
ABC
Military Aircraft
Recognition
1953
An Ian Allan Publication
2/6

Careers for Boys

ROLLS-ROYCE OFFERS ENGINEERING APPRENTICESHIP TRAINING IN THE MANUFACTURE OF AERO-ENGINES

The Engineering Apprenticeship scheme is designed to train potential technicians, mainly as engineers but also as physicists and metallurgists. Applications should be made at the beginning of the final school term for entry in September. Acceptance is provisional on the results of the General Schools Certificate examination. The general academic qualifications required are as follows :

FOR BOYS WHO ARE LEAVING SCHOOL.

(a) At age 16 and 17

General Certificate, with passes at "ordinary" level in at least five subjects. Maths, Physics and Chemistry, together with English and a foreign language are ideal.

(b) At age 18

General Certificate with passes at "advanced" level in Maths, Physics, and Chemistry, together with a foreign language at "ordinary" level.

Every opportunity and encouragement (including day release, with pay) is given to Apprentices to continue their education and obtain technical qualifications.

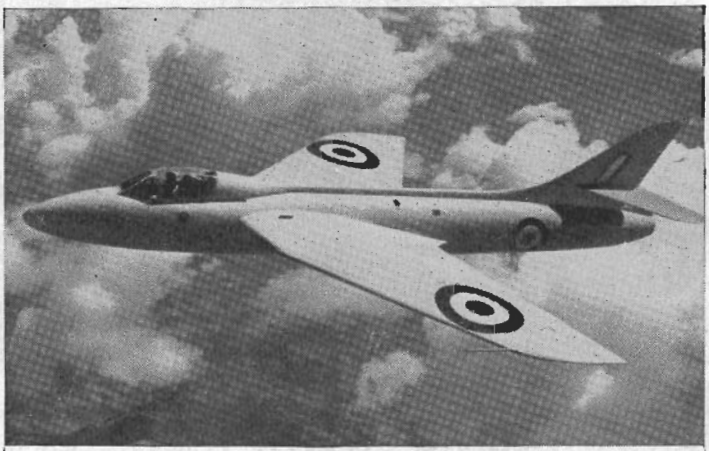
THE 620 (Rolls-Royce) Squadron of the Air Training Corps is open to all Apprentices under 19 years of age. The Squadron offers technical training, social and sports activities, annual and week-end camps and opportunities to fly.

The Welfare Society caters for every type of outdoor and indoor sport and activity.

Details from and applications to: The Training Manager

ROLLS-ROYCE LIMITED, NIGHTINGALE ROAD, DERBY.

There's a place for you in the R.A.F.



It's time you made the comparison. It's time you took stock of the prospects of your present job and measured them honestly against those in the Royal Air Force. Prospects in the R.A.F. to-day are such that within 8 years of being accepted as a Pilot or Navigator you should be earning over £1,000 a year. That's the pay of a married Flight Lieutenant — and that's not counting the pension or gratuity you get at the end of your service. **Can you expect the same from your present job?** If you can't, then it's high time you considered the R.A.F. seriously. It's not just another job, but a profession whose reputation all over the world will make you proud to belong to it. Write now for further details.

To: **(C.C.39) ROYAL AIR FORCE**
VICTORY HOUSE, LONDON, W.C.2

abc

MILITARY AIRCRAFT RECOGNITION

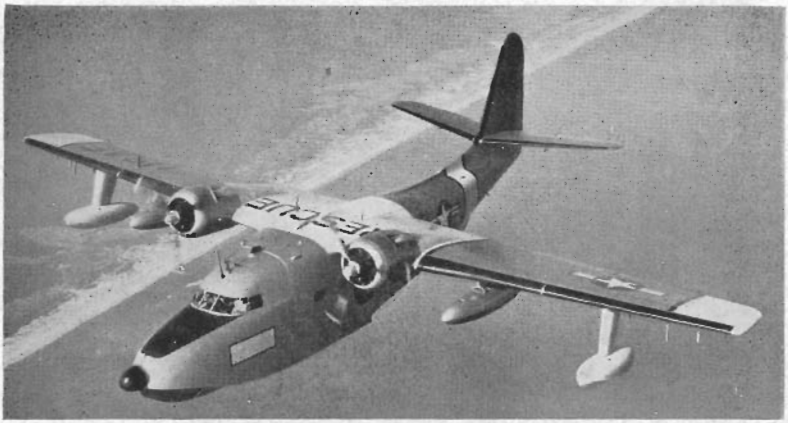
BY

John W. R. Taylor

LONDON :

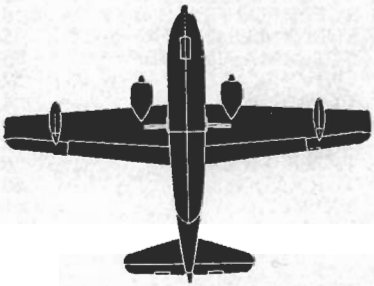
Ian Allan Ltd

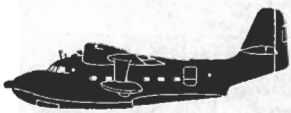
Contents



[Harold Martin

ALBATROSS SA-16A





Grumman Aircraft Engineering Corp.

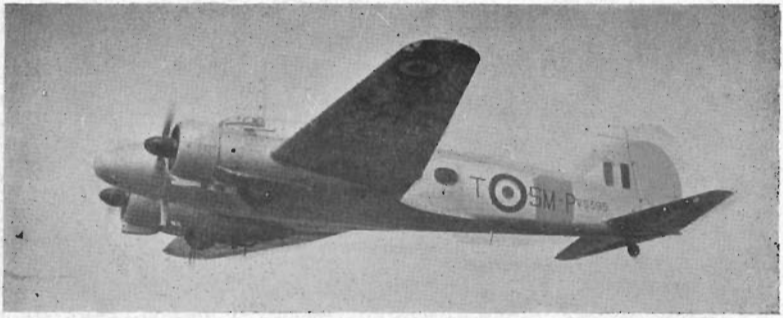
DUTY: Air-sea Rescue Amphibian.
CREW: 4-6.
POWERED BY: 2 × 1,425 h.p. Wright R-1820-76A piston-engines.
SPAN: 80 ft. LENGTH: 61 ft. 4 in.
LOADED WEIGHT: 27,025 lb.
MAX. SPEED: 264.5 m.p.h.
MAX. RANGE: 2,700 miles with 2 × 300 gal. external tanks.
ARMAMENT: None.

Recognition Features

Classical, neat flying boat lines, with straight tapered wings, high-mounted radial engines, dihedral tailplane. Usually has radar " pimple " on nose, underwing fuel tanks or radar.

Remarks

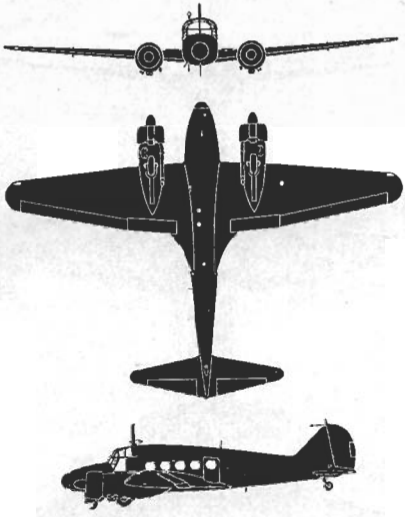
In service with the U.S.A.F. (SA-16A) and U.S.N. (UF-1) for sea rescue and general utility duties respectively. Recent models have a sprung ski under hull and small ski under each wing float to enable the aircraft to operate from land, water, ice and snow.



ANSON T.21

A. V. Roe & Co. Ltd.

DUTY: Navigational Trainer./
CREW: 6.
POWERED BY: 2×420 h.p. Armstrong Siddeley Cheetah 15 piston-engines.
SPAN: 57 ft. 6 in.
LENGTH: 42 ft. 3 in.
LOADED WEIGHT: 10,400 lb.
MAX. SPEED: 171 m.p.h.
CEILING: 16,000 ft.
TYPICAL RANGE: 660 miles at 120 m.p.h. at 5,000 ft. with 2,700 lb. load.
ARMAMENT: None.



Recognition Features

Can be distinguished from Oxford (page 36) by long "needle" nose; low-set diamond-shaped tailplane; broader, less pointed rudder; and longer engine nacelles forward of wing.

Remarks

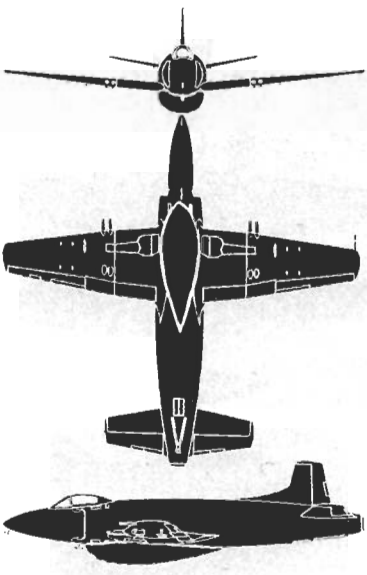
In service with the Royal Air Force and many overseas air forces. Several different versions are flying, including the Anson C.19 military transport; the T.20 and T.21 navigational trainers and T.22 radio trainer. All are externally similar except that the T.20 has a transparent bomb aimer's panel in nose and can carry 16 × 25 lb. bombs.

F.1.

ATTACKER F.1

Vickers-Armstrongs Ltd.

(Supermarine Division)



F.B.2.

DUTY: Naval fighter.
CREW: 1.
POWERED BY: 5,000 lb. thrust Rolls-Royce Nene 3 turbojet.
SPAN: 36 ft. 11 in.
LENGTH: 37 ft. 6 in.
LOADED WEIGHT: 11,750 lb.
MAX. SPEED: 585 m.p.h.
CEILING: 45,000 ft.
TYPICAL RANGE: 1,190 miles at 355 m.p.h. with 250 gal. external tank.
ARMAMENT: 4×20 mm. cannon.

Recognition Features

Bullet-shaped fuselage with "elephant-ear" air intakes under cockpit hood. Squared-off wings and tail, with fin set forward of tailplane. Dihedral on tailplane. Can carry large external fuel tank under fuselage. Compare with Sea Hawk (page 43).

Remarks

First Supermarine jet fighter, from which has been developed the swept-wing Swift (page 57). FB.1 can carry 2×1,000 lb. bombs or 8×60 lb. rockets under wings. So can FB.2 (silhouette), which has Nene 102 engine and strengthened cockpit hood. All three in service with Royal Navy.

DUTY: Air Observation Post.
CREW: 2.
POWERED BY: 145 h.p. D.H. Gipsy Major 7 piston-engine.
SPAN: 36 ft.
LENGTH: 23 ft. 9 in.
LOADED WEIGHT: 2,160 lb.
MAX. SPEED: 124 m.p.h.
CEILING: 14,000 ft.
TYPICAL RANGE: 380 miles at 110 m.p.h. at 1,000 ft. with full load.
ARMAMENT: None.

AUSTER AOP.6

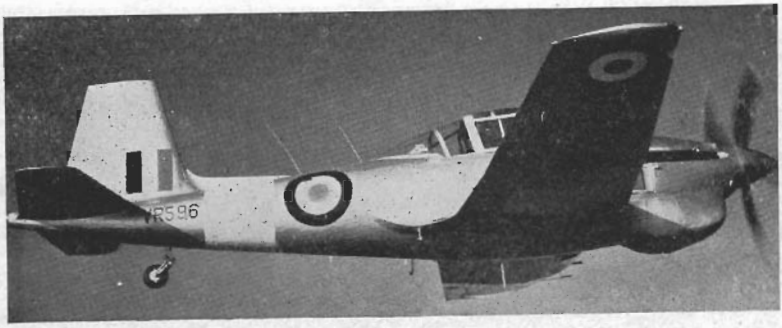
Auster Aircraft Ltd.

Recognition Features

High-wing monoplane, with two V-bracing struts from mid-way along each wing to the top of the fixed undercarriage. Square-section fuselage, with big cockpit "glasshouse". Prominent aerofoil flaps behind wing trailing edge.

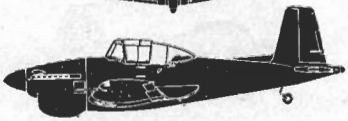
Remarks

Auster AOP.5 is similar, but with 130 h.p. Lycoming engine and without aerofoil type flaps. Auster T.7 is externally similar to AOP.6. New Auster AOP.9 has 180 h.p. Bombardier 203 engine, bigger tyres and flush split flaps.



BALLIOL T.2

Boulton Paul Aircraft Ltd.



DUTY: Advanced trainer.

CREW: 2.

POWERED BY: 1,280 h.p. Rolls-Royce Merlin 35 piston-engine.

SPAN: 39 ft. 4 in.

LENGTH: 35 ft. 1½ in.

LOADED WEIGHT: 8,410 lb.

MAX. SPEED: 288 m.p.h.

CEILING: 32,500 ft.

TYPICAL RANGE: 675 miles at 225 m.p.h. at 10,000 ft. with full load.

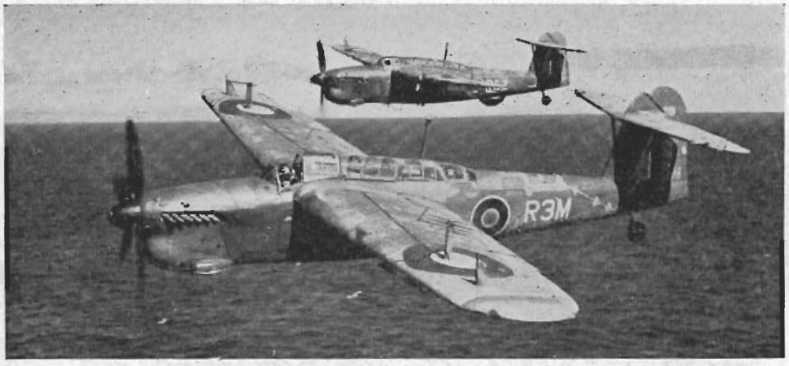
ARMAMENT: Can carry one .303 in. machine-gun, four rockets and eight practice bombs.

Recognition Features

Large radiator scoop under nose; squared-off wings and fin; fin well forward of tailplane. Big "Crystal Palace" cockpit hood.

Remarks

In service with the Royal Air Force. The Royal Navy's Sea Balliol Mk. 21 is basically similar to the Balliol T.2 except for the addition of a deck-landing arrester hook under its tail.



BARRACUDA TR.3

Fairey Aviation Co. Ltd.

DUTY: Carrier-based "strike" aircraft.

CREW: 3.

POWERED BY: 1,600 h.p. Rolls-Royce Merlin 32 piston-engine.

SPAN: 49 ft. 2 in.

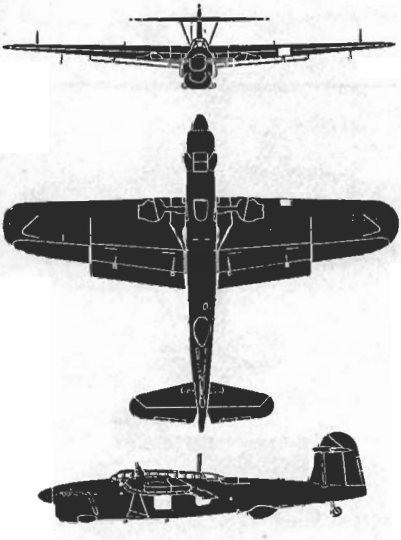
LENGTH: 40 ft. 6 in.

LOADED WEIGHT: 14,500 lb.

MAX. SPEED: 220 m.p.h.

TYPICAL RANGE: 450 miles.

ARMAMENT: 2×.303 in. machine-guns plus 18 in. torpedo or 6×500 lb. bombs, etc.



Recognition Features

Shoulder wing with big aerofoil type flaps under trailing edge. High-set braced tailplane. Radiator scoop under nose and, usually, a large radar blister under fuselage.

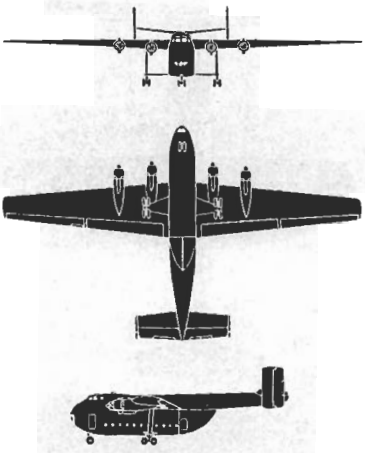
Remarks

The Royal Navy's standard carrier-based " strike " aircraft.

Universal Freighter Mk.1

BEVERLEY C.1

Blackburn and General Aircraft Ltd.



Beverley C.1

DUTY: Heavy Transport.
ACCOMMODATION: Up to 19 tons of freight or passengers.
POWERED BY: 4×2,950 h.p. Bristol Centaurus 171 piston-engines.
SPAN: 162 ft.
LENGTH: 99 ft. 2 in.
LOADED WEIGHT: 127,000 lbs.
MAX. SPEED: 243 m.p.h.
TYPICAL RANGE: 1,000 miles at 170 m.p.h. at 8,000 ft. with 31,500 lb. payload.
ARMAMENT: None.

Recognition Features

Typical pod-type freighter fuselage, with heavy single boom to carry its dihedral tailplane. Large rectangular fins and rudders. Straight tapered wings with four underslung engines, and multi-wheel fixed undercarriage.

Remarks

Beverley C.1. (silhouette) is in production for R.A.F. Transport Command and, as the Universal Freighter Mk. 2, for Silver City Airways. Shown in the photograph is the Hercules-powered Universal Freighter MK. 1. prototype.

T.4

BRIGAND T.4

Bristol Aeroplane Co. Ltd.

DUTY: Special-purpose trainer.
CREW: 3.
POWERED BY: 2×2,500 h.p. Bristol Centaurus 57 piston-engines.
SPAN: 72 ft. 4 in. LENGTH: 46 ft. 5 in.
LOADED WEIGHT: 39,330 lb.
MAX. SPEED: 358 m.p.h.
CEILING: 26,000 ft.
RANGE: 2,775 miles with extra tanks.
ARMAMENT: None.

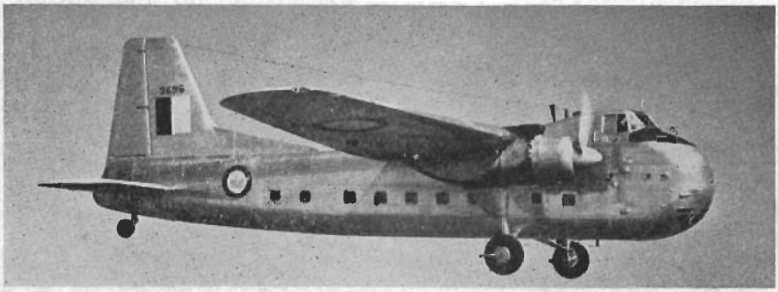
B.1.

Recognition Features

Nose and propeller spinners approximately in line; cockpit "glasshouse" raised above fuselage; twin oval fins and rudders; underslung engine nacelles which project aft of wings; outer wings swept back, with unusual break in line of trailing edge near tips.

