber (Mk III). The Mk I was the last all wooden aircraft to be constructed by Hawkers.
Hawker Woodcock	1925-28	F	AS Jaguar II	638 (Mk	Wooden frame, linen	63	0 (0)	The first fighter aircraft built in Britain following the end of WWI.

			or Bristol Jupiter IV	I) 943 (Mk II)	covering			Single-seat which followed conventional lines and was superseded by the Gamecock.
Miles Nighthawk	1937-38	T	DH Gipsy Six	?	?	?	0 (0)	Trainer.
Nieuport Nighthawk	1919-23	F	AS Jaguar or Bristol Jupiter	?	Wooden frame, linen covering	70	0 (0)	French designed fighter manufactured under licence in the UK for use as RAF fighter in the immediate inter-war period.
Nieuport Nightjar	1922-23	F	Bentley BR 2	984	Wooden frame, linen covering	18	0 (0)	Single-seat carrier-borne fighter, a conversion of surplus Night Hawks, which saw use with the FAA.
Parnall Panther	1920-23	F, Recon	Bentley BR 2	603	Wooden frame, linen covering	150	0 (0)	Two-seat day fighter and reconnaissance aircraft, one of the first to be designed specifically to operate from a carrier, which saw use with the FAA in the early inter-war period.
Saro Cloud	1933-36	T	2 x AS Serval	?	All metal	17	0 (0)	Amphibious flying boat trainer which saw limited service with 48 Sq RAF at Manston and the Seaplane Training Squadron at Calshot.
Saro London	1934-44	MR	2 x Bristol Pegasus	?	All metal	33	0 (0)	Flying boat.
Short Rangoon	1931-36	MR	3 x Bristol Jupiter	?	Alloy hull and frame, linen covering	6	0 (0)	Triple engine biplane amphibious flying boat used in limited fashion in UK by 210 Sq at Pembroke Dock before being sold to Imperial Airways.
Supermarine Southampton	1925-36	MR	2 x Napier Lion V	?	Alloy hull , wooden frame, linen covering	66	1 (1)	Twin engine biplane flying boat which served both in the UK and Far East, achieving fame for long distance flight.
Vickers Vildebeest	1933-40	TB	Bristol Perseus or Pegasus	2,147	Tubular steel frame with fabric covering and metal panels.	152	0 (0)	Two (later three) seater biplane torpedo bomber, one of the most prominent utilised by the RAF between the wars but which was eventually replaced in UK service by the Beaufort..
Vickers Vimy	1919-28	B	2 x RR Eagle or Hispano Suiza	2,463	Wooden frame, linen covering	221	1 (1)	Twin engine, biplane heavy bomber with crew of three. Entered service immediately after WWI. Converted civilian example was the first aircraft to fly the Atlantic non-stop.
Vickers Virginia	1924-38	B	2 x Napier Lion V	4,386	Wooden frame, linen covering	260	0 (0)	Twin engine biplane bomber with crew of four which equipped several RAF Squadrons.
Westland Wallace	1933-36	B	Bristol Pegasus	1,490	Tubular steel frame with fabric covering and metal panels	174	1 (1)	Development of the Wapiti. Two-seat biplane, the Mk II models had canopies covering both cockpits. Three UK based squadrons operated the aircraft.
Wetsland Walrus	1921-25	MR	Napier Lion III	2,270	Wooden frame, linen covering	36	0 (0)	Three-seat biplane spotter, first equipped 3 Squadron RAF at Leuchars before joining FAA Fleet Spotter Flights at Gosport.
Westland Wapiti	1927-39	B, AC, T	Bristol Jupiter VI	1,490	Wooden wings and rear fuselage. Duralumin front fuselage frame. Canvas and metal	516	0 (0)	General purpose two-seat biplane employing first of new construction techniques and materials. Extremely reliable, it served in the UK and abroad until 1939.

| | | | panel covering. | |

Appendix 1.4: British Manufactured Aircraft utilised by the RAF and Fleet Air Arm within the UK 1937-45

