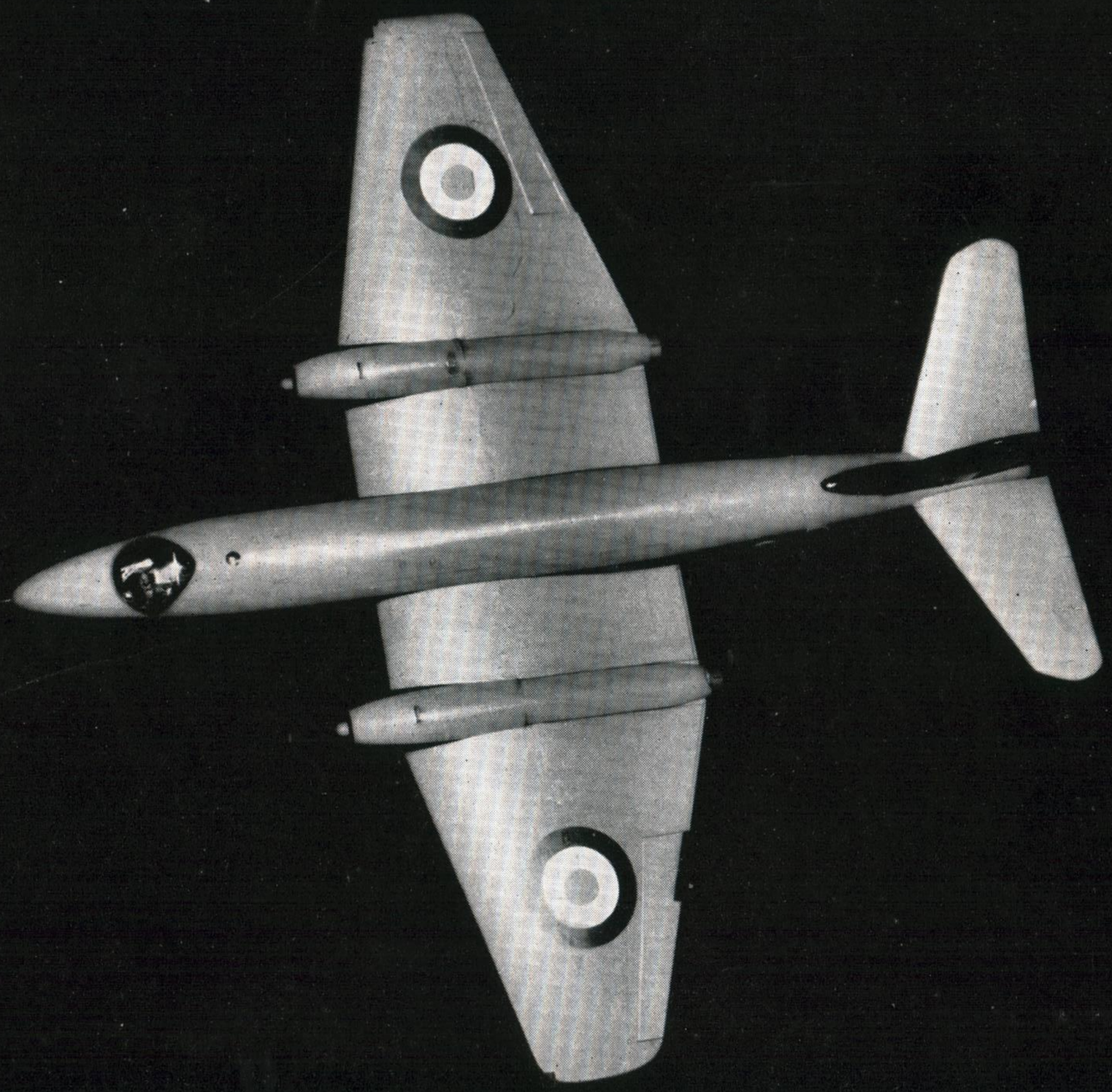
THE INTER SERVICES

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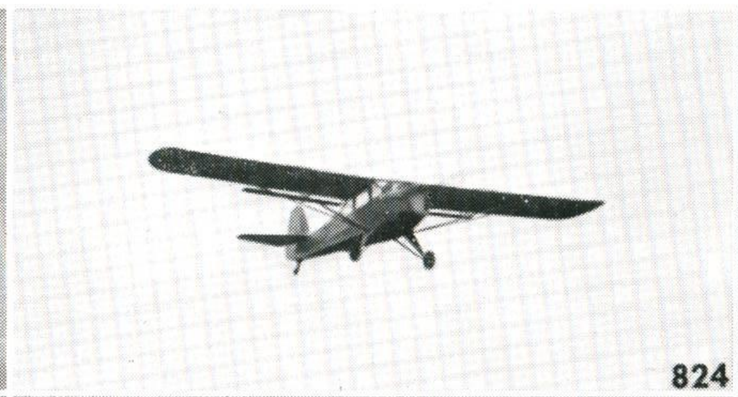
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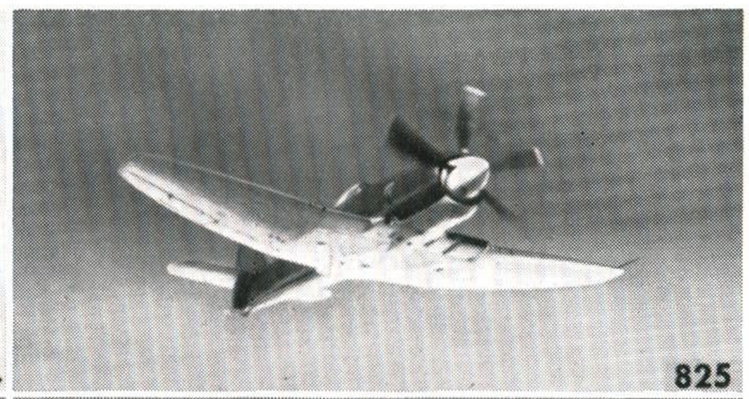


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ELEMENTARY SPOTTING

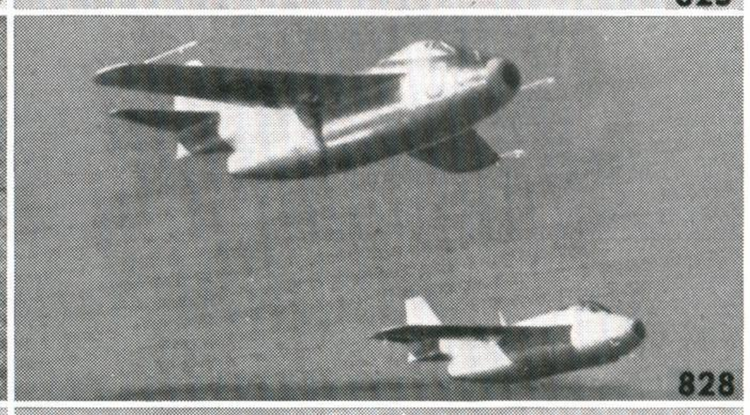

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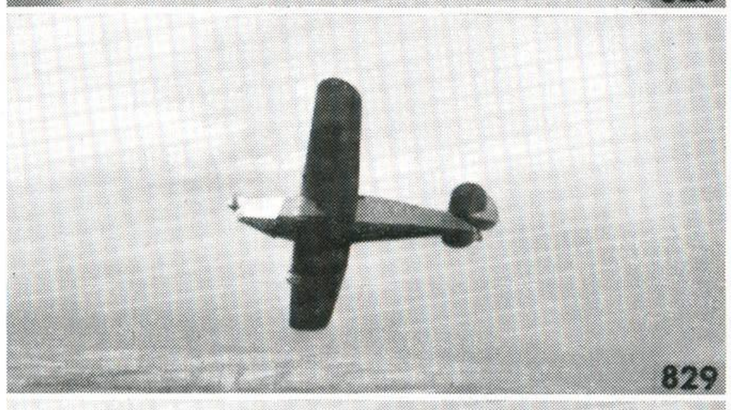

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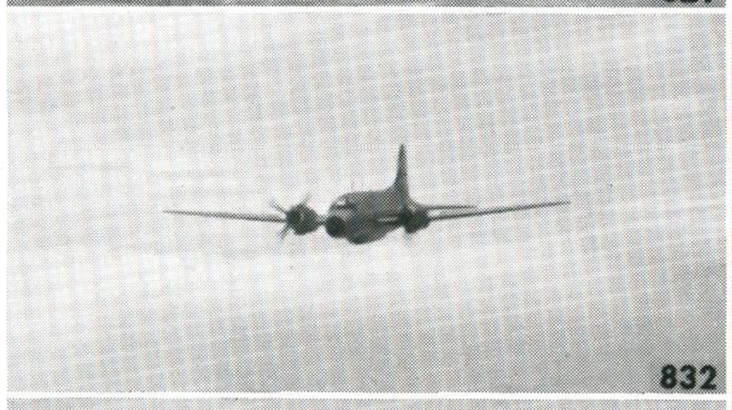

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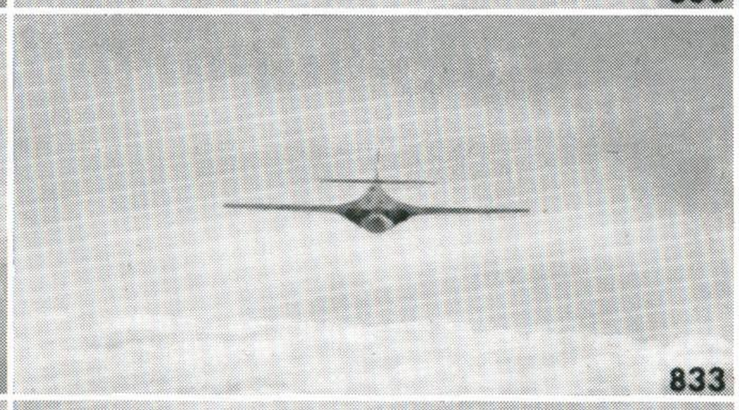

