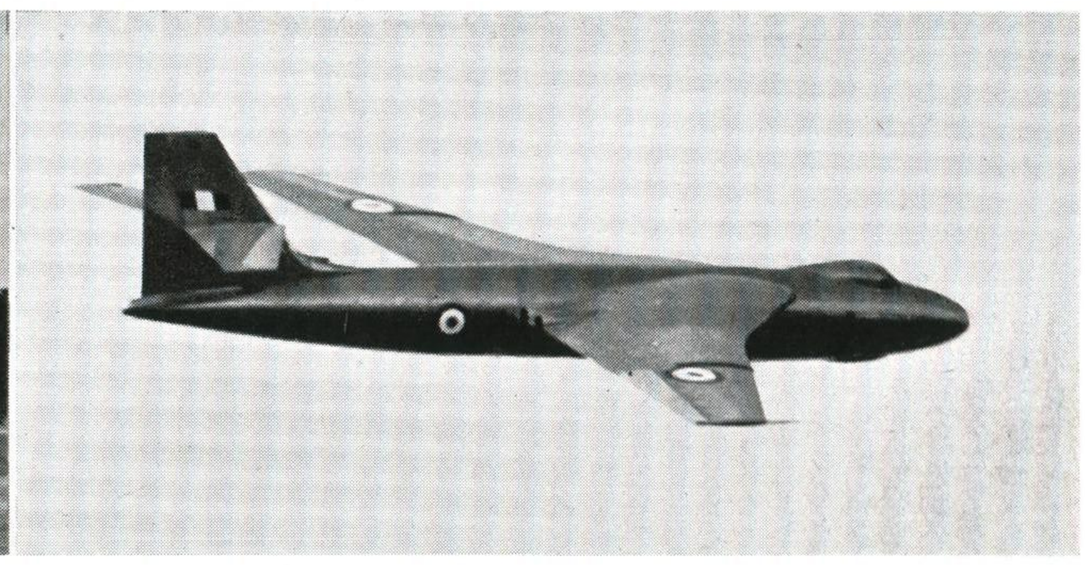
JOINT SERVICES

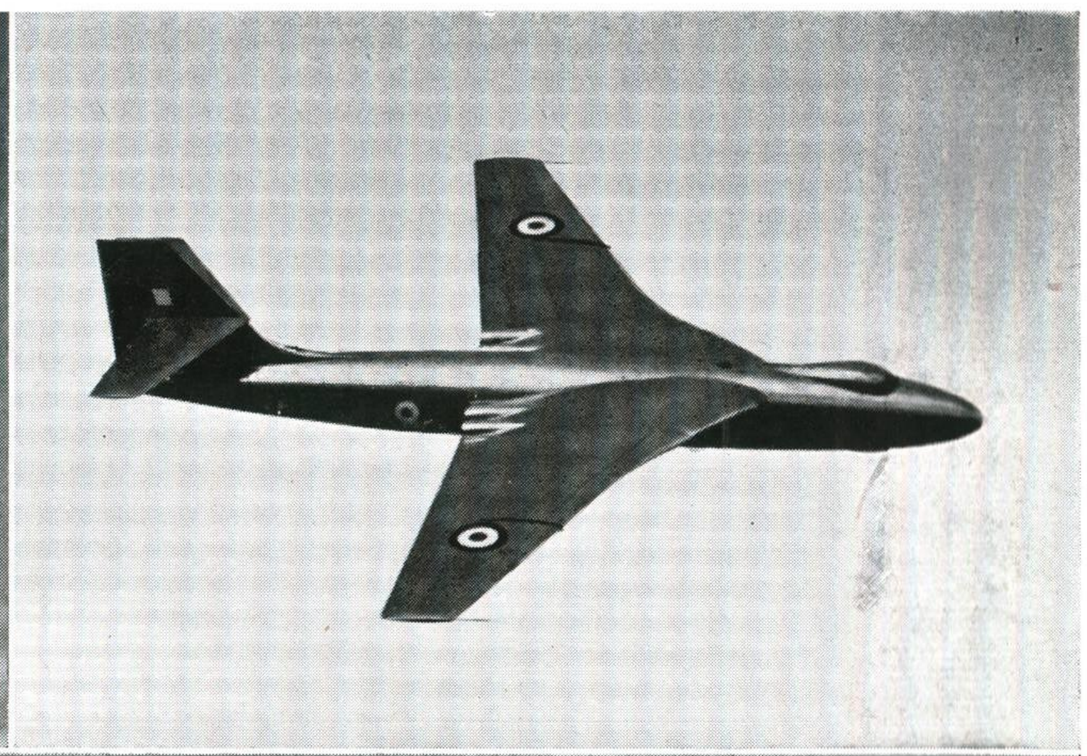
RECOGNITION *Journal*

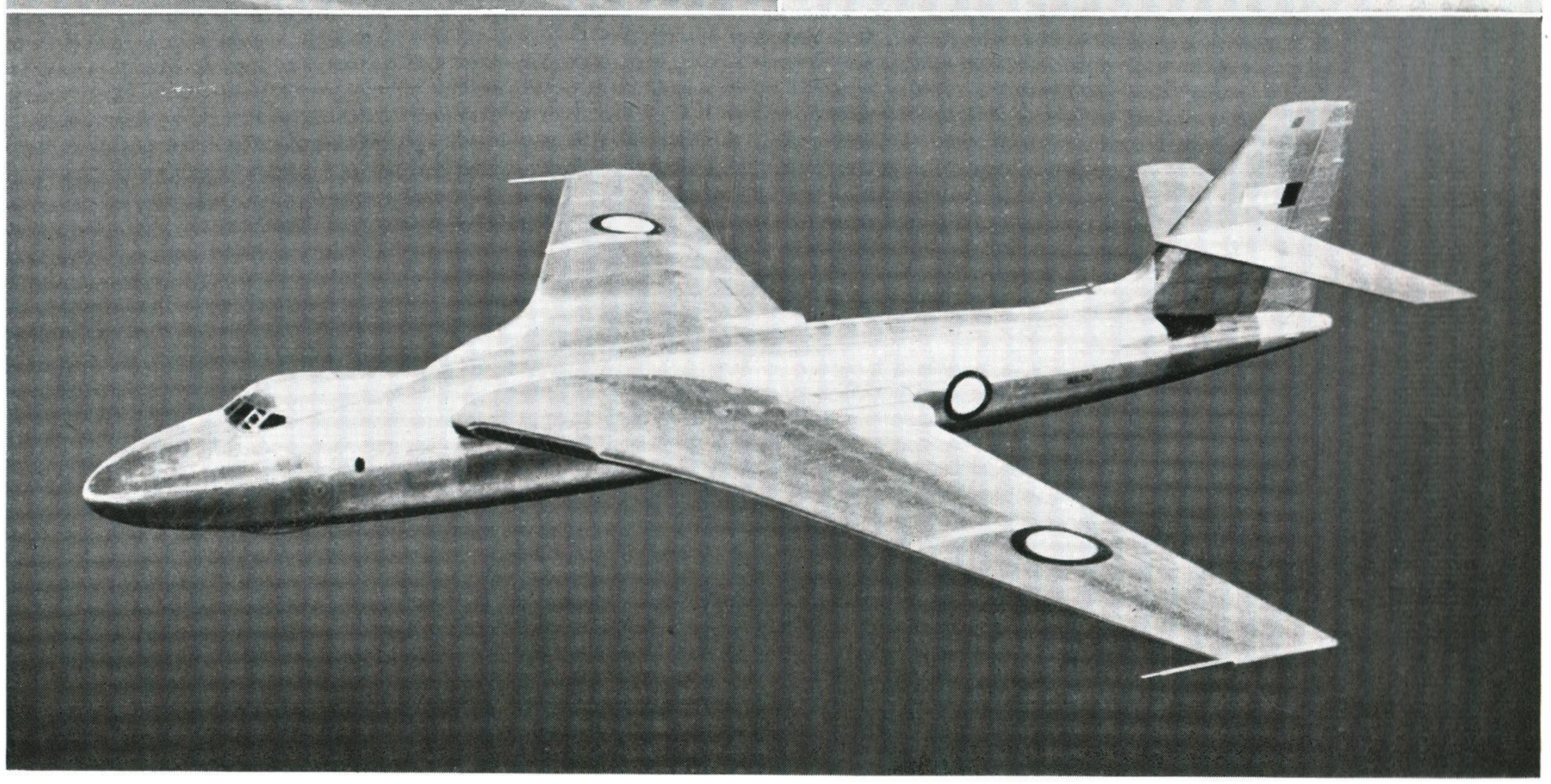
Vol. 6 NOVEMBER 1951 No. 11

VIEWS OF THE VALIANT



Visually a "single" type (comparable with the Comet) the Vickers Valiant illustrates, perhaps, the latest thinking in jet aeroplane shape. It has a sleek, fighter-like body from which "droop" the very large swept wings, angular cut and "scimitar-like". These great wings are the dominant feature in almost all views. The large sharply-angled fin, leaning slightly backwards, carries a swept, angular tailplane halfway up. The Avon engines of the Valiant are buried in the swollen wing-root and exhaust by four comparatively small jet-pipes close in to the fuselage. No details of the Valiant's performance are yet available.





NOVEMBER 1951 Vol. 6. No. 11

JOINT SERVICES

RECOGNITION JOURNAL

The *Joint Services Recognition Journal* is a monthly publication prepared and produced by the Assistant Chief of Air Staff (Training), Air Ministry, in collaboration with the Ministry of Supply—Controller of Supplies (Air)—Air Technical Publications. Contributions and correspondence should be addressed to the Editor, *Joint Services Recognition Journal*, Air Ministry, Room 213, Metropole Buildings, Northumberland Avenue, W.C.2.

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HINTS FOR INSTRUCTORS

SINCE we introduced the " tutor " and " teacher " type presentations into the *Journal* about a year ago, some interesting facts have " come out in the wash ", so to say. We thought instructors would like to know about them, so that where possible, improvements in training efficiency can be made.

First of All

We must repeat that these devices are made more effective by the additions of further selections of shapes for identification, to suit local requirements.

Another thing. It is not, apparently, fully appreciated, that these presentations are not designed to test previous experience ; they are designed to teach ; to give fresh experience of shapes. To deny the use of the key shapes and make it into a test is to defeat that object. Nor are they tests of speed. Care and accuracy in identification are much more important here than speed.

A Point of Importance

Procedure is important. The most valuable experiences are gained if the student lists his results on paper and checks them over *afterwards* with the solutions or, better still, puts himself in someone else's hands. Skimming the object, glancing at the key and going on to the solutions for each one in turn, encourages guessing and again defeats the object. When further illustrations are added the instructor can, of course, retain the solutions ; the student being required simply to hand in a complete paper for the instructor to check. In this way, there is never any question of the student not giving each shape the fullest possible " going over " in order to identify it.

Cheating

Although each shape should be identified by making the eye rove over all of it, in practice it has been found that many students " count the windows " or identify the shape by the pattern of the radio or radar antennae, pitot heads, etc.—an impossibility in aircraft recognition " in the field ". We are taking steps to meet this problem in future editions by omitting such unimportant minutia on the silhouette and removing certain of the white lines. In this way, the student's attention will be forced more on to the shapes that matter and not be attracted—or distracted—by what is unimportant to practical recognition.

A Few General Points

The flexibility of this training device makes it useful not only in class but to the individual who has the odd ten or twenty minutes to spare—for example, between flights, on the gun-site, etc. It is also a very good intelligence and aptitude guide for prospective spotters : those likely to make good spotters will soon " catch-on " to the idea and derive benefit from it. The converse also applies.

We shall be pleased to hear of any further points aimed at improving the teaching efficiency of these presentations.

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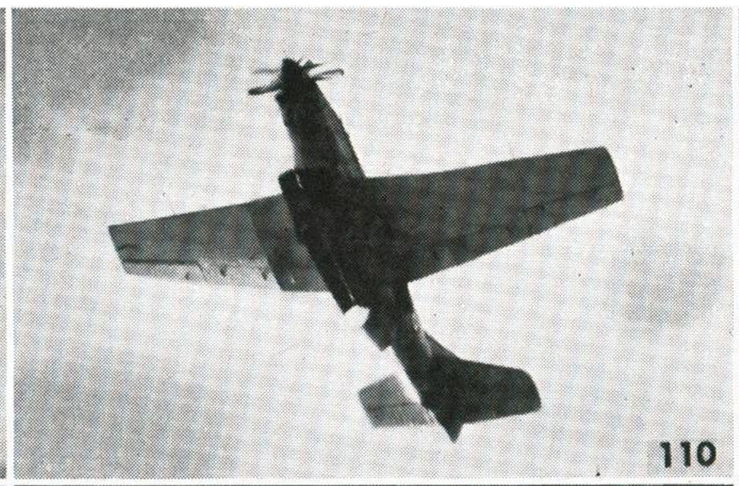
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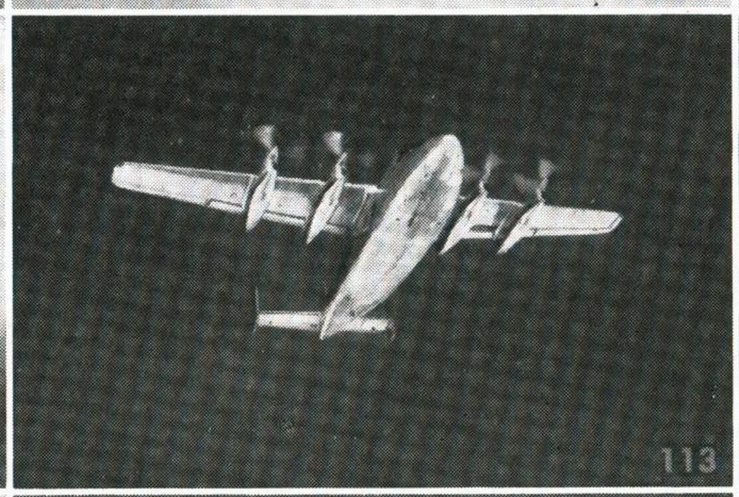
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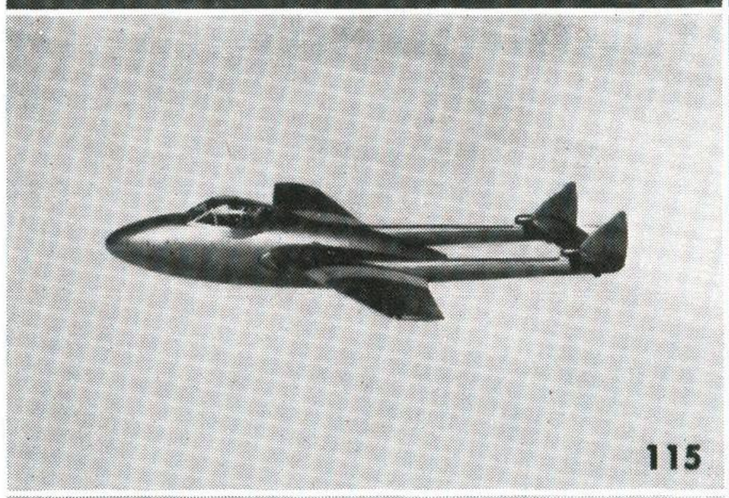
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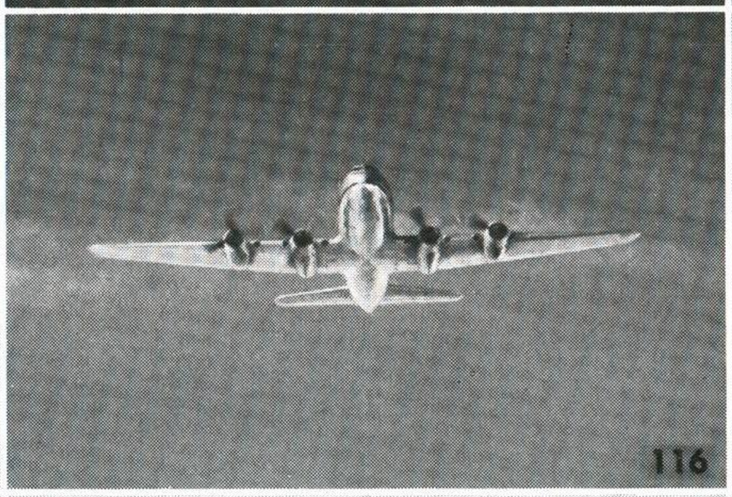
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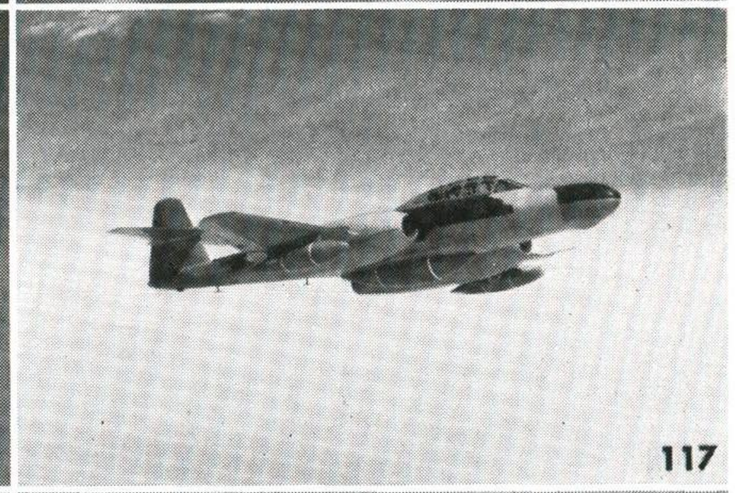
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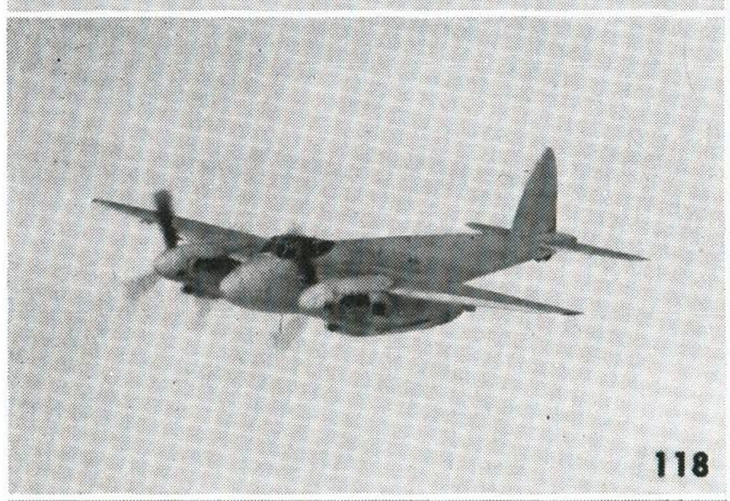
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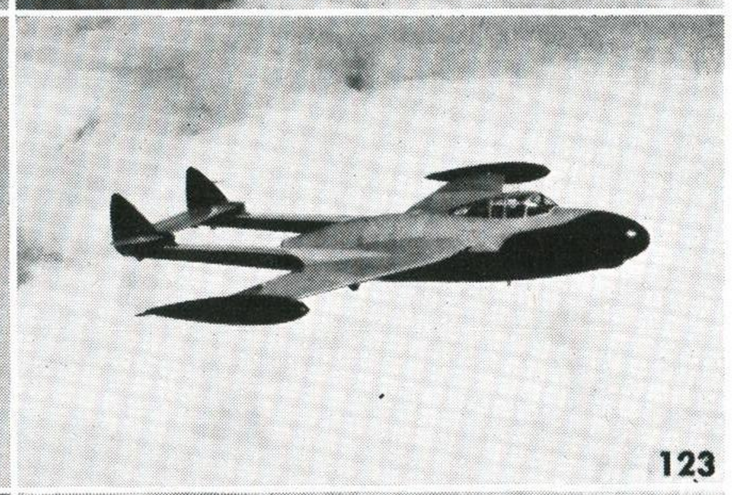
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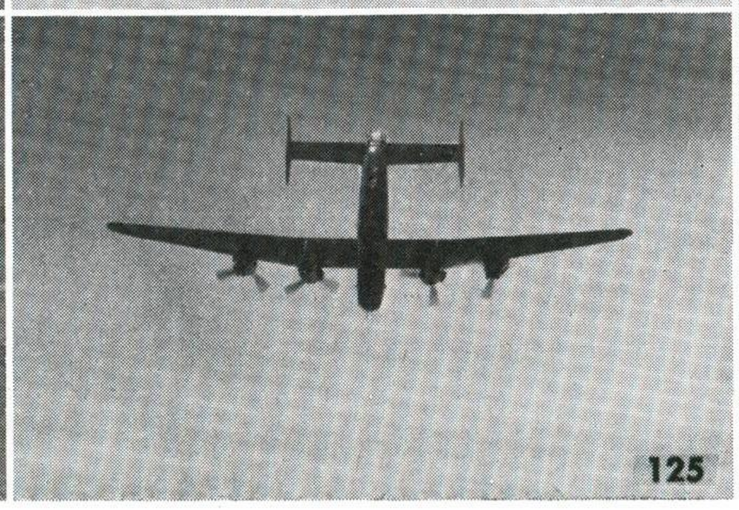
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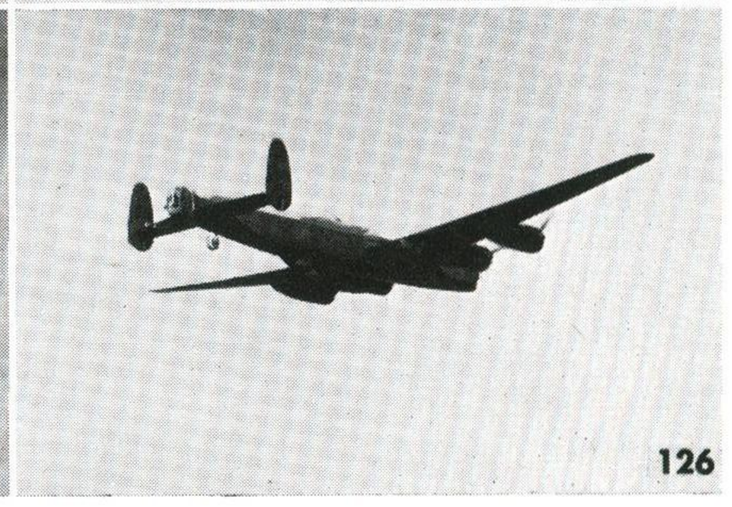
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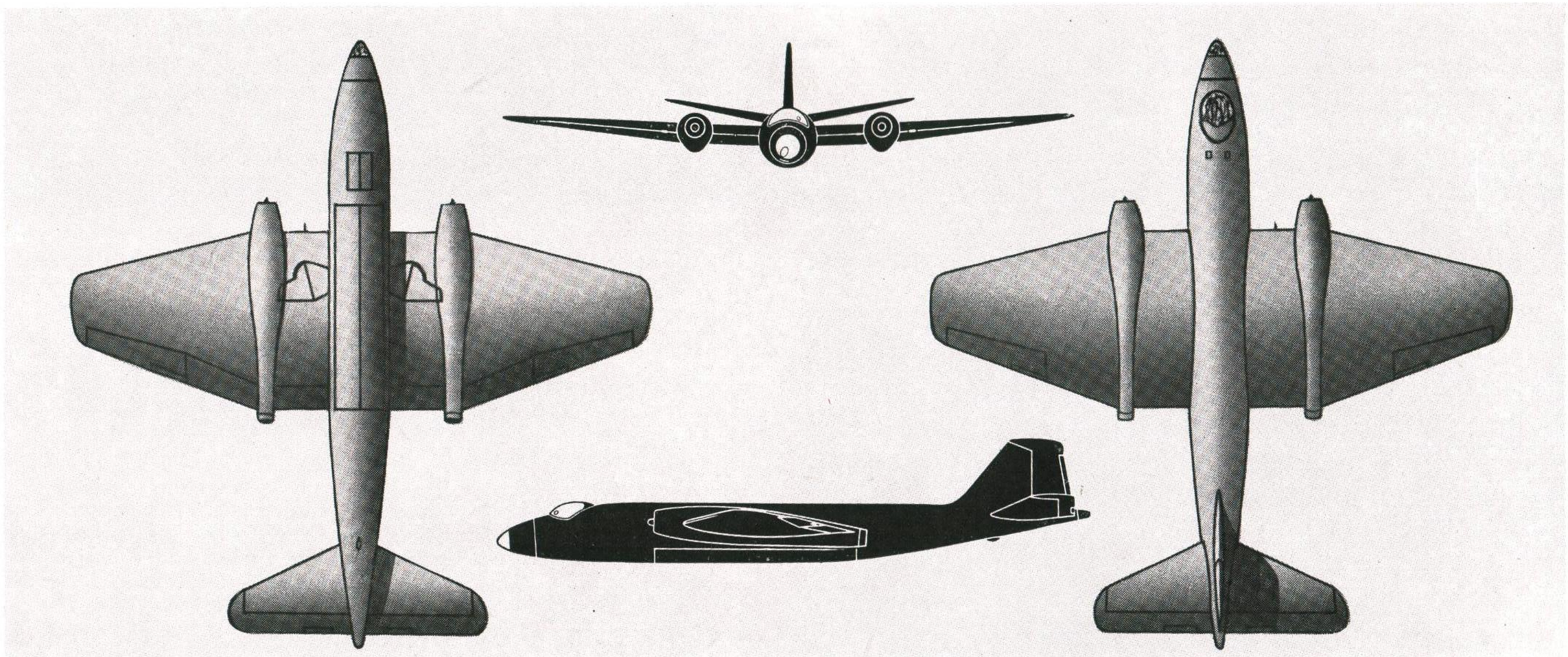
ELEMENTARY SPOTTING