Manufacturer/Type	Period of Service	Role	Power Plant	Weight (Kg)	Airframe construction	Total Produced	Survivors: Global (UK)	Notes
Airspeed Horsa	1942-45	Trans, TC	-	3,800	Spruce, plywood covered.	3,655	0 (0)	Principal British assault glider of WW2. Used in Sicily, D-Day, Arnhem and the Rhine Crossing. No complete survivors but several smaller sections.
Airspeed Oxford	1937-54	T	2x AS Cheetah	2,085	Semi-monocoque fuselage, spruce and birch wings, plywood covering.	4,411	6 (2)	Advanced pilot trainer; also utilised on a smaller scale for bombing and gunnery training.
Armstrong Whitworth Albemarle	1941-44	Trans, Tug	2x Bristol Hercules	10,260	Tubular steel frame with spruce and plywood covering	602	0 (0)	First British military aircraft with tricycle undercarriage. Constructed in wood and steel to save on alloys. Used in Sicilian and D-Day airborne campaigns.
Armstrong Whitworth Whitley	1937-44	B, MR, Trans	2x AS Tiger or RR Merlin	8,800	Metal monocoque fuselage, fabric covered wings	1,466	0 (0)	First full production RAF heavy bomber, equipped 4 Group RAF Bomber Command until replaced by Halifax from 1941. Impressed into MR role for the Battle of the Atlantic and later as a glider tug and paratrooper transport.
Avro Manchester	1940-42	B,T	2x RR Vulture	14,150	Metal monocoque fuselage. All metal.	209	0 (0)	First of new generation of RAF heavy bombers to enter service. Revolutionary engines and extensive use of hydraulics caused constant problems. Important precursor to the Lancaster. Relegated to training June 1942.
Avro Lancaster	1942-58	B,MR, ASR	4x RR Merlin or 4x Bristol Hercules (Mk II)	16,750	Metal monocoque fuselage. All metal.	7,377	18 (4)	Principal RAF Heavy Bomber 1942-45. Took part in 1,000 bomber raids, Battles of the Ruhr, Hamburg, Berlin and the raids on Augsburg, the Dams, Peenemunde and Dresden. Relegated to MR and ASR duties postwar. No Mk IIs survive.
Avro York	1943-51	Trans	4x RR Merlin	?	All metal	208	2 (2)	Transport version of the Lancaster. Used extensively post war in the Berlin airlift.
Blackburn Botha	1940-42	TB, GR, T	2x Bristol Perseus	?	All metal	580	0 (0)	Chosen as main torpedo bomber for RAF Coastal Command in 1939. Numerous problems with suitability and handling. Rapidly relegated to training duties.
Blackburn Firebrand	1945-53	F,TB	Bristol Centaurus	5,379	All metal stressed skin	300	0 (0)	FAA carrier based fighter and torpedo attack aircraft. Superseded by the Westland Wyvern in 1953.
Blackburn Skua/Roc	1938-42	F, FB, Tug	Bristol Perseus	2,490	All metal stressed skin	326	1 (1)	First FAA monoplane to enter service. A two-seat dive bomber (Skua) of which 190 were built shot down the first German aircraft in WWII. The two-seat fighter version (Roc) of which 136 produced was the first FAA aircraft to be equipped with a power operated turret. Both relegated to target tug and training duties by 1941.