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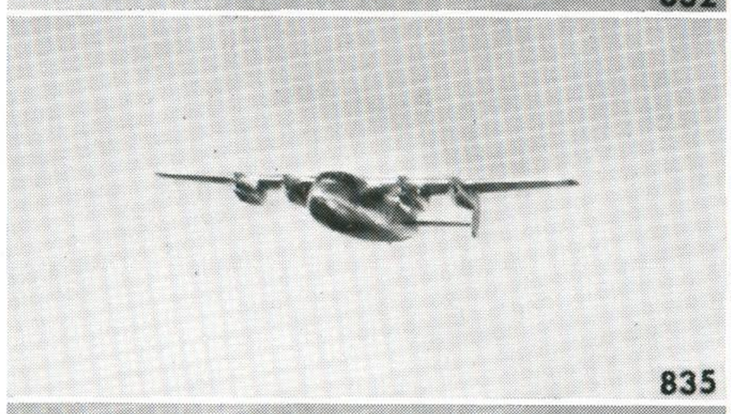

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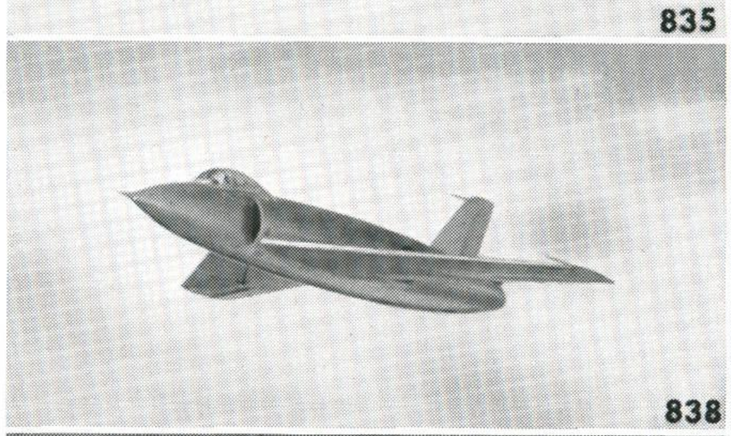

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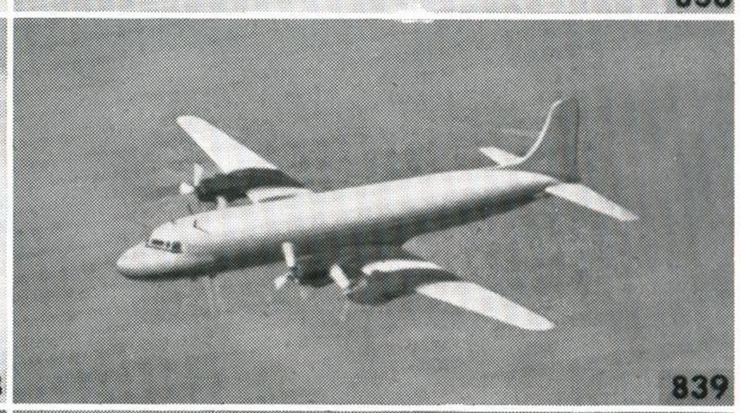

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THE INTER SERVICES

AIRCRAFT RECOGNITION JOURNAL

The Inter-Services Aircraft 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, Inter-Services Aircraft Recognition Journal, Air Ministry, Room 405, Richmond Terrace, Whitehall, London, S.W.1.

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"Training" and "Testing"

FALLACIES, like old soldiers, never die ; they may fade, but only temporarily it seems. Having observed a tendency recently for one particular fallacy to raise its head, we are helping it to its feet for the simple purpose of knocking it down in full view of young and over-enthusiastic aircraft recognition instructors. The fallacy is that the more difficult the test the more it will teach.

Enthusiasm is a splendid thing, but the instructor must beware lest it becomes a danger, for it leads him on and he may easily out-distance his pupils, over-taxing their intake capacities, to the detriment of their training and the certain death of their enthusiasm. This is most easily done by providing tests which are too difficult considering the recognition training that pupils have already undergone.

Among other recognition experiences of the early war years, we recall one particular hastily-trained over-enthusiastic instructor, who, regardless of his pupils' previous training—or lack of it, flashed impossible aircraft views before them intoning as he did so : " If you can spot these, you can spot anything." Not very surprisingly they failed to pass his test and might well have written-off aircraft recognition as a difficult, almost impossible, subject.

The fallacy aforementioned is best exposed perhaps, by considering the following definitions : To Train, according to Webster's New International Dictionary, is " . . . to teach so as to be fitted, qualified, proficient, etc." A Test, according to the same authority, is " . . . any series of questions or exercises, or other means of measuring the skill, knowledge, intelligence, capacities, or aptitudes of any individual or group." A test, therefore, is the measure of training and must be based entirely upon training.

The human mind, however, properly trained and adequately informed upon an object, has the capacity to recognize it from a view never before seen. We can call it an imaginative-creative capacity. The ideal test will tax that capacity to the full. To overtax it would not only fail to instruct but induce frustration and resentment and many other things equally fatal to learning.

Training and testing, therefore, though closely connected, are by no means the same thing. Training must be a step-by-step process of adding one piece of knowledge or experience to the next, and as we have so often said before " little and often " rather than in " large lumps " at long intervals. Testing must follow training closely in every sense.

Certain types of recognition tests must, of course, be of a high standard so that only the most proficient spotters are selected. But to raise the standard of spotting, more training *before* the application of stiffer tests, must be the rule.

Recognition ability does not just *come* ; nor can it be obtained by tests. It is a cumulative process which depends on application and confidence, both of which can be built up by progressive tests carefully related to the instruction that has been given.

"IRON-CURTAIN" AIRCRAFT IN THE NEWS

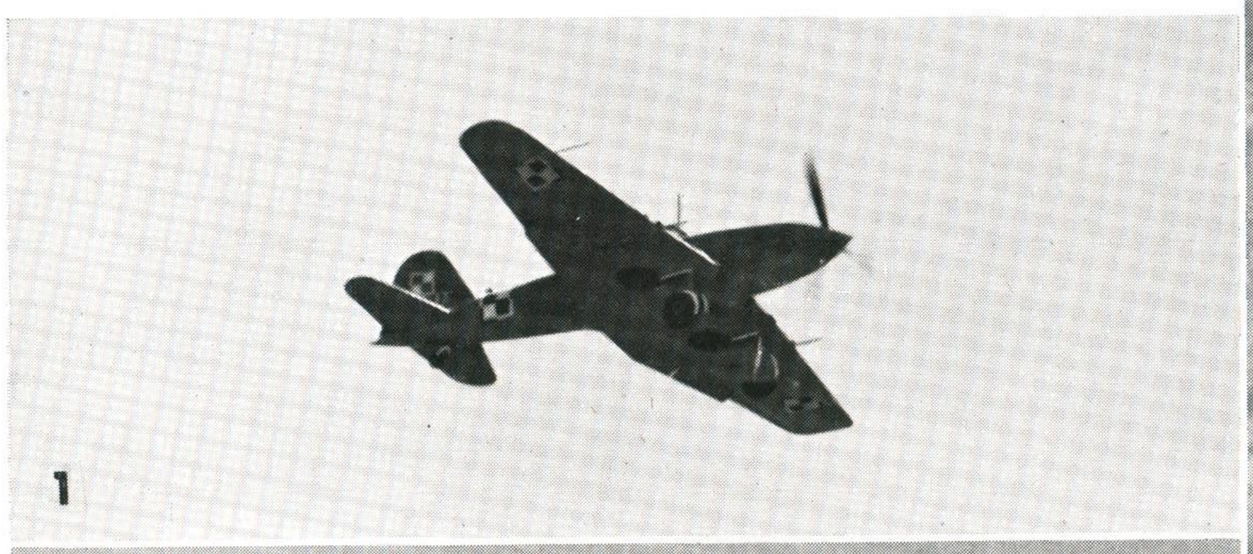
1 **ILYUSHIN IL-10.** Have no illusions, the identity of this Ilyushin shows in its tail, in the broad flat uninteresting aspect of the wing, and its short sharp snout. This Russian-built attack bomber (shown with wheels out and flaps down) displays Polish Air Force Insignia.

2 **MIG-9s** in "para" display their boat-like bodies and boom-like tail supports. This view exaggerates the MIG-9's tail-up character and its tendency to look short in span.

3 **NEW MIG-JET** is characterized by exaggerated lean-back in fin and very high tailplane which is more than half-way up the fin. A midwing, sharply swept, has small root fillets and blunt tips. Turbojet in fuselage has nose intake and tail exhaust, thus chopping fuselage off at both ends.

4 **ILYUSHIN IL-12** of Czech Air Lines "running-up". High-mounting of engines and characteristic "build-up" of engine detail is noteworthy, as is extensive wing root fillet.