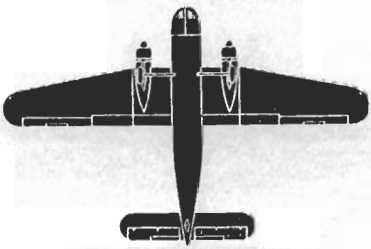
Remarks

Although still used by the Royal Air Force for bombing (B.1) and meteorological duties (Met.3), most home-based Brigands are unarmed special-purpose trainers. The three types are similar, except for colour scheme and operational equipment.



BRISTOL TYPE 170 Mk. 31 FREIGHTER

Bristol Aeroplane Co. Ltd.



DUTY: Freight transport.
CREW: 3.
POWERED BY: 2×2,000 h.p. Bristol Hercules 734 piston-engines.
SPAN: 108 ft.
LENGTH: 68 ft. 4 in.
LOADED WEIGHT: 42,000 lb.
MAX. SPEED: 230 m.p.h.
CEILING: 23,000 ft.
TYPICAL RANGE: 850 miles at 166 m.p.h. at 5,000 ft. with 10,000 lb. payload.
ARMAMENT: None.

Recognition Features

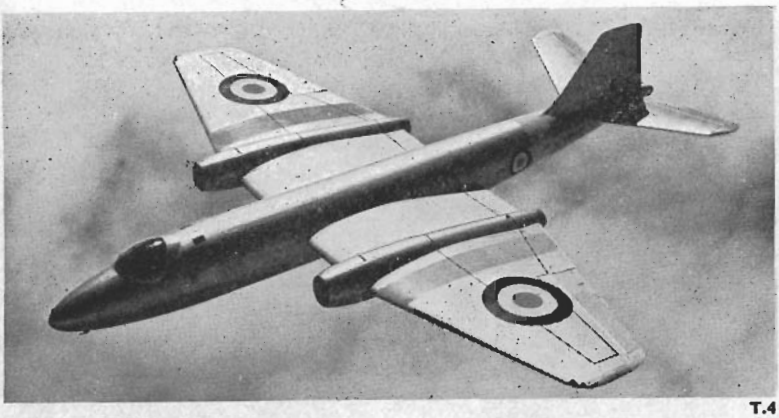
Strictly functional aircraft. Boxcar-type, bull-nosed fuselage with big loading doors at the front and large square-cut tail, with dorsal fin, at back. Massive wing with sweptback outer panels, underslung engines and fixed, braced undercarriage. Compare with Beverley (page 10).

Remarks

In service in Britain with the Royal Canadian Air Force. Earlier Mk. 21 Freighters, without dorsal fin, are flown by independent airlines.

CANBERRA *(concluded from facing page)*

The Canberra T.4 trainer (photograph) also is coming into service and the Canberra B.57A is being built in America by the Glenn L. Martin Co. as an intruder bomber for the U.S.A.F.



T.4

CANBERRA T. 4

English Electric Co. Ltd.

DUTY: Medium bomber, Photo-reconnaissance and training.
CREW: 3.
POWERED BY: 2 Rolls-Royce Avon turbojets.
SPAN: 64 ft. LENGTH: 65 ft. 6 in.
ALL OTHER DATA SECRET
ARMAMENT: No guns.

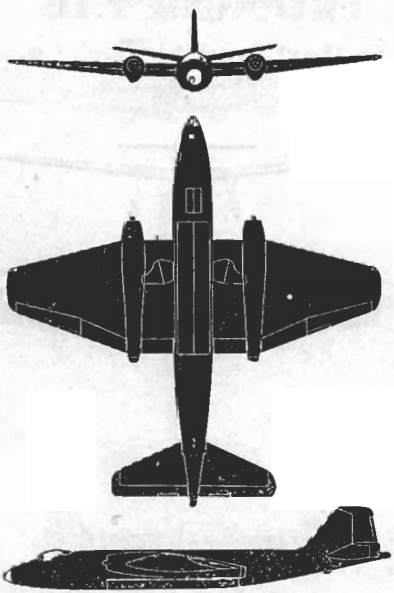
Recognition Features

Broad hexagon-shaped wing-plan, with spindly engine nacelles. Clean streamlined fuselage, with long nose forward of wing. Broad, squared-off fin and rudder and "dihedral" tail-plane.

Remarks

Only four Canberra B.1 two-seat medium bombers were built; and the first version to enter service with the Royal Air Force was the three-seat B.2 high-altitude bomber (silhouette), with transparent bomb-aimer's panel in nose. The new B.5 is externally similar to the B.2 but has slightly downswept "solid" nose. The Canberra PR.3 carries equipment for high-altitude photographic reconnaissance.

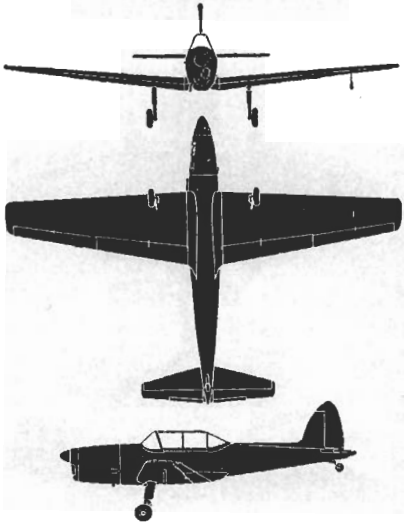
[*Concluded at foot of opposite page*



B.2

CHIPMUNK T.10

de Havilland Aircraft Co.



DUTY: Primary flying trainer.
CREW: 2.
POWERED BY: 145 h.p. D.H. Gipsy Major 8 piston-engine.
SPAN: 34 ft. 4 in.
LENGTH: 25 ft. 8 in.
LOADED WEIGHT: 2,000 lb.
MAX. SPEED: 138 m.p.h.
CEILING: 16,000 ft.
TYPICAL RANGE: 292 miles at 119 m.p.h.
ARMAMENT: None.

Recognition Features

Neat little aeroplane with long narrow wings, in-line engine, slender rear fuselage and spindly-fixed undercarriage. Typical de Havilland elliptical fin and rudder (see Hornet, Mosquito, Devon, etc.).

Remarks

Designed by de Havilland Aircraft of Canada Ltd., the Chipmunk proved so successful that it was adopted as standard primary trainer for R.A.F. and Volunteer Reserve Flying Schools and by many overseas air forces. Can also be seen in civil markings (T.21).

WV-1

CONSTELLATION
C-121A and WV-1

Lockheed Aircraft Corporation

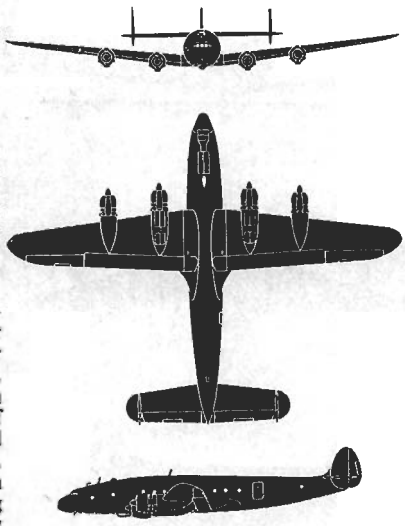
DUTY: Transport, and early warning radar intelligence aircraft.
CREW: 4.
POWERED BY: 4×2,500 h.p. Wright Cyclone GR-3350-BD1 piston-engines
SPAN: 123 ft.
LENGTH: 95 ft. 1 in.
LOADED WEIGHT: 107,000 lb.
MAX. SPEED: 350 m.p.h.
CEILING: 25,000 ft.
TYPICAL RANGE: 3,000 miles at 328 m.p.h.
ARMAMENT: None.

Recognition Features

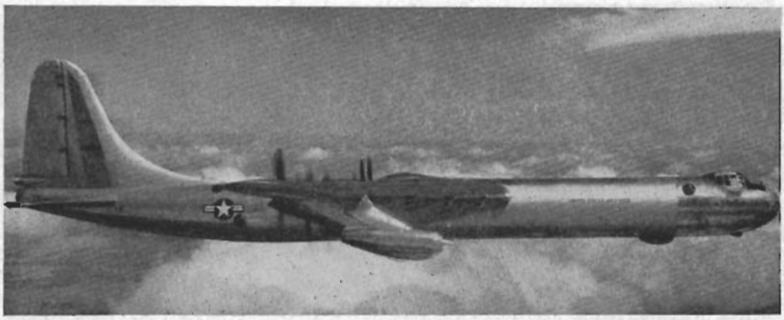
Long circular section fuselage, appearing to slope down at nose and up at tail, with three fins and rudders. Long pointed wings set well back along fuselage, with marked dihedral. Extensive radar equipment on WV-1.

Remarks

The C-121A cargo transport (silhouette), used by the U.S. Military Air Transport Service, is externally similar to the Constellation civil air liner. The VC-121B, only one of which is in service, is the personal transport of the Chief of Staff of the U.S.A.F. and carries radar in its lengthened nose. The U.S. Navy's WV-1 Constellation (photograph) carries Early Warning radar in large blisters above and below its fuselage.

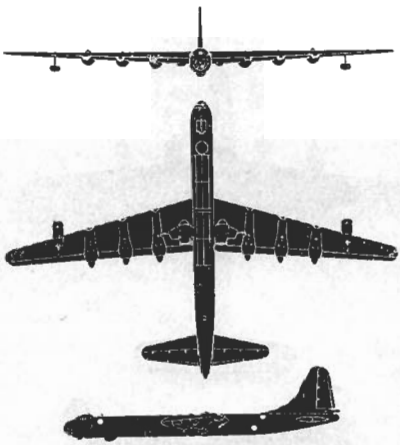


C-121A



CONVAIR B-36D

Consolidated-Vultee Aircraft Corp.



DUTY: Heavy bomber and photo-reconnaissance aircraft.
CREW: 16, including 4-man relief crew.
POWERED BY: 6×3,500 h.p. Pratt & Whitney R-4360 piston-engines and 4×5,200 lb. thrust General Electric J-47 turbojets.
SPAN: 230 ft. LENGTH: 162 ft.
LOADED WEIGHT: 358,000 lb.
MAX. SPEED: 435 m.p.h.
CEILING: Over 45,000 ft.
TYPICAL RANGE: 10,000 miles with 10,000 lb. bombs.
ARMAMENT: 16×20 mm. cannon. Max. bomb load: 84,000 lb.

Recognition Features

Has been called a Zeppelin with wings. Long cylindrical fuselage, swept up at tail, which has typically American fin and rudder (see Superfortress). Sweptback wings mounted well back along fuselage, with six "pusher" piston-engines and two pairs of jets in pods under the wing tips.

Remarks

Two versions of the B-36D exist—the standard long-range U.S.A.F. heavy atom bomber, and the RB-36D which carries fourteen cameras in its forward bomb-bay for photo-reconnaissance duties.

R4D-8

DAKOTA, R4D-8 and SKYTRAIN C-47

Douglas Aircraft Co.

[Note: Data applies to R4D-8]

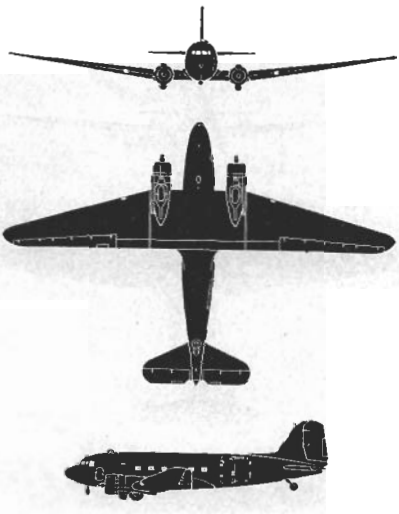
DUTY: Transport.
CREW: 3 plus 35 passengers or cargo.
POWERED BY: 2 × 1,475 h.p. Wright R-1820 piston-engines.
SPAN: 90 ft. LENGTH: 67 ft. 10 in.
LOADED WEIGHT: 31,000 lb.
MAX. SPEED: 270 m.p.h.
TYPICAL RANGE: 2,700 miles at 238 m.p.h. at 10,000 ft.

Recognition Features

Standard Dakota is low-wing monoplane, with distinctive sweep-back on leading edges of wing, and engines mounted close to fuselage. Wheels do not retract fully in flight. Typical Douglas tail. R4D-8 has more swept wings with square tips; taller squared-off fin and rudder with long dorsal fin.

Remarks

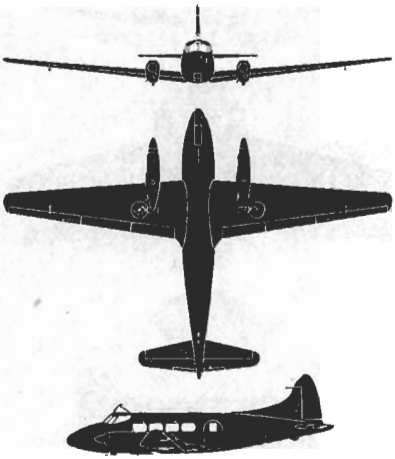
Most widely used transport in the world. The U.S.A.F. has about 1,200 C-47 Skytrains (silhouette); the U.S. Navy 200 R4D's, and there are some 1,500 other C-47's and Dakotas in service with the Royal Air Force and foreign air forces. All are externally similar. Many U.S. Navy R4D's are being modified into R4D-8's (photograph).



C-47

DEVON C.1

de Havilland Aircraft Co. Ltd.



DUTY: Communications.
CREW: 2 plus 8-11 passengers.
POWERED BY: 2×345 h.p. D.H. Gipsy Queen 70 piston-engines.
SPAN: 57 ft.
LENGTH: 39 ft. 4 in.
LOADED WEIGHT: 8,500 lb.
MAX. SPEED: 210 m.p.h.
CEILING: 20,000 ft.
TYPICAL RANGE: 500 miles at 179 m.p.h. at 8,000 ft. with 1,700 lb. payload.
ARMAMENT: None.

Recognition Features

Low-wing monoplane with long tapered wings, and engines in slim nacelles close to fuselage. Distinctive blister on cockpit hood and typical de Havilland elliptical fin and rudder (see Hornet, Mosquito, etc.). Conical rear fuselage.

Remarks

Military counterpart of the Dove civil feeder-liner used by Royal Air Force and British Air Attaches overseas. In service also with Indian, Royal New Zealand, South African and Swedish Air Forces.

DRAGONFLY HR.1

Westland Aircraft Ltd.

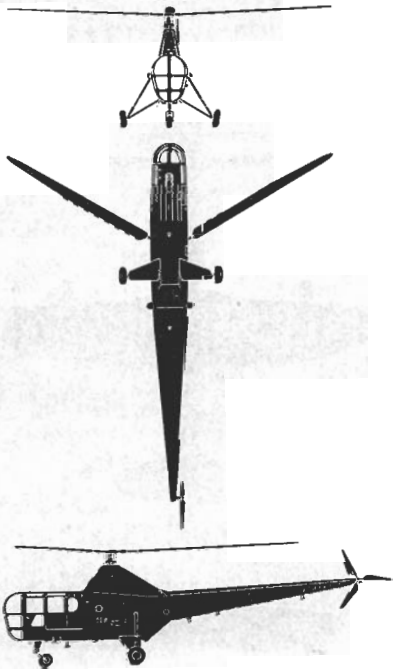
DUTY: Air-sea rescue, communications and special photography.
CREW: 3-4.
POWERED BY: 540 h.p. Alvis Leonides 50 piston-engines.
ROTOR DIAMETER: 48 ft.
LENGTH: 57 ft. 0½ in.
LOADED WEIGHT: 5,870 lb.
MAX. SPEED: 103 m.p.h.
CEILING: 14,800 ft.
TYPICAL RANGE: 303 miles at 85 m.p.h. with normal load.
ARMAMENT: None.

Recognition Features

Rectangular fuselage with long straight-tapered boom, carrying tail rotor. Rotor mounted above big pyramid fairing. Compare with Sycamore (page 58) and S.55 (page 48).

Remarks

British built version of the American Sikorsky S-51 helicopter. The HR.1 and the externally similar HR.3 are used by the Royal Navy ashore and afloat. The Royal Air Force's casualty evacuation Dragonfly HC.2 and HC.4 are similar but equipped to carry either two stretchers in external panniers or sitting casualties in cabin.



[Shell Photographic Unit

FIREFLY AS. 7

The Fairey Aviation Co. Ltd.

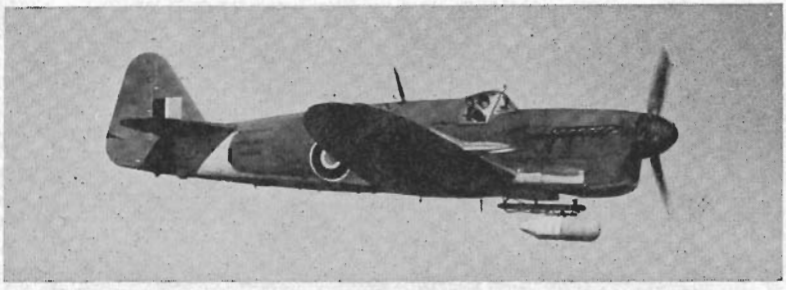
DUTY: Naval anti-submarine and training aircraft.
CREW: 3.
POWERED BY: Rolls-Royce Griffon piston-engine.
SPAN: 44 ft 6 in.
LENGTH: 38 ft. 3 in.
ARMAMENT: No guns. Provision for bombs, rockets, depth charges, sono-buoys, etc., under wings.
ALL OTHER DATA SECRET.

Recognition Features

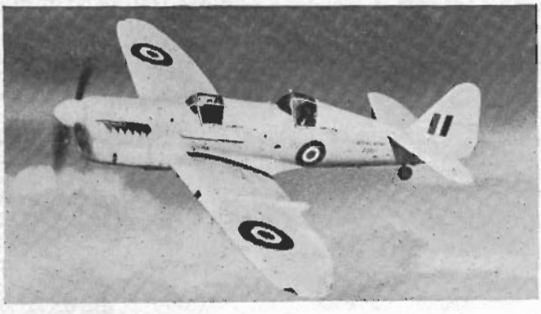
Semi-elliptical wings with distinctive double curve at tip of ailerons; radar and fuel tanks under wing tips. Big chin-type radiator scoop at front of fuselage: big square-cut fin and rudder at rear. Large blister hood over rear, two-seat cockpit.

Remarks

This latest version of the Firefly has an additional crew member to help operate its extensive radar equipment during anti-submarine patrol. It is intended as an interim type, until the Gannet is in service.

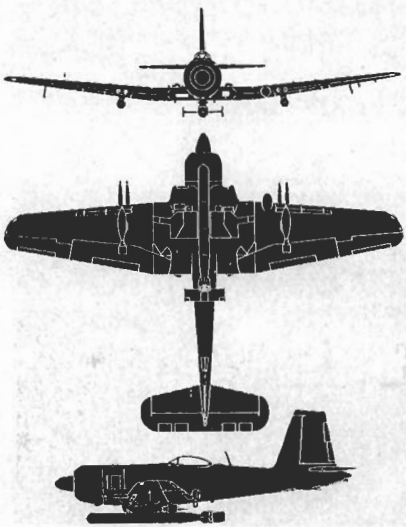


Above: Firefly Mk. I has elliptical wings with round tips, radiator scoop under nose, triangular fin and rudder, no radar and fuel-tank at wing-tips. *Right:* Some Mk. I's have been converted into operational trainers, with raised rear cockpit. *Below:* The externally similar Firefly Mks 4, 5 (illustrated) and 6 are still in service as the Navy's standard two-seat reconnaissance fighters and anti-submarine aircraft. Mks 4 and 5 have 4 × 20 mm. guns. Firefly TT.4 is also coming into service for target-towing duties.