Boulton Paul Defiant	1939-45	F,NF, Tug, ASR	RR Merlin	2,722	All metal	267	1 (1)	Battle of France/Battle of Britain fighter with hydraulic gun turret became most significant night fighter in the Blitz, prior to development of AI and GCI. Later became target tug and undertook ASR.
Bristol Beaufort	1938-46	B	2x Bristol Taurus or 2x PW Twin Wasp	5,957	Duralumin, hiduminium and Alclad monocoque fuselage and wings.	2,129	4 (1)	RAF Coastal Command bomber used on shipping strikes 1939-43. Relegated to the Mediterranean 1944 and then the Pacific theatre in 1945.
Bristol Beaufighter	1940-60	F,NF	2x Bristol Hercules or 2x RR Merlins	7,100	All metal monocoque fuselage and wings.	5,928	6 (4)	First purpose-built night fighter; mainstay of night defence 1941-42 and for anti-shipping operations 1942-45. Merlin powered variant very rare.
Bristol Blenheim	1937-44	B,F	2x Bristol Mercury	4,450	All metal	6,260	20 (3)	Night fighter and bomber version used from UK early in war. Suffered heavy losses in France and in the use of 2 Group RAF 1941-42. No fighter versions extant.
De Havilland Don	1937-40	T, Comm s	Gipsy King	?	Tubular metal frame, linen covering	50	0 (0)	Single engine monoplane trainer and communications aircraft used in small numbers up to the outbreak of WWII.
De Havilland Mosquito	1941-50	F,B, NF	2x RR Merlin	6,394	Spruce with Plywood and fabric covering	7,781	20 (6)	Significant bomber and multi-role aircraft from 1942. Took part in many famous raids such as attacks on Amiens prison, Gestapo headquarters in Bergen.
Fairey Albacore	1940-45	B	Bristol Taurus II or XII	3,272	Metal monocoque fuselage, fabric covered metal wings.	803	1 (1)	FAA biplane torpedo bomber, operating from aircraft carriers. Intended to replace the Swordfish but superseded by the Barracuda.
Fairey Barracuda	1944-53	B	RR Merlin	3,954	All metal. Steel cockpit frame and engine mounts, remainder alloy monocoque.	2,541	1 (1)	First FAA monoplane torpedo bomber. Replaced Swordfish. Took part in Tirpitz strike.
Fairey Battle	1937-45	B	RR Merlin	3,015	All metal.	2,419	3 (1)	RAF light bomber. Suffered heavy losses in Battle of France. Relegated to training 1940.
Fairey Firefly	1943-55	B, MR	RR Griffon	4,422	Alclad monocoque fuselage, stressed skin light alloy wings	1,638	10+ (4)	FAA (mostly carrier borne) two-seat reconnaissance/bomber. Took part in attacks on Tirpitz and Norwegian coast 1944 and in 1945 moved to Pacific theatre.
Fairey Fulmar	1940-44	F	RR Merlin	3,182	All metal stressed skin	600	1 (1)	FAA two-seat carrier borne fighter, first to have eight machine guns. Rapidly outclassed due to lack of speed.
Fairey Swordfish	1936-45	B	Bristol Pegasus	2,406	Tubular steel with canvas an aluminium covering.	2,391	7 (3)	FAA carrier based biplane torpedo bomber. Took part in the attack on Taranto, the sinking of the Bismarck and the Channel Dash.
General Aircraft Ltd Hamilcar	1942-45	Trans	2x Bristol Mercury	8,350 11,580	Spruce with plywood and fabric covering.	432	1 (1)	Principal heavy lift transport glider (only 20 produced with engines) used in the D-Day and Arnhem campaigns.
General Aircraft Ltd Hotspur	1941-45	T	-	1,375	Spruce with plywood covering.	1,061	0 (0)	Principal glider pilot trainer, tandem seats with room in fuselage for troops. Used purely in training by the Army air Corps.