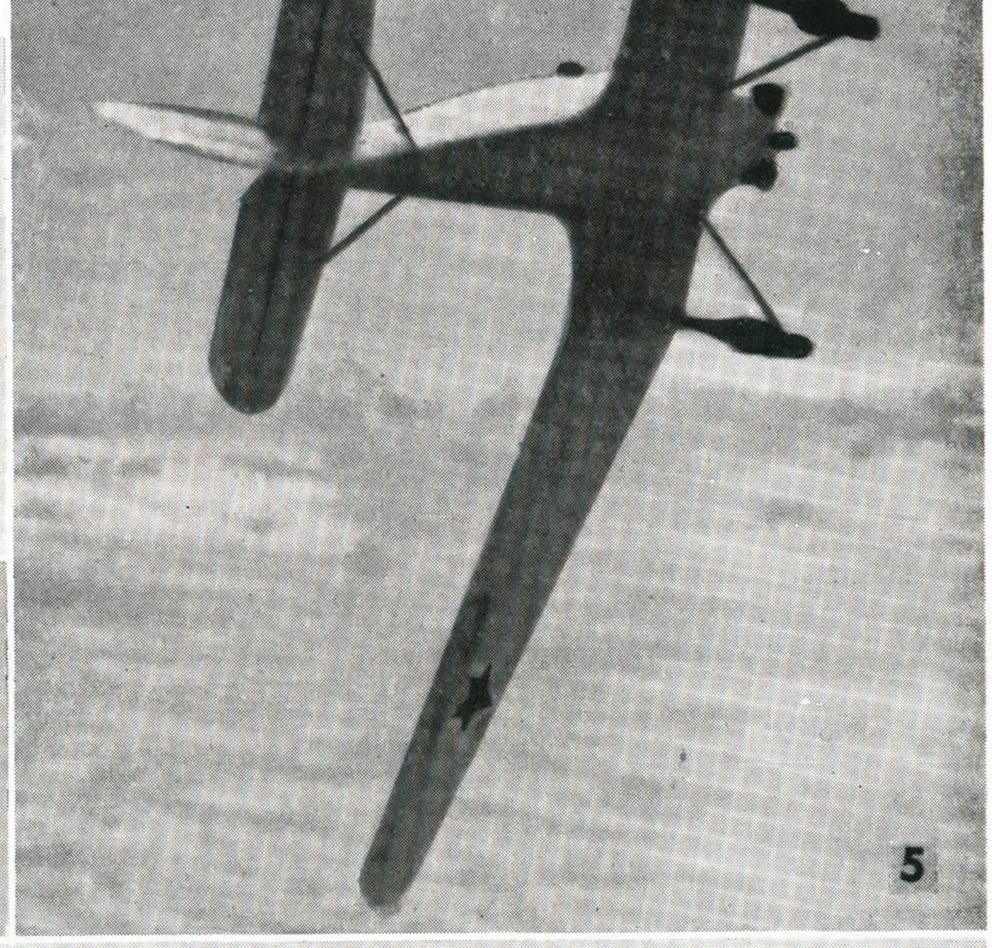
5 **UT-2,** a two-seat light trainer with a number of fixed tell-tale features, is also an imposter, displaying in this view, a "swept" wing, when in reality it is almost equi tapered outboard of a square centre-section. UT-2s are in service in very large numbers.


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CHARACTER STUDY

No. 7—F-86 Sabre

THIS angular American fighter, although named the "Sabre", is the nearest visual equivalent to a flying fish that has yet been built. With its piscine mouth perpetually agape it has an overall appearance of hurry and is very fin-conscious. Wings are swept back, tail-plane is swept back, fin and rudder are swept back—it looks as if it was at full speed even when sitting on the tarmac.

The F-86 is a stylish low-wing monoplane with, visually, no engine to classify. Wings are angular, straight-tipped and tapering within the overall sweep-back. They are thin, slicing surfaces with no dihedral to speak of. If anything, the wings appear a trifle too big for the aircraft ; too big, that is to say, for visual comfort.

The fuselage from above is a slightly tapered affair, with a bullet nose. From the side, however, it is almost the same height all along, with both ends gapingly blunt. The fuselage has an oddly balanced look owing to the shining cockpit cover being far forward and the fin and rudder leaning over backwards.

If the wings are too big for this beast, the dihedral tail-plane (swept back like its main-plane parents) is, by the same visual token, too small. This striking imbalance is an important recognition feature and in plan views it is useful to dwell on the relative sizes of these features.

But the one outstanding feature of the F-86, apart from its general character, is the fin and rudder shape. Rising from a low spinal keel, it rears upwards and sternwards, slightly tapered and squared-off at the top. From almost any view this striking oversized member rides the stern with swagger and dash, and is the best individual trademark of the aircraft. If well learnt in combination with the other shapes it will spell F-86 very rapidly to the brain.

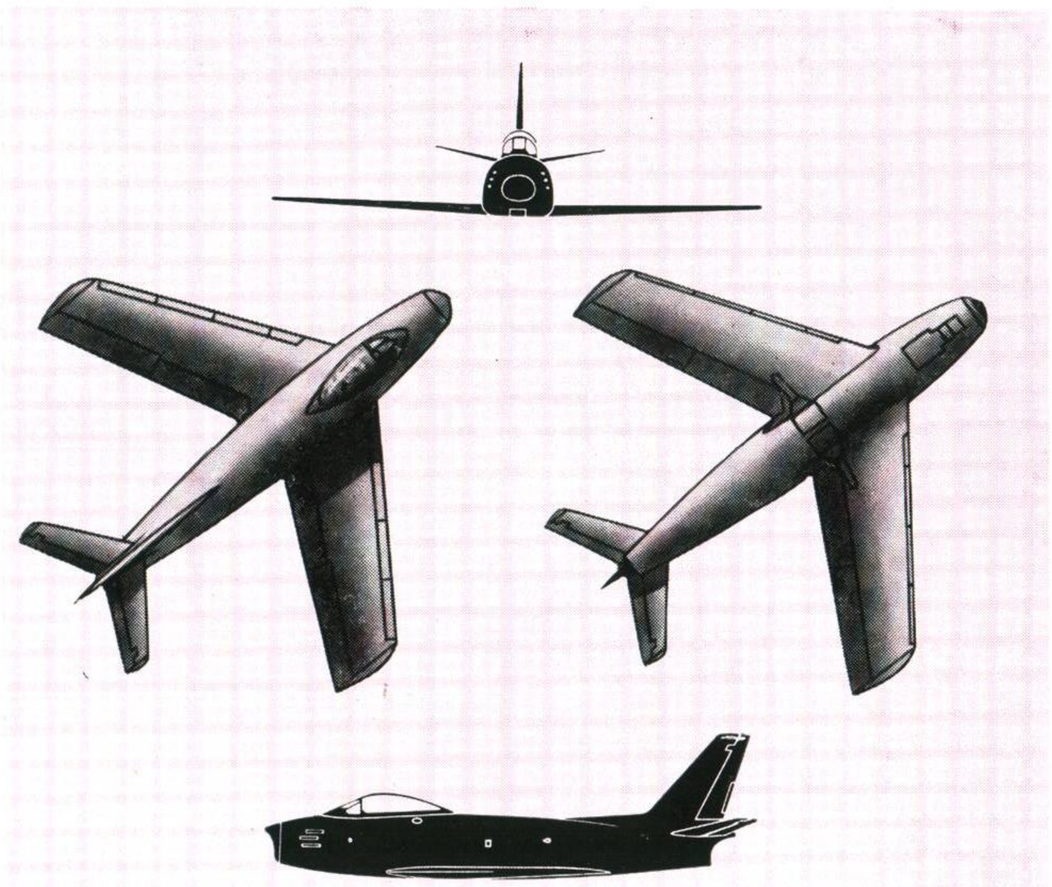
The F-86 first flew in 1947 and is now standard day equipment for both the United States and Royal Canadian Air Force. Essential figures are : span 37 ft. 1 in. ; length 37 ft. 6 in. ; max. speed over 670 m.p.h. Maker is North American ; and in Canada, Canadair.

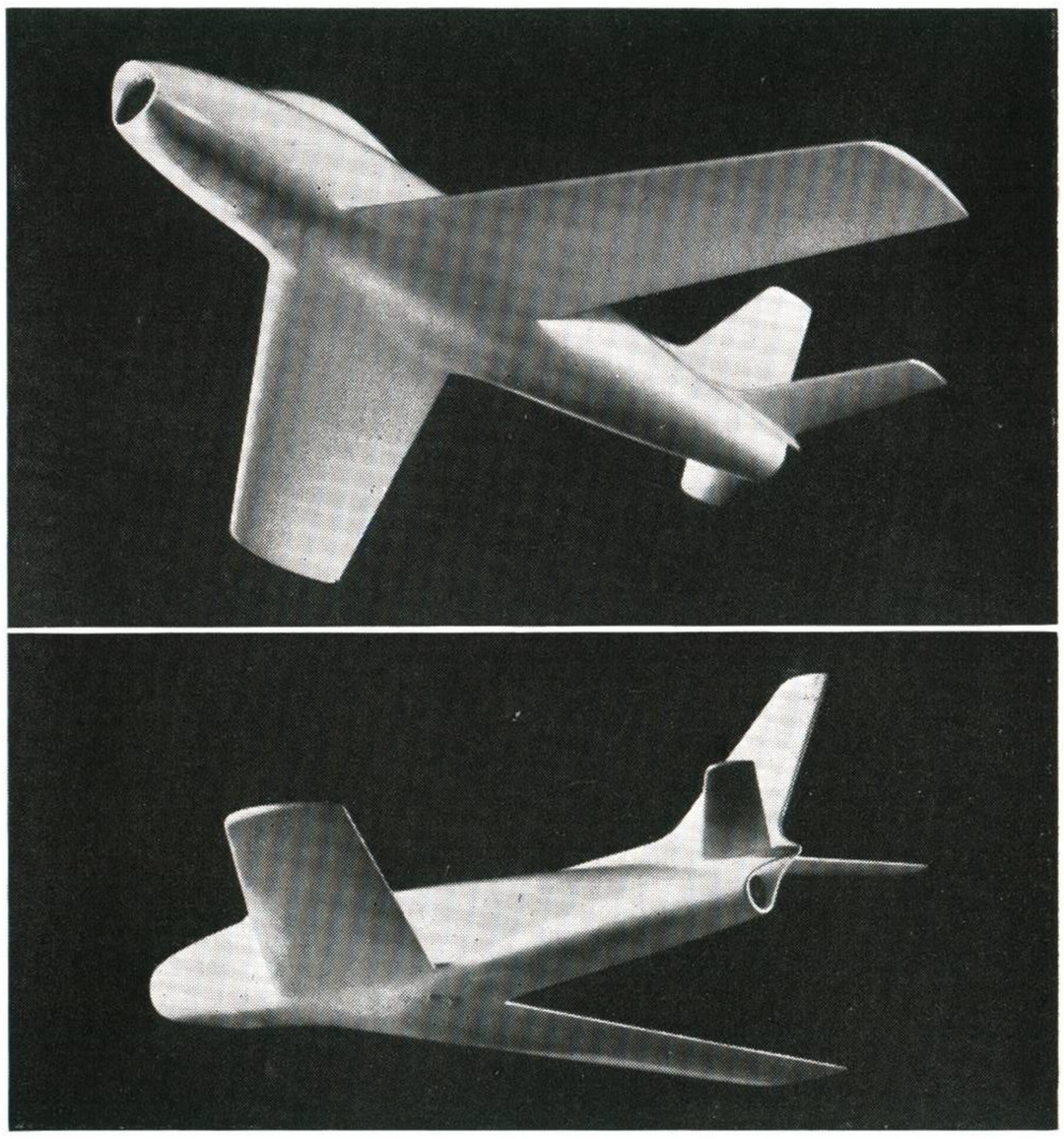
Mnenomic aid : a sabre is bent, so is every flying surface of the F-86.