FIREBRAND TF 5.

Blackburn & General Aircraft Ltd.



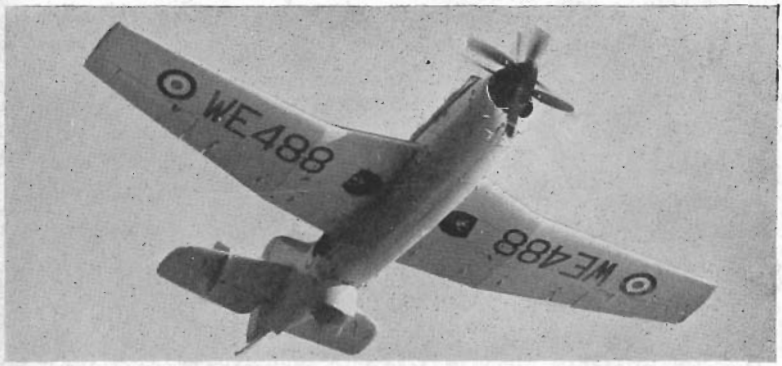
DUTY: Naval " strike " fighter.
CREW: 1.
POWERED BY: 2,500 h.p. Bristol Centaurus 9 piston-engine.
SPAN: 51 ft. 3½ in.
LENGTH: 38 ft. 11½ in.
LOADED WEIGHT: 17,500 lb.
MAX. SPEED: 350 m.p.h.
CEILING: 28,500 ft.
TYPICAL RANGE: 740 miles at 255 m.p.h. at 10,000 ft. with normal load.
ARMAMENT: 4×20 mm. cannon and either 1,850 lb. torpedo, 2×1,000 lb. bombs or 16 rockets.

Recognition Features

Fuselage appears small in comparison with long-span wings and is dwarfed by very large squared-off fin and rudder which are mounted well forward of tailplane. Narrow fuselage with hook under tail. Air-scoops forward of wing centre-section and torpedo-camera bulge on leading edge of port wing.

Remarks

The Royal Navy's standard torpedo-fighter until the Wyvern is in full service.



DUTY: Naval anti-submarine aircraft.
CREW: 3.
POWERED BY: 2,950 h.p. Armstrong Siddeley Double Mamba twin propeller-turbine.
SPAN: 54 ft. 4 in.
LENGTH: 43 ft.
ALL OTHER DATA SECRET.

Recognition Features

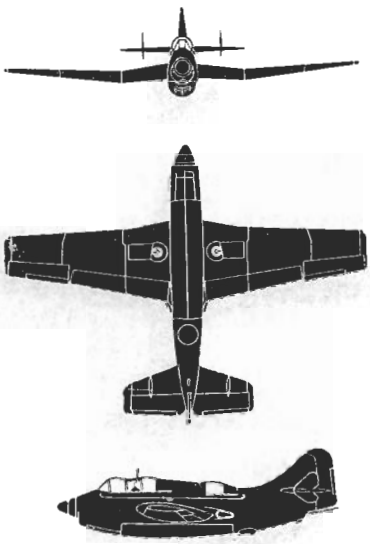
Mid-set cranked wings, tapered in planform, with blunt tips. Deep, curved fuselage, with air intake below spinner and cut-out under tail for arrester hook. Three separate cockpit covers, the front one well forward of wings. Exhaust outlets in fuselage sides aft of wing. Retractable radar "dustbin" under rear fuselage. Small auxiliary fins inset on leading edge of tailplane.

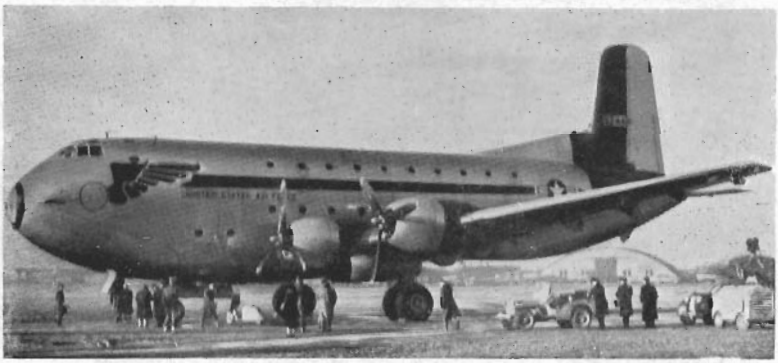
Remarks

In production for the Royal Navy to supersede the Firefly Mks. 6 and 7. Is twin-engined, with two propeller-turbines mounted in fuselage side-by-side, driving contra-props. First propeller-turbine aircraft to land on a carrier-deck. Also ordered for Royal Australian Navy.

GANNET AS. 1.

The Fairey Aviation Co. Ltd.

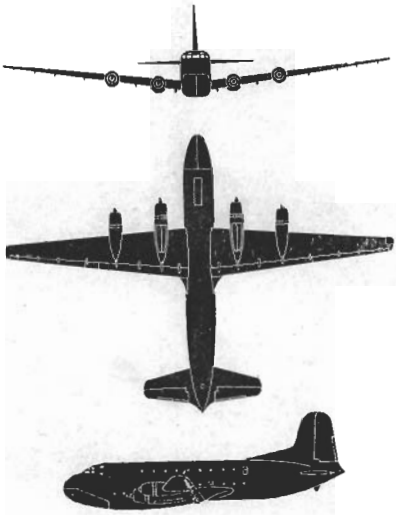




[*Flight*

GLOBEMASTER 2, C-124A

Douglas Aircraft Co. Inc.



DUTY: Military transport.

CREW: 13 plus 100 passengers or cargo.

POWERED BY: 4×3,500 h.p. Pratt & Whitney R-4360-20W piston-engines.

SPAN: 173 ft. 3 in. LENGTH: 127 ft. 2 in.

LOADED WEIGHT: 175,000 lb.

MAX. SPEED: Over 300 m.p.h.

CEILING: Over 30,000 ft.

TYPICAL RANGE: 2,000 miles with 50,000 lb. load.

Recognition Features

An outsize fuselage, with deep bulbous nose balanced by tall square-topped fin and long straight dorsal fin, above the sharply swept-up rear fuselage. Comparatively small, typically Douglas wings, with large dihedral.

Remarks

Biggest military transport flying over the U.K. Developed from the earlier C-74 Globemaster 1 which has similar wings and tail unit, but much smaller, circular-section fuselage.

[*M. F. Allward*

MET. 1.

HASTINGS Met. 1

Handley Page Ltd.

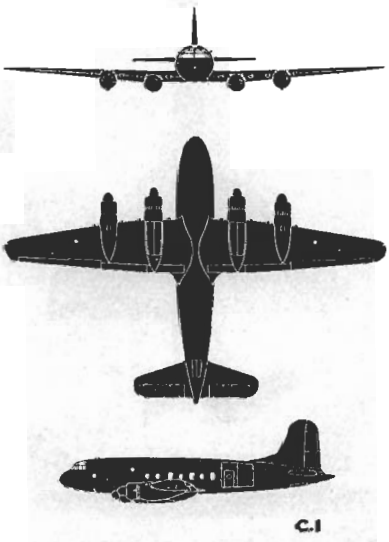
DUTY: Meteorological reconnaissance.
CREW: 5.
POWERED BY: 4×1,640 h.p. Bristol Hercules 101 piston-engines.
SPAN: 113 ft.
LENGTH: 81 ft. 8 in.
LOADED WEIGHT: 75,000 lb.
MAX. SPEED: 348 m.p.h.
CEILING: 26,500 ft.
TYPICAL RANGE: 1,690 miles at 291 m.p.h. at 15,200 ft. with full load.
ARMAMENT: None.

Recognition Features

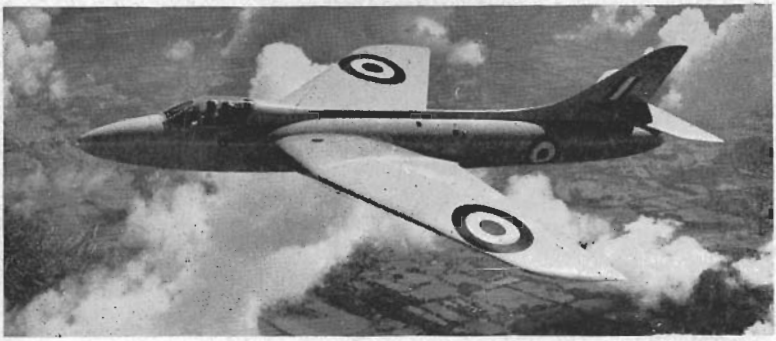
Big-diameter fuselage which appears to sit well above the tapered wings—an impression which is enhanced by slight wing dihedral and underslung engines. Very short nose forward of cockpit. Big fin and rudder and long-span tailplane with straight trailing edge. Compare with Skymaster (page 35).

Remarks

Meteorological reconnaissance version of the R.A.F's. Hastings C.1 general purpose, long-range passenger and freight transport. C.2 transport similar but has 1,675 h.p. Hercules 106 engines and bigger, lower-set tailplane. Hastings C.4 is specially-equipped V.I.P. transport.



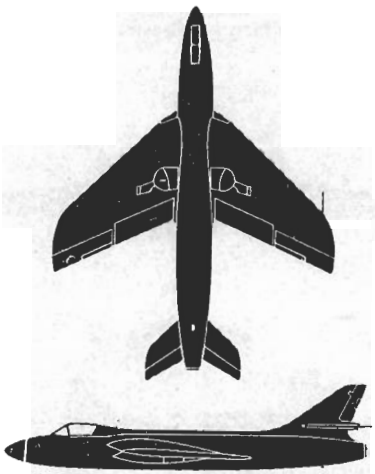
C.1



[Cyril Peckham

HUNTER F. 1

Hawker Aircraft Ltd.



DUTY: Fighter.

CREW: 1.

POWERED BY: Rolls-Royce Avon turbo-jet.

SPAN: 33 ft. 8 in. LENGTH: 45 ft. 3 in.

ALL OTHER DATA SECRET.

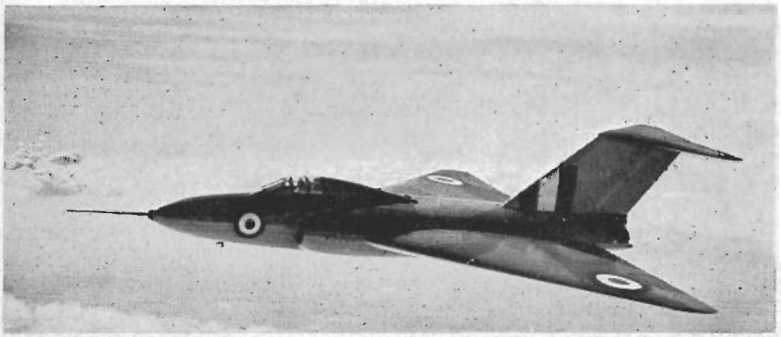
Recognition Features

Long slender cylindrical fuselage, with streamlined nose and jet exhaust at tail. Broad, sharply sweptback wings, with air intakes in leading edges near fuselage. Long thin "spine" above fuselage joins cockpit blister to swept fin and rudder. High-set swept tailplane. Compare with Swift (p. 57).

Remarks

Latest development of the Hawker series of jet-fighters, which started with the straight-wing P.1040 and Sea Hawk (page 43). The P.1052 (page 73) represents a half-way mark, with swept wings and "straight" tail.

Hunter F.2 is similar, but has an Armstrong Siddeley Sapphire engine. Both types are in production for R.A.F. Fighter Command.



[Cyril Peckham

JAVELIN F (AW).1

Gloster Aircraft Co. Ltd

TYPE: All weather fighter.

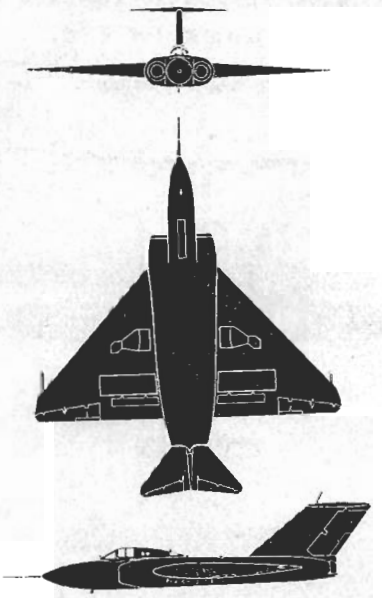
CREW: 2.

POWERED BY: 2 Armstrong Siddeley Sapphire turbojets.

SPAN: 52 ft.

LENGTH: 57 ft.

ALL OTHER DATA SECRET.

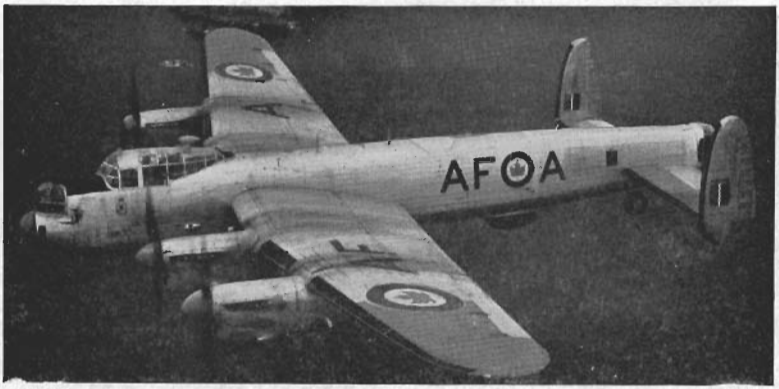


Recognition Features

Typical delta-wing planform, duplicated in small scale by tailplane, which is set atop a massive sweptback fin and rudder. Wide rectangular fuselage "box", containing twin engines, with streamlined cockpit protruding in front between the air intakes.

Remarks

World's first twin-jet delta. In super-priority production for Fighter Command's all weather and night fighter squadrons. Carries radar and very heavy armament.

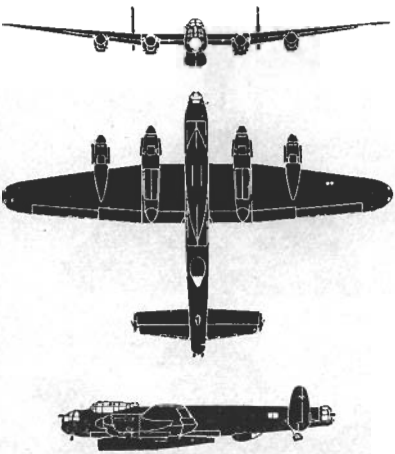


10-MR R.C.A.F.

LANCASTER 10-MR

A. V. Roe & Co, Ltd.

DUTY: Maritime patrol bomber.
CREW: 7.



ASR.3

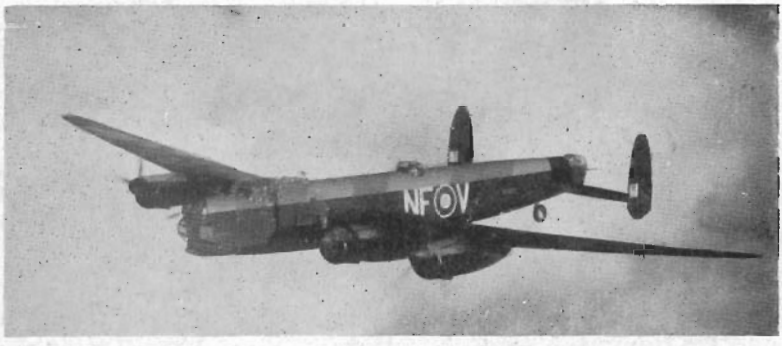
POWERED BY: 4× 1,700 h.p. Packard-built Rolls-Royce Merlin 28, 38 or 224 piston-engines.
SPAN: 102 ft.
LENGTH: 69 ft. 4 in.
LOADED WEIGHT: 68,000 lb.
MAX. SPEED: 275 m.p.h.
TYPICAL RANGE: 3,000 miles.
ARMAMENT: Nose and tail gun-turrets.

Recognition Features

Compare with Lincoln (page 29) and Halifax (page 72). Tapered mid-set wings with four underslung in-line engines. Gun turrets in nose and tail. Long raised cockpit "glasshouse". Low-set tailplane with two oval fins and rudders.

Remarks

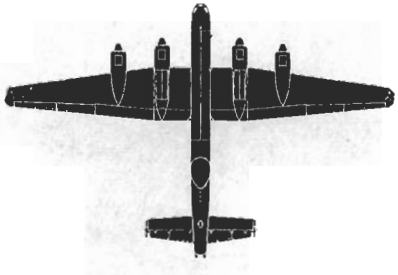
Several different versions of the Lancaster are still flying with Coastal Command. All are externally similar to the Lancaster 10-MR of the Royal Canadian Air Force shown above; but the Lancaster ASR.3 (silhouette) may be seen carrying an airborne lifeboat under its fuselage for air-sea rescue.



LINCOLN B.2

A. V. Roe & Co. Ltd.

DUTY: Heavy Bomber. CREW: 7.
POWERED BY: 4×1,760 h.p. Rolls-Royce Merlin 68A or 300 piston-engines.
SPAN: 120 ft. LENGTH: 78 ft. 3½ in.
LOADED WEIGHT: 82,000 lb.
MAX. SPEED: 290 m.p.h.
CEILING: 22,000 ft.
TYPICAL RANGE: 2,250 miles at 230 m.p.h. at 20,000 ft. with 14,000 lb. bombs.
ARMAMENT: 4×.50 in. machine-guns and 2×20 mm. cannon.

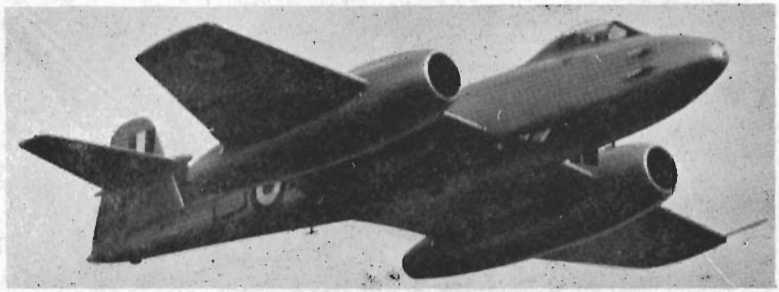


Recognition Features

Very similar to Lancaster (page 28) from which it was developed. Best distinguishing features are its much longer wings; more circular engine cowlings; glass "bay-window" under nose-turret; very large radar blister under fuselage; squared-off bottom corner of rudders.

Remarks

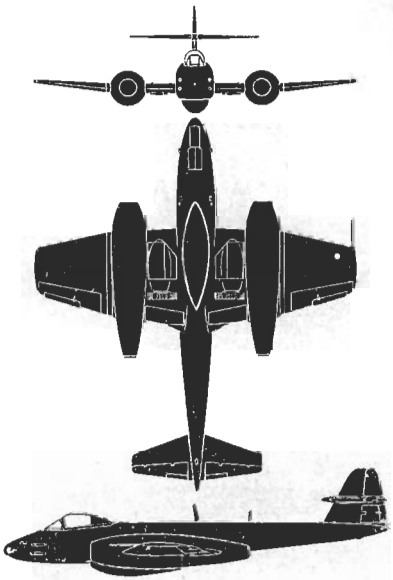
The Lincoln Mks. 1 and 2 were originally known as the Lancaster Mks. 4 and 5 respectively. Together with the Washingtons, they form the mainstay of Bomber Command.