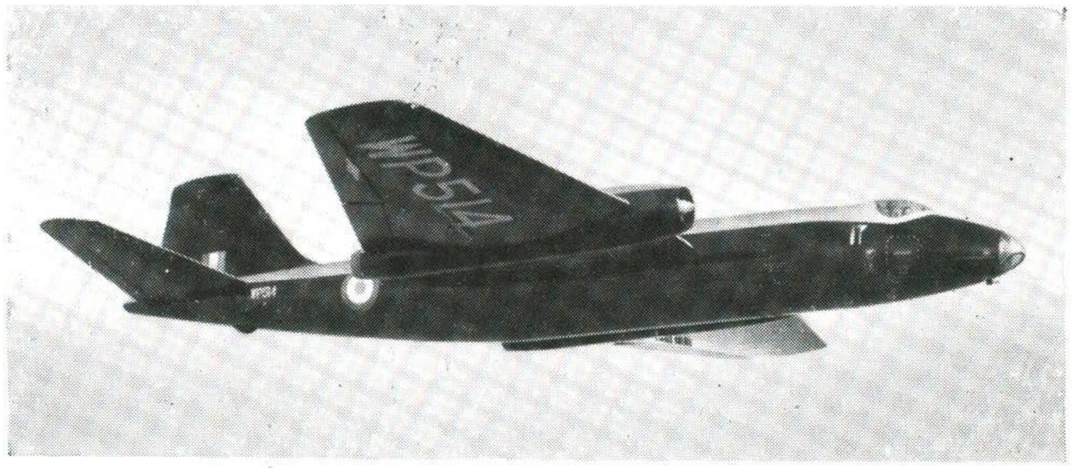
CHARACTER STUDY—THE CANBERRA

THE ENGLISH ELECTRIC CANBERRA is one of the sleekest and most graceful aircraft ever built. Furthermore it has a peculiar way of seeming to slide through the air " with the greatest of ease," with almost a floating sense about it.

The chief character of the Canberra is stamped on it by the wings—wings of exceptional low aspect ratio which strike the eye from nearly every angle except side-on views. The great centre section with straight leading and trailing edges gives way, outboard of the engines, to pronounced taper on both edges, ending in broad and blunt rounded tips. The engines themselves are quite dwarfed by the great spread of wing, but are distinctive tapering spindles projecting only a little in front and less behind. These engines form slender humps on both top and underside of the wings.

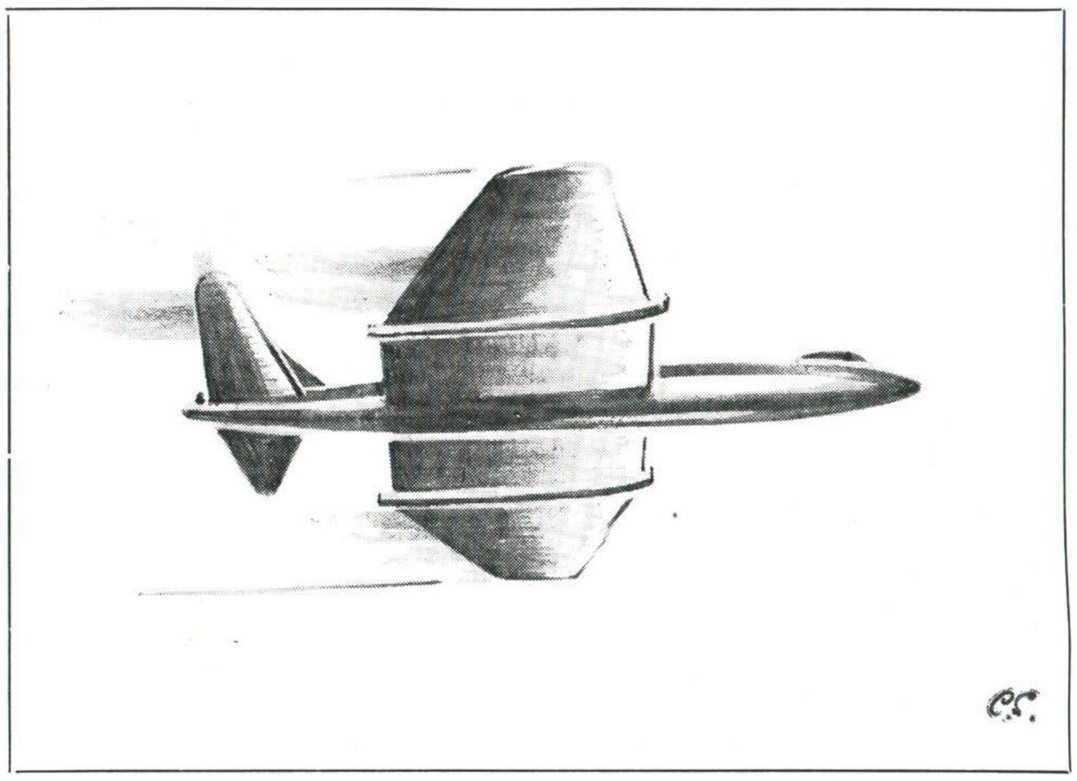
The fuselage is a great circular-sectioned body with a smooth (not very sharp) nose and a long straight top line. On the underside there is a straight line nearly to the trailing edge of the wing, then an angle and another straight line right up to the tail cone. As everywhere in this aircraft the lines are clean and bold.

The tail unit of the Canberra is very distinctive. There is a broad dihedral tailplane with sharply tapered leading edge and straight trailing edge, and the tips are " round-pointed ". The fin and rudder combine is low broad and flat-topped (optically), with the strong diagonal line of the fin meeting the dead level of the fuselage top.



The Canberra is a machine of broad surfaces and bold shapes, shapes carried along by the smooth, slippery and rotund fuselage and welded into a fine visual unity.

The character of the Canberra is set by the wings . . .



The Canberra first flew in 1949, and there are a number of variants. Basic dimensions are :

Span ; 64 ft.

Length : 65 ft. 6 ins.

Engines : 2 ROLLS-ROYCE AVON TURBOJETS.

Crew : THREE.

Function : BOMBER.

Maker : ENGLISH ELECTRIC.

C. H. GIBBS-SMITH.

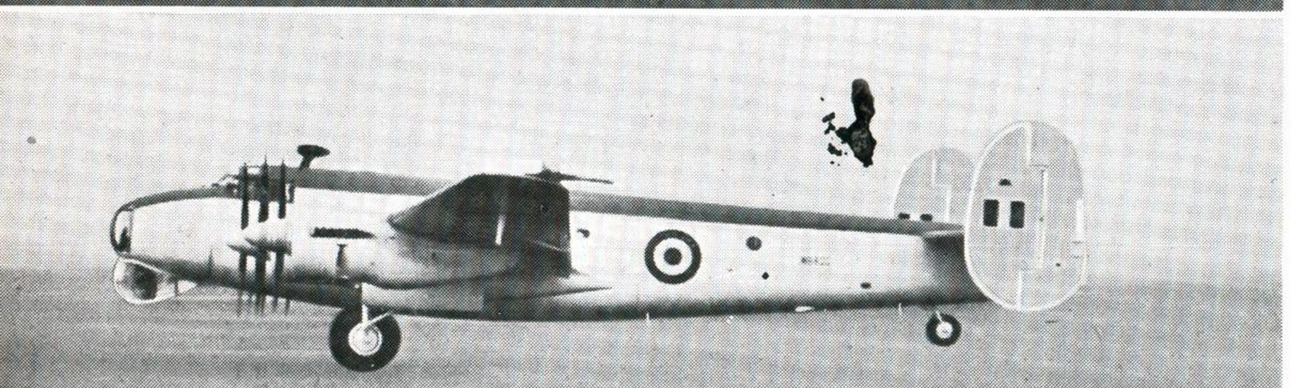
PROVOST T MK. 1

HAWKER P.1052

SEA VENOM NF MK. 20

VAMPIRE TRAINER

CANBERRA PR MK. 3



SHACKLETON MR MK. 1

UNIVERSAL FREIGHTER

HAWKER P.1067

S.B.A.C. (195

Provost T Mk. 1 has been adopted as a two-seat basic trainer for the R.A.F. Note the fixed undercarriage, large forward set fin and rudder and " glasshouse " cockpit canopy. *Engine:* Leonides, radial. **Span : 35 ft. 2 ins.**

Hawker P.1052 is a prototype high-speed single-seat swept-wing naval fighter. It is the immediate development of the Seahawk. Wing is swept but the tailplane is not. *Engine:* Nene. **Span : 31 ft. 6 ins.**

Sea Venom NF Mk. 20 is in production for the Navy as an all-weather two-seat fighter. It is also on order for Australia and France. The Sea Venom has a nose-up attitude and an arrester hook and fairing which almost threatens to hook the tailplane. *Engine:* Ghost. **Span : 41 ft. 9 ins.**

Vampire Trainer (DH.115) two-seat side-by-side trainer uses the same wings as the Mk.5. Main distinguishing feature from other marks is pointed nose nacelle. *Engine:* Goblin 3. **Span : 38 ft.**

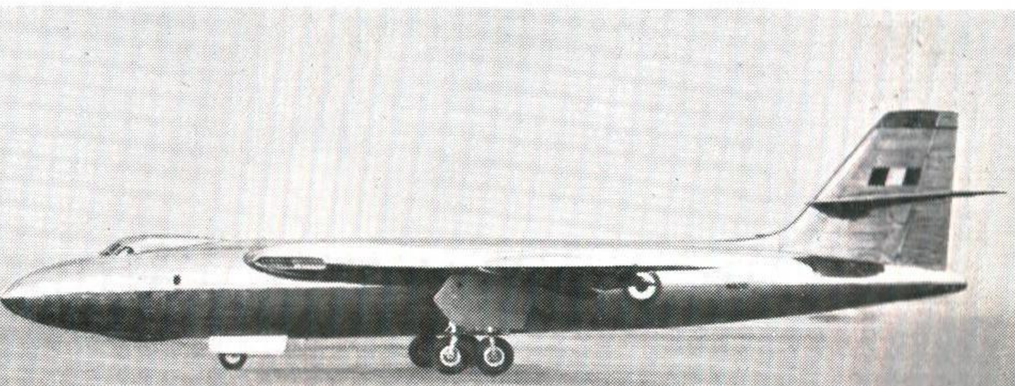
Canberra PR Mk. 3 high-speed, high-altitude photo-reconnaissance version of the B Mk.2 is in production for the R.A.F. It has a fore-shortened bomb bay and a full " blown " perspex nose cone. *Engines :* Two Avons. **Span : 64 ft.**

Shackleton MR Mk. 1 is in Service with the R.A.F. as a long-range maritime reconnaissance bomber. The only armament at the moment is carried in the dorsal turret. The Shackleton has a crew of ten. *Engines :* Four Griffon 67's driving contra-props. **Span : 120 ft.**

Universal Freighter can carry a bus, heavy lorries or other similar cargo. There is only one prototype so far, powered by Hercules 261 engines. The Mark 2 will have Centaurus. The Universal Freighter now has bogie type main wheels with automatic brakes coupled to reversible pitch airscrews for short " pull-ups " in confined areas. **Span : 162 ft.**

Hawker P.1067 is going into production for the R.A.F. Speeds have been estimated unofficially as over 700 m.p.h. The 1067 features a very long jet-pipe and a " spine " fairing which visually connects cockpit and fin. An ejector seat is fitted. *Engine :* Avon. **Span : 33 ft. 8 ins.**

Vickers Valiant jet bomber is also going into production for the R.A.F. The Valiant is a high wing " swept " type with engines buried in the wing roots. *Engines :* Four Avons. **Span : 114 ft. 4 ins.**



VICKERS VALIANT

SUPERMARINE 535

AUSTER S

1) SIDELINES

Supermarine 535 is the prototype interim version of the Swift which is now in production for the R.A.F. Visually the two types are nearly identical. The 535 has a Nene engine and the Swift an Avon. An important feature distinguishing 535 and Swift from other swept-jets, is the break in wing trailing edge taper. **Span : 31 ft. 8 ins.**

Auster S is undergoing trials for the Army as an air observation post. Large wheels are provided for rough landings. *Engine:* Bombardier 702. **Span : 36 ft.**

Wyvern TF Mk. 4 single-seat naval strike-fighter is in production for the Navy. This version has a dihedral (slight) tailplane and a cut back cowling. The Wyvern can carry torpedoes, fuel tanks, bombs, and various loads of R.Ps. *Engine :* Python 3-driving contra-props. **Span : 44 ft.**

Firefly AS Mk.7 is an interim three-seat carrier borne anti-submarine aircraft. Features include annular cowling, new-style exhaust " tufts," Mk.1 type full span wings and a new cabin for the navigator. The model shown at S.B.A.C. carried sono buoys in boxes inboard of port radome and starboard fuel tank. *Engine :* Griffon. **Span : 44 ft. 6 ins.**

Gannet AS Mk. I shown was the 3rd prototype with a rear cabin similar to the Firefly AS.7. Here however the similarity ends, although the rôle is the same. The Gannet can cruise on either side of its Double Mamba turboprop and carries a retractable radar scanner in a ventral position on the fuselage. Both Firefly 7 and Gannet have folding wings.
Span : 54 ft. 4 ins.

Sea Prince T Mk. I has a new undercarriage with smaller double main wheels which eliminate the under nacelle bulge. The Sea Prince is an 8 to 12-seat trainer equipped with nose radar in production for the Navy, and for the R.A.F. (Pembroke). *Engines :* Two Leonides. **Span : 56 ft.**

The Heron is an enlarged four-engined utility version of the Dove in production for commercial use. The model shown had a fixed undercarriage but the second prototype will probably have a retractable one. The Heron is a 14 to 17-seater and costs £37,500 (no purchase tax, we understand) if you want to buy one. *Engines :* Four Gipsy Queen 30's. **Span : 71 ft 6 ins.**

Viscount turboprop airliner is in production for commercial use by B.E.A.C. for whom 20 are being built. Air France and Aerlingus have also ordered the Viscount. *Engines :* Four Dart 504s. **Span : 94 ft.**

Short S.A.4 is a prototype heavy bomber equipped with four Avon turbojets in unusual " tooth-shaped " nacelles. Family characteristics occur in the fin and rudder which, minus its fairing, might have been removed from a Sunderland.
Span : 108 ft.