Gloster Gladiator	1937-41	F	Bristol Mercury	1,565	Tubular steel with canvas and aluminium covering.	767	5 (3)	Last RAF biplane fighter. Single-seat with enclosed cockpit. Took part in Norwegian campaign, saw limited use in the BoB. Relegated to service in North Africa and the Mediterranean 1941.
Gloster Meteor	1944-61	F	2x RR Welland or 2x RR Derwent	3,995	All metal stressed skin.	3,875	47+ (42)	First RAF jet fighter to enter service (July 1944) to counter the V-1 flying bomb. Used extensively post war. Wartime versions are rare.
Handley Page Halifax	1940-47	B, Trans	4x RR Merlin or 4x Bristol Hercules	15,340	Light alloy monocoque fuselage.	6,176	2 (1)	Significant heavy bomber from 1941-45. Equipped 4 and 6 Groups RAF Bomber Command in Yorkshire. Successive improvements. Earlier variants relegated to Coastal Command and transport. Took part in all major Bomber Command raids.
Handley Page Hampden / Hereford	1938-44	B, TB	2x Bristol Pegasus or 2x Napier Dagger	5,340	All metal.	1,680	1 (1)	The Hampden and the few Dagger powered Herefords (100) to reach service saw significant use with 5 and 6 Groups Bomber Command in the early war period. Relegated to Coastal Command from 1942-44 as a torpedo bomber.
Handley Page Harrow	1937-45	Trans	2x Bristol Pegasus	?	?	100	0 (0)	Transport aircraft, which whilst hurriedly impressed in the Middle East as a bomber, saw limited use in the UK as a transport and communications aircraft.
Hawker Hector	1937-42	AC, Tug	Napier Dagger	1,694	Tubular steel frame, plywood and canvas covering.	178	0 (0)	Interim two-seat biplane replacement for the Audax, last biplane to enter RAF service (with 4 Sq RAF in early 1937). Remained with Auxiliary squadrons until 1940 with a handful of aircraft carrying out dive bomber attacks against Germans in that year. Relegated for use as glider tug within the UK.
Hawker Henley	1938-	Tug	RR Merlin	?	Tubular steel frame, plywood and canvas covering.	200	0 (0)	Initially conceived as a light bomber but on delivery was immediately relegated as a target tug working with Air Firing and Anti-Aircraft Co-operation units.
Hawker Hurricane	1937-45	F,FB	RR Merlin	2,118	Tubular steel and aluminium alloy fuselage frame with light wooden formers and canvas covering. Steel and stressed aluminium alloy wings.	14,533	45+ (29)	Most numerous RAF fighter in Battle of Britain, from 1941 relegated to Mediterranean and Far East in fighter bomber and anti-shipping roles. Also adapted as a convoy protection fighter on Russian and Atlantic routes, launched from Merchantmen. Served on 17 battlefronts including Battle of France, Norway, Battle of Britain, Malta, North Africa, Sicily, Adriatic and Burma campaigns.
Hawker Tempest	1944-48	F,FB	Napier Sabre	4,128	All metal.	1,401	20+ (5)	Late war RAF fighter, one of the last with a piston engine. Took part in the V1 campaign and saw combat against German jets.
Hawker Typhoon	1941-45	F,FB	Napier Sabre	3,992	All metal.	3,330	1 (1)	Principal RAF fighter-bomber from 1943-45. Played major tactical role in the NW Europe ground campaign from the invasion of Normandy until the end of the war.
Miles Magister	1937-45	T	DH Gypsy	?	Spruce and plywood.	1,227	14 (8)	Training and communications aircraft.
Miles Master / Martinet	1939-50	T	Bristol Mercury or PW 1535	1,950	Spruce and Plywood covering.	4,835	1 (1)	Advanced pilot trainer which equipped secondary flying training schools and also saw limited use as a target tug for gunnery practice.
Percival Petrel	1939	Comm	2 x DH	?	Tubular metal frame,	8	0 (0)	Twin engine communications aircraft which saw limited use with

		s	Gipsy Six		canvas and metal covering			24 Sq RAF.
Percival Proctor	1939-50	T, Comm s	DH Gipsy Queen	1,076	Spruce and plywood, fabric covered.	912	13 (6)	Communications aircraft.
Saunders Roe Lerwick	1939-42	MR	2x Bristol Hercules	?	All metal.	21	0 (0)	Flying boat used in limited fashion by Coastal Command.
Short Stirling	1941-46	B, Trans RCM	4x Bristol Hercules	17,659	All metal.	2,374	0 (0)	The first of the RAF's four engine heavy bombers to enter service. By mid 1943 it had been relegated from the primary bombing role due to its limited service ceiling and heavy losses. Reused as a transport, glider tug and by 100 Group RAF in the Radio Counter Measures or electronic warfare role.
Short Stranraer	1935-41	MR	2x Bristol Pegasus	?	Metal and fabric covering.	17	1 (1)	Pre-war flying boat. Some use by Coastal Command at outbreak of war.
Short Sunderland	1938-56	MR	4x Bristol Pegasus or 4x PW R 1830	15,663	All metal.	739	8 (4)	Flying boat. Principal maritime reconnaissance and anti-submarine aircraft in use with RAF Coastal Command. Operated in all theatres but particularly successful in the battle of the Atlantic due to its heavy armament and long endurance.
Supermarine Spitfire/Seafire	1938-50	F	RR Merlin or RR Griffon	2,545	All aluminium monocoque fuselage and wings.	22,928	300+ (59)	Principal RAF day fighter from early 1941 until the end of the war. Operated in all theatres and in all major campaigns and also adapted for use on aircraft carriers as the Seafire.
Supermarine Walrus/Sea Otter	1939-45	ASR	Bristol Pegasus	2,220	Spruce and plywood covering.	740	3 (3)	Flying boat. Principal air sea rescue aircraft. Saved at least 6,000 aircrew.
Vickers Warwick	1943-46	MR, ASR Trans	2x Bristol Centaurus	12,700	Aluminium and steel geodetic structure with fabric covering.	700	0 (0)	Intended replacement for the Wellington. Used mainly by RAF Coastal Command for ASR and MR duties, also subsequently as a transport.
Vickers Wellington	1937-53	B,T, MR	2x Bristol Hercules	8,400 - 12,000	Aluminium and steel geodetic structure with fabric covering.	11,461	2 (2)	Principal RAF heavy bomber 1939-42, prior to advent of the four-engine heavies. Relegated to Mediterranean and Operational Training Units 1941-44. Limited use by Coastal Command. Took part in the first bombing raid of the war.
Westland Lysander	1938-47	AC	Bristol Perseus	1,840	Metal and fabric covering.	1,898	9 (4)	Used in the Army co-operation role and subsequently for operations with the Resistance and SOE in France.
Westland Whirlwind	1940-43	FB	2x RR Peregrine	3,699	All metal.	112	0 (0)	Innovative fighter-bomber. Suffered engine problems and only ever equipped two squadrons, used in support of bombing operations and for attacks on France.