[Butler-Green Aviation Photo Service

METEOR F.8

Gloster Aircraft Co. Ltd.



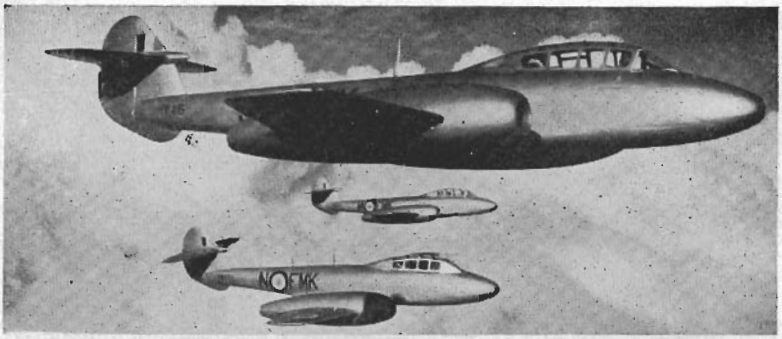
DUTY: Fighter.
CREW: 1.
POWERED BY: 2×3,600 lb. thrust Rolls-Royce Derwent 8 turbojets.
SPAN: 37 ft. 2 in.
LENGTH: 44 ft. 7 in.
LOADED WEIGHT: 15,675 lb.
MAX. SPEED: 592 m.p.h.
CEILING: 44,000 ft.
TYPICAL RANGE: 710 miles at 270 m.p.h. at 40,000 ft. with normal load.
ARMAMENT: 4×20 mm. cannon and either 2×1,000 lb. bombs or 16×90 lb. rockets.

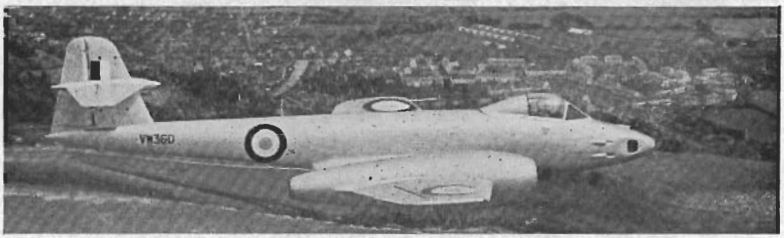
Recognition Features

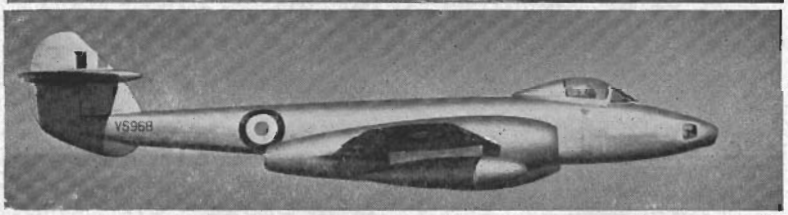
Short stubby square-cut wings, carrying two large mid-set engine nacelles. Long, slim fuselage with blister cockpit hood near nose, straight-tapered fin and rudder and high-set squared-off tailplane. May be seen with external fuel-tanks under fuselage and outer wings.

Remarks

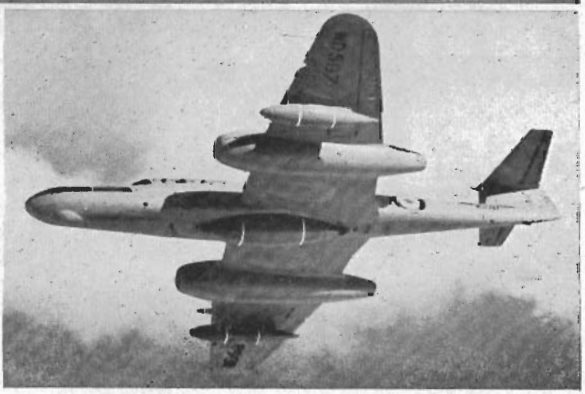
Standard single-seat fighter with the R.A.F. and other Western Union Air Forces. Developed from earlier Meteor Mk. 1, 3, and 4 fighters, which are basically similar but with shorter fuselage, elliptical fin, rudder and tail-plane, and, in some cases, rounded wing-tips and shorter engine nacelles. Engine air intakes have recently been enlarged, as shown in photograph.







Also in service are (*top to bottom*) : the Meteor T.7, a two-seat operational trainer, based on the F.Mk.4; the Meteor FR.9, a development of the Mk. 8 with cameras as well as guns in its nose ; the unarmed Meteor PR.10, which has cameras in its nose and rear fuselage, Mk.4 type elliptical tail surfaces and rounded wing-tips ; the Meteor NF.11 night fighter development of the Mk.8, with longer nose containing radar and cockpit space for a second crew-member, and rounded wing-tips.



MARATHON T. 11

Handley Page (Reading) Ltd.

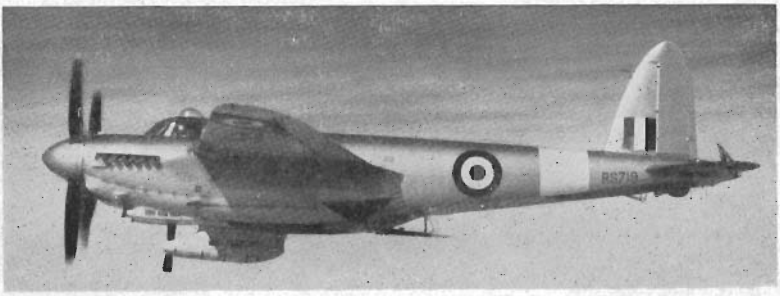
DUTY: Navigation trainer.
CREW: 5.
POWERED BY: 4×340 h.p. D.H. Gipsy Queen 172 or 173.
SPAN: 65 ft.
LENGTH: 52 ft. 1½ in.
LOADED WEIGHT: 17,535 lb.
MAX. SPEED: 235 m.p.h.
CEILING: 15,300 ft.
TYPICAL RANGE: 1,290 miles at 160 m.p.h. at 5,000 ft. with full load.
ARMAMENT: None.

Recognition Features

Big square-section fuselage and four engines in long slim nacelles, all slung under narrow straight-tapered wing with square tips. High-mounted tail-plane with three fins. Compared with York (page 76) has fatter fuselage and no wing dihedral.

Remarks

Thirty Marathons are being supplied to R.A.F. Flying Training Command as advanced navigation trainers. Crew consists of pilot, signaller, instructor, and two pupils (in rearward-facing seats). Training equipment includes latest radio and radar aids.



TT.35

MOSQUITO TT.35

de Havilland Aircraft Co. Ltd.

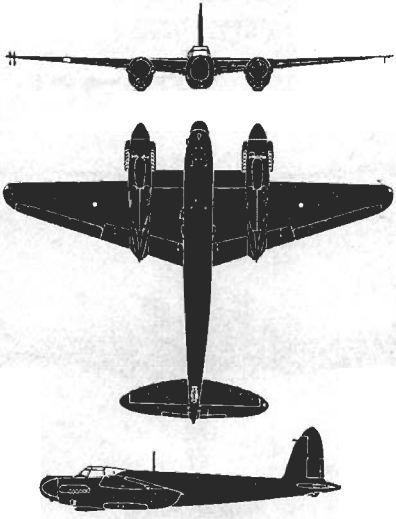
DUTY: Target tug.
CREW: 2.
POWERED BY: 2 × 1,700 h.p. Rolls-Royce Merlin 113 piston-engines.
SPAN: 54 ft. 2 in. LENGTH: 44 ft. 6 in.
LOADED WEIGHT: 25,200 lb.
MAX. SPEED: 425 m.p.h.
CEILING: 36,000 ft.
TYPICAL RANGE: 2,000 miles.
ARMAMENT: None.

Recognition Features

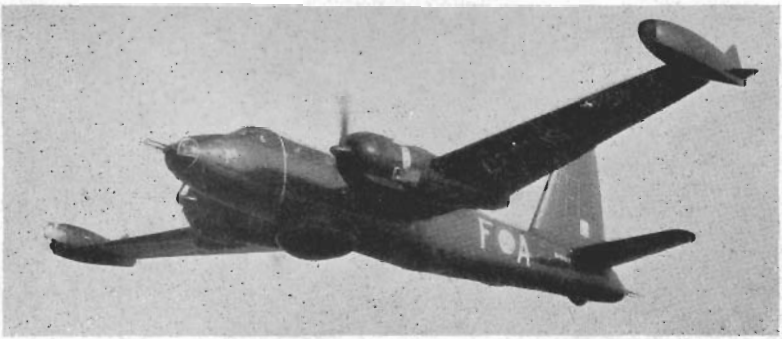
Sharply-tapered wings set mid-way up circular streamlined fuselage. Smooth lines of engine nacelles broken by air scoops under engines. Radiators forward of wing between engines and fuselage. Compared with Hornet (page 44), Mosquito has more pointed wings, longer nose, higher wing, elliptical tailplane and no dorsal fin. Usually carries external fuel tanks under outer wings and target-towing winch under fuselage.

Remarks

Among the greatest warplanes of World War II. Mosquito target tugs, trainers, photo-reconnaissance aircraft, bombers and night fighters are still flying over Britain. All are basically similar, but the TT.35, trainer and P.R. machines have streamlined noses, the night fighters (silhouette) have radar in a bulbous nose and the TT.39 a blunt glass-panelled nose and a small flat-topped perspex dome bisecting its fuselage top.

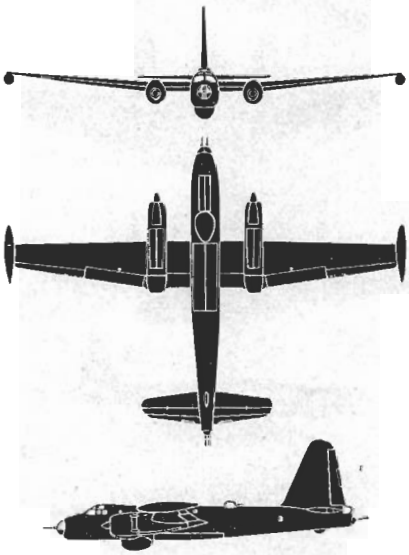


NF.36



NEPTUNE MR.1 (P2V-5)

Lockheed Aircraft Corp.



DUTY: Maritime patrol bomber.
CREW: 7.
POWERED BY: 2×3,250 h.p. Wright R-3350-30W piston-engines.
SPAN: 100 ft.
LENGTH: 76 ft. 10 in.
LOADED WEIGHT: 58,000 lb.
MAX. SPEED: 288 m.p.h.
CEILING: 27,100 ft.
TYPICAL RANGE: 3,560 miles at 180 m.p.h. at 12,600 ft.
ARMAMENT: 2-8×20 mm. cannon and 4×.50 in. machine-guns, 8,000 lb. bombs, and 16×5 in. rockets beneath wings.

Recognition Features

Long thin wings set well back along fuselage, with underslung engines and, usually, large wingtip tanks for radar and fuel. Engine nacelles project beyond wing trailing edge. Gun turrets in nose, tail, and above fuselage. Exceptionally large fin and rudder.

Remarks

The P2V-5 is the latest version of the Neptune, present holder of the World's Long-distance Record (11,235 miles). and is in service with R.A.F. Coastal Command and the U.S. Navy.

NORTH STAR [R.C.A.F.

DUTY: Military transport.
CREW: 6 plus 40 passengers or cargo.
POWERED BY: 4×1,725 h.p. Rolls-Royce Merlin 620 piston-engines.
SPAN: 117 ft. 6 in.
LENGTH: 93 ft. 7½ in.
LOADED WEIGHT: 78,000 lb.
MAX. SPEED: 353 m.p.h.
CEILING: 29,500 ft.
TYPICAL RANGE: 3,500 miles at 240 m.p.h.
ARMAMENT: None.

Recognition Features

Circular fuselage, with Dakota-type nose and typical Douglas tail. Sharply tapered wings. Note especially the big wing dihedral and four underslung, in-line engines (North Star), or mid-set radials (C-54). Compare with Hastings (page 25).

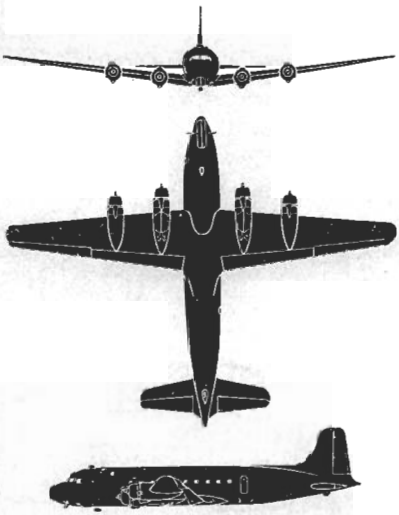
Remarks

Canadian-built version of the Douglas Skymaster (silhouette) with Merlin engines; in service with R.C.A.F. Skymasters of the U.S.A.F.(C-54) and U.S. Navy (R5D) are also seen over Britain, and can be distinguished by their 1,350 h.p. Pratt and Whitney R-2000 radial engines.

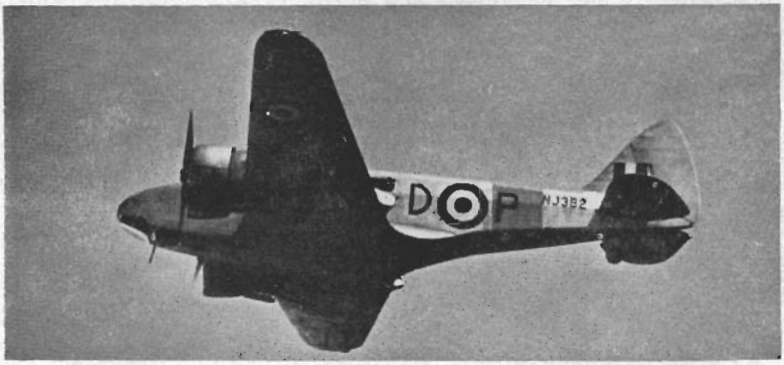
NORTH STAR C-54GM

(AND SKYMASTER C-54)

Canadair Ltd.

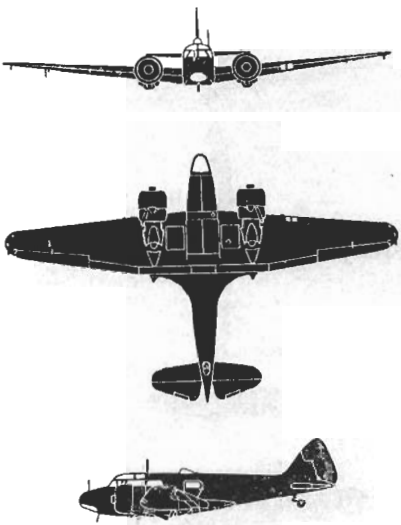


C-54



OXFORD T.2

Airspeed Ltd.



DUTY: Communications and Crew Trainer.

CREW: 3.

POWERED BY: 2×355 h.p. Armstrong Siddeley Cheetah 10 piston-engines.

SPAN: 53 ft. 4 in.

LENGTH: 34 ft. 6 in.

LOADED WEIGHT: 7,600 lb.

MAX. SPEED: 188 m.p.h.

CEILING: 19,500 ft.

RANGE: 900 miles.

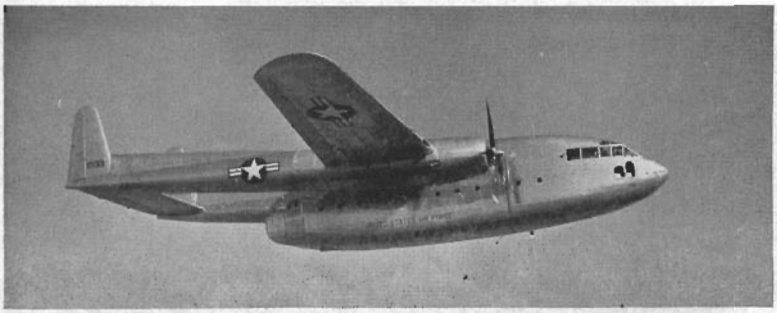
ARMAMENT: None.

Recognition Features

Compared with Anson (page 5), the Oxford has sleeker nose; more pointed fin and rudder; broader and more rounded tailplane. Its engine nacelles do not project so far forward of wing, but end in points behind trailing edge.

Remarks

In service with the R.A.F. for training and light communication duties.



C-119C

PACKET C-119C

Fairchild Engine & Airplane Corp.

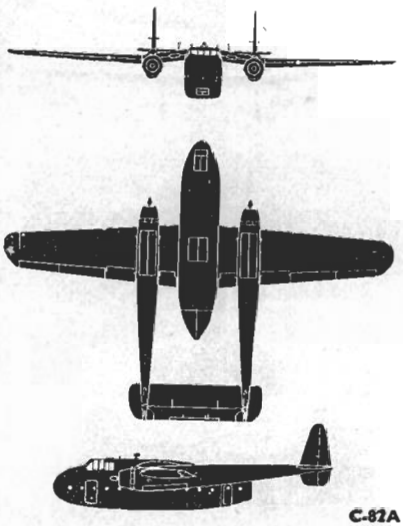
DUTY: Military transport.
CREW: 4 plus 42-78 passengers or cargo.
POWERED BY: 2×3,500 h.p. Pratt & Whitney R-4360-20W piston-engines.
SPAN: 109 ft. 3 in.
LENGTH: 86 ft. 6 in.
LOADED WEIGHT: 74,000 lb.
MAX. SPEED: 281 m.p.h.
CEILING: 23,900 ft.
TYPICAL RANGE: 1,770 miles with 5,500 lb. load.
ARMAMENT: None.

Recognition Features

Large square-section fuselage "pod" slung under cranked wings between long, slim tail-booms. Narrow pointed fins and rudders, with very long dorsal fins. May be seen without large doors which form the rear end of its fuselage.

Remarks

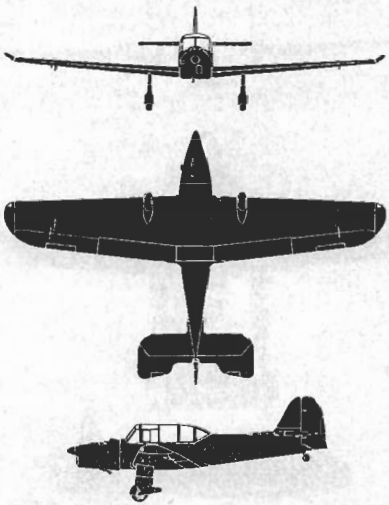
Latest version of the U.S.A.F.'s Packet paratroop and cargo transport, which can also be seen over Britain in its early C-82 version (as shown in accompanying silhouettes). The C-82 has shorter, more blunt-nosed fuselage; 2,100 h.p. Pratt and Whitney R-2800 engines; and fin and rudder extensions under its tail-booms instead of dorsal fins.



C-82A

PRENTICE T.1

Percival Aircraft Ltd.