WYVERN TF MK. 4

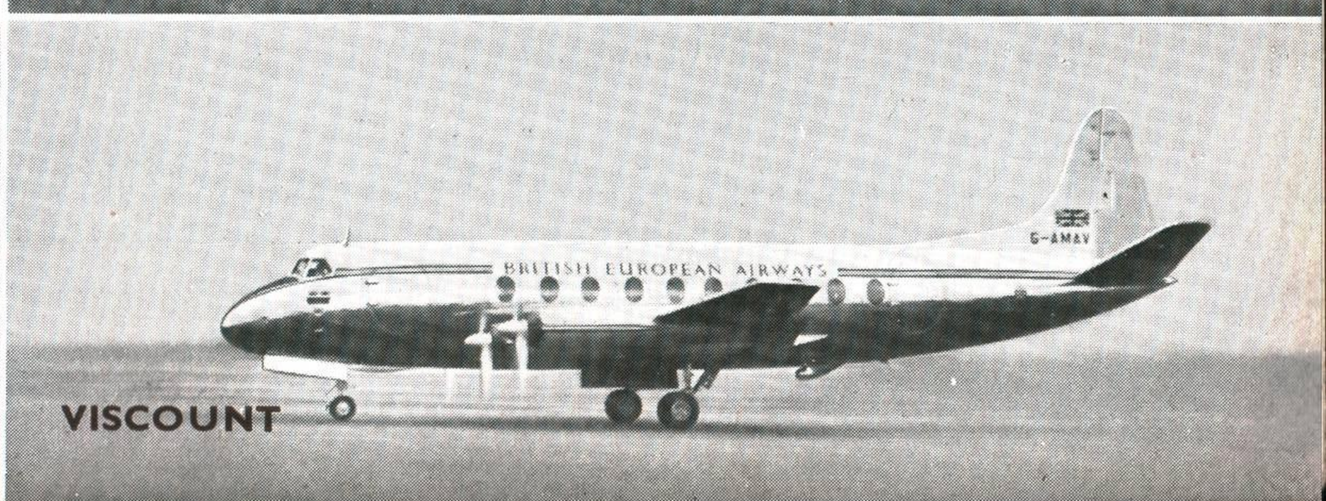
FIREFLY AS MK. 7

GANNET AS MK. 1

SEA PRINCE T MK. 1

HERON

SHORT S.A. 4

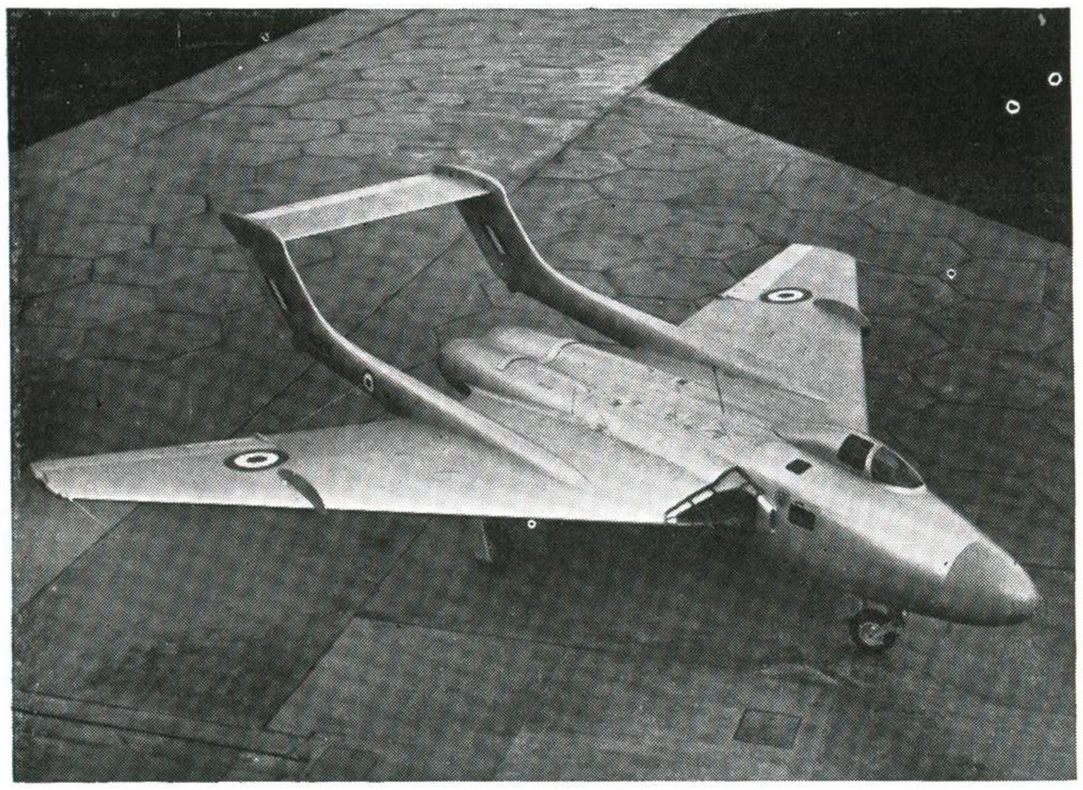


VISCOUNT

BRIEFS

Air Strength

In a recent address, the Secretary of State for Air, said that in the event of war, Russia and her satellites could launch air forces upwards of 8,000 aircraft, quite apart from a substantial long-range bomber force, including several hundred four-engined bombers which were direct copies of the B-29. Such a concentration would be three times as large as the air forces available to Hitler in 1940. Russia already had many hundreds of jet-fighters of the latest type and had begun to build up a force of light jet bombers similar in type to the Canberra. Increased numbers of modern types of Russian jet fighters must be expected. The Secretary of State had previously remarked that the Air Forces in Western Europe were rapidly becoming an integrated Air Force and constituted a formidable barrier against the Russian air concentrations in Eastern Germany. He also announced that in addition to the Canberra and Valiant bombers and the new Hawker and Supermarine fighters a new twin-engined all-weather fighter had been developed. This fighter is the D.H. 110 (picture below), one of a new series equipped with the latest special radar to deal with atom-bomb attacks. These fighters will be able to operate in weather bad enough to ground any existing type of fighter and can be flown to their target " blind ".



* * *

Pembroke

The R.A.F. version of the Percival Prince has now been ordered in quantity. It is to be called the Pembroke, and will be used in the R.A.F. for communications and various other purposes. The Sea Prince is already in service with the Royal Navy (see frontispiece November, 1950, *Journal*).

* * *

Canberra

Latest version of the Canberra is the B Mk. 5. Again only slight modifications in the nose distinguish it externally from other marks. Apart from these it is similar to the B Mk. 2.

" Saddle-bags "

The Supermarine 508 experimental naval fighter sandwiched, so to say between two Rolls-Royce Avon turbojets has the appearance of being jostled—if not hustled. A " beaky " nose peeks out rather pathetically from between them. From the sides, sprout short, straight " razor " like

wings. Continuation of the nose stream-lining reappears in the short length of rear fuselage which sports a " butterfly " dihedral tailplane. This picture shows the 508 in characteristic view in which its dominant features, the " saddle-bags " and butterfly tail play the most effective recognition parts.

* * *

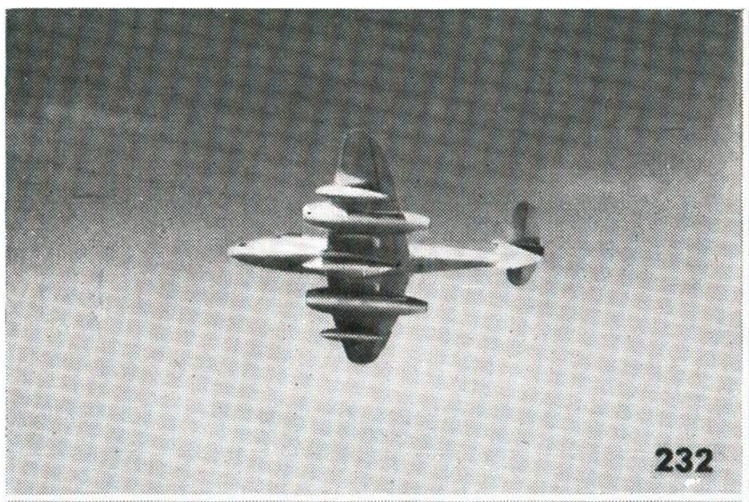
Packet Picture

Following a feature in August " Early Warning ", this study of a C-119C Packet shows more clearly the new " spine " dorsal fairings. Notice the " highlight " pattern along top edges and surfaces.

* * *

Tailbend

New Modifications to the Wyvern include a dihedral tailplane for the TF Mk. 4. This aeroplane will be featured specially in the *Journal* soon.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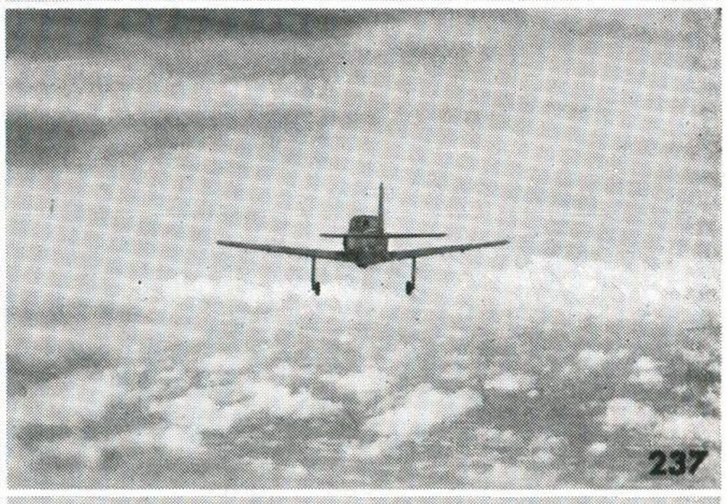
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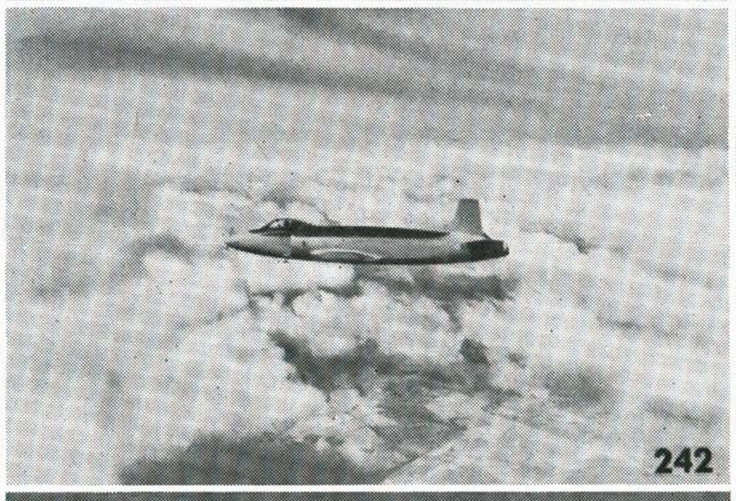
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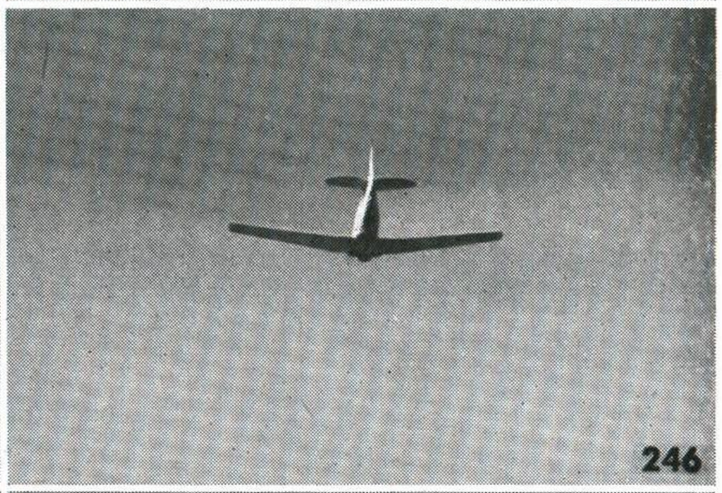
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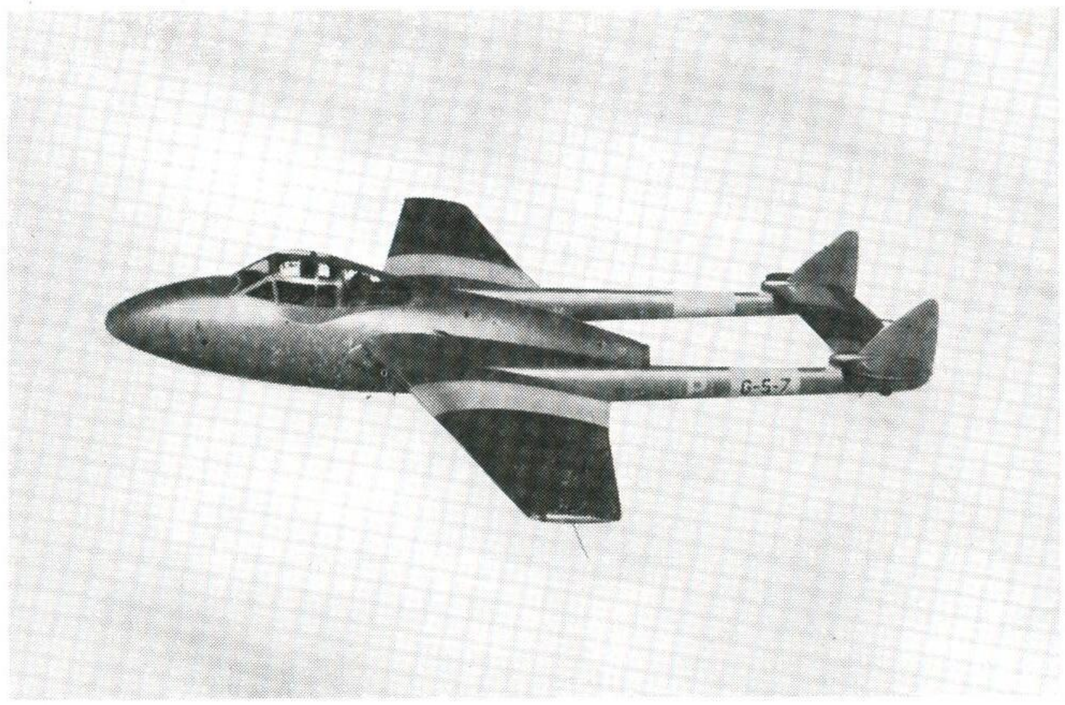
ADVANCED SPOTTING

A selection of aircraft shapes new to the *Journal*, including types which can be expected to be seen with increasing frequency, or of well-known types with shape-changing modifications and additions of which readers may like to have

EARLY WARNING!

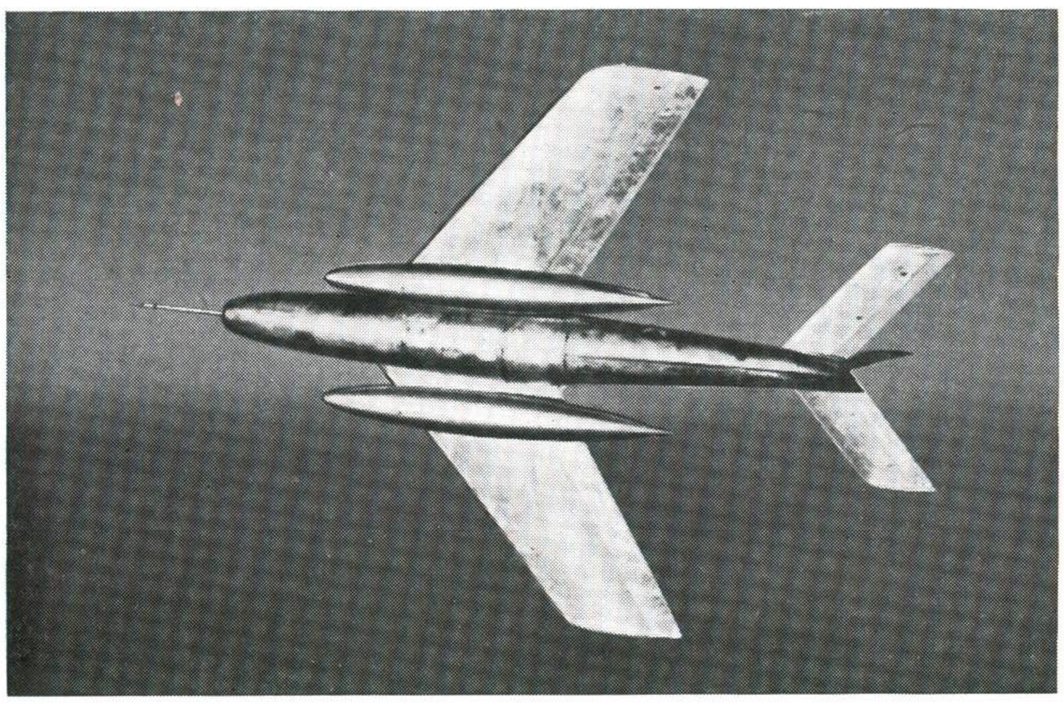


Vampire Trainer (DH.115) is a two-seat side-by-side trainer with the same wings as the Mk.5. Fins and rudders are slightly taller, and absence of radar permits a more pointed, aerodynamic nose form. The DH.115 is in production for the R.A.F., and it is expected that a mark number will shortly be assigned. *Engine:* Goblin 3. **Span : 38 ft.**

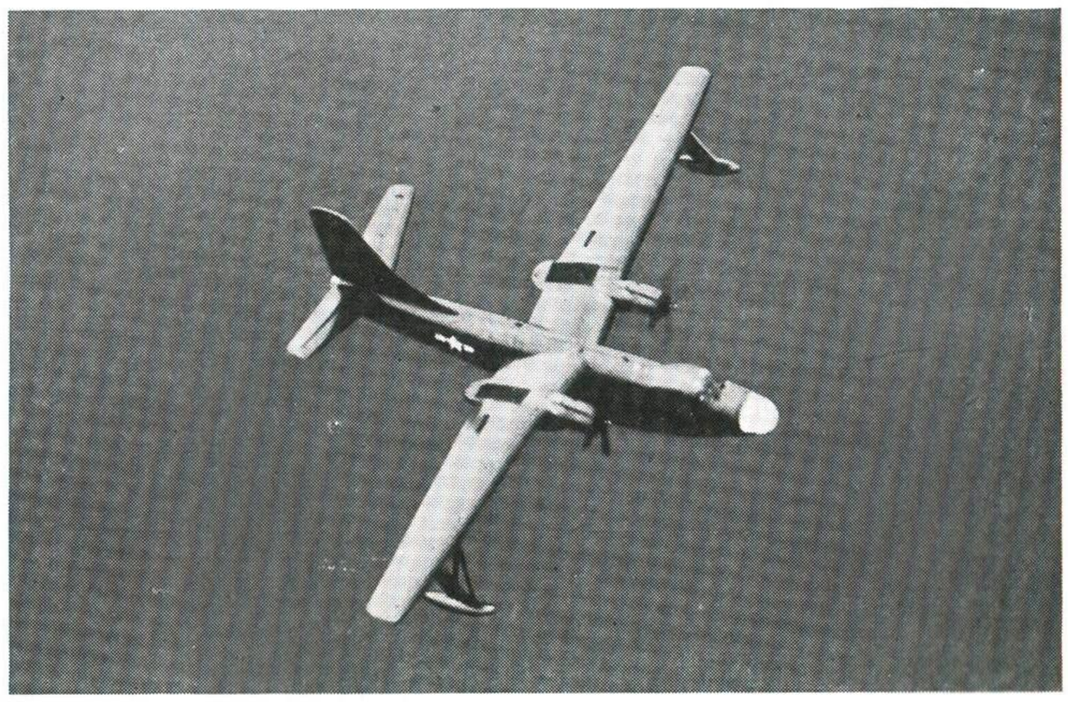
Bristol 171. The Mk.3 shown here is the first production model for use as a civil air taxi. A military version is also in production and is called the Sycamore HC Mk.11. This will fulfil all the usual helicopter rôles including that of air ambulance. **Main rotor diameter : 48 ft. 6 ins.**

Export Fighter the Vampire FB Mk.53 is being produced by SNCASE in France as the " Mistral." The " Mistral " shown here clearly shows the " Seahawk " type intakes necessitated by the Hispano-Suiza Nene engine in place of the usual Goblin. An ejector seat has also been added. **Span : 38 ft.**

Photo Banshee The F2H-2P Banshee is the first carrier borne jet photographic aircraft. Six kinds of cameras each for different purposes are housed in the modified nose. See " Briefs " in the October edition for other information. **Span : 41 ft.**



Republic F-84F now in production fitted with a Wright J-65 American version of the Sapphire has had practically everything hung on it, from masses of rockets (see June *Journal*) to the two experimental 230 gallon fuel tanks shown here. **Span : 34 ft.**



Marlin (P5M-1) anti-submarine flying boat is similar to the Mariner apart from a redesigned hull and single fin and rudder. Tailplane dihedral is retained. The Marlin is powered by two Wright radials housed in nacelles which bulge at the bottom with stowage bays for miscellaneous missiles. Bow radar scanner is indicated in white on nose. 20 Marlins have been ordered. **Span : 118 ft.**

'DIDO' CLASS CRUISERS

DIDO SIRIUS ARGONAUT CLEOPATRA PHOEBE EURYALUS

LAID down under the 1936 programme these vessels were designed for convoy protection, being derived from the 6 inch-gunned *Arethusa* class, 5.25 inch guns replacing the 6 inch to fulfill a dual LA/AA rôle. The original design incorporated three twin turrets forward and two aft, but because it was desired to increase close-range armament and also because the gun supply position was acute at the time of coming into service in 1940 the design was modified to four turrets only (except in *Sirius* and *Dido*). This class, although lacking in radius-of-action, played a most distinguished rôle during the war, particularly in the Mediterranean theatre. War losses include *Charybdis*, *Naiad*, *Hermione* and *Bonaventure*, whilst *Scylla* had to be scrapped because of bomb damage.

Recognitionally, this class conforms to the classic precepts of type and nationality ; low silhouette and the slim hull lines in the plan view (beam/length ratio is 1/10) proclaim her to be a cruiser whilst the low, widely-spaced bulges of the fore and after superstructure in silhouette give a clear indication of her British nationality. This is an easy class to identify because it possesses marked general features unique in their way ; let us consider them.

The smallness and shape of the gunhouses from both the air and sea view is distinctive whilst the raked, uncapped, widely spaced funnels of equal height have no parallel (except in *Belfast* but the two classes are not confusable). Notice, too, that the foremost funnel is visible down to the deck line as also are the tripod masts, raked and of very light construction. In the plan view the shape of the turrets and the triple torpedo tube mountings abreast the mainmast are a ready clue to class identity.