Appendix 1.5: US Manufactured Aircraft utilised by the RAF and FAA within the UK 1939-45

Manufacturer/Type	Period of Service	Role	Power Plant	Weight (Kg)	Airframe construction	Total Produced	Survivors: Global (UK)	Notes
Bell Aircobra	1941-42	F	Allison V12	2,540	Stressed aluminium	9,588	10 (0)	Innovative mid-engine fighter aircraft with tricycle undercarriage, approximately 50 of which entered RAF service with 601 Sq.
Boeing Fortress	1941-46	B, MR, RCM	4x Wright R-1820	14,855	All metal semi-monococque fuselage	12,731	23 (3)	220 of various versions delivered for RAF use. Initially operated 1940-41 in daylight bombing tests, subsequently used by Coastal Command and 100 Group Bomber Command in early RCM role.
Brewster Bermuda	1943-45	Tug	Wright Cyclone	4,440	All metal.	1,000+	0 (0)	Ordered as a land-based dive-bomber, 950 were delivered for RAF service, most of which are believed to have served in the UK as target tugs and none are known to have flown operationally.
Brewster Buffalo	1941-42	F	Wright Cyclone	2,100	All metal.	447	5 (0)	Pre-war USAAC fighter. 209 delivered to RAF/FAA, of which only 28 are believed to have operated in UK, the remainder going to the Far East.
Chance Vought Corsair	1943-45	F	Pratt and Whitney Double Wasp	4,025	All metal.	12,571	60 (4)	Carrier-based fighter, 2,012 of which were supplied for FAA use. Mostly saw action in the Pacific and Far East, but a few operated within the UK.
Consolidated Catalina	1941-45	MR,AS R	2x PW R1830	9,938	All metal.	4,000+	69 (3)	Long-range flying boat, 771 of which were delivered to the RAF/RCAF/RAAF/RNZAF. Equipped 9 UK-based Squadrons of RAF Coastal Command in the anti-U Boat and reconnaissance role.
Consolidated Liberator	1941-47	B, MR	4x PW R1830	16,556	All metal except fabric covered control surfaces.	19,203	15 (2)	1,865 delivered for RAF use (mostly in Far East). Used in the UK by RAF Coastal Command in the maritime reconnaissance/anti-submarine role.
Curtiss Kittyhawk	1941-42	F, AC	RR Merlin or Allison V1710	3,039	All metal.	13,738	20 (2)	Approximately 902 were used by the RAF in the European Theatre, mostly for Army co-operation work as fighter-bombers.
Curtiss Seamew	1941-44	T	Ranger SGV	1,869	All metal stressed skin.	800	0 (0)	Two-seat single engine reconnaissance aircraft. Approximately 250 scheduled for delivery to the FAA on lend lease, but only approximately 100 actually received. Saw no operational service and from 1943 operated in the training role, some serving with training squadrons at Worthy Down, Hants.
Curtiss Tomahawk	1941-43	T, AC	Allison V1710	2,636	All metal.	1,400	10 (0)	Approximately 1,180 taken on strength by RAF, RAAF and SAAF for use in North Africa and Far East. Used in limited capacity in UK.