Comparison note : The only optical rival of the F-86 is the new Russian MIG-jet. Concentrate on the completely different "feel" of the Russian tail unit with its high set tail-plane which alters the whole character of the machine seen from almost any angle.

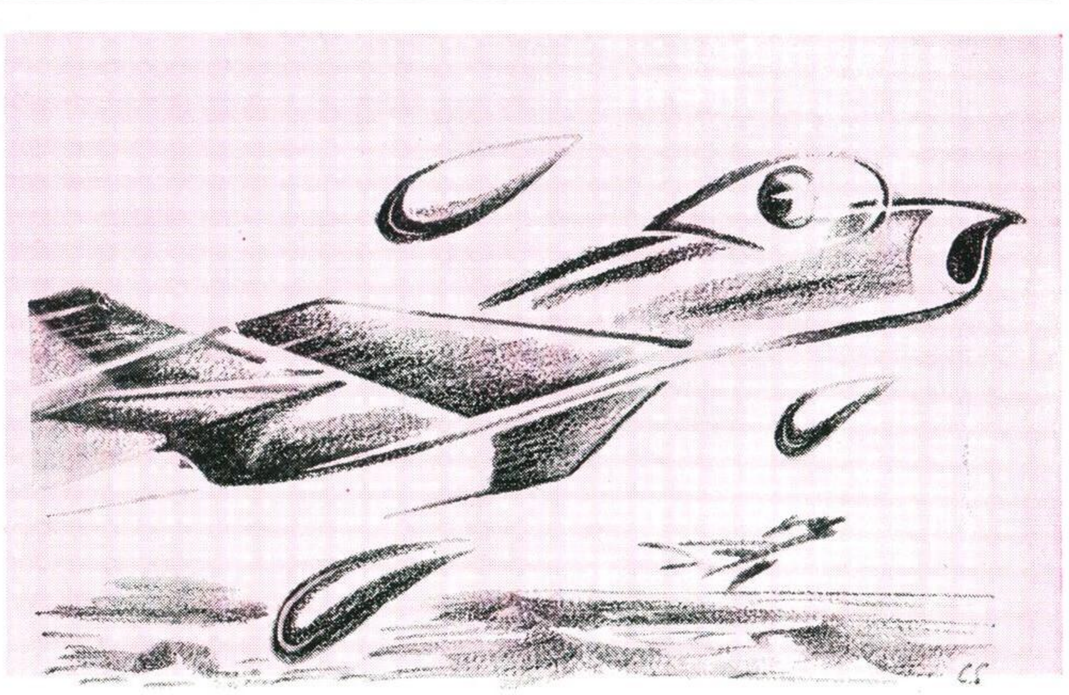
(See page 237 for silhouettes of the Sabre and MIG-jet together—Ed.)

C. H. GIBBS-SMITH

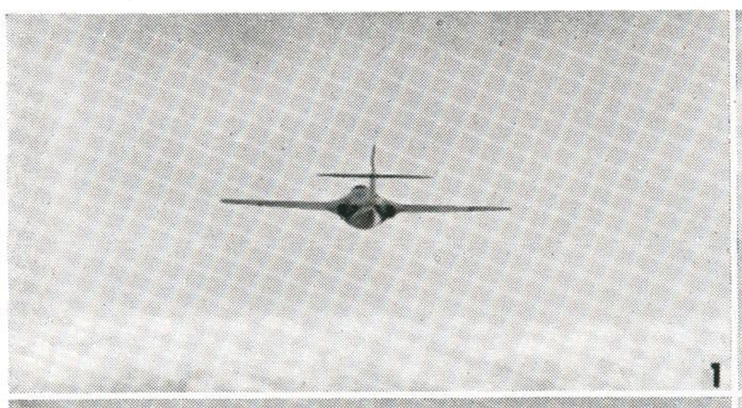


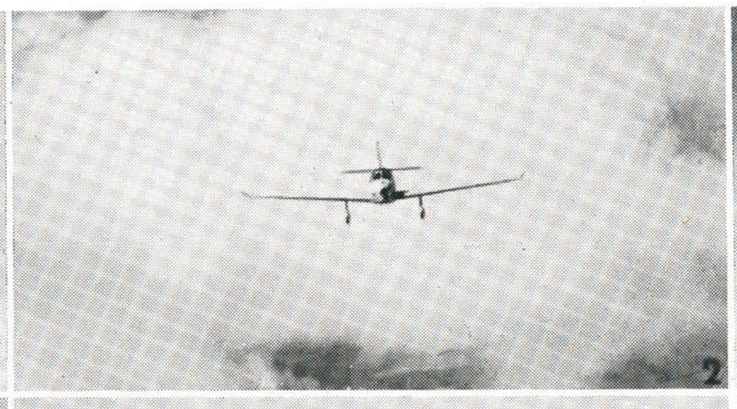


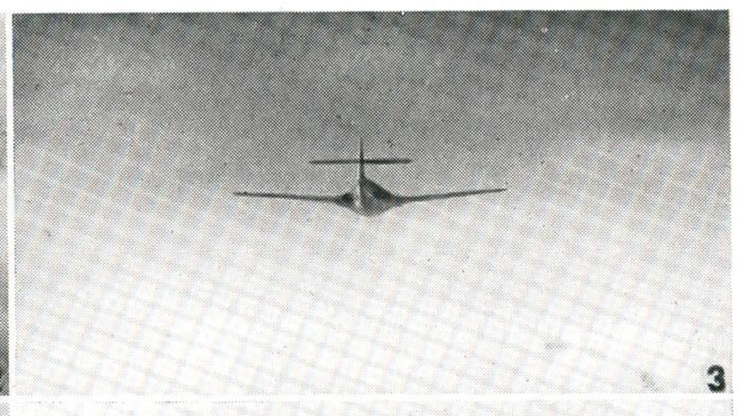
. . . nearest visual equivalent to a flying fish that has yet been built.