To sum up, the general features are :—

Profile

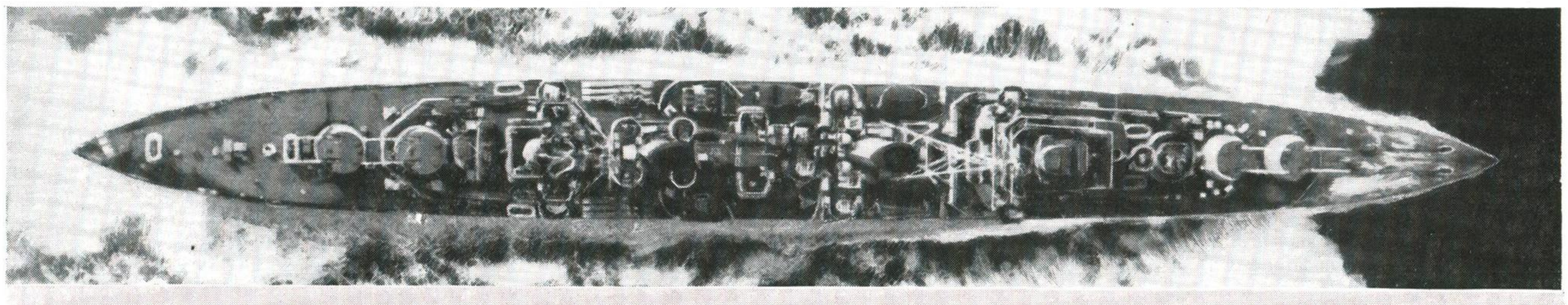
1. Raked, widely-spaced funnels of equal height, the foremost funnel being visible down to deck level.
2. Raked, light tripod masts visible down to deck level.
3. Twin-gunned, small circular turrets fore and aft. Remember *Sirius* and *Dido* have three forward.
4. Typical British box-like bridge.

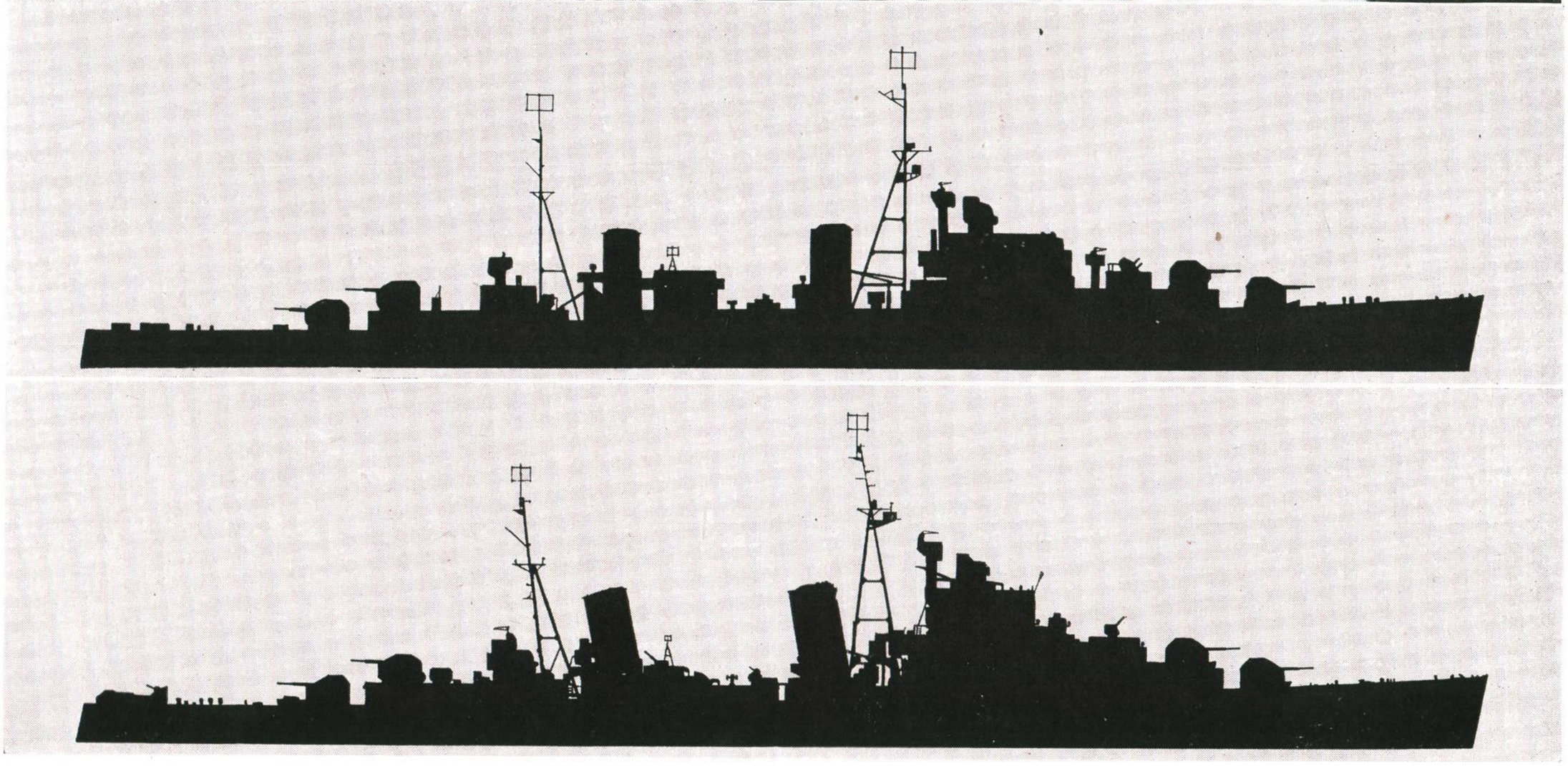
Plan

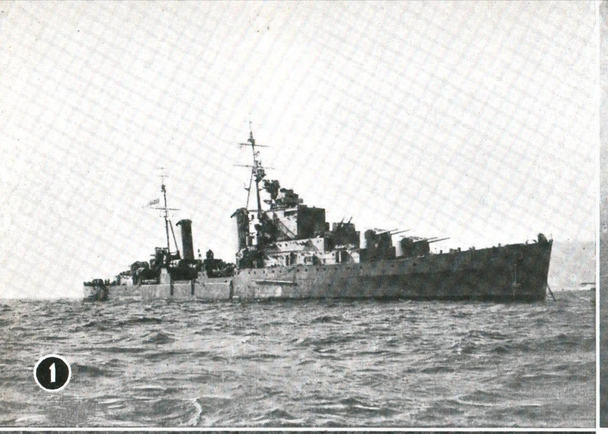
1. Slim even curve of hull line.
2. Distinctive shape of gunhouses.
3. Triple torpedo mountings abreast mainmast.
4. Square, box-like bridge.

The Modified " Dido " class. This class, designed for only four turrets conforms to the *Dido's* except that neither funnels nor masts are raked. Consisting of *Diadem*, *Royalist*, *Bellona* and *Black Prince* (the latter two on loan to R.N.Z.N.) whilst *Spartan* was the only war loss.

DIDO IDENTITIES *(overleaf)*
1. Dido (" C " turret removed). 2. Modified Dido. 3. Dido (5 turret version). 4. Dido (5 turret version). 5. Dido (" C " turret removed). 6. Modified Dido. 7. Modified Dido 8. Dido (5 turret version). 9. Modified Dido. 10. Modified Dido. 11. Dido (5 turret version).







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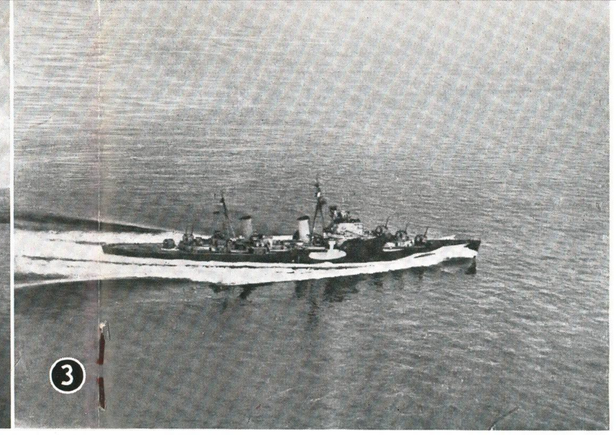

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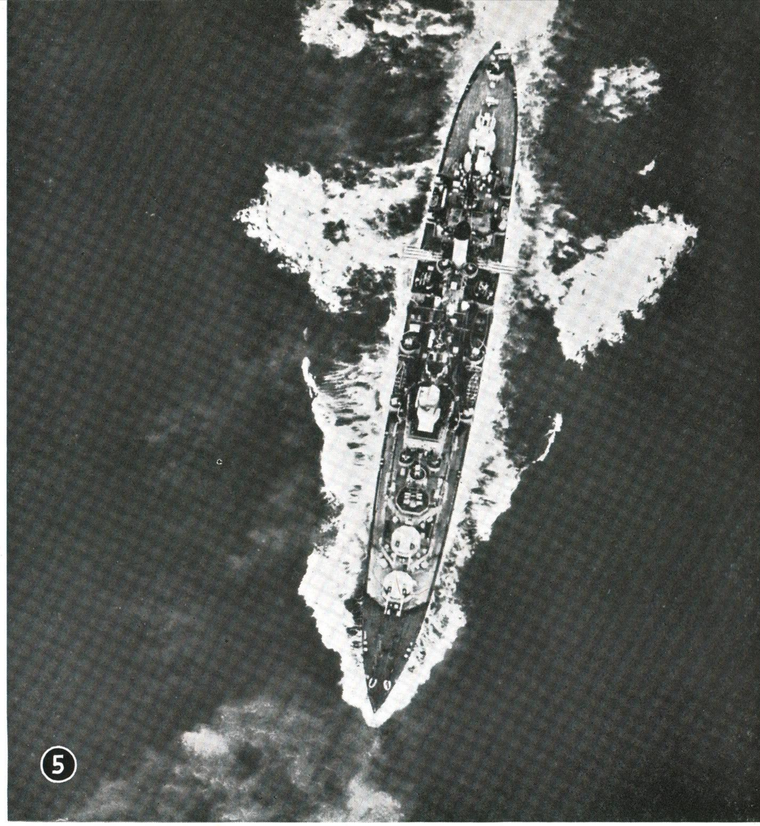

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Didos

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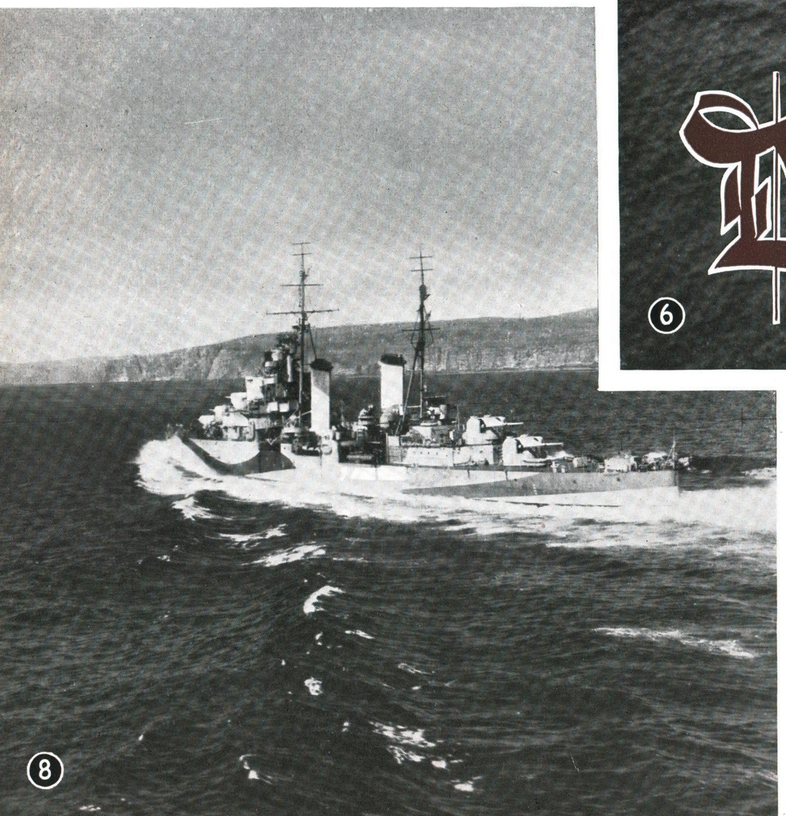

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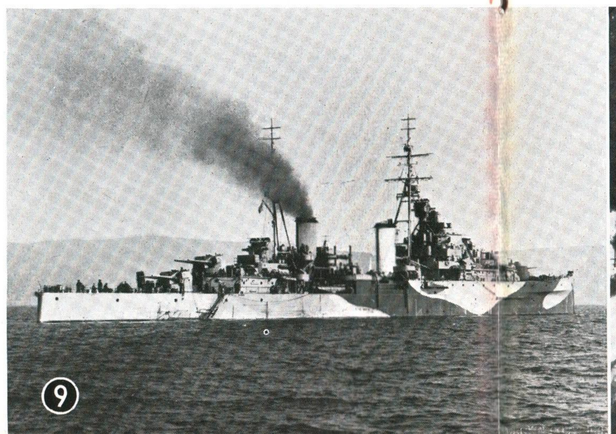

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The T34-85

A CHARACTER SKETCH

by C. H. GIBBS-SMITH

THE RUSSIAN T34-85 is a comparatively low-built vehicle with the following distinctive hall marks : (1) a shallow turret perched well forward on the vehicle ; (2) a deep prominent deck like a plateau with bold sloping sides all round, and (3) a suspension of five large prominent road wheels with no top rollers.

TURRET. The turret is a low structure with a flat top broken by a prominent round cupola and two shallow excrescences like cough drops. (It is worth noting that the cupola on the T34-76 is non-existent from the recognition point of view.) A peculiar optical feature is the lozenge shape plan which is only really evident from nearly vertically above. From all ordinary views the steep sides and back seem to merge in a curved band without marked shadow divisions and the plan form is quite impossible to judge. Another marked feature is the deep circular base of the turret which accentuates the " perched " look. This look is conditioned chiefly by the turret's position on the extreme end of the deck with the mantlet projecting well out in front. The mantlet is a combination of simple shapes—a thick roller-like collar, jutting from a simple, curved, back-plate which fits snugly into the turret's supporting jaws. The 85 mm. gun has no muzzle brake.

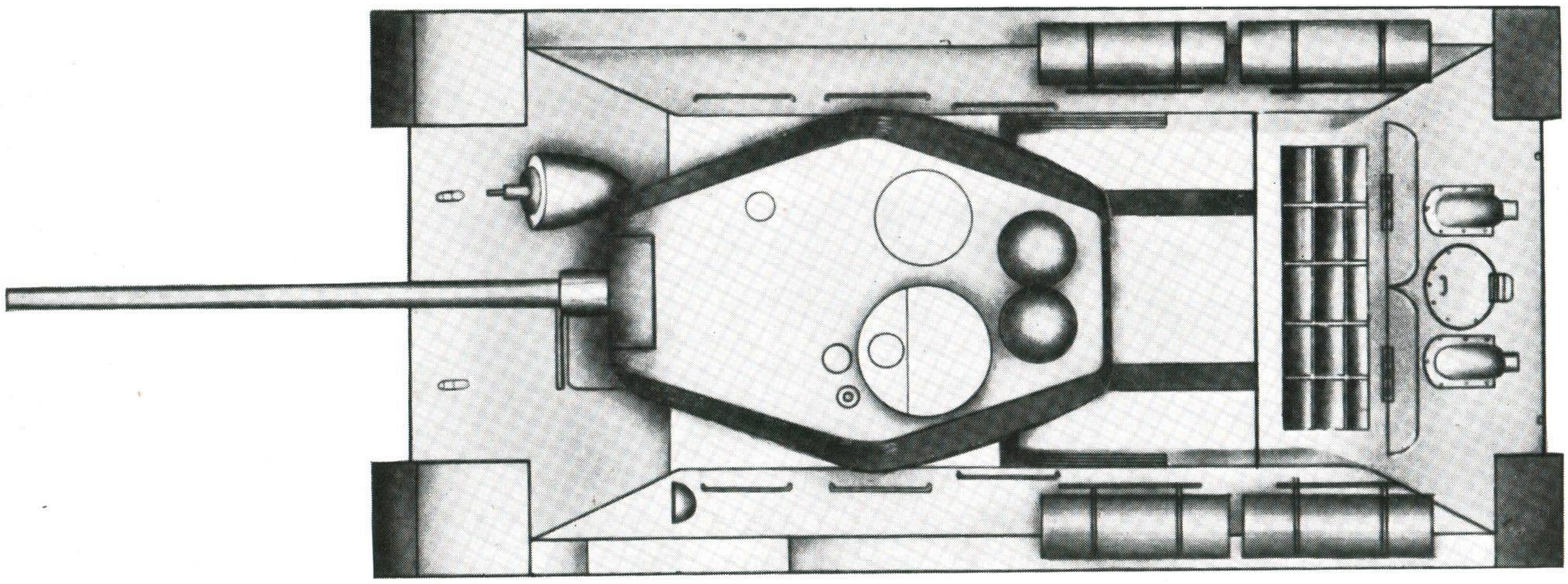
HULL. The hull is a very marked feature, standing high above the tracks, with broad sloping sides all round. The glacis plate is formed by one large sloping surface from deck front to a point level with the idlers ; it is a very prominent feature, only broken by a machine-gun mounting and the driver's hatch. The striking effect of the glacis plate is further enhanced by its being carried to the extreme edges of the deck, out of which the forward track-guards appear to sprout abruptly. The lower nose plate is sharply recessed and picks up no light. The rear deck is flat and the back plate (with two exhaust ports) takes a bold plunge down, but stops high off the ground. The exhaust ports, if not obscured by camouflage, etc., are a small but very individual feature, being like two upturned wall brackets, clapped on to the back plate. The left and right sides of the hull are distinctive as they slope out well over the tracks leaving only a narrow track-guard beyond. Auxilliary fuel tanks may be fitted on both sides, and at the rear.

SUSPENSION. The suspension of the T34-85 is one of its most striking features. Only five large road wheels, with sprocket and idler, fill the space between the tracks. The wheels themselves, which may be of more than one design and (as seen in the accompanying photographs) even mixed, have bold hubs. An academic, but visible, detail is the gap between the second and third wheels. The idler is small and set with its top level with the top line of the road wheels. The sprocket, which by the way possesses no teeth, is a large affair also set with its top aligned with its neighbours. The missing teeth will be found on the track itself which engage rollers on the sprocket.

* * * *

From any view in which the suspension is visible, this feature is the most telling. The way the road wheels " fill the space " can be seen from a great distance and they spell T34-85 immediately. The next most seeworthy feature, or rather combination of features, is the flat turret perched on its round base and sitting well forward on the high deck as if in a reaching forward position, leaving of course a lot of empty—or cluttered—space aft of it. The deck itself, nearly as deep as the turret, is the clinching recognition feature of this vehicle.

(Turret trained to the rear)



TECHNICAL DATA:

Weight: 29½ tons.

Armament: 85 mm. gun. Coax MG. Hull MG.

Crew: Five

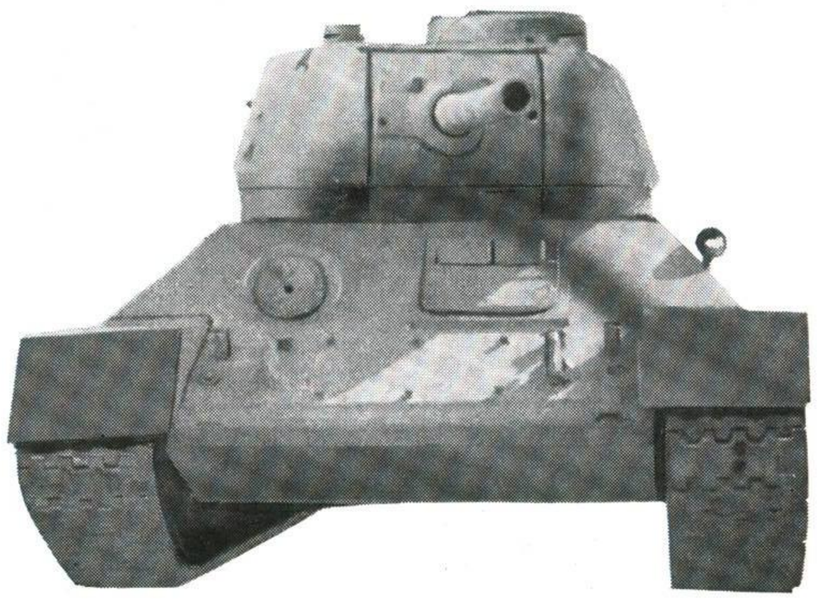
Top speed 25 m.p.h.