Douglas Boston/Havoc	1940-46	B, NF	2x Pratt and Whitney Twin Wasps or 2x Wright R2600	5,172	All metal.	7,385	14 (1)	A total of 1,250 Boston light bombers were delivered to the RAF (used in UK with 2 Group and later 2 Tactical Air Force). Also 100 night fighter versions (Havoc) used by RAF.
Douglas Dakota	1942-50	Tug, Trans, TC	2x PW R1830	7,657	All metal.	10,691	550 (16)	Conversion of pre-war civilian airliner type. A total of 1,920 delivered for RAF use and became the principal transport aircraft. Took part in the D-Day and Arnhem campaigns and saw action in all theatres.
Grumman Avenger	1943-46	TB	Wright R2600	?	All metal. Semi monocoque fuselage.	9,836	60 (3)	Three seat carrier based torpedo bomber. From 1943 onwards 957 delivered to FAA (initially known as Tarpon), of which it equipped 9 squadrons. Use in all theatres.
Grumman Hellcat		F	Pratt and Whitney Double Wasp	4,101	All metal.	12,275	22 (3)	1,262 supplied to FAA as replacement carrier borne fighter under lend-lease. Initially called the Gannet. Served 1943-45. Served in all theatres.
Grumman Martlet/Wildcat	1940-45	F	Wright Cyclone	2,011	All metal.	7,316	35 (4)	531 supplied to FAA as carrier borne fighter, (known initially as Martlet). Served 1940-44. Took part in Norwegian campaign with great success.
Lockheed Hudson	1939-46	MR, ASR	2x Wright Cyclone or 2x PW Twin Wasp	5,262	All metal.	2,500+	16 (1)	2,695 delivered for RAF service, operating within the UK with Coastal Command in the anti submarine and maritime reconnaissance role. Also used in the Mediterranean and Far East.
Lockheed Ventura	1942-44	B, MR	2x PW Double Wasp	7,836	All metal.	2,070+	15 (1)	781 delivered for RAF service, initially with Bomber Command as daylight medium bombers. After heavy losses relegated to Coastal Command.
North American Harvard	1942-56	T	PW Wasp or A1340	2,549	Steel frame fuselage, fabric and ply, later alloy covered.	9,577+	400 (23)	5,125 delivered for RAF and commonwealth usage as trainers. Equipped many Flying Training Schools in the UK and abroad.
North American Mitchell	1942-45	B	2x wright Cyclone	9,208	All metal.	9,816	45 (5)	Total of 837 delivered to RAF. Used in the UK by 4 Squadrons of 2 Group RAF as medium tactical bomber and later by the 2 TAF.
North American Mustang	1942-47	FB, AC	Allison 1710 or RR Merlin	2,858	All metal.	15,586	257 (8)	2,517 delivered for RAF use. Initially ordered as a fighter, mostly used by 2 TAF in the fighter bomber/Army Co-operation role.
Stinson Reliant	1944-45	T	Lycoming R680	1,276	Tubular steel and duralumin frame, duralumin and canvas covering.	?	10 (0)	High-wing monoplane which first appeared in 1933, with 500 delivered to FAA for use as navigation trainers and communications aircraft under the lend-lease arrangement.
Vought Sikorsky Chesapeake	1941-44	T	PW R1835 Twin Wasp Junior	2,256	Tubular metal fuselage with canvas covering, metal wings.	165	1 (0)	50 delivered for FAA use within the UK, flying from Lee-on-Solent and Arbroath. Tried operationally, quickly relegated to training with little significant use.
Vultee Vengeance	1941-47	Tug	Wright	4,672	All metal.	1,000	2 (0)	Intended as a dive-bomber 1,362 delivered to the RAF. Found

			Cyclone					inadequate for European theatre and the 500 within the UK subsequently used as target tugs.
Waco CG4A Hadrian	1942-45	Trans, TC	-	1,721	Tubular steel fuselage, wooden wings, fabric covering.	13,909	3 (1)	US designed assault glider, 1,095 of which were delivered for use by British Airborne forces.