DUTY: Primary trainer. CREW: 3.
POWERED BY: 251 h.p. D.H. Gipsy Queen 32 piston-engine.
SPAN: 46 ft. LENGTH: 31 ft. 3 in.
LOADED WEIGHT: 4,200 lb.
MAX. SPEED: 143 m.p.h.
CEILING: 13,600 ft.
TYPICAL RANGE: 396 miles at 132 m.p.h. at 5,000 ft. with full load.
ARMAMENT: None.

Recognition Features

Low-wing monoplane, with long, broad wings which bend up at tips, and in-line engine. Fixed, spatted undercarriage. Big raised cockpit "glasshouse". Broad, rounded fin and rudder, with sharp bottom corner. Unusual cutaway in trailing edge of elevators. Compare with Proctor (page 74).

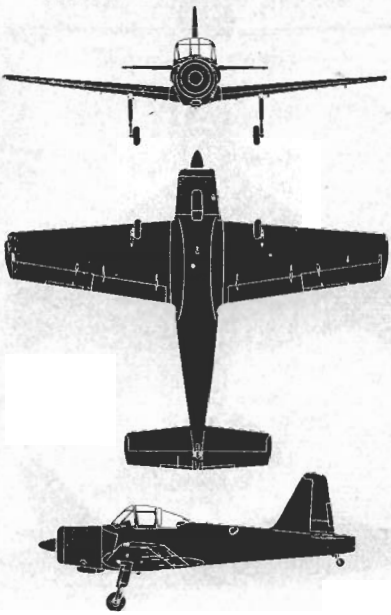
Remarks

The R.A.F.'s standard primary trainer, until the Provost is in service in numbers.

PROVOST T.1

Percival Aircraft Ltd.

DUTY: Primary Flying Trainer.
CREW: 2.
POWERED BY: 550 h.p. Alvis Leonides 126 piston-engine.
SPAN: 35 ft. 2 in. LENGTH: 29 ft.
LOADED WEIGHT: 4,250 lb.
MAX. SPEED: 200 m.p.h.
CEILING: 25,000 ft.
TYPICAL RANGE: 660 miles at 136 m.p.h. at 5,000 ft. with full load.
ARMAMENT: None.



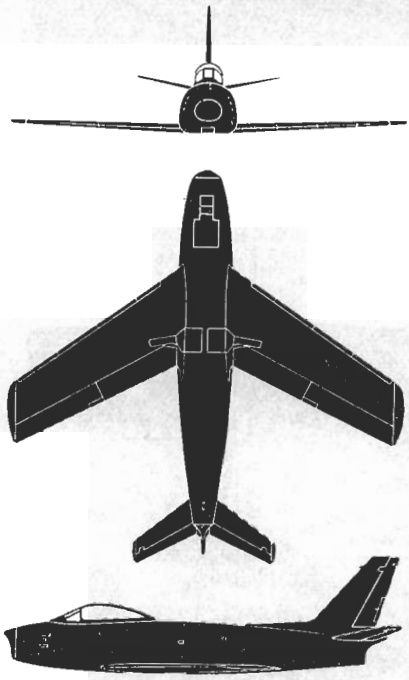
Recognition Features

Broad square wings; fixed unspatted undercarriage. Sleek fuselage with long smooth circular engine cowling, big cockpit "glasshouse" and blunt tail end. Big square-tipped fin and rudder mounted forward of plank-type tailplane.

Remarks

In production as the R.A.F.'s new basic flying trainer to replace Chipmunks, Harvards and Prentices.

[R.C.A.F.



SABRE F-86E

North American Aviation

DUTY: Fighter. CREW: 1.
POWERED BY: 1×5,200 lb. thrust General Electric J-47-GE-13 turbojet.
SPAN: 37 ft. 1 in. LENGTH: 37 ft. 6 in.
LOADED WEIGHT: 16,500 lb.
MAX. SPEED: Over 670 m.p.h.
CEILING: 53,000 ft.
NORMAL RANGE: 1,250 miles.
ARMAMENT: 6×.50 in. machine-guns and 16×5 in. rockets.

Recognition Features

Comparatively narrow sweptback wings. Sleek fuselage with air intake at nose and exhaust at tail. Sweptback tail with tall, fairly narrow fin and rudder and low-set dihedral tailplane. Can carry two long streamlined fuel tanks under wings.

Remarks

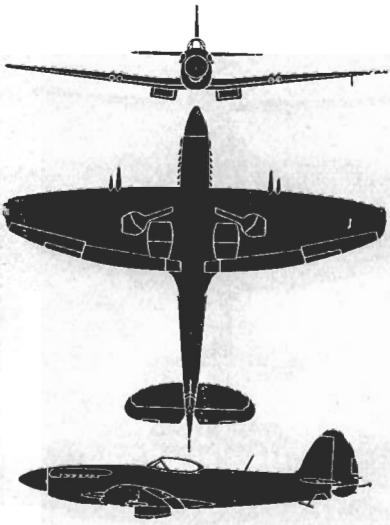
Sabre squadrons of both the U.S.A.F. and Royal Canadian Air Force are now based in England. The Canadian fighters are built at Montreal by Canadair Ltd., as are the Sabre F.1 aircraft being supplied to equip R.A.F. squadrons abroad. Some U.S.-built Sabres are being supplied to Fighter Command here.

DUTY: Fighter.
CREW: 1.
POWERED BY: 1,935 h.p. Rolls-Royce Griffon 87 piston-engine.
SPAN: 36 ft. 11 in.
LENGTH: 33 ft. 6½ in.
LOADED WEIGHT: 11,615 lb.
MAX. SPEED: 452 m.p.h.
CEILING: 43,100 ft.
TYPICAL RANGE: 400 miles at 215-235 m.p.h. at 20,000 ft. with normal load.
ARMAMENT: 4×20 mm. cannon, and up to 1,500 lb. bombs or rockets.

SEAFIRE FR.47 (and SPITFIRE)

Vickers-Armstrongs Ltd.

(Supermarine Division)



Recognition Features

Classic Spitfire elliptical wings with marked dihedral, and a deep radiator under each. Two cannons projecting from each leading edge. Sleek, streamlined fuselage, with contra-propellers, small blister hood and "inverted heart"-shaped fin and rudder. Elliptical tailplane. Often carries long external fuel tank under fuselage.

Remarks

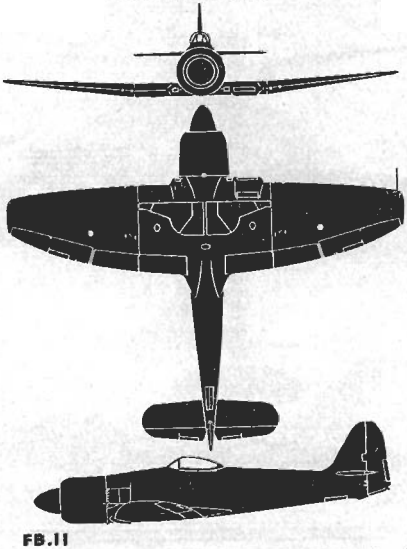
The Navy's carrier-based Seafire 47, illustrated above, is basically similar to the R.A.F.'s Spitfire F.24, which is also still in service.

SEA FURY T.20

Hawker Aircraft Ltd.

T.20 ["Flight"

DUTY: Naval advanced trainer.
CREW: 2.
POWERED BY: 2,550 h.p. Bristol Centaurus 18 piston-engine.



FB.11

SPAN: 38 ft. 4½ in. LENGTH: 34 ft 8 in.
LOADED WEIGHT: 12,350 lb.
MAX. SPEED: 445 m.p.h.
CEILING: 37,000 ft.
TYPICAL RANGE: 1,630 miles at 290 m.p.h. at 10,000 ft. with external tanks.
ARMAMENT: 2×20 mm. cannon and 2×1,000 lb. bombs or 12×60 lb. rockets, etc.

Recognition Features

Semi-eliptical wings, with air intakes forward of wing roots and radiator in port leading edge only. Flat centre-section, with dihedral on outer wings. Short, circular-section nose, with fuselage sloping up to double cockpit blister half-way down fuselage. Fairly high fin and rudder, with straight trailing edge.

Remarks

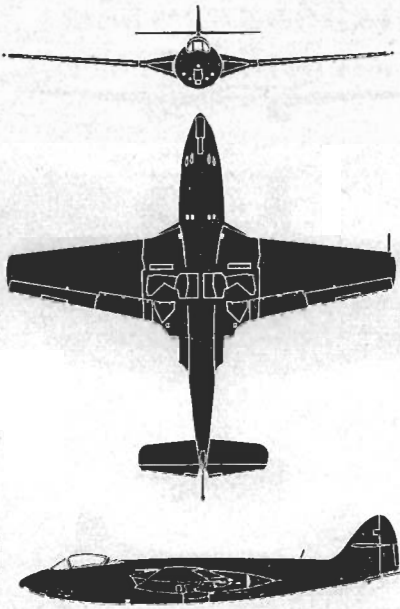
Two-seat trainer version of the Sea Fury FB.11 (silhouette), which is standard single-seat piston-engine fighter with the Royal Navy, R.C.N. and R.A.N. The earlier Sea Fury F.10 is externally similar, as is the Royal Netherlands Navy's F.51.

[Cyril Peckham

SEA HAWK F.1

Hawker Aircraft Ltd.

DUTY: Naval Fighter. CREW: 1.
POWERED BY: 5,000 lb. thrust Rolls-Royce Nene 101 turbojet.
SPAN: 39 ft. LENGTH: 39 ft. 7 in.
ARMAMENT: 4×20 mm. cannon.
ALL OTHER DATA SECRET.



Recognition Features

Mid-set "straight" tapered wings, with air intakes in the deepened swept-forward roots, and exhausts in the fuselage sides behind the trailing edge roots. Circular-section, finely-streamlined fuselage, with blister hood on nose; high-mounted tailplane. Long deck-landing hook under tail. Compare with Attacker (page 6).

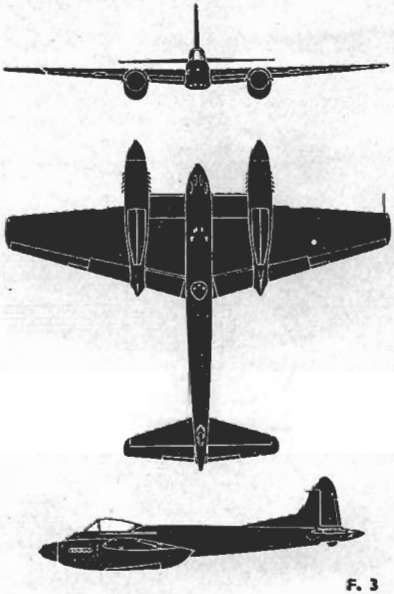
Remarks

First Hawker production jet-fighter; coming into service with the Royal Navy. From it have been developed the P.1052, P.1072, and Hunter.

NF.21

SEA HORNET NF. 21 (and HORNET)

de Havilland Aircraft Co. Ltd.



F. 3

DUTY: Long-range naval night fighter and strike navigator.
CREW: 2.
POWERED BY: 2×2,030 h.p. Rolls-Royce Merlin 130/131 piston-engines.
SPAN: 45 ft. LENGTH: 37 ft.
LOADED WEIGHT: 19,350 lb.
MAX. SPEED: 430 m.p.h.
CEILING: 36,500 ft.
TYPICAL RANGE: 1,500 miles at 340 m.p.h. at 30,000 ft. with external tanks.
ARMAMENT: 4×20 mm. cannon and either 2×1,000 lb. bombs or rockets.

Recognition Features

Compared with Mosquito (page 33), Sea Hornet has more square-cut wings; completely streamlined engine cowlings; very short nose; slim fuselage; long dorsal fin; straight-tapered tailplane. Mk. 21 has radar "thimble" nose.

Remarks

The Royal Navy's Sea Hornet FR.20 single-seat fighter is basically similar to the R.A.F.'s Hornet F.3 (silhouette) but has folding wings and a deck-landing arrester hook. From it has been developed the Sea Hornet NF.21 (photograph), which carries a radar navigator under a blister hood half-way down its fuselage. The Sea Hornet PR.22 is similar to the Mk. 20 but carries cameras, not guns.

T.1

DUTY: Radio, radar and anti-submarine trainer.
CREW: 2, plus 2 pupils and instructor.
POWERED BY: 2×550 h.p. Alvis Leonides 125 piston-engines.
SPAN: 56 ft. LENGTH: 46 ft. 4 in.
LOADED WEIGHT: 11,850 lb.
MAX. SPEED: 223 m.p.h.
CEILING: 21,000 ft.
TYPICAL RANGE: 530 miles at 5,000 ft.
ARMAMENT: None.

Recognition Features

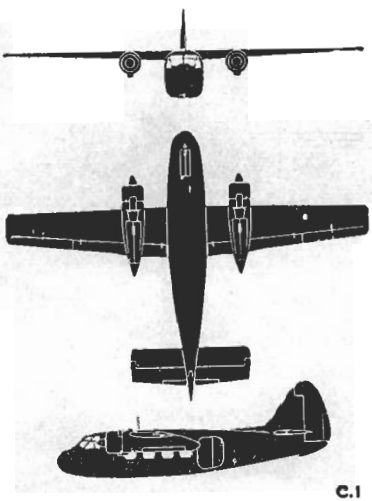
Long straight-tapered wings with square tips. Underslung engines, projecting behind wing trailing edges. Big, square-section fuselage slung under wing, with egg-shaped fin and rudder. Unusual bump-down under fuselage at tail. Radar "thimble" nose.

Remarks

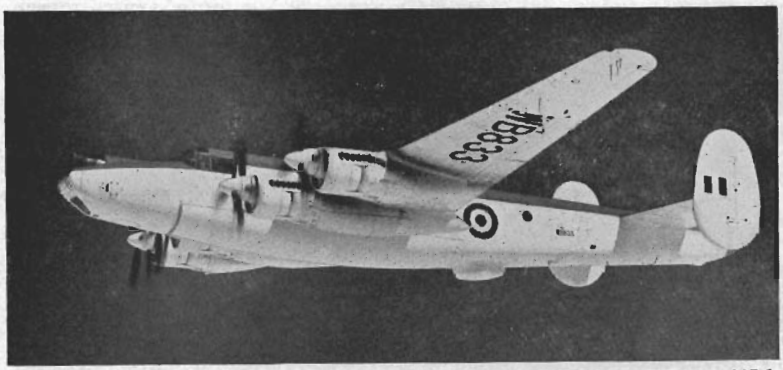
The Royal Navy's Sea Prince T.1, shown above, is used as a radio, radar, and anti-submarine trainer. The Sea Prince C.1 (silhouette) and C.2 are similar, but have shorter noses and are fitted out as communications aircraft and "Admirals' Barges". The R.A.F. Pembroke is similar to the Sea Prince, with a larger wing-span.

SEA PRINCE T.1 (and PEMBROKE)

Percival Aircraft Ltd.



C.1

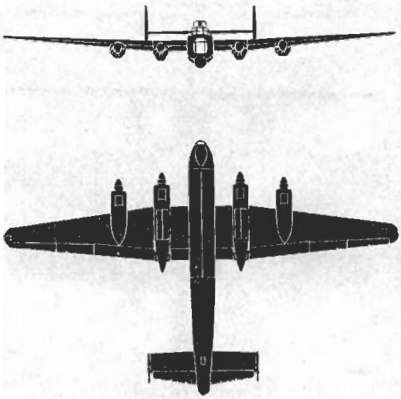


MR.2

SHACKLETON MR.2

A. V. Roe & Co. Ltd.

DUTY: Maritime patrol-bomber.
CREW: 10.
POWERED BY: 4×2,450 h.p. Rolls-Royce Griffon 57 piston-engines.
SPAN: 120 ft. LENGTH: 87 ft. 4 in.
ARMAMENT: 4×20 mm. cannon.
ALL OTHER DATA SECRET.



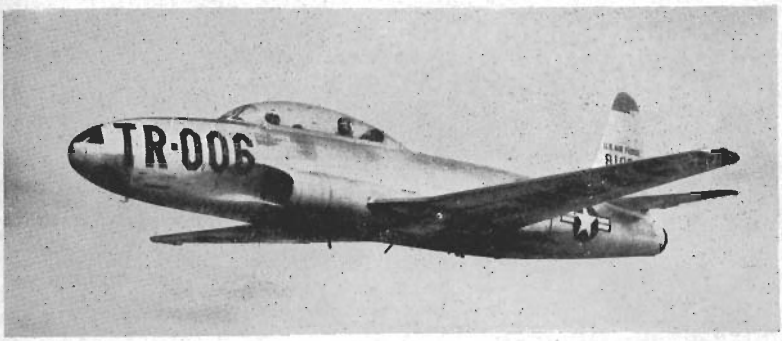
MR 1

Recognition Features

Compared with Lincoln (page 29) the Shackleton has a much broader and deeper fuselage. The MR.1 has a large radar blister under its nose. The MR.2 has a more streamlined nose and tail, with radar in a retractable "dustbin" behind bomb-bay. Its inboard engine nacelles project beyond the wing trailing edge; its tailplane is mounted higher than that of the Lincoln and its fins and rudders are more egg-shaped.

Remarks

The Shackleton was developed from the Lincoln for over-water reconnaissance duties, and the MR.1 is now Coastal Command's standard long-range anti-submarine aircraft. It can also be seen carrying an airborne lifeboat under its fuselage. The MR.2 has superseded it in production.



T-33A

SHOOTING STAR, T-33A

Lockheed Aircraft Corp.

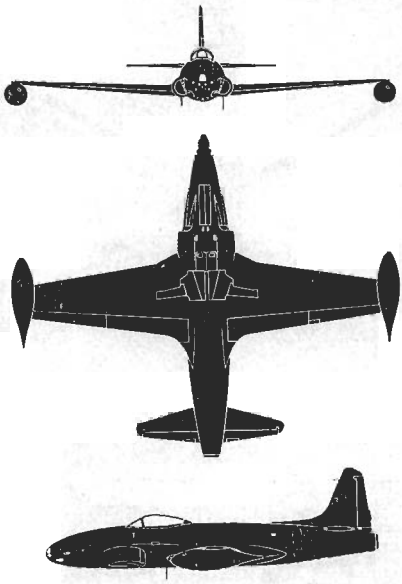
DUTY: Advanced trainer. CREW: 2.
POWERED BY: 1×5,400 lb. thrust Allison J-33-A-35 turbojet.
SPAN: 38 ft. 10½ in.
LENGTH: 37 ft. 9 in.
LOADED WEIGHT: 11,965 lb.
MAX. SPEED: 600 m.p.h.
CEILING: 47,500 ft.
ENDURANCE: 3.12 hr.
ARMAMENT: 2×.50 in. machine-guns.

Recognition Features

Fuselage cigar-shaped in side view; pointed in plan view, with wide low-set air intakes, and long cockpit hood well back from nose. Diamond-shaped wing nearly half-way along fuselage, resulting in stumpy, sawn-off rear fuselage. Tall, triangular fin and rudder. Diamond-shaped tailplane forward of jet exhaust.