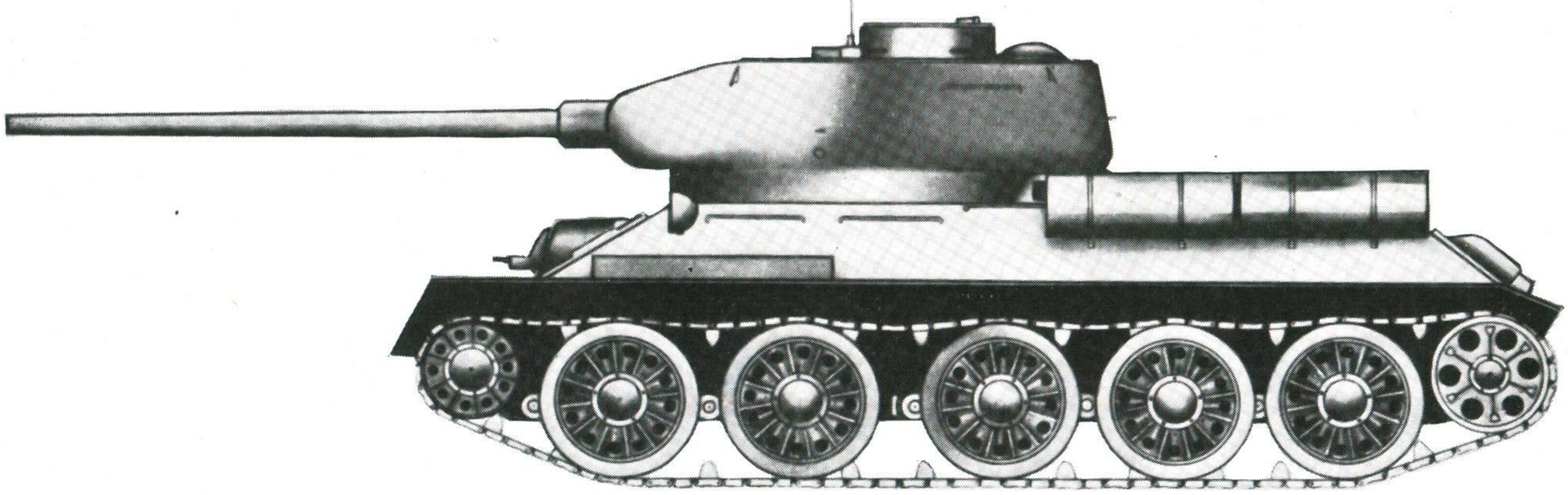
Length excl. gun: 19 ft. 11½ ins.

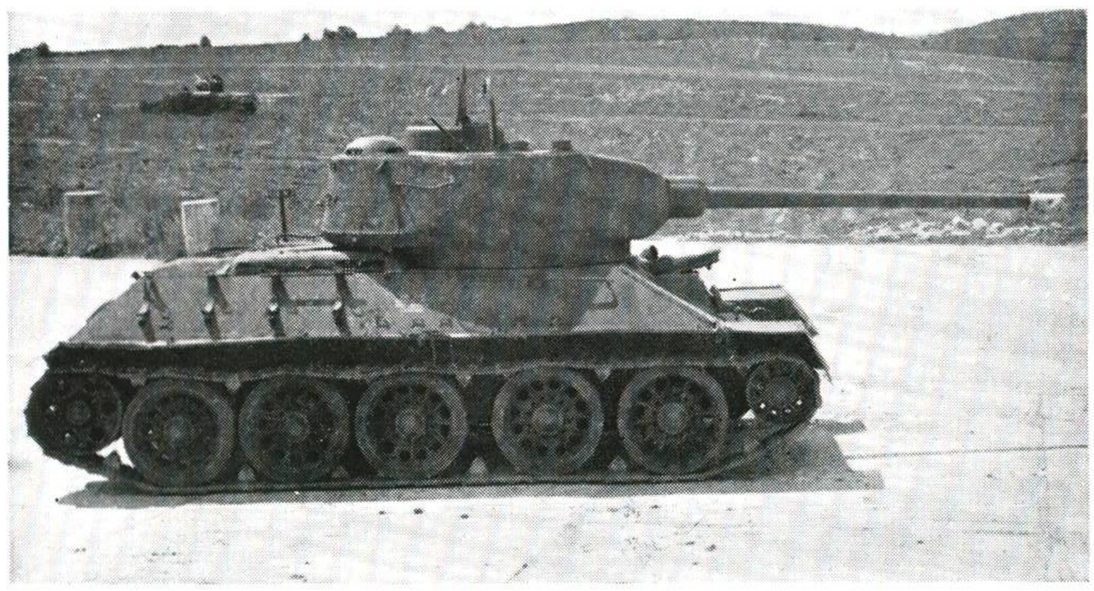
Width: 8 ft. 2½ ins.

Height: 7 ft. 9 ins.

Track width: 19 ins.

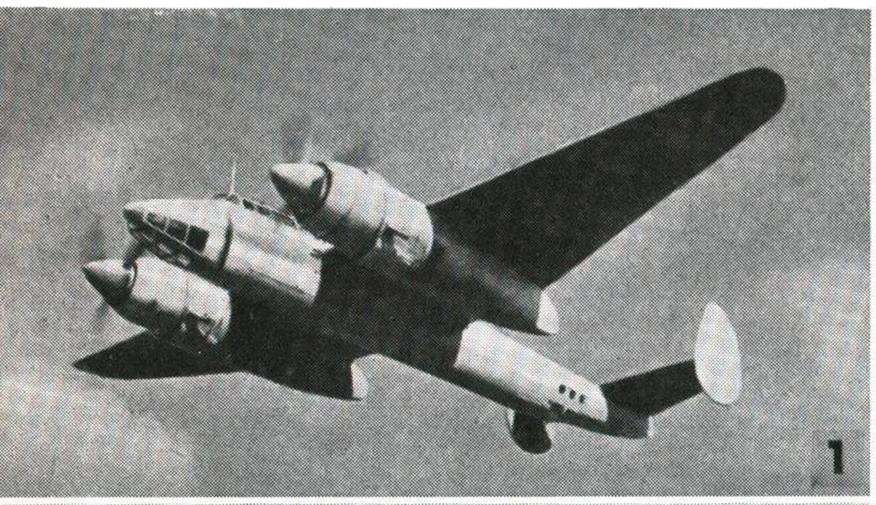






TWIN (PROP) TYPES

With the aid of the three-view silhouette key following, deduce the identity of the aircraft in the photographs and sillographs on these two pages and list your results. Ensure correct identity by as many points as possible before checking your list with the results given on the rear cover. Instructors can improve the scope of this "Tutor" by preparing additional sheets for deduction by students.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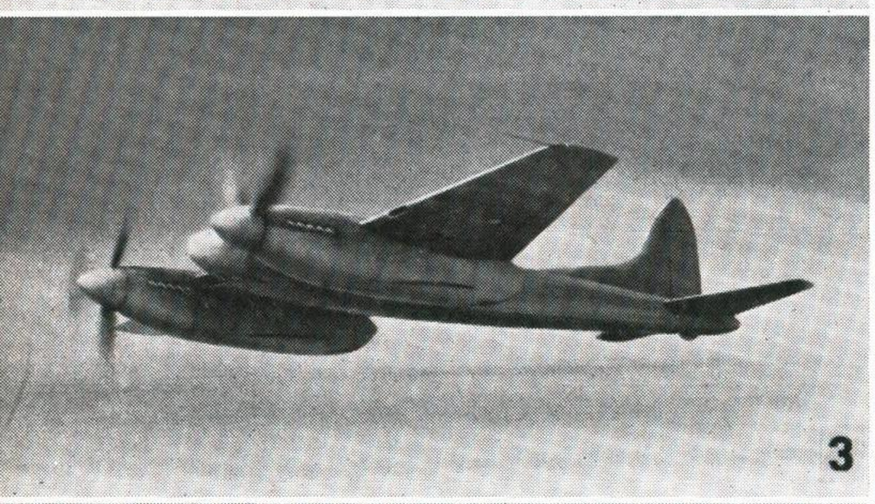
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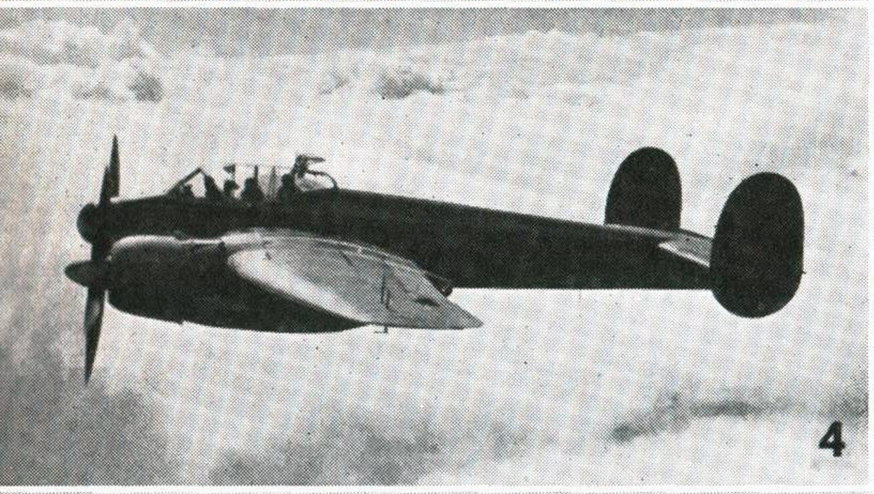
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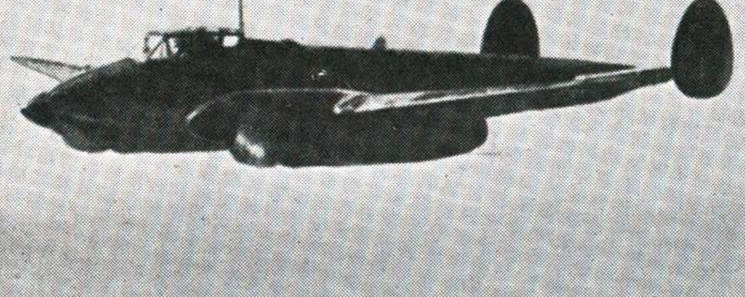
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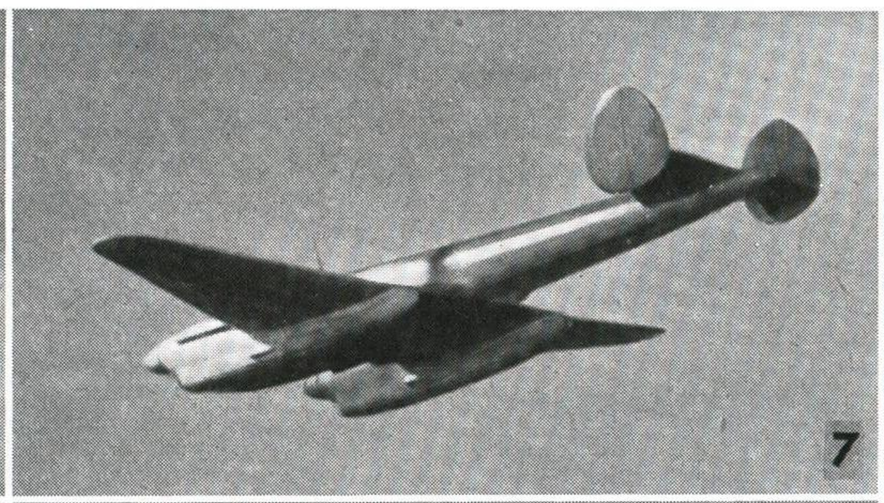
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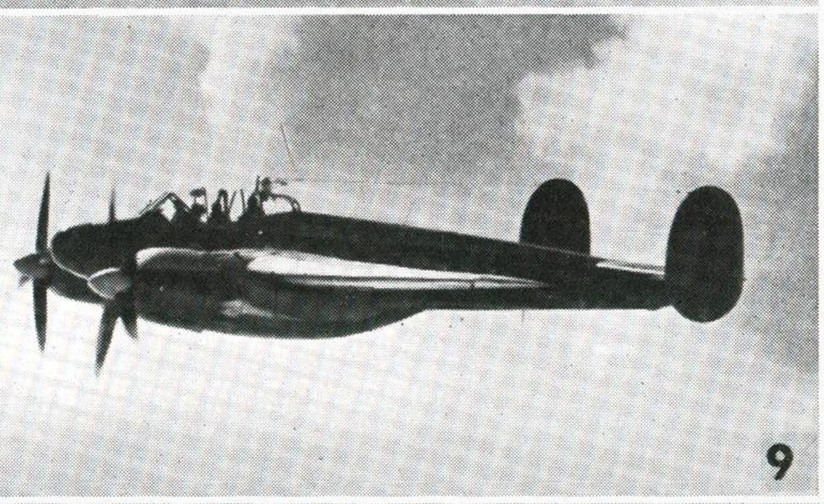
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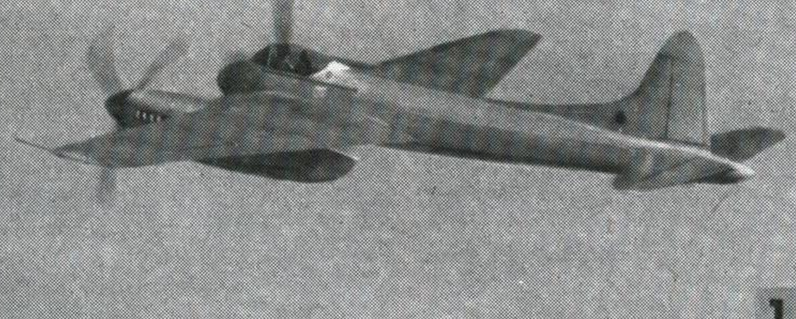
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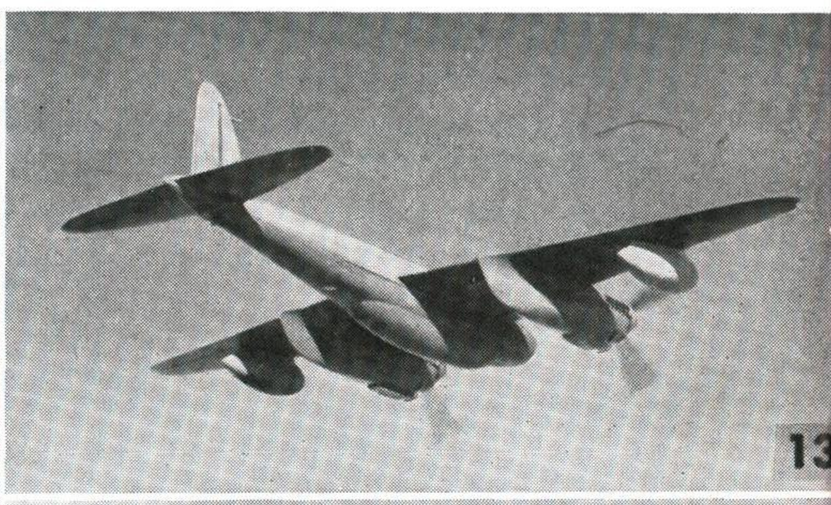
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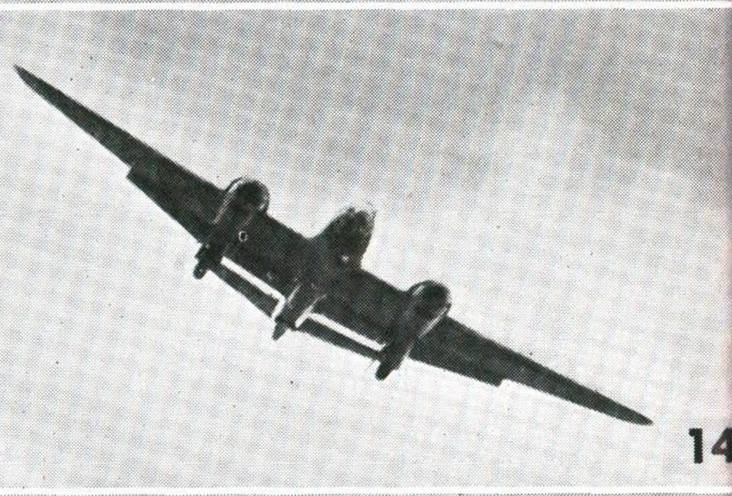
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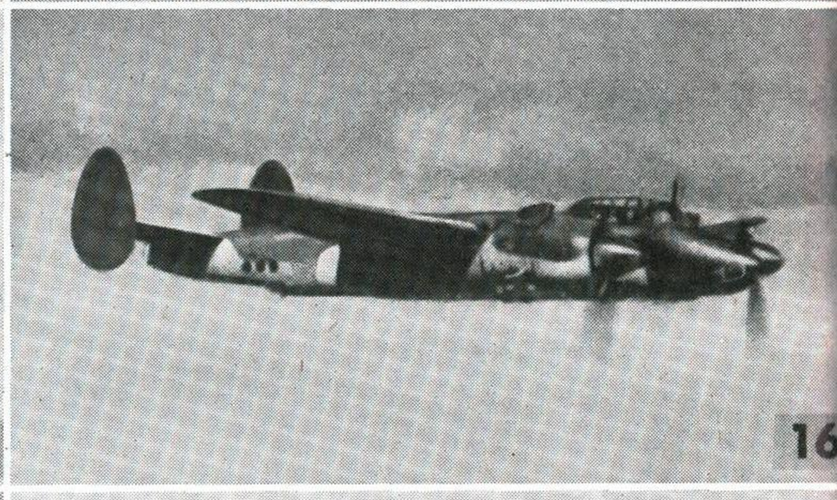
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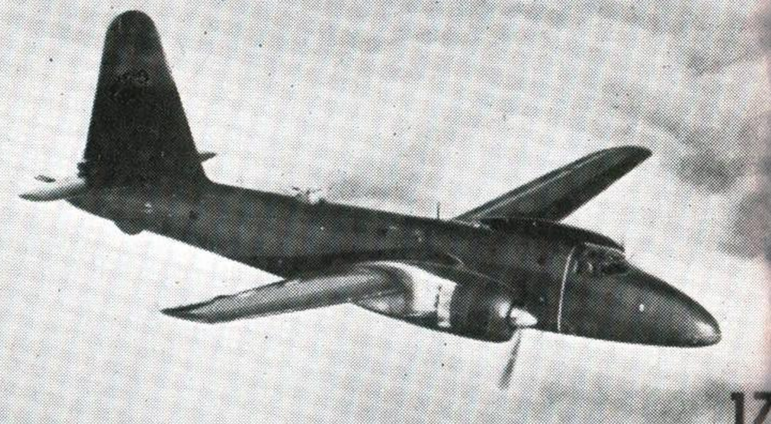
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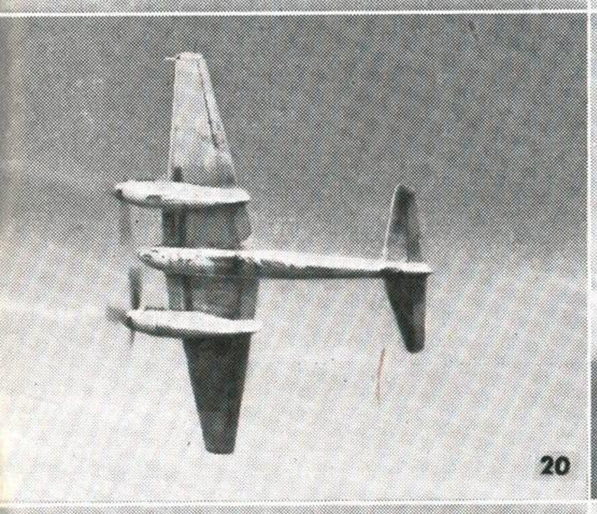
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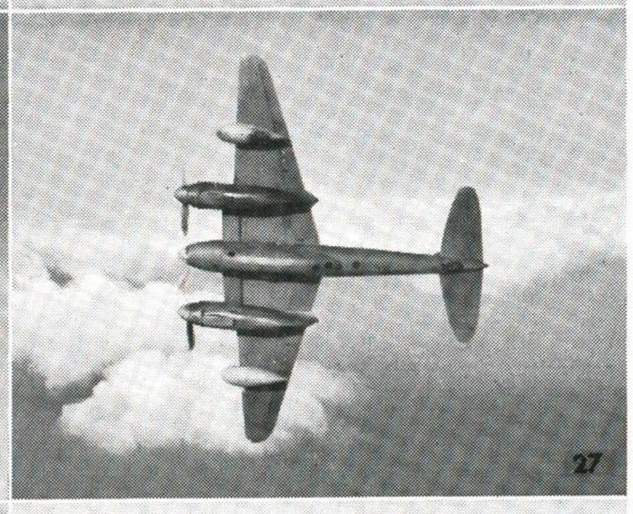
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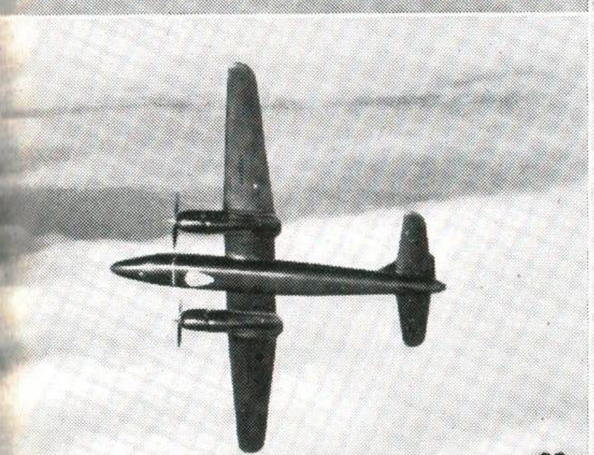
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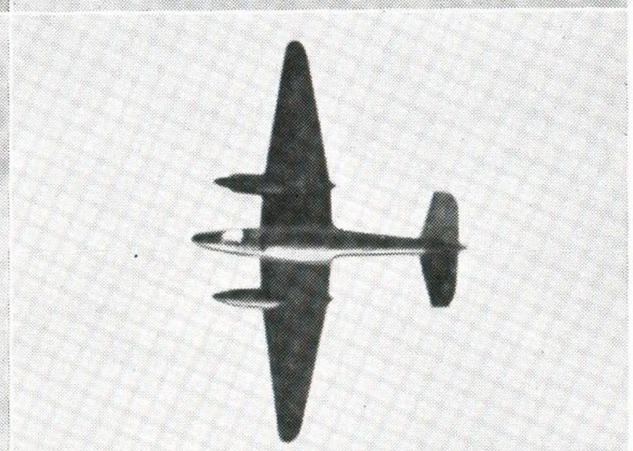
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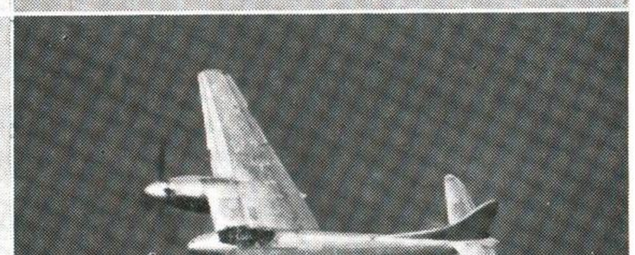
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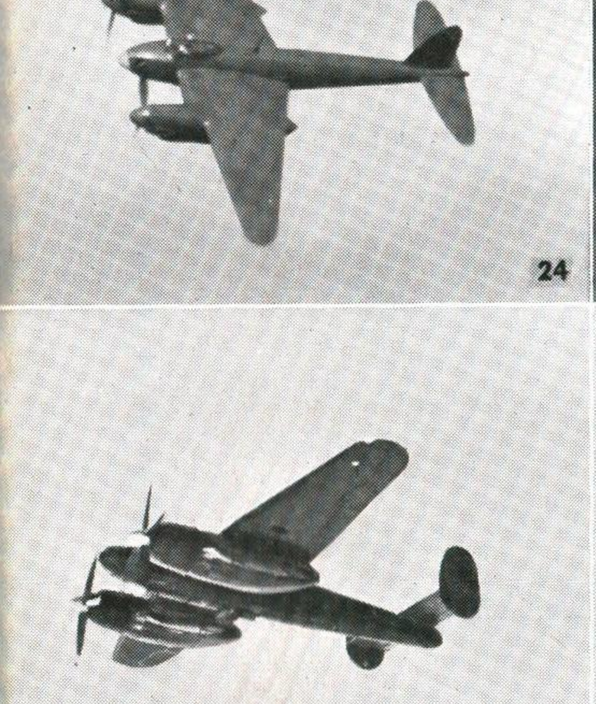
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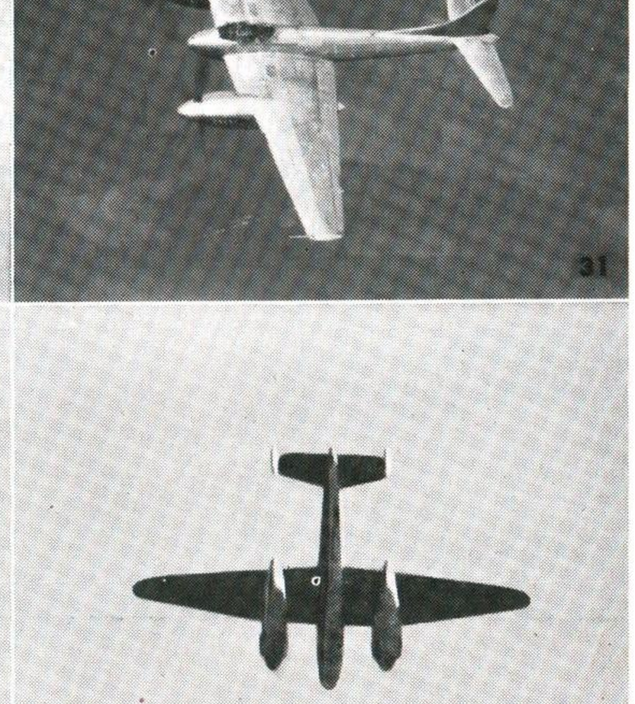
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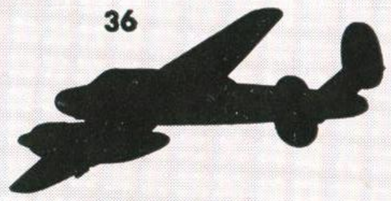
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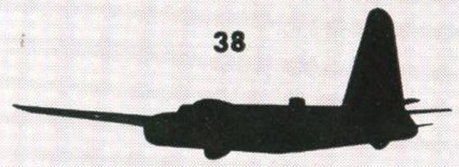
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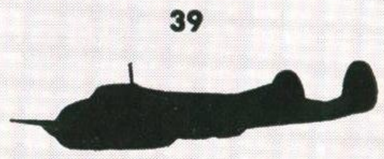
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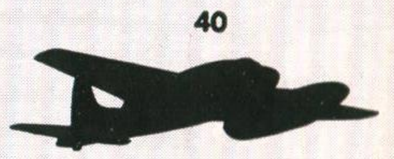
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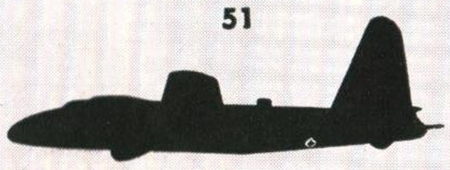
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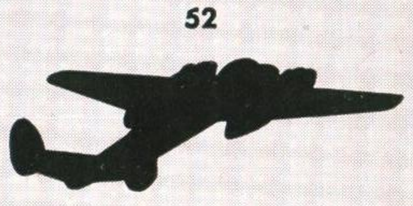
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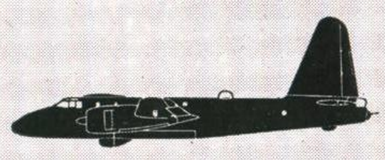
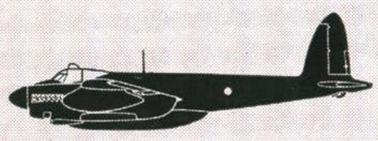
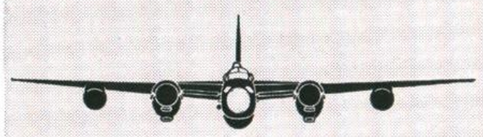
KEY SILHOUETTES FOR TWIN (PROP) TYPES