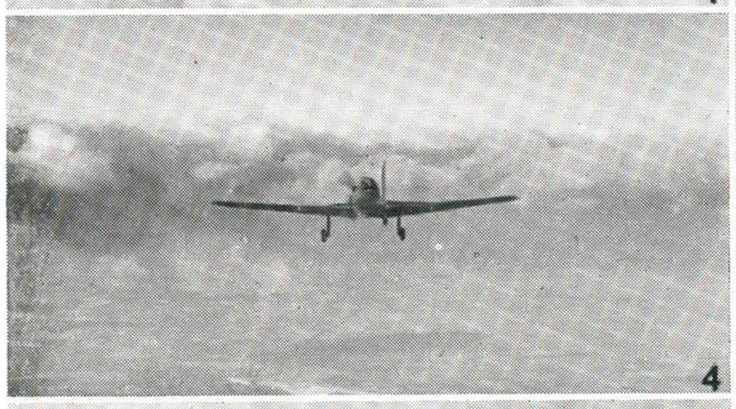


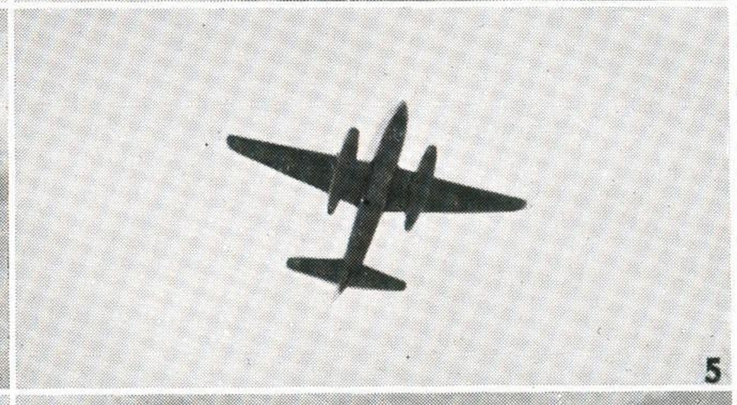
ADVANCED SPOTTING

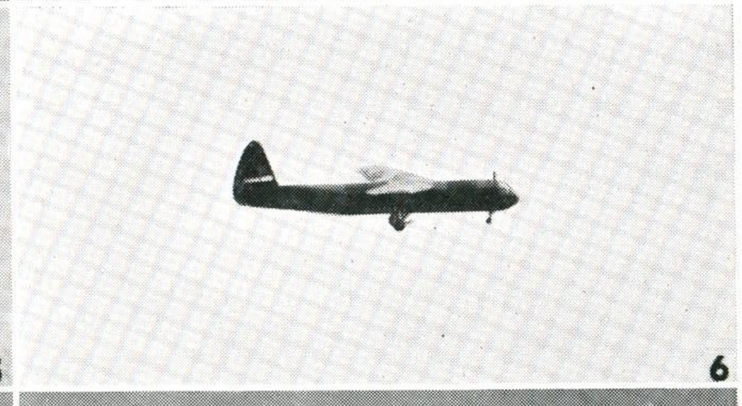

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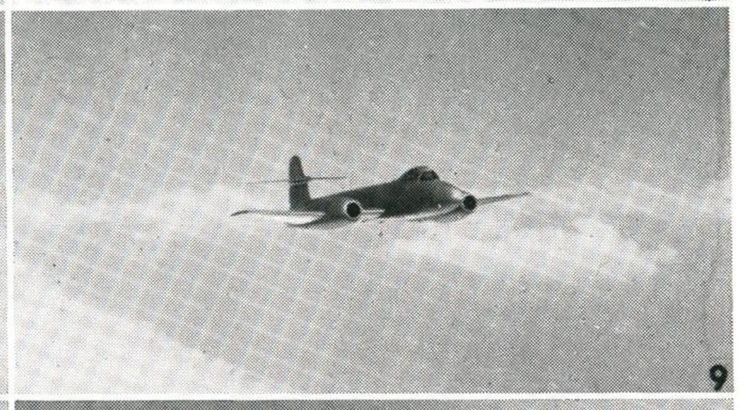

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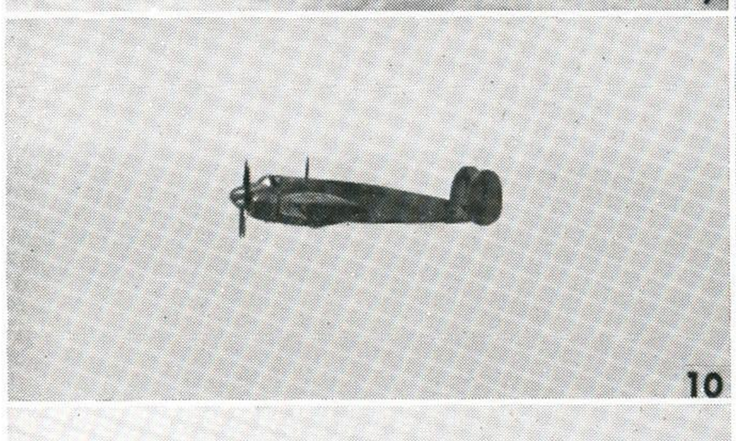

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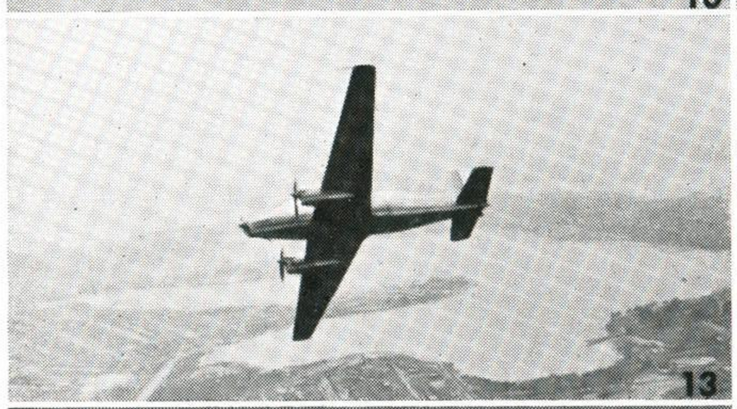

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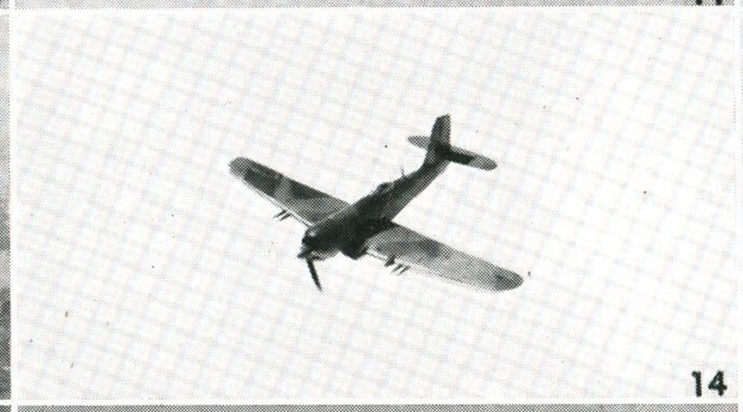

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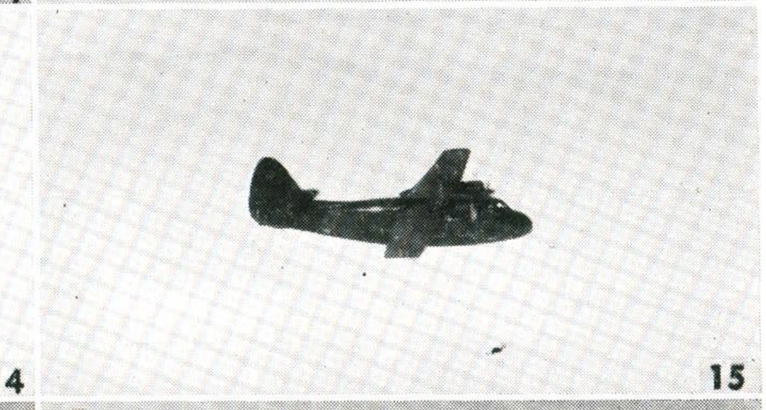

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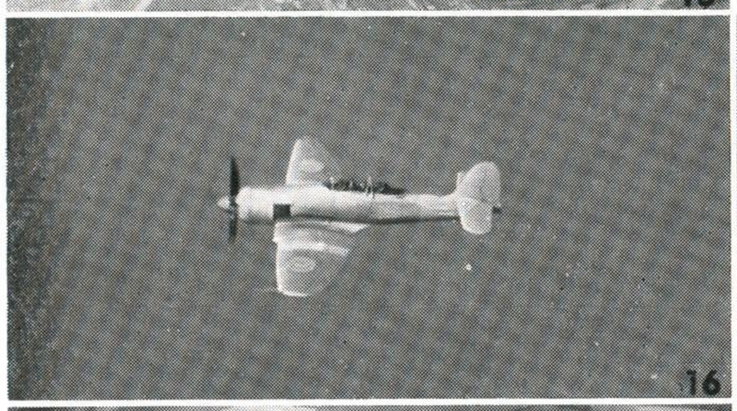

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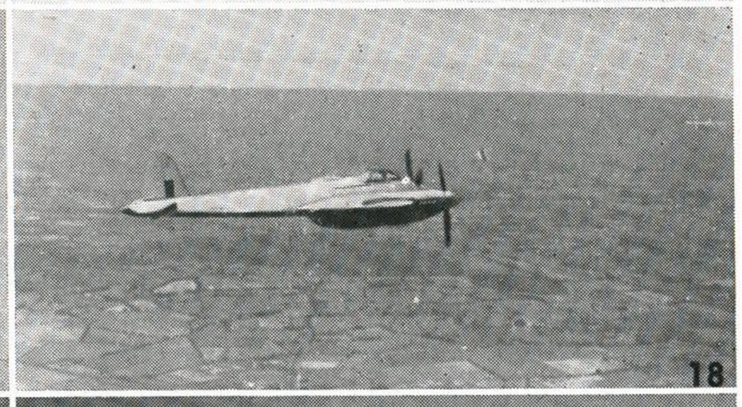

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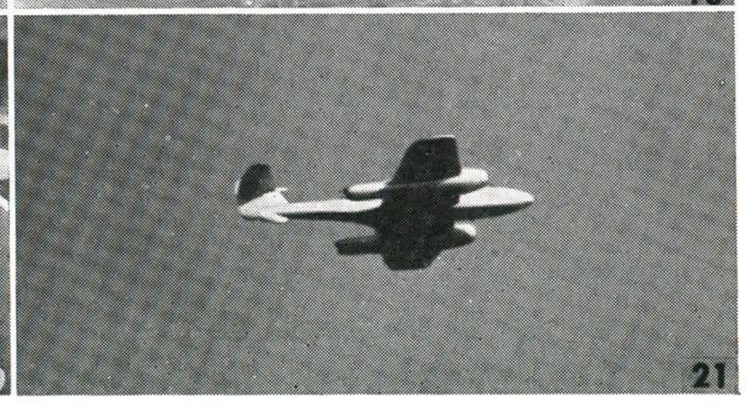

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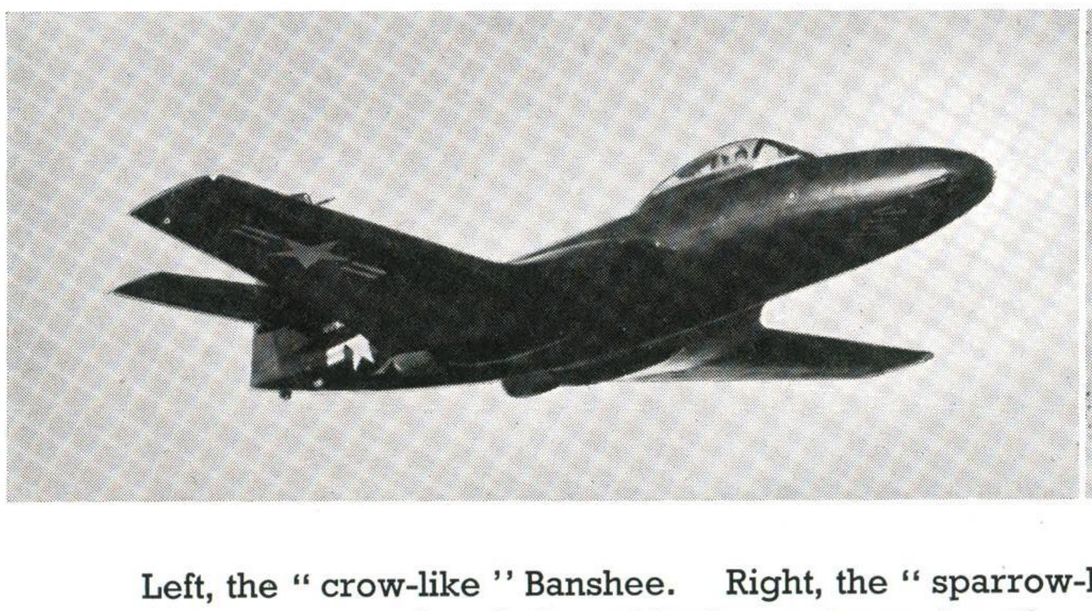