Remarks

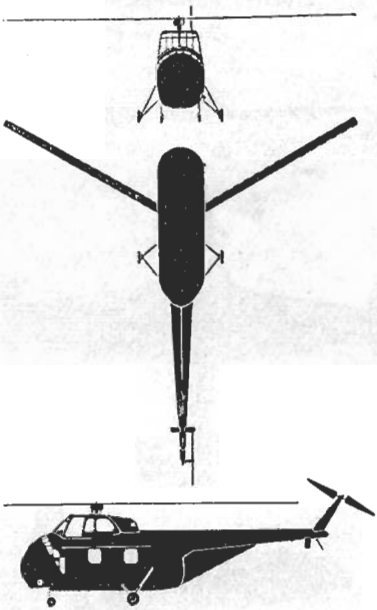
F-80C is most common service version, and may be seen in Britain as equipment of U.S.A.F. squadrons on training detachment. T-33A jet trainer is similar but seats two in tandem beneath longer cockpit hood.



F-80C

SIKORSKY S-55

Westland Aircraft Ltd.



DUTY: Transport helicopter.
ACCOMMODATION: 2 crew plus 10 passengers, 8 stretchers or freight.
POWERED BY: 600 h.p. Pratt & Whitney R-1340-57 piston-engine.
ROTOR DIAMETER: 53 ft.
LENGTH: 41 ft. 8½ in.
LOADED WEIGHT: 6,900 lb.
MAX. SPEED: 110 m.p.h.
CEILING: 15,500 ft.
TYPICAL RANGE: 495 miles at 85 m.p.h. at 1,000 ft.
ARMAMENT: None.

Recognition Features

Massive bull-nosed fuselage, rather like front of Bristol Type 170 (page 12), connected to tail-boom by flat fairing. Tail rotor at end of short crank, with small Λ-shaped stabilizer beneath it. Single main rotor. 4-wheel undercarriage.

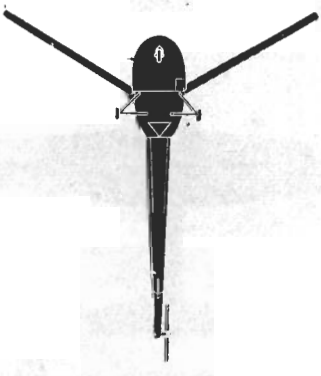
Remarks

First S-55 squadron of Royal Navy is equipped with American-built helicopters; but Westland Aircraft Ltd. are producing S-55's under licence in the United Kindgom.

SKEETER 4

Saunders-Roe Ltd.

DUTY: General purpose light naval helicopter.
CREW: 2.
POWERED BY: 180 h.p. Cirrus Bombardier 702 piston-engine.
ROTOR DIAMETER: 32 ft.
LENGTH: 28 ft. 5 in.
LOADED WEIGHT: 2,100 lb.
MAX. SPEED: 115 m.p.h.
CEILING: 15,500 ft.
RANGE: 350 miles.
ARMAMENT: None.

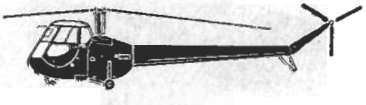


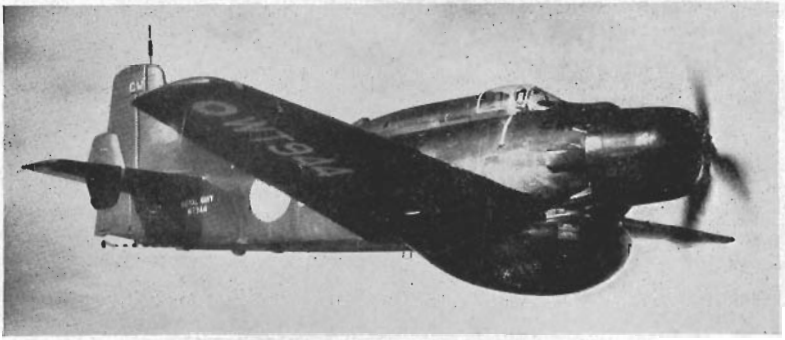
Recognition Features

Rather like a spritely insect, with big bulbous "head" and long, slender, cranked tail-boom. Main rotor mounted on long shaft immediately behind the raised roof of the cabin, which ensures all-round visibility. Conventional three-wheel undercarriage.

Remarks

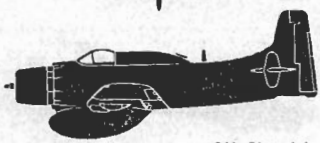
Prototypes of the Skeeter have been produced in military (Mk. 3), naval (Mk. 4) and civil (Mk. 5) versions, and are undergoing extensive tests for the Ministry of Supply.





SKYRAIDER AD4-W

Douglas Aircraft Co.



[Air Pictorial

DUTY: Naval early warning and anti-submarine aircraft. CREW: 3.

POWERED BY: 2,700 h.p. Wright R-3350-26W piston-engine.

SPAN: 50 ft. 0¼ in. LENGTH: 39 ft. 3¾ in.

CEILING: 25,000 ft. RANGE: 1,500 miles.

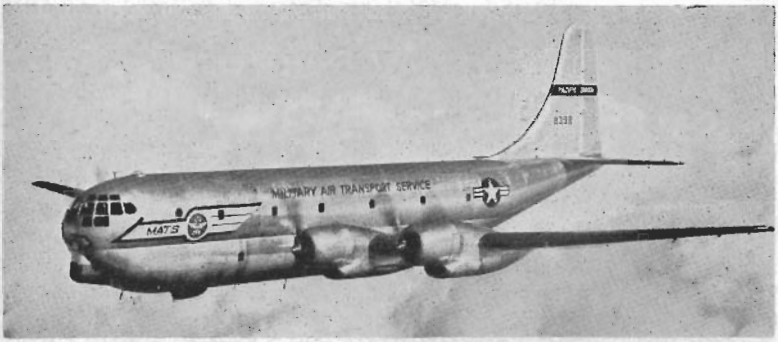
ARMAMENT: 2×20 mm. cannon, radar or 6,000 lb. of bombs, rockets, etc.

Recognition Features

Broad tapered wings with square tips, matched by squared tailplane with straight trailing edge. Tall, square-top main fin. Small auxiliary fins on leading edge of tailplane. Circular engine cowling, with air intakes above and below the fuselage immediately behind it. No spinner. Long cockpit hooding.

Remarks

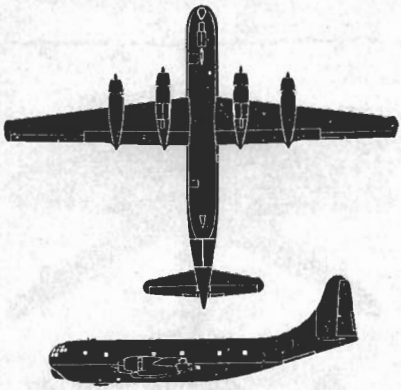
This version of the Skyraider, in service with the Royal Navy, is an early warning aircraft, with radar search equipment in the big blister under its fuselage.



DUTY: Military transport.
CREW: 5 plus 134 troops or cargo.
POWERED BY: 4×3,500 h.p. Pratt & Whitney R-4360-59 piston-engines.
SPAN: 141 ft. 3 in.
LENGTH: 110 ft. 4 in.
LOADED WEIGHT: 153,000 lb.
MAX. SPEED: 350 m.p.h.
CEILING: 35,000 ft.
RANGE: 4,300 miles.

STRATO-FREIGHTER C-97A

Boeing Airplane Co.



Recognition Features

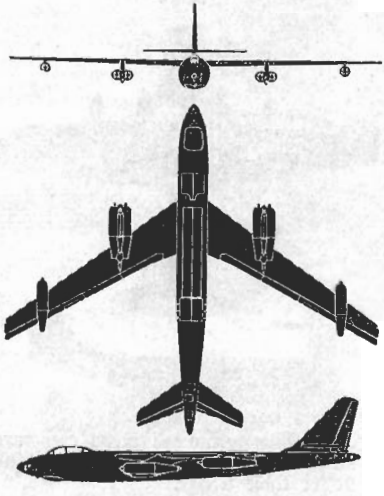
Basically a deep blunt-nosed " figure 8 " fuselage fitted with B-50 Superfortress wings, engines and tail unit. Very long narrow tapered wings, carrying four underslung engines which project behind the trailing edge. Radar pimple under nose. Sharply upswept rear fuselage, surmounted by huge fin and rudder.

Remarks

Originally conceived as transport counterpart of Superfortress. The KC-97F is a " Flying boom " tanker version of the standard C-97A and C-97C transports, with equipment under its tail for refuelling other aircraft in flight. The KC-97E is similar. Three 48-seat C-97D's, used by U.S.A.F. Strategic Air Command as mobile command posts can carry large B-50D-type external fuel tanks under their wings.

STRATOJET B-47B

Boeing Airplane Company



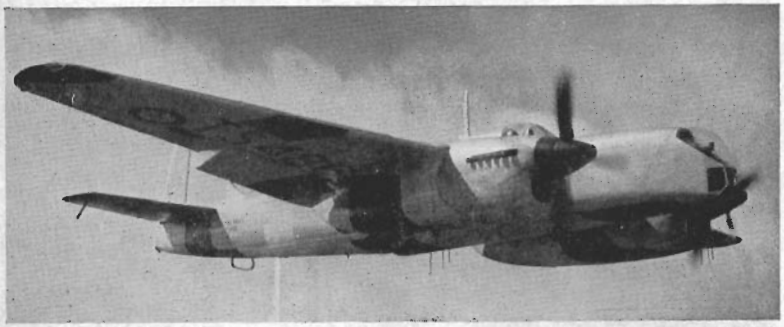
DUTY: Medium bomber.
CREW: 3.
POWERED BY: 6×5,800 lb. thrust General Electric J-47-GE-23 turbo-jets.
SPAN: 116 ft.
LENGTH: 106 ft. 8 in.
LOADED WEIGHT: 185,000 lb.
MAX. SPEED: Over 600 m.p.h.
CEILING: Over 40,000 ft.
RANGE: 3,000 miles.
ARMAMENT: 2×.50 in. tail guns, and 20,000 lb. bombs.

Recognition Features

Cigar-shaped fuselage with blister cockpit hood near nose and radar bulge under nose. Narrow, sharply sweptback wings, with six engines slung underneath in four pods. Sweptback, squared-off fin and tail-plane. Often carries a very large fuel tank under each wing between the engine pods.

Remarks

A wing of these fast six-jet atom-bombers is due to arrive in Britain in 1953.

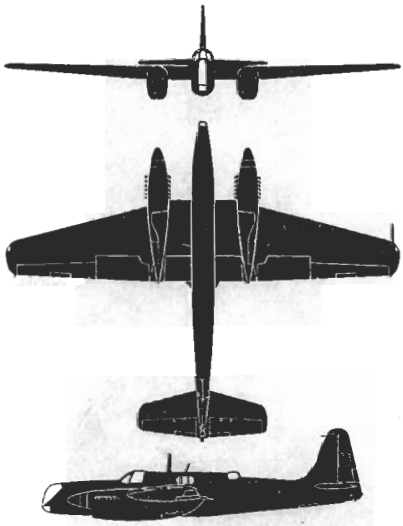


["Flight"

DUTY: Target-towing. CREW: 2.
POWERED BY: 2 × 1,660 h.p. Rolls-Royce Merlin 140 piston-engines.
SPAN: 59 ft. 9 in.
LENGTH: 48 ft. 10½ in.
LOADED WEIGHT: 22,350 lb.
MAX. SPEED: 370 m.p.h.
CEILING: 35,200 ft.
TYPICAL RANGE: 885 miles at 280 m.p.h. at 15,000 ft. with normal load.
ARMAMENT: None.

STURGEON TT.2

Short Bros. and Harland Ltd.



Recognition Features

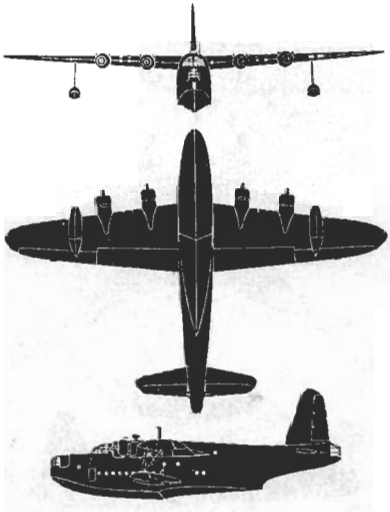
Narrow, rectangular-section fuselage, with long nose and tall, triangular fin and rudder. Square wing centre-section, with sweepback on outer wings, and almost straight trailing edge. Long underslung engine nacelles, which project behind wing trailing edge.

Remarks

Originally designed as a three-seat naval reconnaissance-bomber, with shorter, more pointed nose, the Sturgeon is now used by the Royal Navy for target-towing duties.

SUNDERLAND GR.5

Short Bros. and Harland Ltd.



DUTY: Maritime patrol-bomber flying boat. CREW: 7.
POWERED BY: 4×1,200 h.p. Pratt & Whitney R-1830-90 piston-engines.
SPAN: 112 ft. 9½ in.
LENGTH: 85 ft. 4 in.
LOADED WEIGHT: 60,000 lb.
MAX. SPEED: 213 m.p.h.
CEILING: 17,900 ft.
TYPICAL RANGE: 2,980 miles at 134 m.p.h. at 2,000 ft. with normal load.
ARMAMENT: 12×.303 in. and 2×.50 in. machine-guns.

Recognition Features

Deep, roomy fuselage with two "steps" and upswept tail. Gun turrets at nose and tail give blunt-ended appearance. Tapered, pointed wings with slight dihedral along whole length, four mid-set engines and fixed floats. Tall triangular fin and rudder.

Remarks

Several squadrons of these veteran flying boats are still in service with Coastal Command at home and overseas, for over-water patrol and reconnaissance duties.

KB-29P

[Harold Martin

SUPERFORTRESS B-29

(AND WASHINGTON B.1)

Boeing Airplane Company.

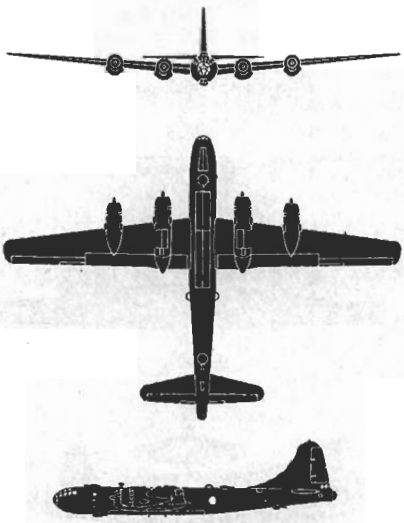
DUTY: Medium-heavy bomber and flight refuelling tanker.
CREW: 10.
POWERED BY: 4×2,200 h.p. Wright R-3350-23 piston-engines.
SPAN: 141 ft. 3 in. LENGTH: 99 ft.
NORMAL LOADED WEIGHT: 120,000 lb.
MAX. SPEED: 351 m.p.h.
TYPICAL RANGE: 2,850 miles at 10,000 ft. with normal load.
ARMAMENT: 12×.50 in. machine-guns and up to 20,000 lb. bombs.

Recognition Features

Long cylindrical fuselage, with no cockpit step-up to nose. Typical U.S. heavy bomber fin and rudder with long dorsal fin and tail-gunner's cabin under rudder. Long, narrow tapered wings, carrying four engines in big oval nacelles, the inboard ones projecting beyond the wing trailing edge.

Remarks

Among versions of the B-29 flying over the U.K. are standard B-29 bombers (silhouette), KB-29P flying tankers (photograph) and SB-29s, with an airborne lifeboat under their fuselage. B-29s are also in service with the R.A.F. as Washington B.1 bombers.



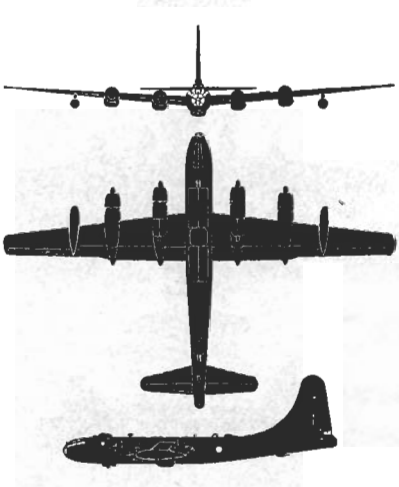
B-29

["Flight"

SUPERFORTRESS B-50D

Boeing Airplane Company

DUTY: Medium-heavy bomber.
CREW: 11.
POWERED BY: 4×3,500 h.p. Pratt & Whitney R-4360-35 piston-engines.



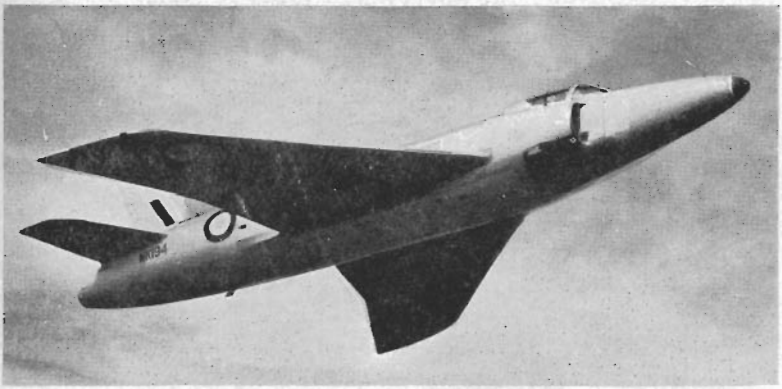
SPAN: 141 ft. 3 in.
LENGTH: 99 ft.
LOADED WEIGHT: 164,500 lb.
MAX. SPEED: over 400 m.p.h.
CEILING: 40,000 ft.
TYPICAL RANGE: Over 6,000 miles with 10,000 lb. bombs.
ARMAMENT: 13×.50 in. machine-guns and up to 28,000 lb. bombs.

Recognition Features

Basically similar to Superfortress B-29 (page 55), but with much higher fin and rudder, and circular engine cowlings, with air intake "step-down" underneath. All four engine nacelles project behind wing trailing edge. Usually carries two large fuel tanks or 4,000 lb. bombs under outer wings, giving a "six-engined" effect in silhouette.

Remarks

Development of the B-29 with more powerful engines and greater bomb-load. Standard U.S.A.F. medium bomber. The TB-50D and TB-50H crew-trainers are basically similar to the B-50D, but with all guns removed. The RB-50B,E and G, also externally similar, carry cameras and other special equipment as well as bombs. The B-50A cannot carry tanks or bombs under its wings.

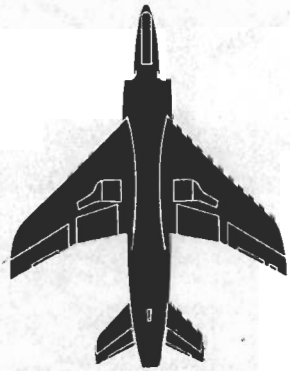


SWIFT F.1

Vickers-Armstrongs Ltd.

(Supermarine Division)

DUTY: Fighter. CREW: 1.
POWERED BY: Rolls-Royce Avon turbo-jet.
SPAN: 33 ft. 7 in. LENGTH: 44 ft. 3 in.
ALL OTHER DATA SECRET.



Recognition Features

Bullet-like fuselage, similar to that of Attacker (page 6), but with much longer and slimmer nose. Compared with the Hunter (page 26), its cockpit is further back, its air intakes are in the sides of the fuselage; its wings are set lower on the fuselage and have straight leading edges and "bent" trailing edges: and its tailplane is low-set on the fuselage.