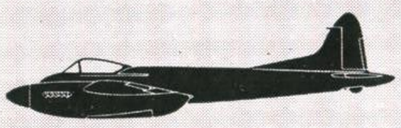
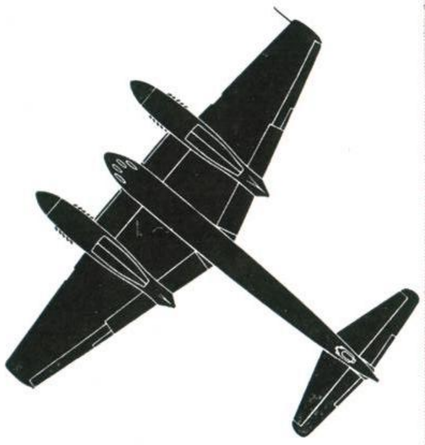


NEPTUNE
(P2V-2)
Span : 100 ft.





MOSQUITO
(PR Mk. 34)
Span : 54 ft. 2 ins.

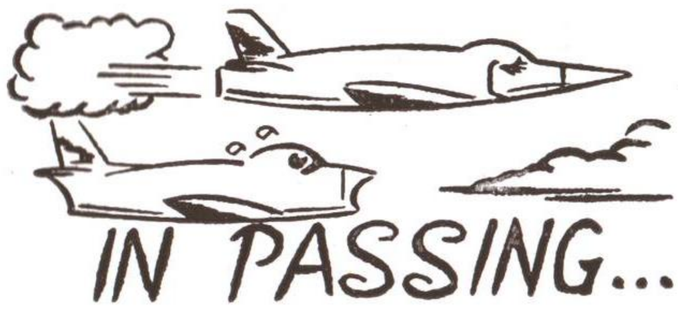



HORNET
(F Mk. 3)
Span : 45 ft.

BRIGAND
(B Mk. 1)
Span : 72 ft. 4 ins.

TU-2
Span : 60 ft. 11 ins.

PE-2
Span : 56 ft. 1 in.



Danger—Structural Alterations !

In illustration No. 9 of H.M.S. *Implacable* on page 159, July *Journal*, the after flight deck shape differs slightly from that given in the deck plan on page 160. The picture was taken prior to structural alterations in this part of the ship. The deck plan is up to date and correct. Readers may like to refer to the later photograph taken from a similar angle (of H.M.S. *Implacable* after the alterations) appearing on page 147 of the same *Journal*. This being, of course, our cue to repeat :

" Do not rely on single features,
These alone will never teach us."

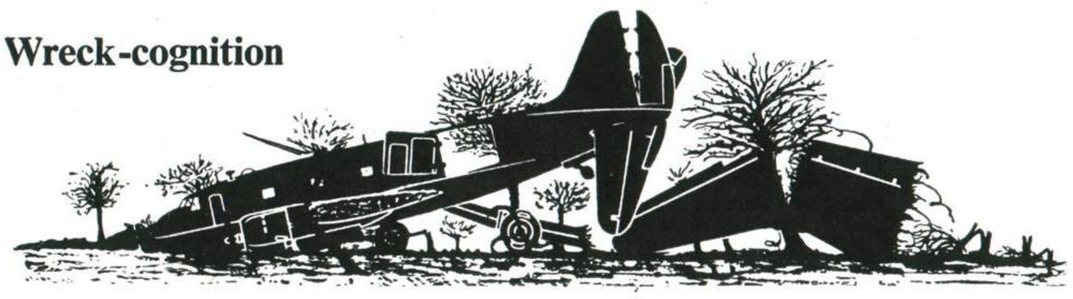
New Recognition Material

MODEL 1/72nd SCALE

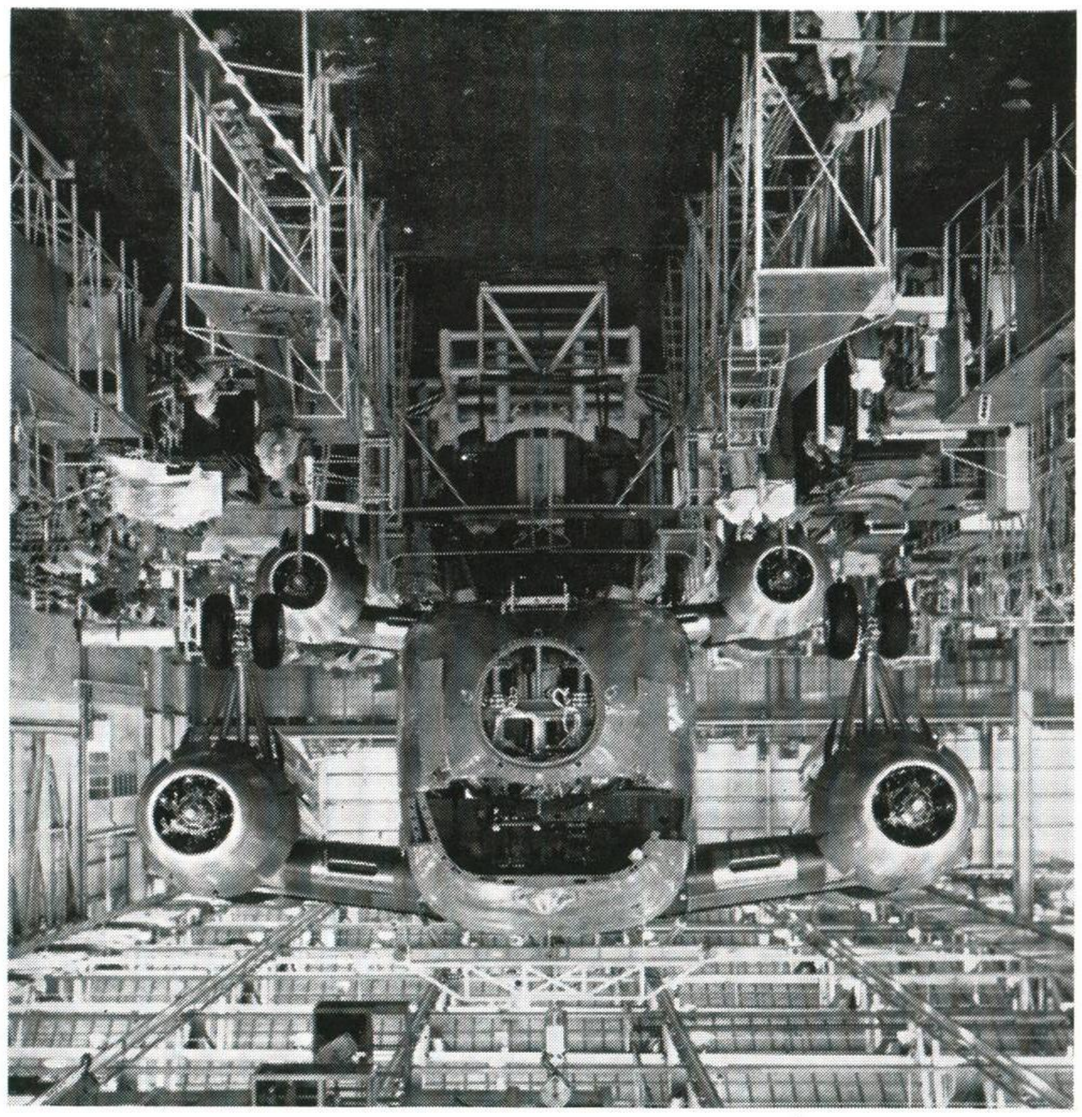
F9F-2 Panther R.A.F. Stores Ref. 52/962

Navy Patt. Ref. 6054.

Wreck-cognition



(Answer on rear cover).

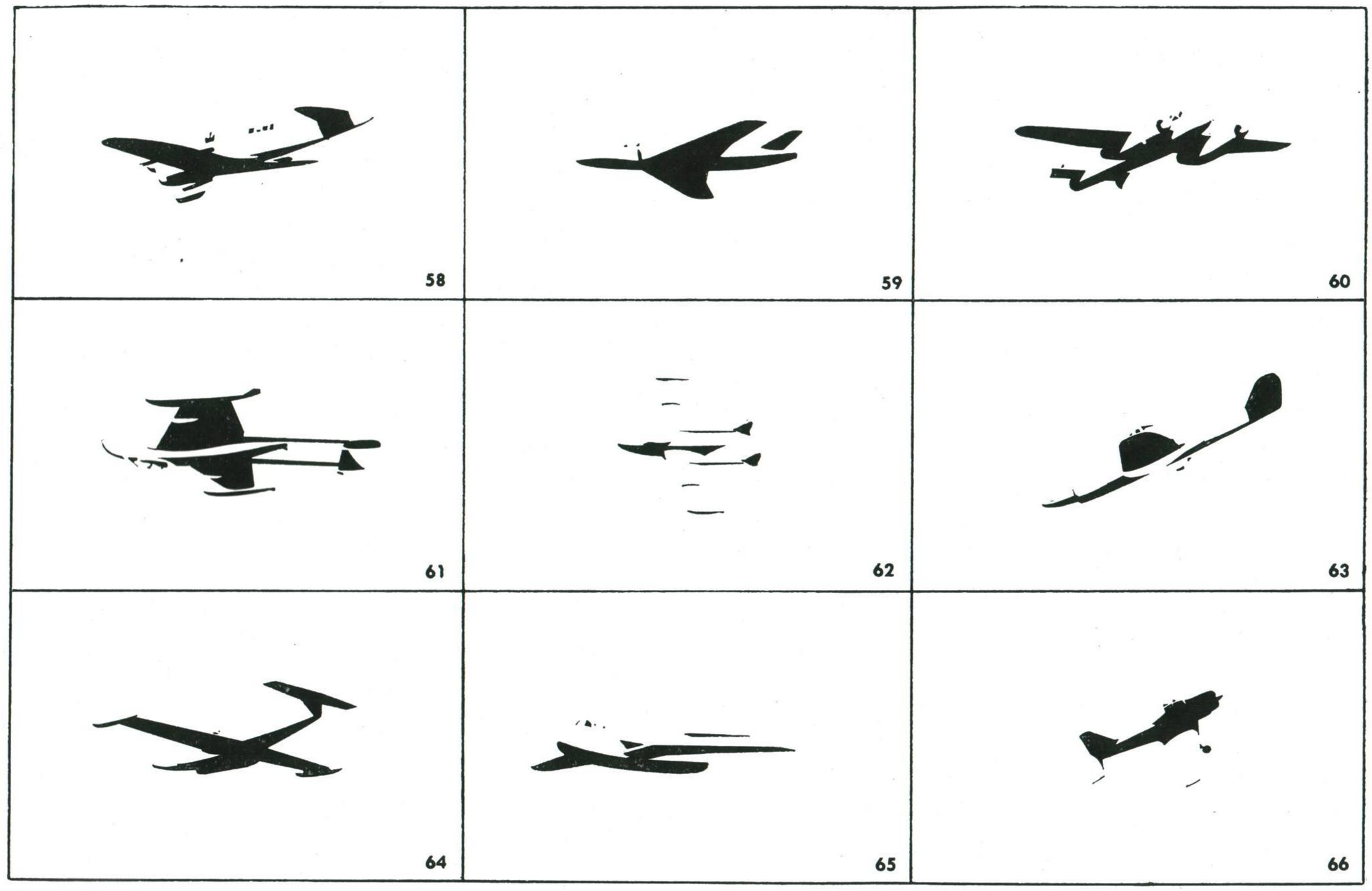


Look What's Turned Up !

WITHOUT inverting this picture, can you identify the aircraft? Naming inverted images of aircraft is like reading someone else's paper upside-down—rather difficult—but it's a useful recognition exercise. Answer on rear cover.

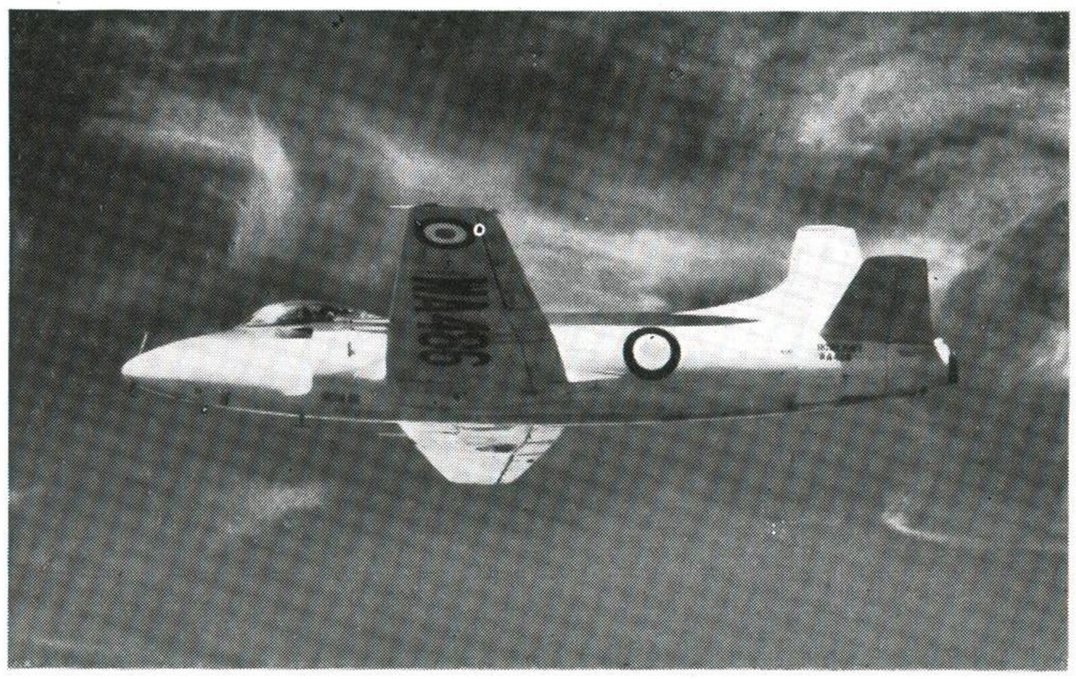
Misquote

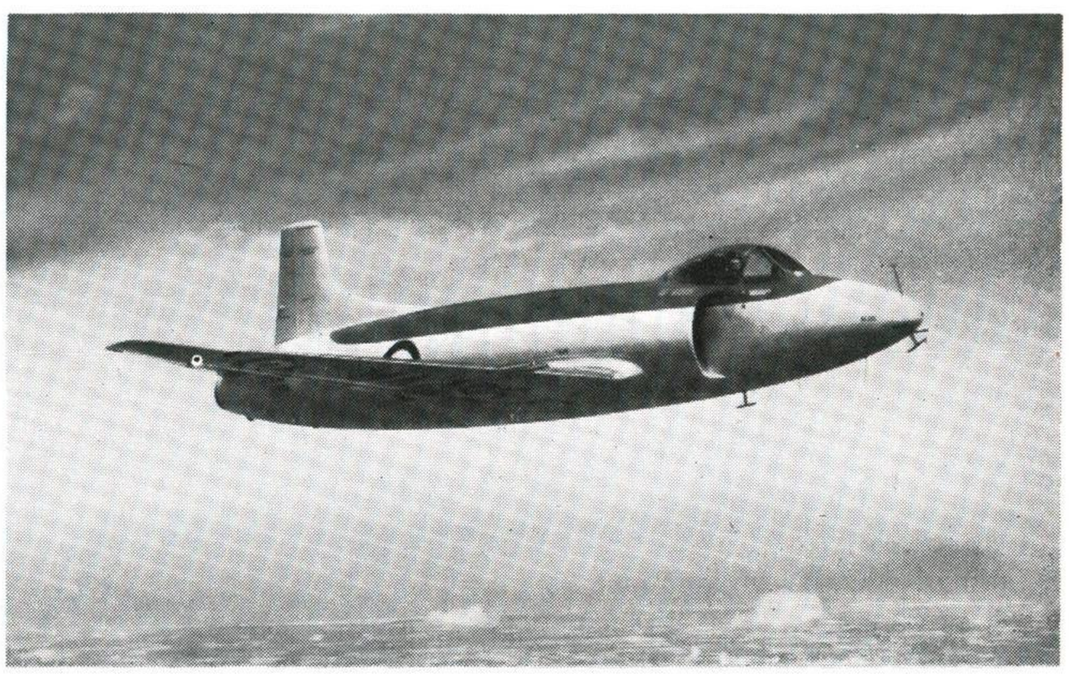
" Spectators were thrilled to see a flight of Bashingtons fly over during the afternoon." No doubt they were on their way to practice washing something !