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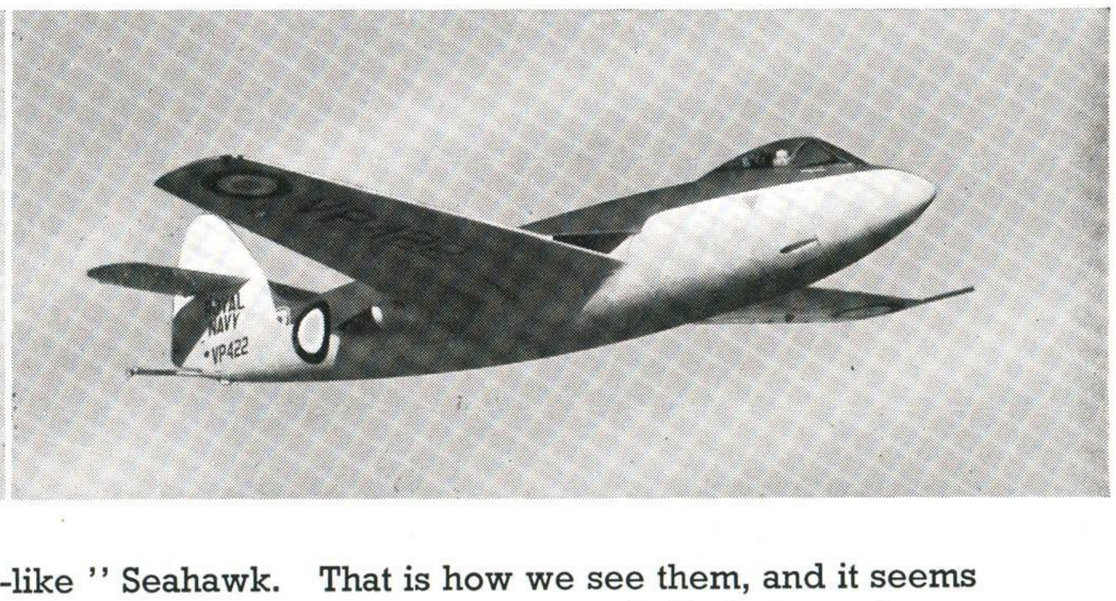

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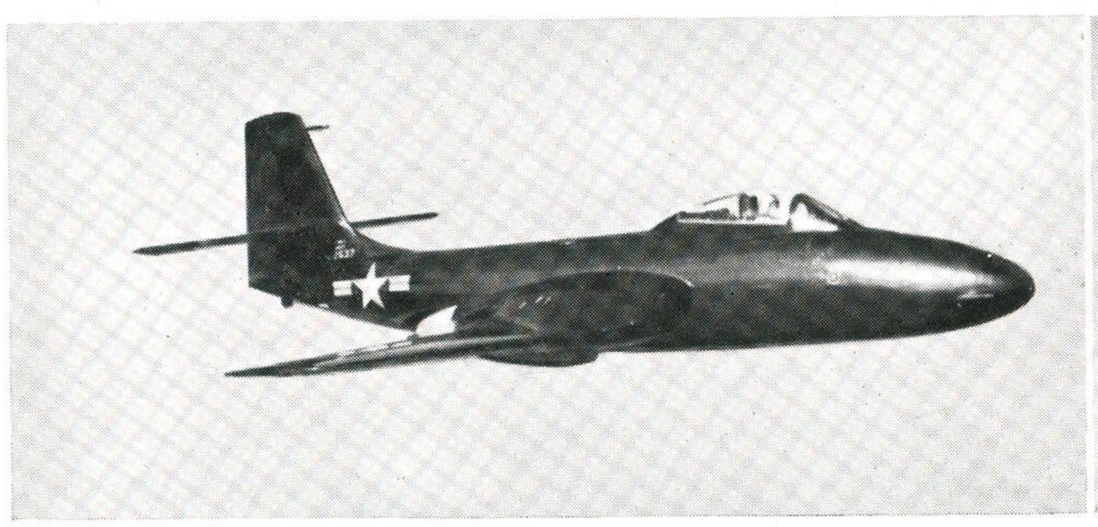
What's the Difference?

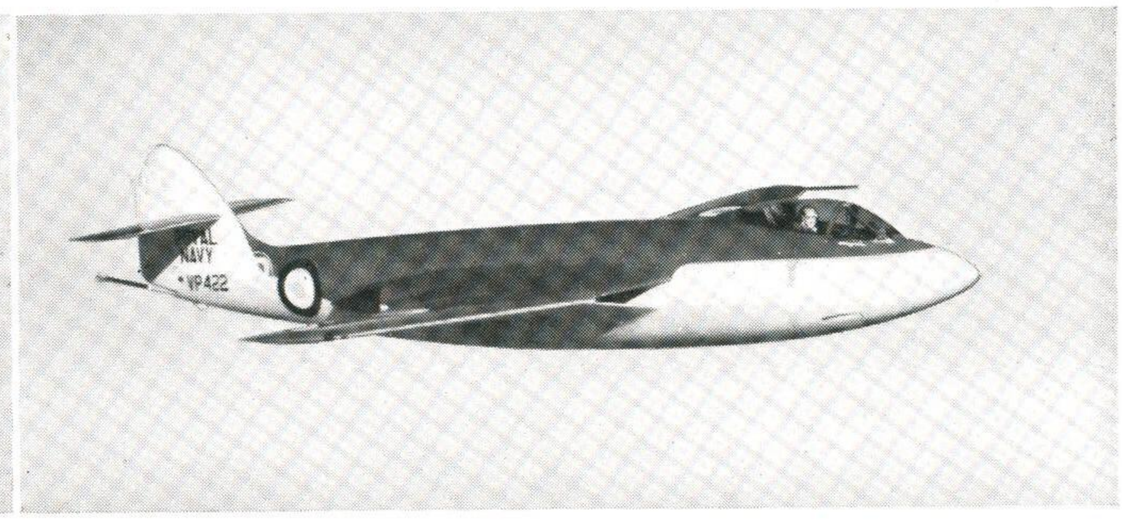
The McDonnell F2H-2 Banshee and the Hawker Seahawk compared





Left, the " crow-like " Banshee. Right, the " sparrow-like " Seahawk. That is how we see them, and it seems to be a matter of cockpit positioning and nose length. If this idea leaves you " up in the air ", there are many more down-to-earth points of difference between these two naval fighters. Turbojet " breathing " arrangements have produced swollen wing-centre-sections on both, but whilst the Banshee's is an extravagant affair





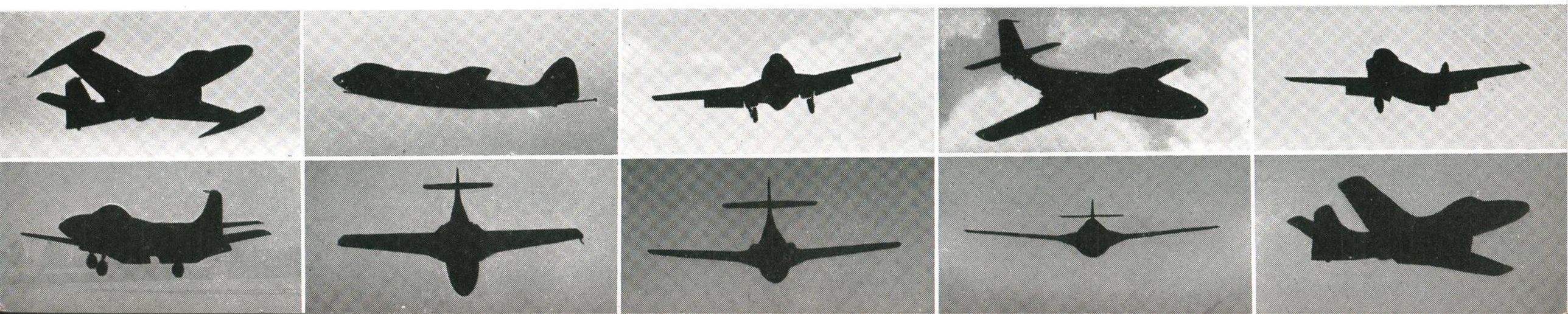
—apparently near to bursting point—that of the Seahawk remains neat, clean and modest. Wing shapes and aspects are considerably influenced by these centre sections and a more complete idea is best obtained by consulting the three-view silhouettes. Both aircraft have sleek symmetrical body forms. In this respect the Banshee is more slender, though the Seahawk looks the " cleaner ". Tail units, both in shape and fin





construction, are in entirely different streets. The long-span tail-plane of the Banshee, low set on its severely cut fin, has an altogether different aspect from the shorter, wider tail-plane which rides half way up the Hawker hall-mark. Incidentally, although many earlier photographs show dihedral in the tail of the Banshee, there is none in the tail-planes of production models. Now, with the aid of the views above, identify the aircraft below