Appendix 1.6: USAAF and USN Aircraft operating within the UK 1939-45

Manufacturer / Type	Period of Service	Role	Power Plant	Weight (Kg)	Airframe Construction	Total Produced	Survivors: Global (UK)	Notes
Bell P39 Aircobra	1942-43	F	Allison V1710	2,545	All metal.	9,588	10 (0)	Unusual mid-engine fighter which saw extremely limited use with the VIII AAF. Used mostly in the Pacific.
Boeing B17 Fortress	1942-45	B	4x Wright R1820	15,422	All metal semi-monococque fuselage	12,731	23 (3)	Mainstay daylight high-altitude heavy bomber used by 1st and 3rd Air Divisions of the VIII AAF 1942-45. Took part in all major raids.
Consolidated B24 Liberator	1941-45	B	4x PW R1830	16,556	All metal except fabric covered control surfaces.	19,203	15 (2)	Daylight high-altitude heavy bomber used by the 2nd Air Division, VIII AAF 1942-45. Also limited night use dropping agents, supplies etc and with the USN.
Douglas A20 Havoc	1942-45	B, Tug	2x Wright R2600	6,727	All metal.	7,385	14(1)	Light bomber used in extremely limited fashion by VIII AAF. Took part in the first US raids of the war from UK. Subsequently equipped three groups of IX AAF in UK.
Douglas A26 Invader	1944-45	B	2x PW R2800	10,365	All metal.	?	25 (0)	Medium bomber replacement for A20 and B26 from late 1944. Saw limited actual use in the UK, mostly equipping IX AAF units in mainland Europe.
Douglas C47 Skytrain	1942-45	Trans, Tug, TC	2x PW R1830	7,698	All metal.	10,691	550 (16)	Principal US transport and troop carrier. Operated by the IX AAF during the D-Day and Operation Market Garden campaigns.
Lockheed P38 Lightning	1942-44	F	2x Allison V1710	5,563	All metal.	8,300	18 (0)	Twin boom, twin-engine fighter aircraft, principal long-range escort July 1942 until the intro of the P47 (1942) and the P51 (1943). Withdrawn Sept 1944.
Martin B26 Marauder	1942-46	B	2x PW R2800	10,152	All metal.	4,500	5 (0)	Medium (and medium level) bomber operated successively by the US VIII and IX AAFs in the tactical role.
Noorduyn UC64 Norseman	1944-45	Comms	PW R1340	1,928	Metal frame with fabric covering.	?	25 (0)	Communications aircraft, converted from civilian model. Chiefly famous for being the type in which Glen Miller went missing late 1944.
North American P51 Mustang	1942-45	F	Allison 1710 or RR Merlin	2,858	All metal.	15,586	257 (8)	Principal USAAF fighter, equipping VIII and IX AAF from winter of 1943-44. VIII AAF operated as a long range escort, IX AAF in the tactical role.
Republic P47 Thunderbolt	1942-45	F, FB	PW Double Wasp	4,087	All metal	15,660	150 (2)	Important fighter with VIII and IX AAF from Dec 1942 until the end of the war. Initially used as an escort, increasingly fulfilled fighter-bomber role.
Waco CG4A	1942-45	Trans, TC	-	1,721	Tubular steel fuselage, wooden wings, fabric covering.	13,909	3 (1)	Principal US transport and troop-carrying glider, used in the Sicilian, D-Day and Market Garden airborne campaigns.

Appendix 1.7: Luftwaffe and Regia Aeronautica Aircraft operating over the UK 1939-45