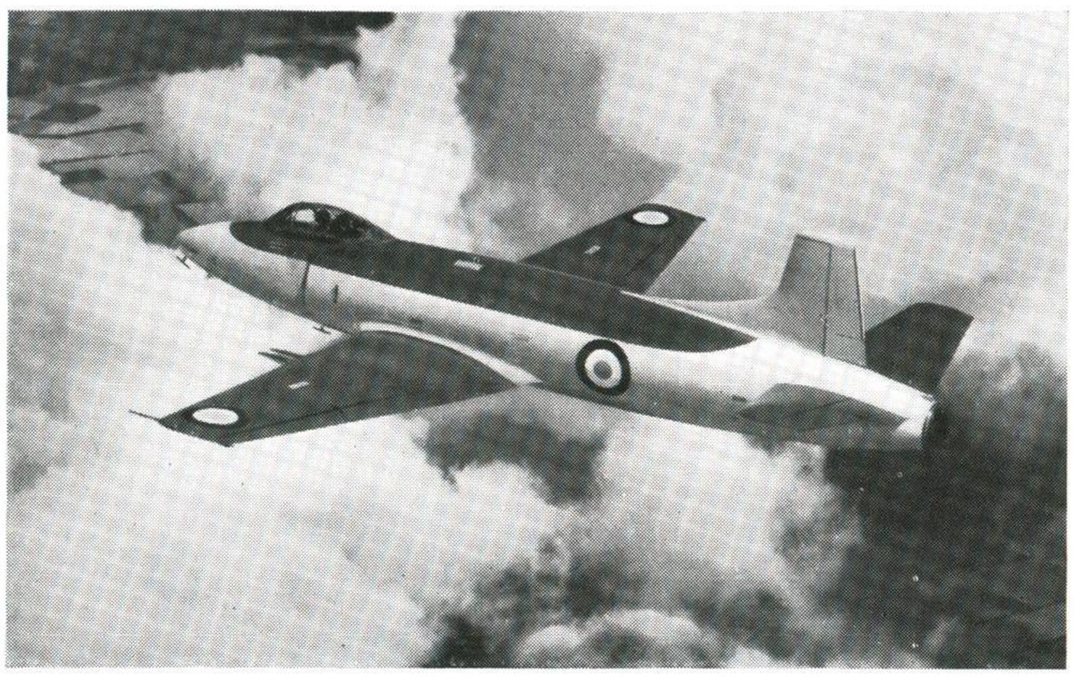


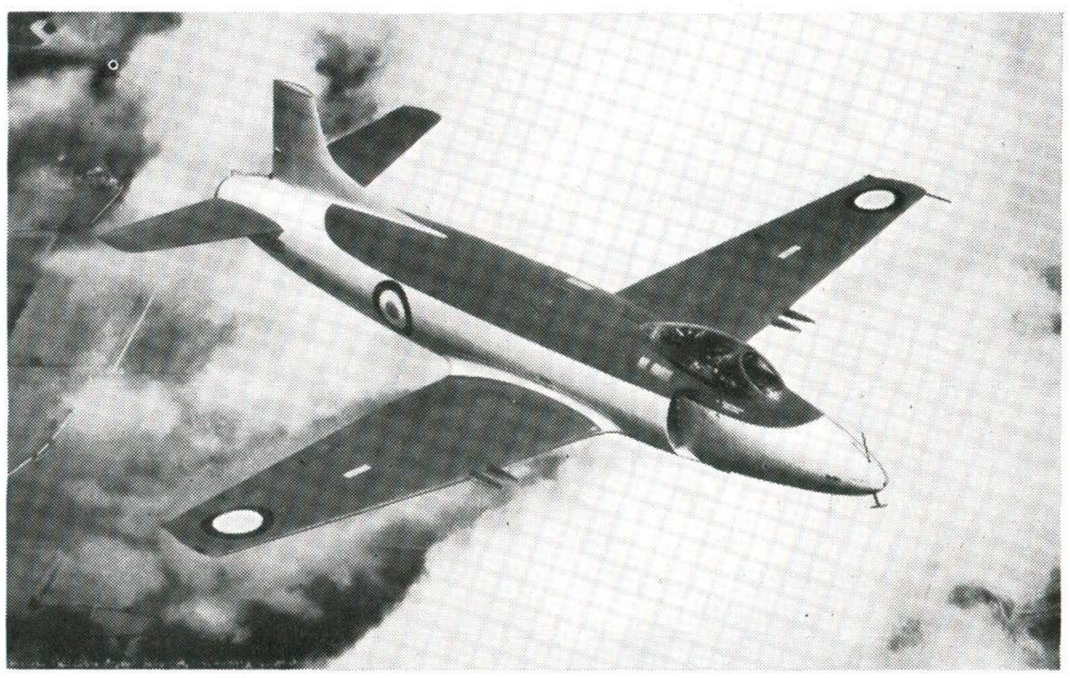
SEMI-SILLOGRAPHS

ATTACKER IN SERVICE

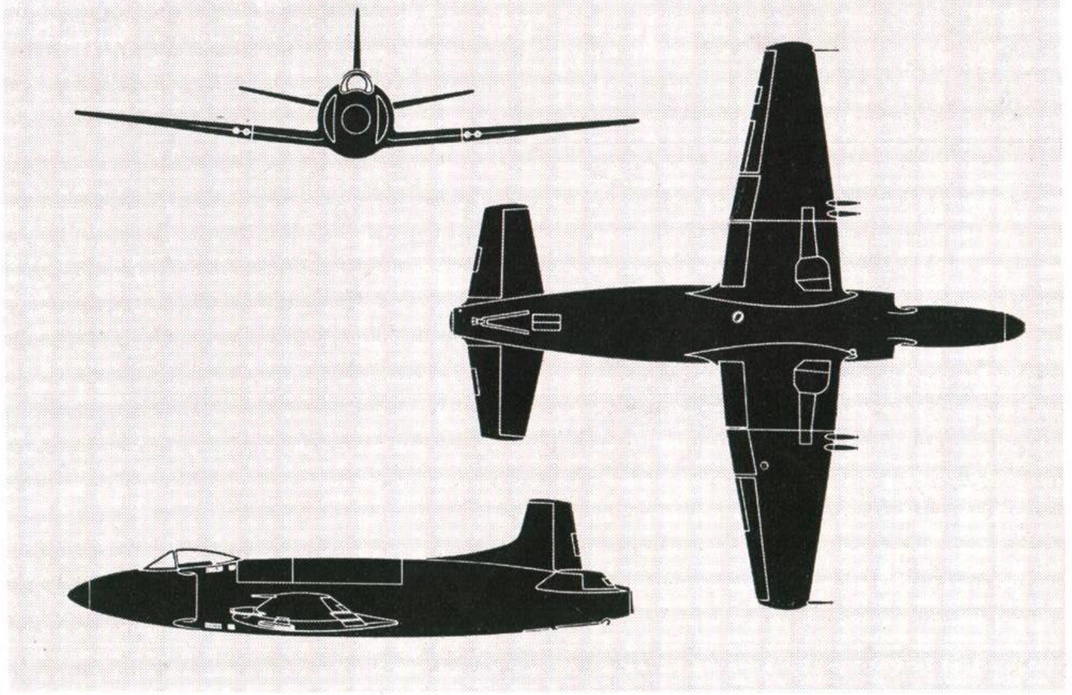








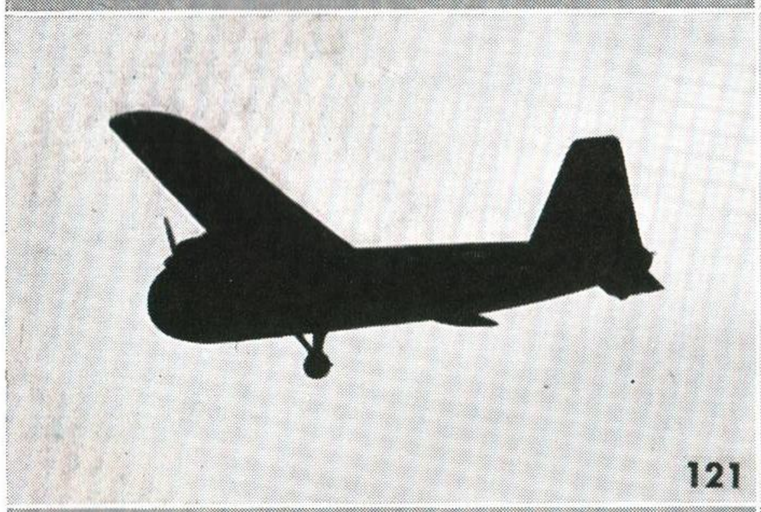
THE VICKERS SUPERMARINE ATTACKER F Mk. 1 is now in service with the Royal Navy. These views give characteristic impressions and show the full visual effect of the additional fin fairing, making the aeroplane look rather more tail conscious, particularly in side view. The Attacker can carry bombs or rockets to the weight of 2,000 lbs. on the wings and four 20 mm. guns may be mounted protruding from the leading edges. A large belly-tank may be fitted to the Attacker. The wing span is 36 feet 9 inches.



118

119

120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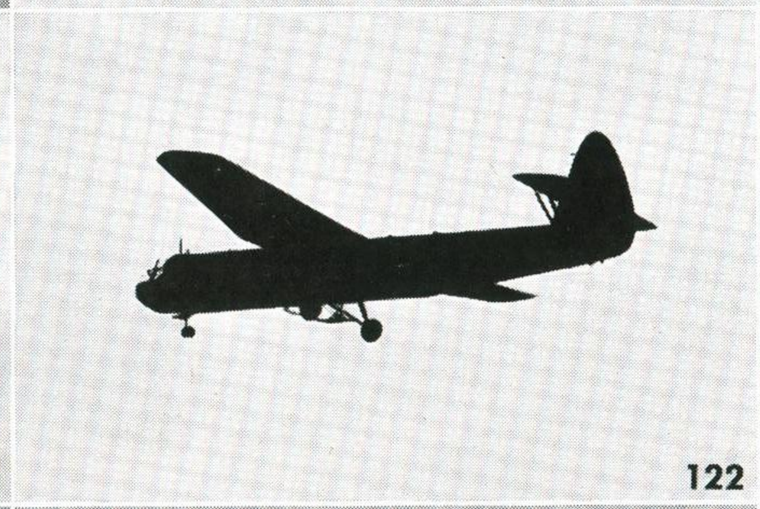
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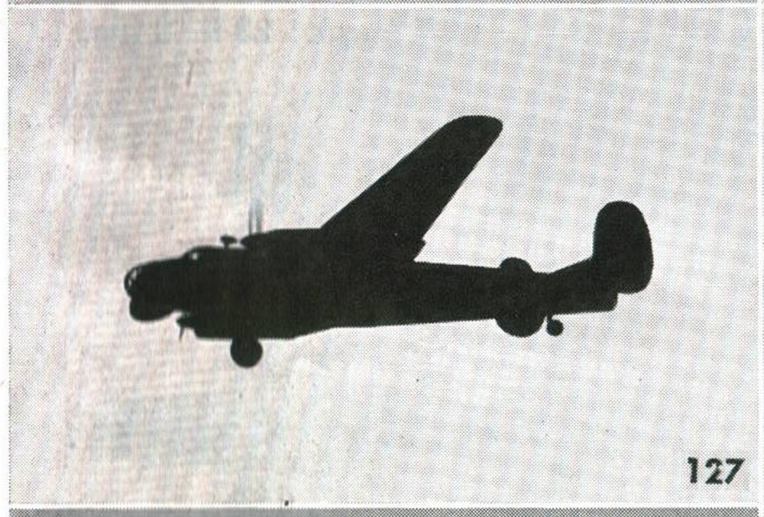
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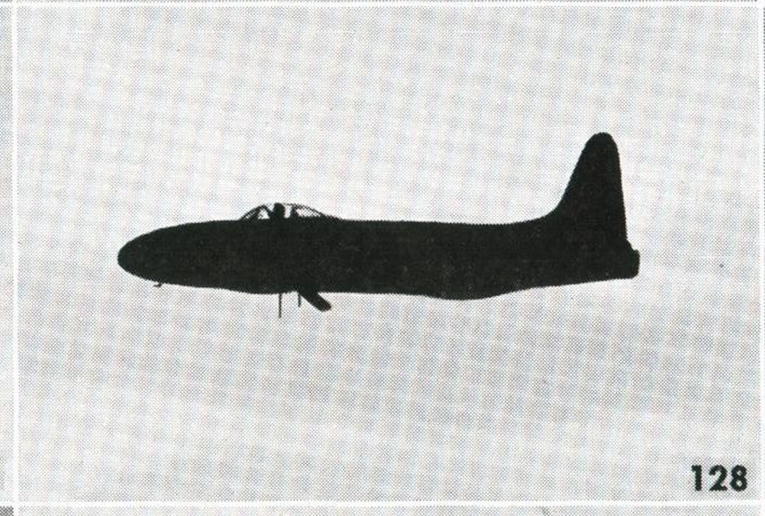
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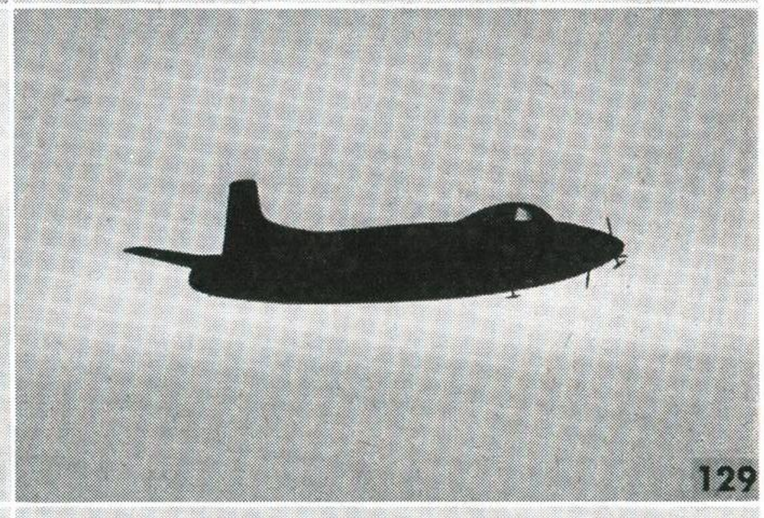
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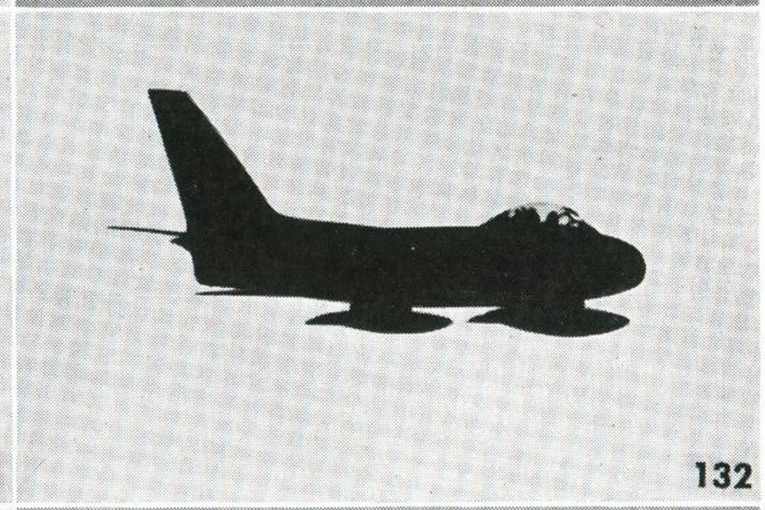
130

131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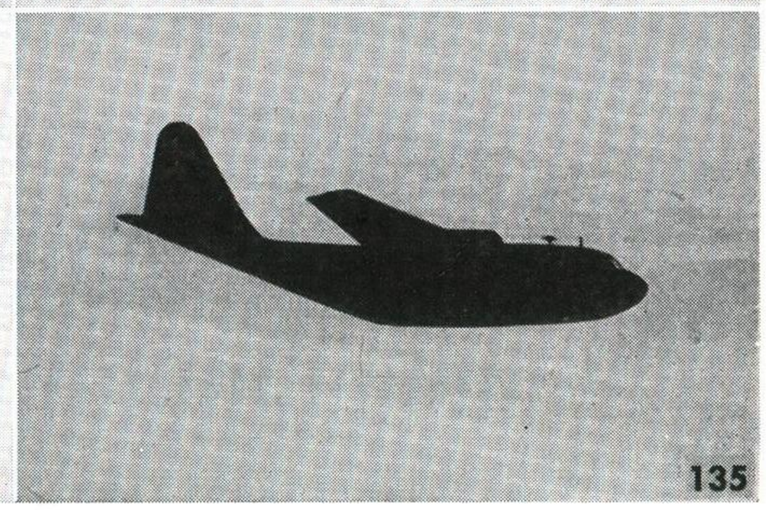
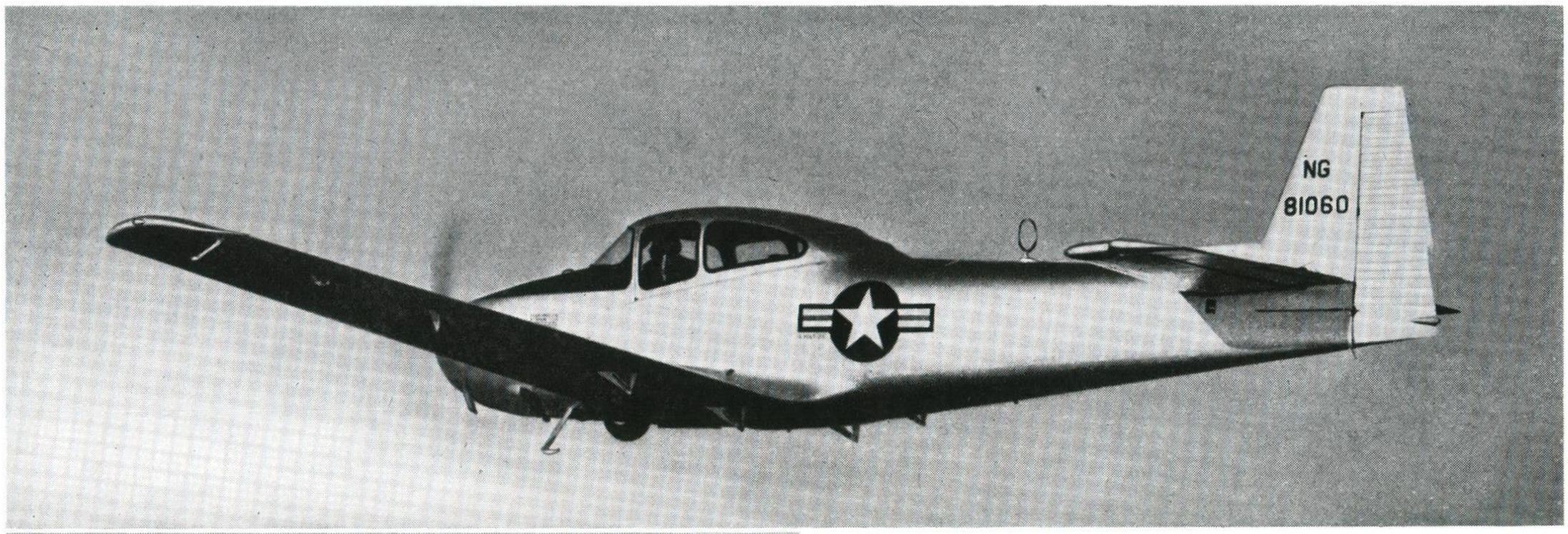
133