(Answers on rear cover)



" Men were deceivers ever . . . " wrote Shakespeare ; " so were aeroplanes " may we respectfully add. But after reading this exposition of their " deceit " we think spotters need " . . . sigh no more." The author says, in fact, that if our experiences of aeroplanes are properly based on the three-view silhouette, there is much less likelihood of anyone suffering from

ABERRATIONS OF EYE AND MIND

by C. H. GIBBS-SMITH

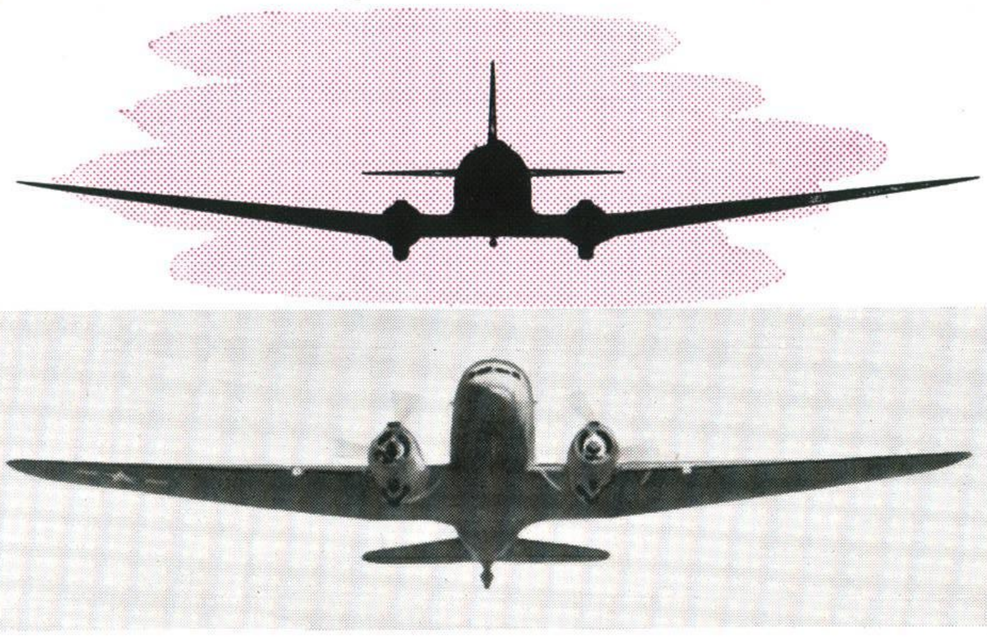
THERE ARE ALWAYS PEOPLE who advocate easy ways of learning recognition which turn out to be neither easy nor accurate in the long run. Chief among these sins is the belief that looking at real aeroplanes, or photographs of them, is the best introduction to learning their recognition features. As an enticement to the lazy or an inducement to the recruit this method has its temptations. But there is a dogma that nothing in a decade of recognition teaching has ever changed : it lays down that the silhouettes or G.A. (general arrangement) drawings must be studied at the same time, or if possible, before any teaching on photos or with full sized aircraft. This is, of course, providing that silhouettes exist, which is not always the case with foreign aircraft.

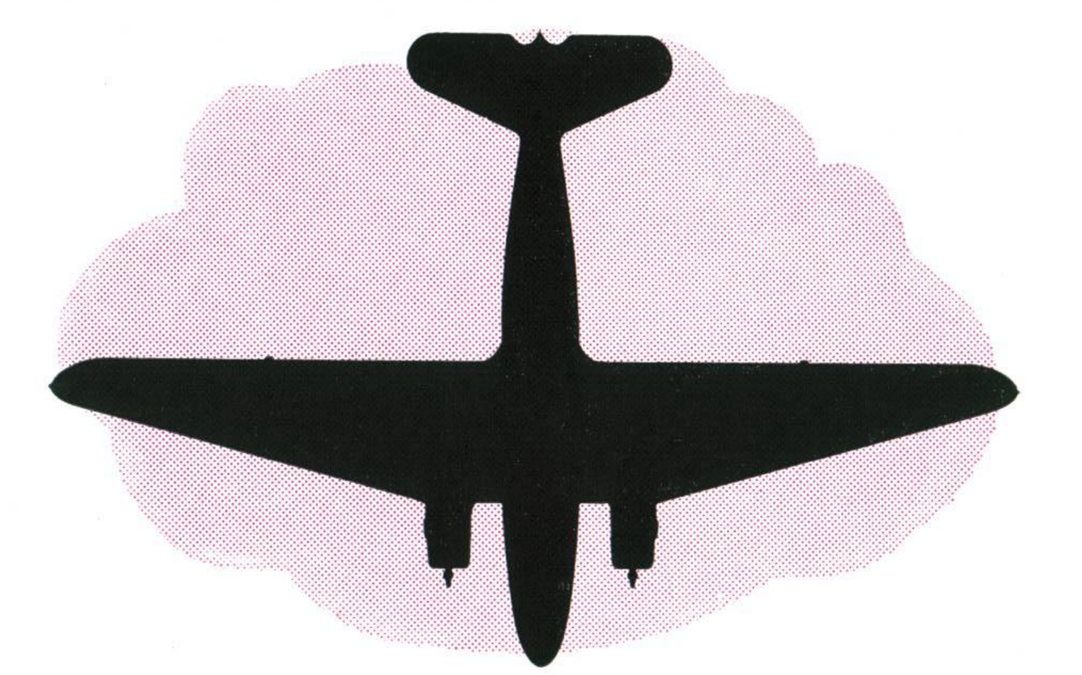
I have heard many students say they cannot learn from silhouettes. They are either bad subjects for the job, are being badly taught, or are just plain lazy. These are hard and maybe unpalatable facts. But here are the reasons.

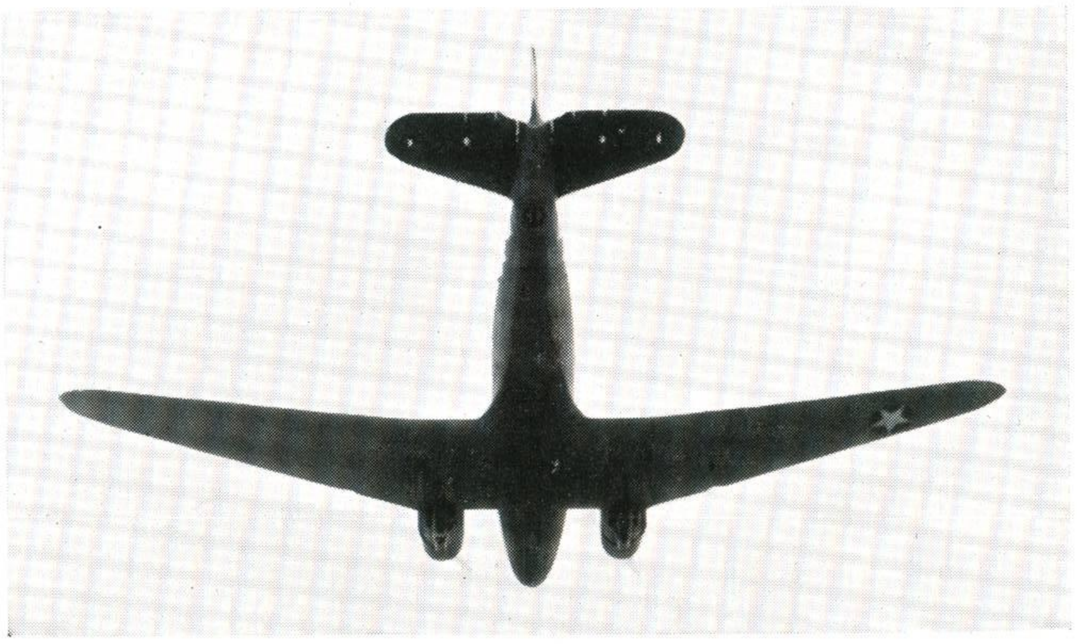
Apart from possibly getting the " feel " of an aircraft (and, incidentally, this applies to all forms of target recognition) the experience of looking at photos or aircraft indiscriminately and without reference to silhouettes builds up in the mind an unrelated series of optical impressions. These impressions are often interesting and vivid, but they may also be highly misleading. Just suppose a new spotter had his first few visual experiences of a machine like a Dakota from photos or from seeing it fly. Only from directly beneath or above—views he may not see for some time—will he really get a true idea of the wing-plan. The tapered leading edge and straight trailing edge combined with pronounced dihedral give the most confusing ideas of the real shape and the student would then start building up a thoroughly unreliable mental image of the aircraft. If, on the other hand, he had a good look at, and made a short but intense study of, the silhouettes, he would have obtained an accurate basis of knowledge. Any and every view would thereafter be seen in true relation to the basic true shapes, allowance would be made for odd angles and optical illusions, and the sum total of visual experiences would build up into a real knowledge and true understanding of the shape and character of the aircraft.