Manufacturer / Type	Period of Service	Role	Power Plant	Weight (Kg)	Airframe Construction	Total Produced	Survivors: Global (UK)	Notes
Bf 109 (Messerschmitt)	1937-45	F,FB	DB601 or 605	2,354	All metal.	35,000	45 (8)	Most significant fighter used over southern England during the Battle of Britain. From 1942-43 replaced by the FW190.
BF 110 (Messerschmitt)	1938-45	F, NF	2x DB605	5,094	All metal.	6,050	6 (1)	Significant twin-engine heavy fighter aircraft in the Battle of Britain. Operated over the West Country, southern England and east coast as far north as the Shetlands.
Dornier 17/215	1937-42	B	2x BF	5,210	All metal.	1,700	0 (0)	Significant medium bomber in the Battle of Britain and early Blitz period.
Dornier 18	1935-41	MR	2x JJ 205	5,850	All metal.	100	0 (0)	Operated in UK coastal waters, some lost on operations.
Dornier 217	1941-44	B	2x DB 603	9,065	All metal.	1,905	0 (0)	Significant later war bomber operating over UK.
Focke Wulf 190	1941-45	F, FB	BMW 801	3,470	All metal.	20,051	7 (2)	Used as a fighter-bomber in so-called 'sneak raids' over the southern coast 1942-44.
FZG 76	1944-45	-	Argus 109.014	2,180	Sheet steel, light alloy and plywood.	5,000+	16 (8)	Pilotless bomb, commonly known as the V1. Used in campaign against Britain June 1944 to March 1945. Carried 850kg warhead of HE. Ground and air launched.
Heinkel 111	1936-45	B	2x JJ 211 or 2x DB 601	8,680	All metal.	7,300	3 (1)	Main medium/heavy bomber from Spanish Civil War until end of WW2. From mid 1944 used to launch V1s.
Heinkel 177	1944-45	B, MR	2x DB 610	16,800	All metal.	1,169	0 (0)	Heavy bomber, made debut over England in January 1944 during the 'Little Blitz'. Novel engine layout and unreliability caused constant problems.
Messerschmitt 210/410	1941-45	F,FB	2x DB 603	6,148	All metal.	352/1,121	1 (1)	Intended replacement for Me110, under-powered as day fighter and operated as night fighter over England 1943-45.
Heinkel 115	1936-45	ASR	2x BMW 312	6,700	All metal.	400+	1 (0)	Operated in MR and ASR role in UK coastal waters.
Junkers 86	1936-42	B, GR	2x JJ 207	6,700	All metal.	810-1,000	0 (0)	High altitude GR and B versions operated over southern England 1941-42.
Junkers 87	1937-45	B	JJ 211	3,900	All metal.	5,709	4 (1)	Dive-bomber. Successful in Poland and France, heavy losses in Battle of Britain. Withdrawn from NW Europe 1941 for use in

								Russia and Mediterranean.
Junkers 88	1939-45	B,NF	2x JJ213	11,000	All metal.	14,980	3 (1)	Multi-role aircraft. Used as bomber and dive-bomber in the Battle of Britain and became night fighter later in war.
Junkers 188	1943-45	B	2x JJ 213 or 2x BMW 801	?	All metal.	1,100	0 (0)	Operated over UK 1944 onwards as a night intruder.

Key to Appendices

Period of Service: total period of service with respective air force (as opposed to period of usage over the UK - see Notes column).

Role: the military role in which the aircraft was utilised (often not the role for which it was designed). AC=Army Co-operation, ASR=Air Sea Rescue, B=Bomber, Comms=Communications, F=Fighter, FB=Fighter Bomber, GR=General Reconnaissance, MR= Maritime Reconnaissance, NF=Night Fighter, RCM=Radio Countermeasures, TB= Torpedo Bomber, T=Trainer, TC=Troop Carrier, Trans=Transport, Tug=Glider/Target Tug

Power plant: AS=Armstrong Siddely, BF=Bramo Fafnir, DB=Daimler Benz, DH=De Haviland, JJ=Junkers Jumo,PW= Pratt and Whitney , RR=Rolls Royce

Weight: Total weight of airframe and engines, unloaded. Intended to give general indication of relative size.

Airframe Construction: Basic data on construction and major materials, where known.

Numbers: (1)=Total Produced, (2)=Number of complete airframes (ie. more than 66% intact) known to survive globally (inclusive of UK), figure in brackets = number surviving within UK. Global figures represent estimates, UK figures accurate and based upon 16th edition of Wrecks and Relics (Ellis 1998).

Notes: General information on background, importance and currency (ie. use within UK). In the case of British and Luftwaffe aircraft, intended to provide basis for the Scope Notes attached to NMR Thesaurus of Monument Types.