134

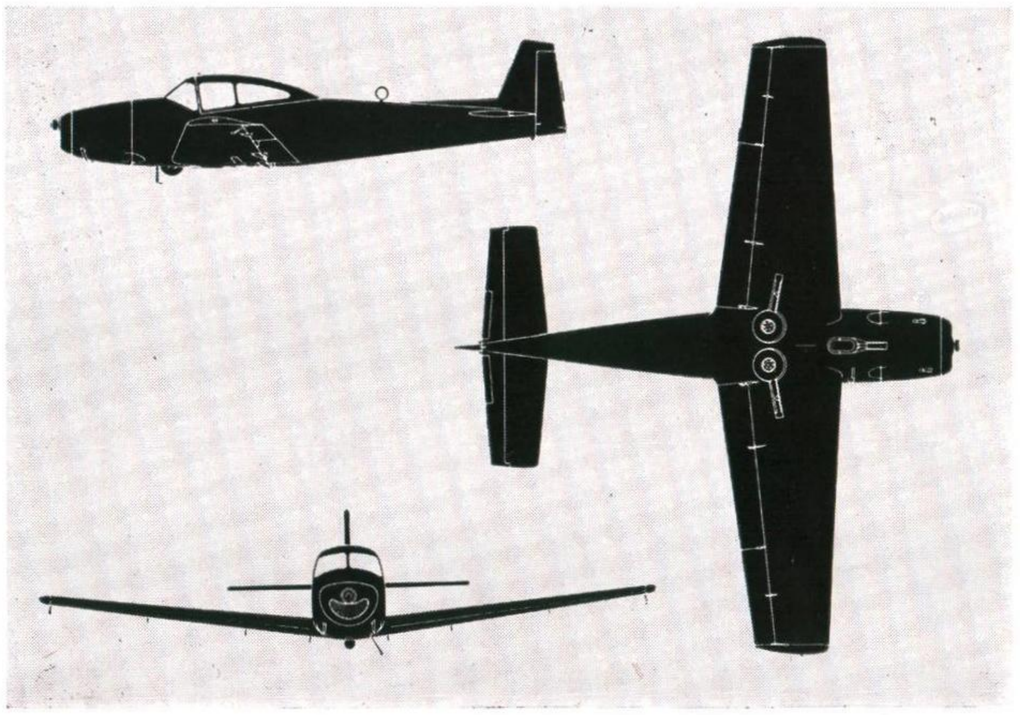

135

L-17 NAVIONS IN SERVICE

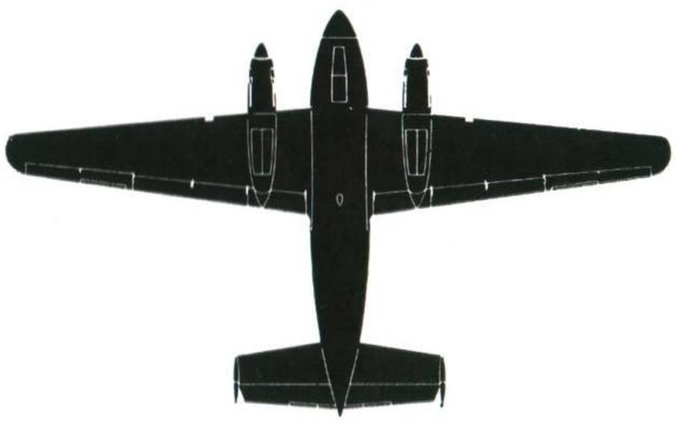


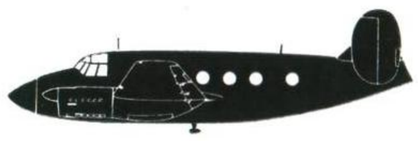
Originally a North American Aviation design (a fact showing in the tail shape and configuration) the L-17 Navion is being built by Ryan in large numbers and is in service in Korea with United Nations forces as a liaison and communications aircraft. It is a small low-winged monoplane with a wide fuselage and a wide snub nose; it has a low hump of a cockpit built well forward. A slightly tapered wing of shortish span has blunt tips and is matched in shape by the tail plane. The tail plane is set in advance of the small fin and rudder. All surfaces are sharply squared off.

Span: 33 ft. 4 ins. Length: 28 ft. 0 ins.



NEW AND REVISED SILHOUETTES

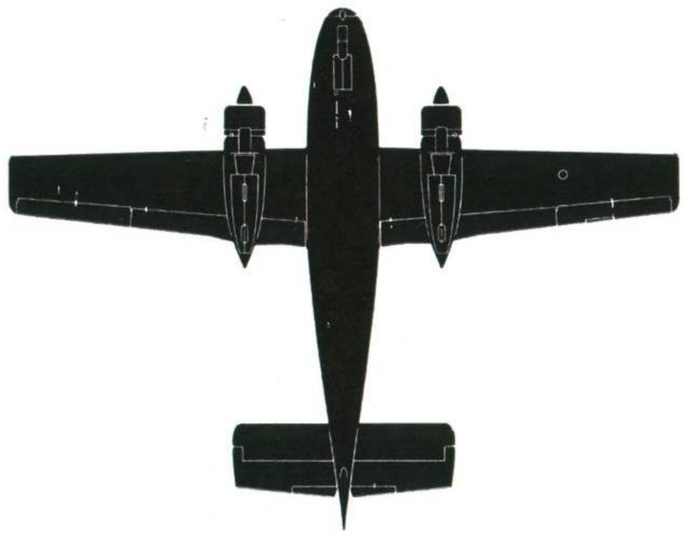


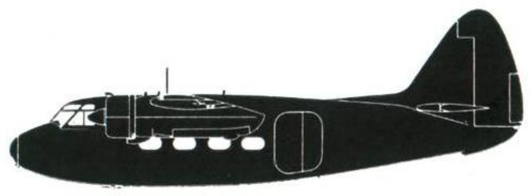


FLAMANT (MD-315)

Engines: Two Renault 12-5

Span: 67 ft. 9 ins. Length: 41 ft.

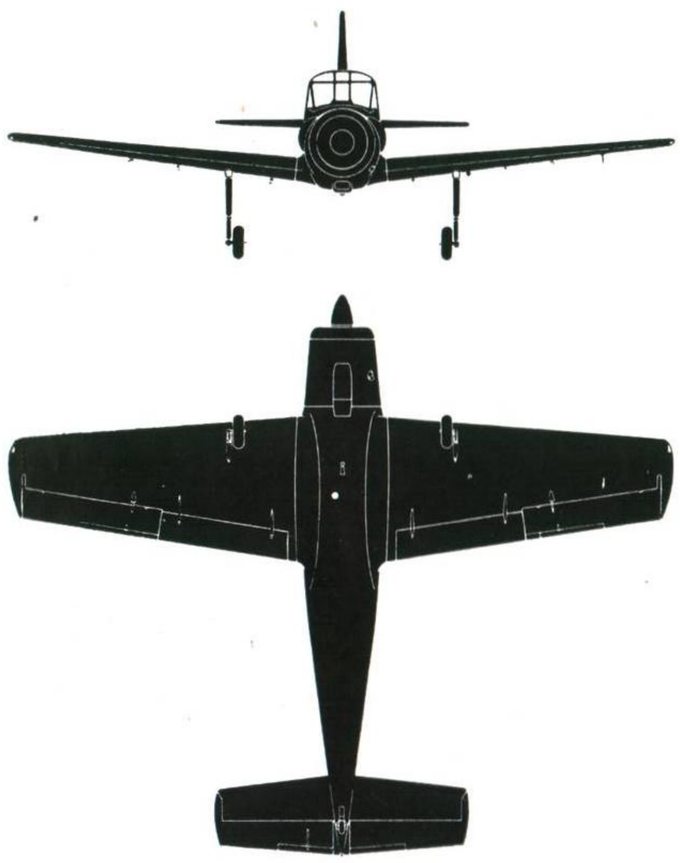




SEA PRINCE (C Mk. 1)

Engines: Two Leonides 24

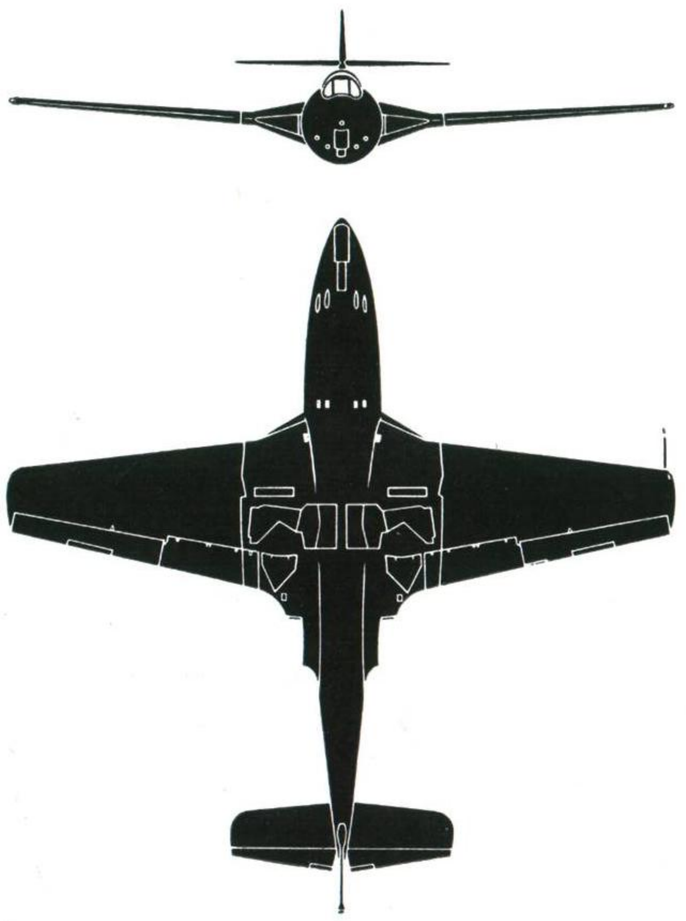
Span: 56 ft. Length: 42 ft. 10 ins.

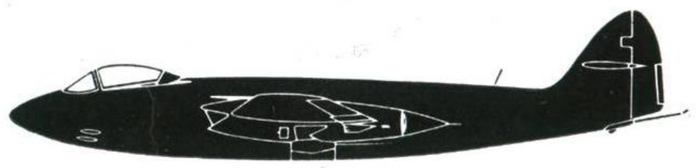


PROVOST (T Mk. 1)

Engine: Leonides 25

Span: 35 ft. 2 ins. Length: 29 ft.

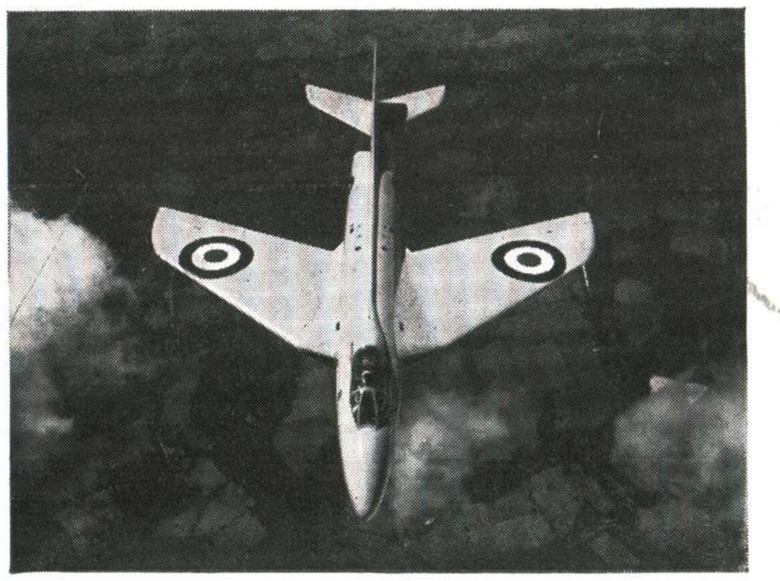




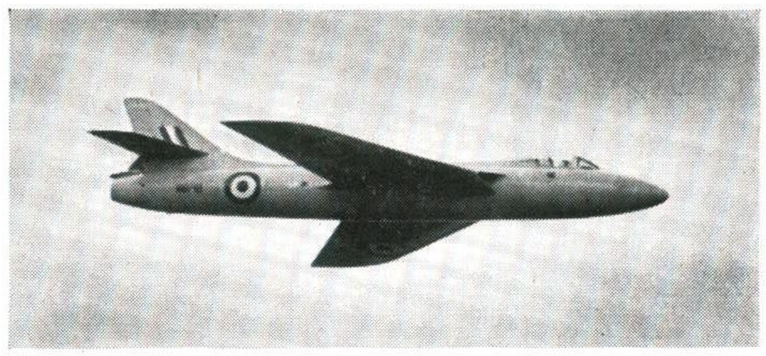
SEAHAWK (F Mk. 1)

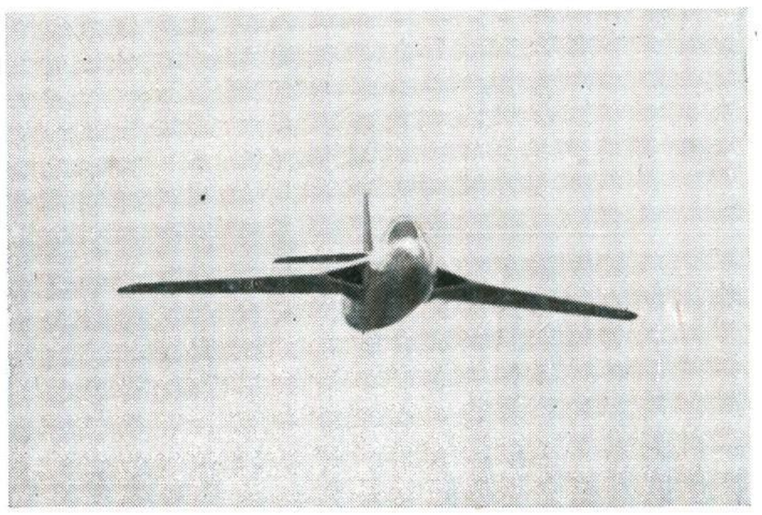
Engine: Nene 4

Span: 39 ft. Length: 40 ft.



Cover Photo ; Hawker P.1067 Avon powered jet fighter now in production for the R.A.F. is said to be the fastest in the world. Ground to air views below.





SOLUTIONS TO RECOGNITION TESTS IN THIS EDITION :

If you are unable to recognise any ship, tank to aircraft in the test illustrations, try to identify it with the aid of silhouettes or other illustrations before checking with lists below.

ELEMENTARY

109. **Provost** (T Mk. 1)
110. **Gannet** (AS Mk. 1)
111. **Meteor** (F Mk. 8)
112. **Vampire** (NF Mk. 10)
113. **Marathon** (Mk. 1)
114. **Attacker** (F Mk. 1)
115. **Vampire Trainer** (D.H.115)
116. **Hastings** (C Mk. 1)
117. **Meteor** (NF Mk. 11)
118. **Mosquito** (F Mk. 3)
119. **Dragonfly** (HC Mk. 1)
120. **Meteor** (PR Mk. 10)
121. **Martin 404**
122. **Sycamore** (Mk. 3)
123. **Venom** (NF Mk. 2)
124. **Hermes** (Mk. 4)
125. **Halifax** (A Mk. 9)
126. **Lincoln** (B Mk. 2)

ADVANCED

232. **Meteor** (PR Mk. 10)
233. **Sycamore** (Mk. 3)
234. **Gannet** (AS Mk. 1)
235. **MIG-15**
236. **Firefly** (FR Mk. 1)
237. **Provost** (T Mk. 1)
238. **Supermarine 535**
239. **Meteor** (F Mk. 8)
240. **Guardian** (AF-2S)
241. **Lockheed** (F-94C)
242. **Attacker** (F Mk. 1)
243. **Mercator** (P4M-1)
244. **Martin 202**
245. **Hornet** (F Mk. 3)
246. **Harvard** (T Mk. 2)
247. **Vampire** (NF Mk. 10)
248. **Washington** (B Mk. 1
249. **Meteor** (NF Mk. 11)

SILLOGRAPHS

118. **Bristol 171** (Mk. 3)
119. **Convair 240**
120. **S-51**
121. **Bristol 170** (Mk. 21)
122. **Horsa 2**
123. **Savage** (AJ-1)
124. **B-36D**
125. **Firebrand** (TF Mk. 5)
126. **Stratojet** (B-47A)
127. **Shackleton** (MR Mk. 1
128. **Shooting Star** (F-80A)
129. **Attacker** (F Mk. 1)
130. **Superfortress** (RB-50B)
131. **Sunderland** (Mk. 5)
132. **Sabre** (F-86A)
133. **Meteor** (PR Mk. 10)
134. **Auster** (AOP Mk. 6)
135. **XC-123**

TWIN (PROP) TYPES

1. **TU-2**
2. **Neptune**
3. **Hornet**
4. **Brigand**
5. **PE-2**
6. **Neptune**
7. **PE-2**
8. **TU-2**
9. **Brigand**
10. **Mosquito**
11. **Hornet**
12. **Brigand**
13. **Mosquito**
14. **PE-2**
15. **Hornet**
16. **TU-2**
17. **Neptune**
18. **Mosquito**
19. **Hornet**
20. **Hornet**
21. **Brigand**
22. **Neptune**
23. **PE-2**
24. **Mosquito**
25. **Brigand**
26. **Neptune**
27. **Mosquito**
28. **Neptune**
29. **PE-2**
30. **Brigand**
31. **Hornet**
32. **TU-2**
33. **TU-2**
34. **Neptune**
35. **Mosquito**
36. **Brigand**
37. **PE-2**
38. **Neptune**
39. **PE-2**
40. **Hornet**
41. **Mosquito**
42. **Hornet**
43. **Brigand**
44. **TU-2**
45. **Brigand**
46. **PE-2**
47. **Mosquito**
48. **Mosquito**
49. **Hornet**
50. **Brigand**
51. **Neptune**
52. **TU-2**

SEMI-SILLOGRAPHS

58. **Firefly** (FR Mk. 1)
59. **Swift** (F Mk. 1)
60. **Brigand** (B Mk. 1)
61. **Venom** (FB Mk. 1)
62. **Sea Venom** (FB Mk. 20)
63. **Wyvern** (TF Mk.4)
64. **Scorpion** (F-89A)
65. **Hawker P1067**
66. **Provost** (T Mk. 1)

TRICKY TRIO

Left to right : Prentice, Provost, Chipmunk

WRECK-COGNITION

Commando (C-46)

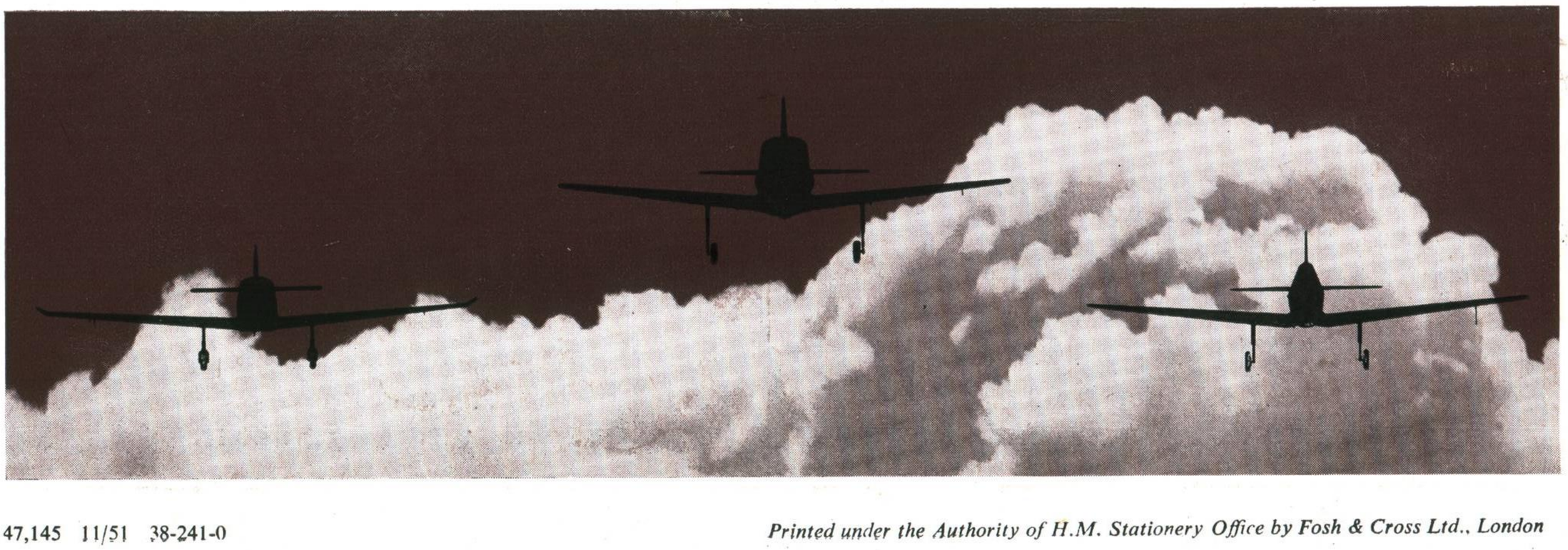
LOOK WHAT'S TURNED UP

Packet (C-119C)

ERRATA

June *Journal*, p. 141, KC-97A span read 141 ft. 3 ins., July, p. 168, "Twin-Type" Teacher No. 15 read Meteor NF Mk. 11.

TRICKY TRIO



47,145 11/51 38-241-0

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