Remarks

The Swift is R.A.F. Fighter Command's first British sweptwing jet-fighter. It has been developed from the Attacker via the Supermarine 510.

HR. 12

SYCAMORE HR.12

The Bristol Aeroplane Co. Ltd.

HC. 11

DUTY: Air-Sea Rescue and general purpose helicopter.
CREW: 1 plus 4 passengers.
POWERED BY: 550 h.p. Alvis Leonides 7301 piston-engine.
ROTOR DIAMETER: 48 ft. 6¾ in.
LENGTH: 43 ft. 8½ in.
LOADED WEIGHT: 5,200 lb.
CEILING: 21,150 ft.
TYPICAL RANGE: 324 miles at 84 m.p.h. at sea level with normal load.
ARMAMENT: None.

Recognition Features

Tadpole-shaped fuselage, with short well-rounded cabin section and long cranked tail-boom. Rotor is much closer to top of cabin than rotor of Dragonfly (page 19).

Remarks

First helicopter of British design ordered for military service. The Sycamore HR.12 is under evaluation for duties with Coastal Command. The HR.13 is already used by Fighter Command. The externally similar HC.11 is in service with the Army, together with the Sycamore HC.10, which has large perspex blisters on each side of its fuselage, to accommodate stretchers carried across the rear of the cabin. The HR.50, with longer undercarriage, is in service with the Royal Australian Navy.

DUTY: Fighter-bomber. CREW: 1.
POWERED BY: 5,000 lb. thrust Allison J-35-A-17 turbojet.
SPAN: 37 ft. 5 in. LENGTH: 38 ft. 5 in.
LOADED WEIGHT: 18,000 lb.
MAX. SPEED: 630 m.p.h.
CEILING: over 45,000 ft.
TYPICAL RANGE: 1,700 miles.
ARMAMENT: 6×.50 in. machine-guns, plus 2×1,000 lb. bombs or up to 32×5 in. rockets.

Recognition Features

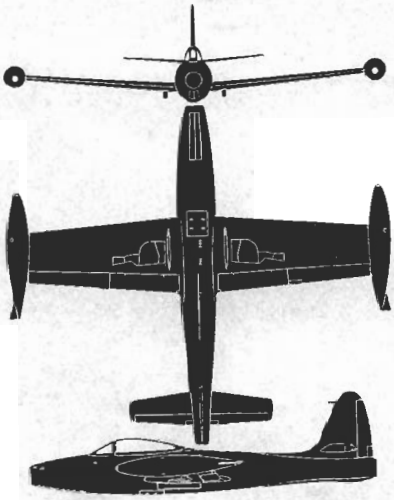
Fuselage is basically a tube with holes at each end, bulging around the cockpit and "waisted" just in front of the tail unit—an impression that is accentuated by the fairings above and below the rear end of the fuselage. Wings are thin, tapered "planks", usually with long fuel tanks fixed centrally on their tips. Wellington-shaped fin and rudder, with dihedral tailplane mounted above fuselage.

Remarks

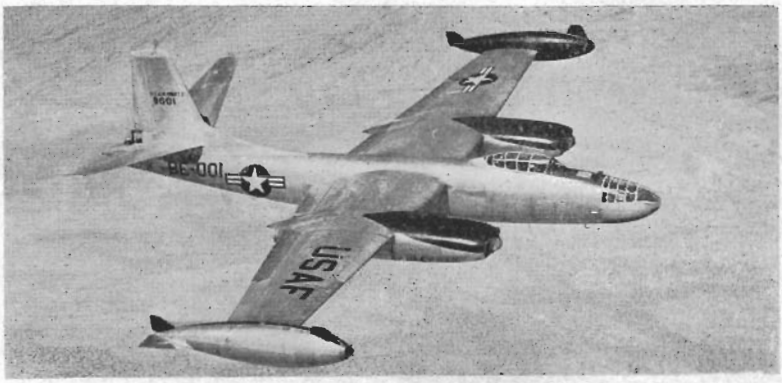
Standard jet fighter-bomber with the U.S.A.F. and several Western Union air forces. F-84B, D, and G are externally similar to the F-84E; and will be joined soon by the F-84F

THUNDERJET F-84E

Republic Aviation Corp.



Thunderstreak with swept wings and tail and powered by a U.S.-built Armstrong Siddeley Sapphire turbojet.



B-45C

TORNADO B-45C
North American Aviation Inc.

RB-45C

DUTY: Tactical bomber.
CREW: 3.
POWERED BY: 4×5,200 lb. thrust General Electric J-47-GE-7 turbojets.
SPAN: 89 ft. 6 in. LENGTH: 74 ft.
LOADED WEIGHT: 110,000 lb.
MAX. SPEED: over 550 m.p.h.
CEILING: 45,000 ft.
COMBAT RADIUS: 1,200 miles.
ARMAMENT: 2×.50 in. machine-guns and over 20,000 lb. bombs.

Recognition Features

Finely streamlined fuselage, which curves up at both ends. Sweep-up at tail enhanced by dorsal fin and tall angular fin and rudder. Marked tail-plane dihedral. Straight-tapered wings with no dihedral, usually carrying enormous fuel tanks at their tips. Four engines in two wide underslung nacelles, projecting beyond wing trailing edges.

Remarks

The Tornado was America's first jet-bomber. The RB-45C (silhouette) has been modified to carry cameras for high-altitude reconnaissance. Both types are externally similar, except that the RB-45C has a "solid" nose with a prominent bump on it.

T.3.

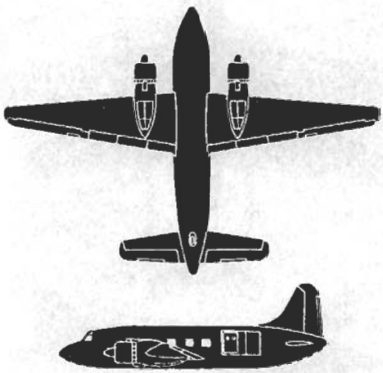
VALETTA T. 3

Vickers-Armstrongs Ltd.

DUTY: Navigation trainer.
CREW: 4 plus instructors and pupils.
POWERED BY: 2×1,975 h.p. Bristol Hercules 230 piston-engines.
SPAN: 89 ft. 3 in. LENGTH: 62 ft. 11 in.
LOADED WEIGHT: 36,500 lb.
MAX. SPEED: 294 m.p.h.
CEILING: 22,200 ft.
TYPICAL RANGE: 1,290 miles at 211 m.p.h. at 10,000 ft.
ARMAMENT: None.

Recognition Features

Short, very fat circular fuselage with pug-nose and sharply-tapering tail. High typically-Vickers fin and rudder and, again typically-Vickers, tapered wings (see Wellington and Varsity). Engines set fairly high on wings; tailplane mid-set on fuselage.



Remarks

Valetta C.1 (silhouette) is the standard version for airborne forces. The C.2 is similar but fitted out as V.I.P. transport for 9-15 passengers and no provision for glider-towing. The T.3 (photograph) is equipped as special-purpose trainer, with six perspex astrodomes down top of fuselage. All are externally similar.

C.1.

VALIANT B.1

Vickers-Armstrongs Ltd.

DUTY: Heavy-bomber.
POWERED BY: 4 Rolls-Royce Avon turbojets.
SPAN: 114 ft. 4 in.
ALL OTHER DATA SECRET.

Recognition Features

Beautifully "clean" fighter-like, circular, streamlined fuselage, broken only by the smooth cockpit on top and bomb-aimer's "bump" below the nose. Fin and rudder are sweptback, broad and angular, and carry the high-set, swept, angular tailplane. The graceful "swallow-dive" swept wings have no dihedral and curve forward at their broad deepened roots, in which are housed the four jet-engines. Only the short jet tail-pipes are visible externally.

Remarks

Britain's first four-jet bomber, the Valiant is in quantity production for R.A.F. Bomber Command, the contract having been placed before the prototype made its first flight. It is known to be able to carry an atomic bomb.

T.11

DUTY: Advanced trainer. CREW: 2.
POWERED BY: 3,300 lb. thrust D.H. Goblin 3 turbojet.
SPAN: 38 ft. LENGTH: 34 ft. 5 in.
MAX. LOADED WEIGHT: 12,800 lb.
MAX. SPEED: 548 m.p.h.
TYPICAL RANGE: 920 miles at 403 m.p.h. at 40,000 ft.
ARMAMENT: 4×20 mm. cannon.

Recognition Features

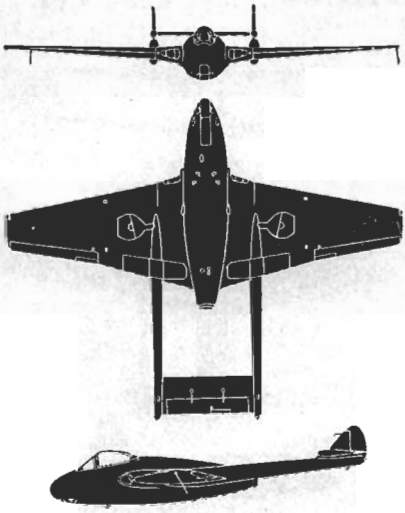
Egg-shaped fuselage, mid-set on straight-tapered wings. Tailplane and two typically-D.H. fins and rudders carried on two slender tail-booms. Compared with Venom, Vampire's fuselage does not project far beyond the wing trailing edge. Its wing trailing edges sweep forward.

Remarks

Vampire FB.5 (silhouette) and tropical FB.9 are single-seat fighters. The NF.10 night fighter is basically the same, but has a longer fuselage forward of the wing, to accommodate radar in the nose and a second crew-member. The Vampire T.11 is similar to the NF.10, but without radar in nose.

VAMPIRE T.11

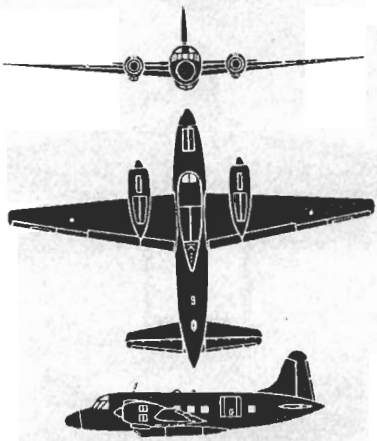
de Havilland Aircraft Co. Ltd.



FB.5

VARSITY T.1

Vickers-Armstrongs Ltd.



DUTY: Aircrew trainer.

CREW: 3 plus 4 pupils.

POWERED BY: 2 × 1,950 h.p. Bristol Hercules 264 piston-engines.

SPAN: 95 ft. 7 in.

LENGTH: 67 ft. 6 in.

LOADED WEIGHT: 37,500 lb.

CRUISING SPEED: 240 m.p.h.

CEILING: 28,700 ft.

ARMAMENT: None.

Recognition Features

Basically similar to Valetta (page 61), but with longer nose containing radar; large pannier containing bomb-aimer's station and bomb-bay under its fuselage; pointed fuselage tail-cone and larger, smoother engine nacelles.

Remarks

Development of the civil Viking and Valetta for general-purpose aircrew training. Only one of series fitted with tricycle undercarriage, necessitating tail-down landing bumper under tail.

NF.20

VENOM and SEA VENOM

de Havilland Aircraft Co. Ltd.

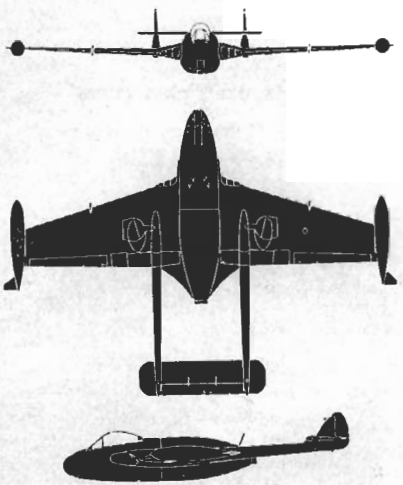
DUTY: Fighter-bomber and night fighter.
CREW: 1 (FB.1); 2 (NF.2 and NF.20)
POWERED BY: 5,000 lb. thrust D.H. Ghost turbojet.
SPAN: 41 ft. 9 in.
LENGTH: 31 ft. 10 in. (FB.1); 35 ft. 3 in. (NF.2 and 20).
ARMAMENT: 4×20 mm. cannon and bombs.
ALL OTHER DATA SECRET.

Recognition Features

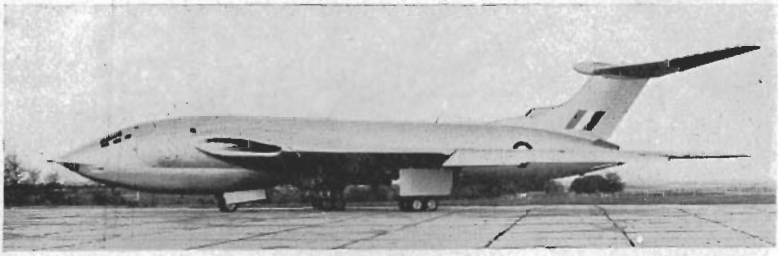
Very similar to Vampire (page 63), but with longer slightly sweptback wings with straight trailing edge and longer rear fuselage. Unlike Vampire, it carries its external fuel tanks centrally at wing-tips.

Remarks

The Venom is a straightforward development of the Vampire, designed to make use of the more powerful Ghost turbojet. The Venom FB.1 is the standard R.A.F. production version. The Venom NF.2 and export NF.51 for Sweden are similar, with lengthened front fuselage, accommodating radar and a second crew-member. The Royal Navy's Sea Venom NF.20 is similar to NF.2, but with arrester hook and Naval equipment.



FB.1



VICTOR B.1

Handley Page Limited

DUTY: Heavy bomber.

POWERED BY: 4 Armstrong Siddeley Sapphire turbojets.

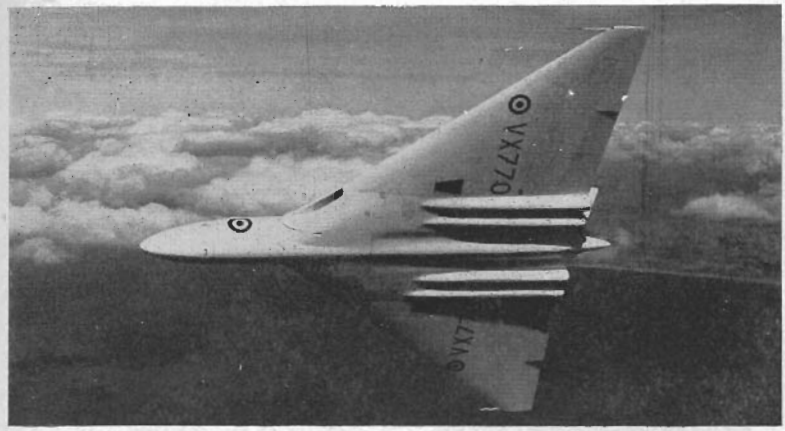
ALL OTHER DATA SECRET.

Recognition Features

Streamlined fuselage with sharply pointed nose and distinctive "chin" under cockpit, even more pronounced than Globemaster. Crescent-shaped, sweptback wings with engines buried in wing roots. Sweptback fin with sweptback tailplane mounted on its tip.

Remarks

Fourth of the post-war British "heavies", featuring the unique Handley Page crescent wing. In production for R.A.F. Bomber Command. Claimed to carry heavy bomb load farther, faster and higher than any other bomber.



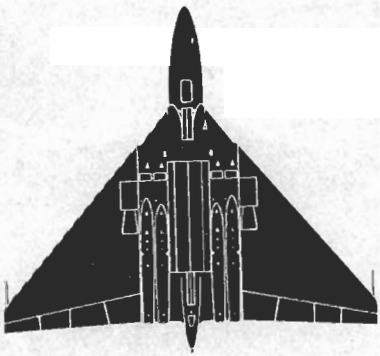
VULCAN B.1

A. V. Roe and Co. Ltd.

DUTY: Heavy bomber.
POWERED BY: 4 Rolls-Royce Avon or Bristol Olympus turbojets.
ALL OTHER DATA SECRET.

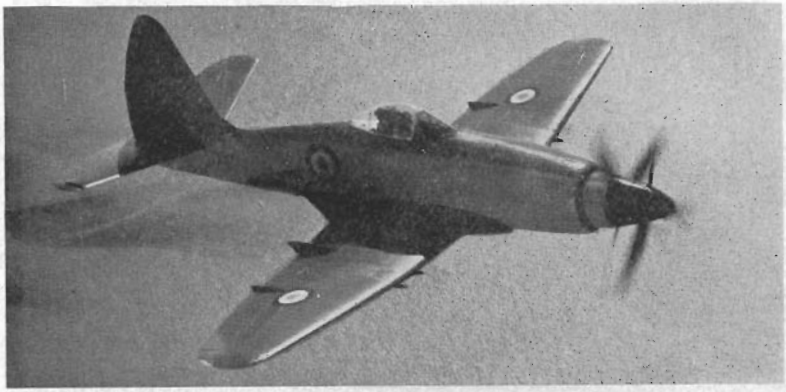
Recognition Features

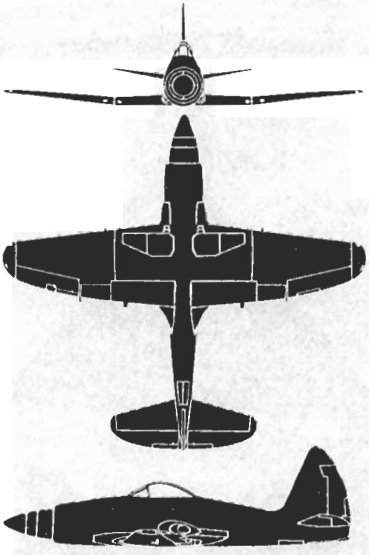
Virtually a scaled-up version of the well-known Avro 707A delta wing research aircraft (page 70). Traditional delta formula, with long, downward-curving fuselage nose, and big sweptback fin and rudder. Four engines buried in wing roots, with prominent tail pipes under trailing edge.



Remarks

With the Victor, one of the most formidable bombers in the world. Designed to carry Britain's atomic bomb at great height and speed for long distances. In production for R.A.F. Bomber Command.





WYVERN S.4

Westland Aircraft Ltd.

DUTY: Torpedo-fighter. CREW: 1.
POWERED BY: Armstrong Siddeley Python propeller-turbine.
SPAN: 44 ft. LENGTH: 42 ft. 3 in.
ARMAMENT: 4×20 mm. cannon, and torpedo, bombs or rockets.
ALL OTHER DATA SECRET.

Recognition Features

Smooth humped fuselage, preceded by a long spinner and followed by an enormous fin and rudder with straight leading edge and elliptical trailing edge. Exhaust pipe each side under cockpit. Wings and dihedral tailplane also have straight leading edges and elliptical trailing edges.

Remarks

The piston-engined Wyvern TF.1 is no longer flying, and the first aircraft in service were pre-production Python-engined TF.2's. Production S.4's have cutback engine cowling and other minor differences.

Prototype & Research Aircraft, Etc.

IN addition to the major types of military aircraft described in the preceding 68 pages, there are several others of lesser importance which observers and "spotters" must know if they are to be really efficient in their work or hobby. These are illustrated on the next eight pages, and include prototype and research aircraft, types in service in small or diminishing numbers, and aircraft based overseas which make fairly frequent visits to the British Isles.

A. V. Roe and Co. Ltd.

Span: 120 ft.
Weight: 82,000 lb.
Max. Speed: 439 m.p.h.

Six of these aircraft have been built for research, each powered by four 5,000 lb. thrust Rolls-Royce Nene 5 and 6 turbojets. The Ashton 1 is used for equipment testing at high altitude and the Ashton 2 for air conditioning tests; three Ashton 3's and the Ashton 4 are used primarily in development of bomb-aiming equipment and techniques.

ASHTON

A. V. Roe and Co. Ltd.

Span: 40 ft.
Weight: 8,213 lb.
Max. Speed: 297 m.p.h.

Seventeen of these aircraft have gone into service as gunnery trainers with the R.A.F., principally at the Flying College, Manby. The type seats two side-by-side, and has 1,280 h.p. Rolls-Royce Merlin 35 piston-engine. A machine gun is mounted in one wing and rockets can be carried beneath the wings.

ATHENA

Auster Aircraft Ltd.

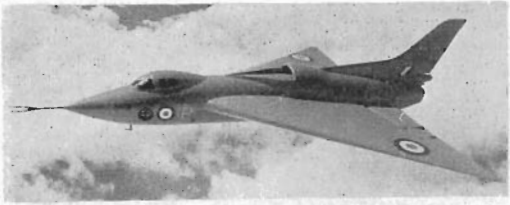
Span: 37 ft.
Weight: 2,600 lb.
Speed: 105 m.p.h.

This novel little monoplane has been built by Auster Aircraft as a private venture, and has been evaluated by the British Army. It features a hinged rear fuselage door to permit rapid loading of freight, and has a 180 h.p. Cirrus Bombardier 703 engine.

B.4 AMBULANCE/FREIGHTER

(The Aeroplane

AVRO 707B



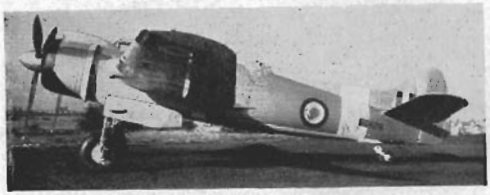
A. V. Roe and Co. Ltd.

Span: 33 ft.

REMARKS

Several of these small delta-wing aircraft have been or are being built in connection with Avro's delta-wing research programme, each powered by a single Rolls-Royce Derwent turbojet. The Avro 707A has wing-root intakes and the Avro 707B a dorsal intake; both are single seaters. The Avro 707C trainer seats two side-by-side.

BEAUFIGHTER T.T. Mk. 10



The Bristol Aeroplane Co. Ltd.

Span: 57 ft 10 in.
Weight: 25,400 lb.
Max. Speed: 320 m.p.h.

REMARKS

The famous Beaufighter, outstandingly successful during the War as a fighter and torpedo-carrier, is now relegated to target-towing for air-to-air firing practice. A large winch is fitted to the starboard side of the fuselage. Engines are two 1,600 h.p. Bristol Hercules 17's.

BIRD-DOG, L-19A

(*Flight*

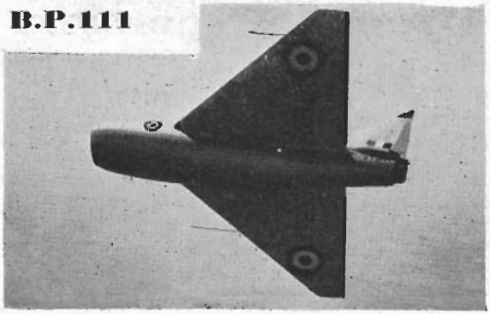
Cessna Aircraft Co. Ltd.

Span: 36 ft.
Weight: 2,430 lb.
Max. Speed: 130 m.p.h.

REMARKS

As a result of a design competition in 1950 for a liaison and observation/reconnaissance aeroplane for U.S. Army Field Forces, the Cessna L-19 went into production and is now in service in Europe. It is occasionally seen in England. The engine is a 213 h.p. Continental O-470-11, and the Bird-Dog seats two.

B.P.111



Boulton Paul Aircraft Ltd.

Span: 33 ft. 6 in.

REMARKS

One of several delta aircraft built under the Ministry of Supply research programme, the P.111 is the most powerful and fastest of the single-seat British deltas. A Rolls-Royce Nene urbojet provides the power.

BUCKMASTER

The Bristol Aeroplane Co. Ltd.

Span: 71 ft. 10 in.
Weight: 33,651 lb.
Max. Speed: 352 m.p.h.

REMARKS

In 1945, when large-scale production of the Buckingham bomber was envisaged, the Buckmaster was designed as a trainer using as many Buckingham components as possible. Despite cancellation of Buckingham production, a few Buckmasters were completed and are still in service.

D.H.110

The de Havilland Aircraft Co. Ltd.

REMARKS

Designed to meet a rigorous specification for an all-weather fighter, the D.H.110 has proved itself capable of full supersonic flight. It carries pilot in an offset cockpit, and radar operator in the fuselage. The combination of sweptback wing and twin booms makes the D.H.110, with its two Rolls-Royce Avons, unmistakable.

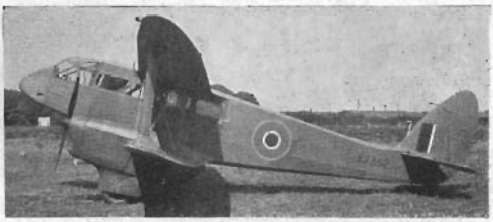
DOMINIE

The de Havilland Aircraft Co. Ltd.

Span: 48 ft.
Weight: 5,850 lb.
Max. Speed: 157 m.p.h.

REMARKS

Designed before the War as a passenger transport, the Dominie was built in quantity for the R.A.F. during the War as a flying classroom. A few are still in use with the R.A.F. and the R.N. for communications duties, powered by de Havilland Gipsy Queen III engines.



EXPEDITOR

Beech Aircraft Corp.

Span: 47 ft. 8 in.
Weight: 7,500 lb.
Max. Speed: 225 m.p.h.

REMARKS

Still in production for the R.C.A.F., the Expeditor is also in service in some numbers with the U.S.A.F. (C-45) and the U.S. Navy (JRB). Examples of the latter may be seen in this country. Powered by two Wasp Junior R-985 piston-engines, the Expeditor carries 6 passengers.

FORTRESS

The Boeing Airplane Company

Span: 103 ft 9 in.
Weight: 49,500 lb.
Max. Speed: 295 m.p.h.

REMARKS

Several versions of the ubiquitous Flying Fortress are still in service and are occasionally to be seen in this country. They include the B-17H with airborne lifeboat (illustrated): the CB-17G V.I.P. transport and the PB-1W radar early-warning aircraft of the U.S.N.

HALIFAX

Handley Page Ltd.

Span: 104 ft.
Weight: 65,000 lb.
Max. Speed: 270 m.p.h.

REMARKS

A few Halifaxes remain in service with the R.A.F., principally with the Airborne Forces as glider-tugs and supply droppers. This version is the A.Mk.9 with four Bristol Hercules 16 engines, and is able to carry 16 paratroops.

HARVARD T. 2

North American Aviation Inc.

Span: 42 ft.
Weight: 5,300 lb.
Max. Speed: 205 m.p.h.

REMARKS

The Harvard has been standard training equipment in the R.A.F. since the start of World War II. Some are still in service.

INVADER

Douglas Aircraft Co. Inc.

Span: 70 ft.
Weight: 27,000 lb.
Max. Speed: 359 m.p.h.

REMARKS

A late wartime production for the U.S.A.F., the B-26 (previously A-26) Invader light bomber has been used extensively in Korea and equips several units of the U.S.A.F. in Germany. Invaders are frequent visitors to this country, flying from the European mainland.

The Glenn L. Martin Company

Span: 118 ft.
Weight: 56,000 lb.
Max. Speed: over 200 m.p.h.

REMARKS

Although now superseded in production by later types, the Mariner PBM-5 flying-boat and PBM-5A amphibian still equip operational squadrons of the U.S. Navy and are occasional visitors to these shores. Distinguished by its gull wing layout and inward-leaning fins and rudders, the Mariner has two P. & W. R-2800-34 piston-engines.

MARINER PBM-5

["Flight"

Miles Aircraft Ltd.

Span: 39 ft.
Weight: 6,600 lb.
Max. Speed: 237 m.p.h.

REMARKS

Derived from the Master trainer, the two-seat Martinet became the standard R.A.F. target-tug during the War. A few are still in use for the same purpose and for general duties. The engine is a Bristol Mercury 25 or 30 radial.

MARTINET

Hawker Aircraft Ltd.

Span: 31 ft. 6 in.

REMARKS

The two Hawker P.1052 experimental monoplanes were the first Hawker jets with swept-back wings, being an intermediate stage in the development of the Hunter (page 26). The sole remaining P.1052 has been "navalised" by the addition of an arrester hook and other naval equipment and has been successfully deck-landed.

HAWKER P.1052

["Flight"

Hawker Aircraft Ltd.

Span: 36 ft. 6 in.

REMARKS

This experimental aircraft originated as the P.1040, Hawker's first jet aircraft, with straight wings. It has now been fitted with an Armstrong Siddeley Snarler liquid rocket motor for test-flying, and is the first British military aeroplane so fitted. A Rolls-Royce Nene provides the normal power.

HAWKER P.1072

PROCTOR

Percival Aircraft Ltd.

Span: 39 ft. 6 in.
Weight: 3,500 lb.
Max. Speed: 160 m.p.h.

REMARKS

Many hundreds of Proctors were built during the War for use by the R.A.F. as trainers and for communications duties, and a few are still in service in the latter category. Most now flying are Proctor 4's, plus one or two Proctor 5's, both with a 208 h.p. D.H. Gipsy Queen II engine.

S.A/4

Short Brothers and Harland Ltd.

Span: 109 ft.

REMARKS

First flown in 1951, the Short S.A.4 "insurance" four-jet bomber was developed along orthodox lines, simultaneously with the more radical designs now going into production for the R.A.F. The two prototypes are being used as engine and equipment test-beds. Each has 4 Avons at present.

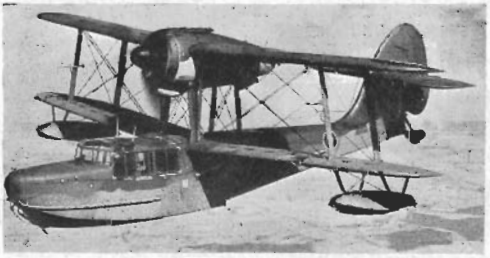
S.B. 5

Short Brothers and Harland Ltd.

REMARKS

This latest British research aircraft was built to study the behaviour of sweptback wings at low speeds. It has a Rolls-Royce Derwent engine, and the sweepback of its wings can be adjusted on the ground, to a maximum of 50 degrees.

SEA OTTER



Vickers-Armstrongs Ltd. (Supermarine Division)

Span: 46 ft.
Weight: 9,200 lb.
Max. Speed: 150 m.p.h.

REMARKS

Developed from the Walrus shortly before the War, the Sea Otter is unmistakable, with its boat hull, hung beneath biplane wings, and big radial engine nacelle in the top wing. Produced for air-sea rescue duties, Sea Otters are still in service in small numbers at R.N.A.S. stations.

SENTINEL L-5B

Stinson Division, Consolidated Vultee Aircraft Corp.

Span: 34 ft.
Weight: 2,158 lb.
Max. Speed: 129 m.p.h.

REMARKS
This light and outstandingly manoeuvrable liaison monoplane, built for the U.S.A.F. in quantity during the War, has remained in small-scale service since, and has now re-appeared in Britain in small numbers. It is used as a station "hack" by U.S.A.F. units stationed in this country.

S.R.A.1

Saunders-Roe Ltd.

Span: 46 ft.
Weight: 16,255 lb.
Max. Speed: 512 m.p.h.

REMARKS
The World's first pure-jet flying-boat fighter, the S.R.A.1 provided much useful data on this class of aircraft. One of three prototypes survives, powered by two Metrovick Beryl 1 turbojets, and may occasionally be seen in the air.

SUPERMARINE 508

Vickers-Armstrongs Ltd. (Supermarine Division).

REMARKS
To meet a rigorous Naval specification Supermarine designed and built this twin-Avon single-seat fighter, probably the most powerful aeroplane in its class ever to land on an aircraft carrier. Two prototypes are flying; production aircraft will have sweptback wings and orthodox tail unit.

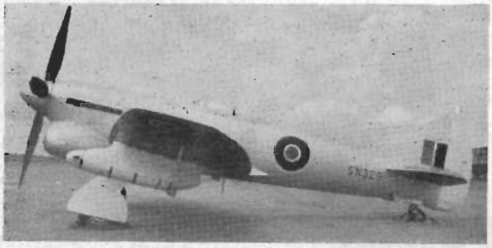
SUPERMARINE 510

Vickers-Armstrongs Ltd. (Supermarine Division).

Span: 31 ft. 8 in.

REMARKS
This "all-swept" single-seat monoplane was the first stage in the development of the current Swift fighter (page 57). Powered by a single Rolls-Royce Nene engine, it has the tail-wheel undercarriage arrangement of the Attacker. Deck-landing trials have also been made with the sole prototype.

TEMPEST T.T. 5



Hawker Aircraft Ltd.

Span: 41 ft.
Weight: 11,400 lb.
Max. Speed: 435 m.p.h.

REMARKS

Like many famous war-time operational aircraft, the Tempest is ending its useful life as a target tug. Many Tempest 5's and a few Tempest 6's with a later version of the Napier Sabre engine, have been converted for this duty. The radial-engined Tempest F.B.2 fighter is no longer in service.

TIGER MOTH

("*Flight*"

The de Havilland Aircraft Co. Ltd.

Span: 29 ft. 4 in.
Weight: 1,825 lb.
Max. Speed: 109 m.p.h.

REMARKS

A few Tiger Moths—the World's best-known trainer—are still in service with the R.A.F. and, principally, the R.A.F.V.R., alongside their Chipmunk cousins. Powered by a 130 h.p. de Havilland Gipsy Major engine, the Tiger Moth provides primary flying training and is also used by many civil flying clubs and private owners.

WELLINGTON

Vickers-Armstrongs Ltd.

Span: 86 ft. 2 in.
Weight: 29,500 lb.
Max. Speed: 255 m.p.h.

REMARKS

Introduction of new flying classroom trainers is leading to the gradual withdrawal of the few remaining Wellington trainers. These include the T.Mk.10 navigation trainer and the T.Mk.18 radar operator trainer, with nose radome. Both versions are powered by two Bristol Hercules engines.

YORK

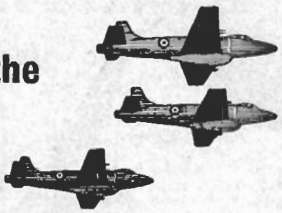
A. V. Roe and Co. Ltd.

Span: 102 ft.
Weight: 71,000 lb.
Max. Speed: 310 m.p.h.

REMARKS

Developed during the War as the transport counterpart of the Lancaster bomber, with a new fuselage, the York was built in quantity for the R.A.F. and as an interim transport for commercial use. Many of the R.A.F. Transport Command Yorks have recently been sold to commercial operators, but some are still flying in military colours.

FACTS about Flying in the ROYAL NAVY



A NAVAL JOB

The Officer Pilots and Observers who fly in Naval Aviation are first and foremost Naval Officers. They are taught to fly by the Navy : they fly Naval planes designed and built for the Navy and they keep up their seamanship duties as well. They are officers in the world's finest fighting service.

A VITAL JOB

The aircraft carrier is now the spearhead of the Royal Navy. Its long-range strike aircraft, modern jet fighters and powerful anti-submarine aircraft together make up the Navy's hardest-hitting weapons of attack and defence.

AN ADVENTUROUS JOB

Flying has thrills in its own right. When you combine it with life at sea, it becomes about the best career an active man can have — a job he can be proud to do. Naval aircrews do their flying all over the world, with generous leave and opportunities to see foreign lands.

A WELL-PAID JOB

Pay compares well with a professional career in civilian life. A Lieutenant, married and over 25 years of age, can earn over £1,000 p.a. An 8-year short-service commission brings a tax-free gratuity of £1,500, and one in every five officers is offered a permanent commission.

YOU can fly as an officer in Naval Aviation during National Service or on Short Service Commission. You should be between 17 and 24 years of age, physically fit, with a School Certificate that includes a pass in Maths. or a General Certificate of Education with a pass in English, Maths. and one optional subject. Post the coupon below for full details.

TO Admiralty, C.W. Branch (CP/137), Queen Anne's Mansions, London, S.W.1. Please send me details without obligation of National Service/Short Service (✓ whichever applies).

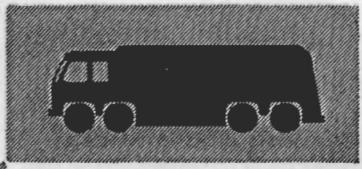
Name .....

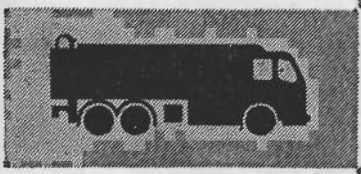
Address .....

..... *Age*.....

AIRCRAFT FUELLERS

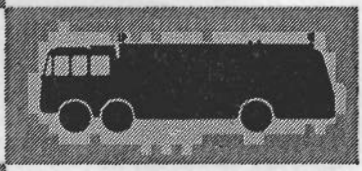
TYNE Capacity 4,000 Imperial gallons; max. delivery rate per hose, 180 g.p.m. Leyland chassis Among the largest fuellers in the world; used for servicing trans-Atlantic airliners.

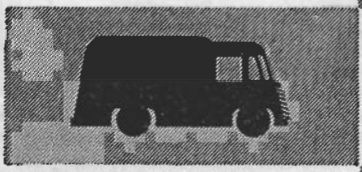




DORSET Capacity 3,000 Imperial gallons; max. delivery rate per hose, 200 g.p.m. Leyland chassis. Designed for underwing fuelling of the new D.H. Comets with aviation turbine fuel.

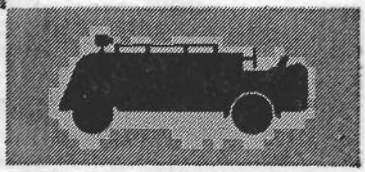
STEER Capacity 2,200 Imperial gallons; max. delivery rate per hose, 150 g.p.m; Leyland chassis. Used at London Airport only for servicing medium-sized aircraft.





TWEED Capacity 1,200 Imperial gallons; max. delivery rate per hose, 60/70 g.p.m. Ford chassis. Used for servicing aircraft covering moderate distances on European routes.

T. B. MOBILE Capacity 500 Imperial gallons; max. delivery rate per hose, 30/40 g.p.m. Special 3-wheel chassis. Stationed on the smaller airfields for servicing private and club aircraft.



At all the major airfields in Britain you can see one or more of these different types of fuellers operating Shell and BP Aviation Service. International airlines, charter companies and private owners alike know they can always expect quick, efficient service from the friendly crews of these Service Vehicles.

SHELL AND BP AVIATION SERVICE

Published in England by Ian Allan Ltd., Craven House, Hampton Court, Surrey, and printed by The Falstaff Press, 316, Vauxhall Bridge Road, London S.W.1 at Sawston Works near Cambridge.