It is a mental rule of prime importance that it is no use having unrelated scraps of miscellaneous information floating about in the mind. They are of no use to anyone. Whereas if the mind is in possession of the basic groundwork of anything, it can classify, absorb and digest all facts and views which come along and, what is so essential, prepare the mind and eye for instant future recognition. So efficient is the human mind, if properly cared for, that if it has a proper basis of facts related to varied visual experience, it will be able to recognize the object in the future *even if it is faced with a view it has never seen before.*

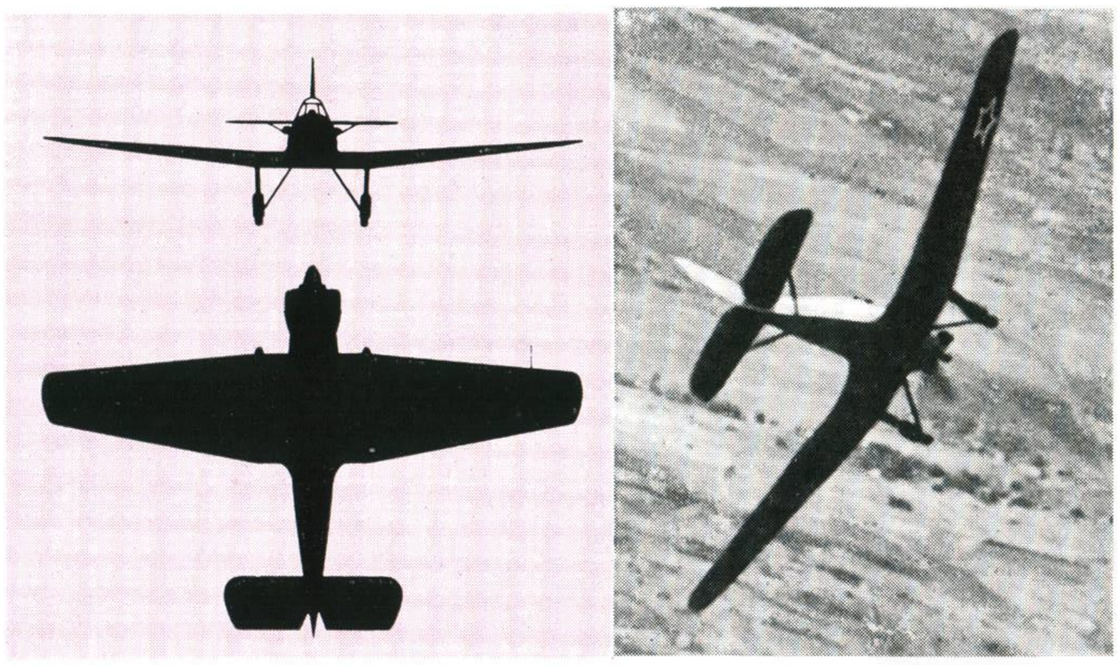
Let us look a little closer at the silhouette or any other accurate general arrangement drawing. No engineer or architect or scientist could work for a minute without access to drawings of plans and elevations. For aircraft there should ideally be six views—each side, back, front, top and bottom. In practice three are enough for ground







to air recognition with the top view added for air-to-air use. With these views and a small amount of instruction, the student has all the basic facts he wants to start with. Without these layouts it is impossible to understand the distortions and changing combinations of shapes which are actually seen in the air. If one does not know the true shape how can one know when it is distorted? or how or what the facts are behind the vagaries of shapes, shadows and sunlight? Silhouettes give cold hard information. Photographs and the real thing (or models) fill out that information, make intelligible to the mind what the eye sees, and engage interest and emotion.



UT-2

One of the unfortunate omissions of some instructors is that they fail to point out the perspective shapes of an aircraft in relation to the true shapes. It would speed up teaching, and self-teaching, if students were persuaded to look at a photograph and in their minds go over the true shape of what they are looking at in distortion, watching the combined effect of perspective, shadow, taper and colour, and all the time relating them to the basic facts in their mind's eye.

Aircraft shapes (or any target shapes) can be looked at both as build-ups of different separate features, such as wings, engines, fuselage and tail; or as "overall" shapes, "total vision" shapes which the eye and mind see in one flash. It is like looking at the word "statue" either as the letters S-T-A-T-U-E or as the one all-in vision of STATUE. This total vision viewing, which is the essential of good recognition, is almost impossible unless ultimately built on and related to an accurate assessment of true shapes and the relationships and proportions between those shapes.

To use a silhouette it is no use just gazing at the lines and masses. One must go over the features, watching the relative sizes of wings and tailplanes for example, their distances from one another, the similarities and differences between their plans, and so on. One must combine (whenever looking at silhouettes) the mental process of following an individual shape and the process of looking at these shapes in relation to the surrounding whole. Analyse, Compare and Combine are the three watchwords of all basic recognition learning and they can only be done satisfactorily at first on the sometimes abused, but ever present and essential silhouette.

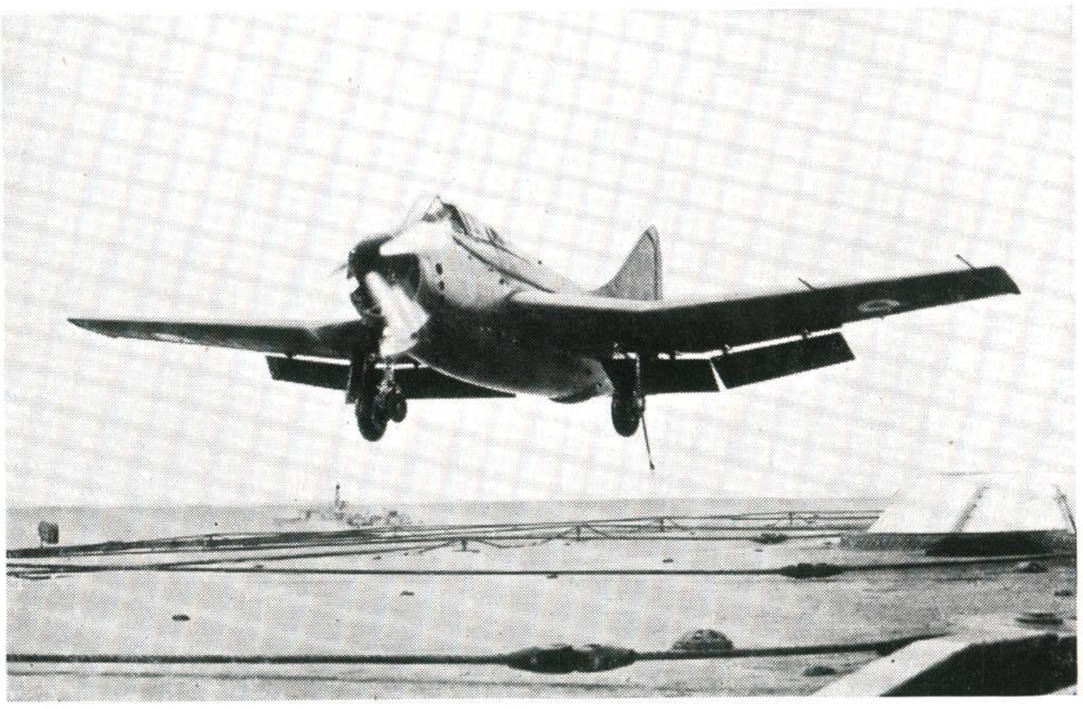
AIRCRAFT IN THE NEWS

Photogenic Photographer. Although designed for high altitude reconnaissance this Meteor FR Mk. 9 makes a very fine low altitude study. For other details see page 234. (*Top right*).

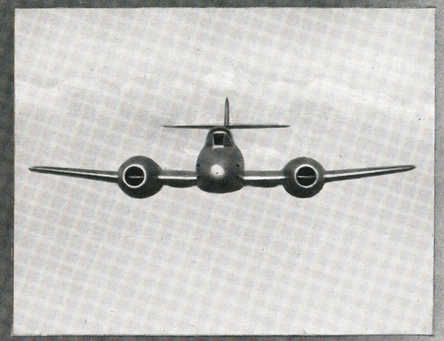
Canned Canberra. A distinguished aeroplane yet further distinguished by wing-tip tanks. Any confusion with a Meteor is ruled out whilst the Canberra B Mk. 1 is so adorned. (*Bottom right*).

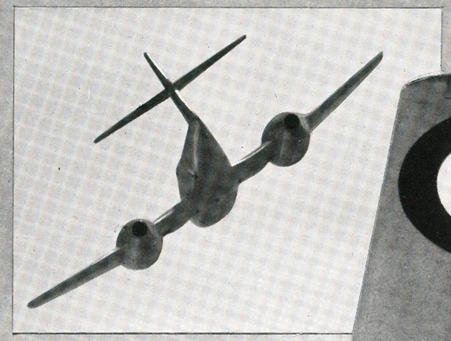
Unfairylike Fairey. Making the first prop-jet landing on the deck of a carrier the Fairey 17 "lands on." Notice rake of fin, crank of wing and "dustbin"-type radar scanner on the underside of the fuselage. (*Below*).

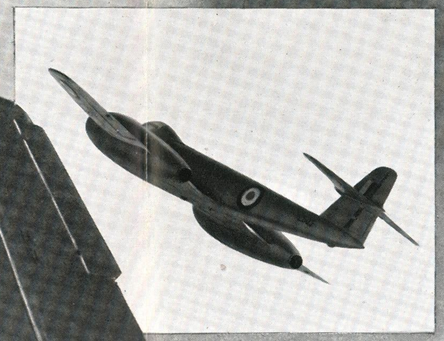


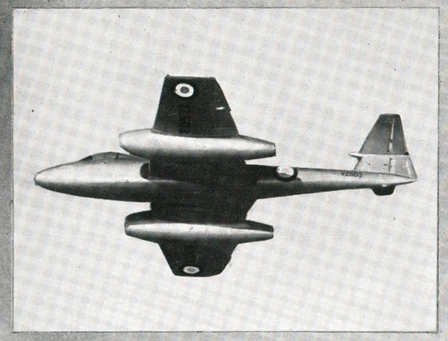


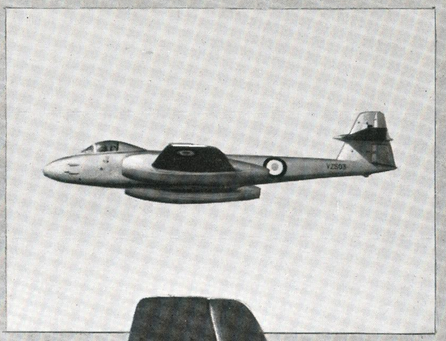


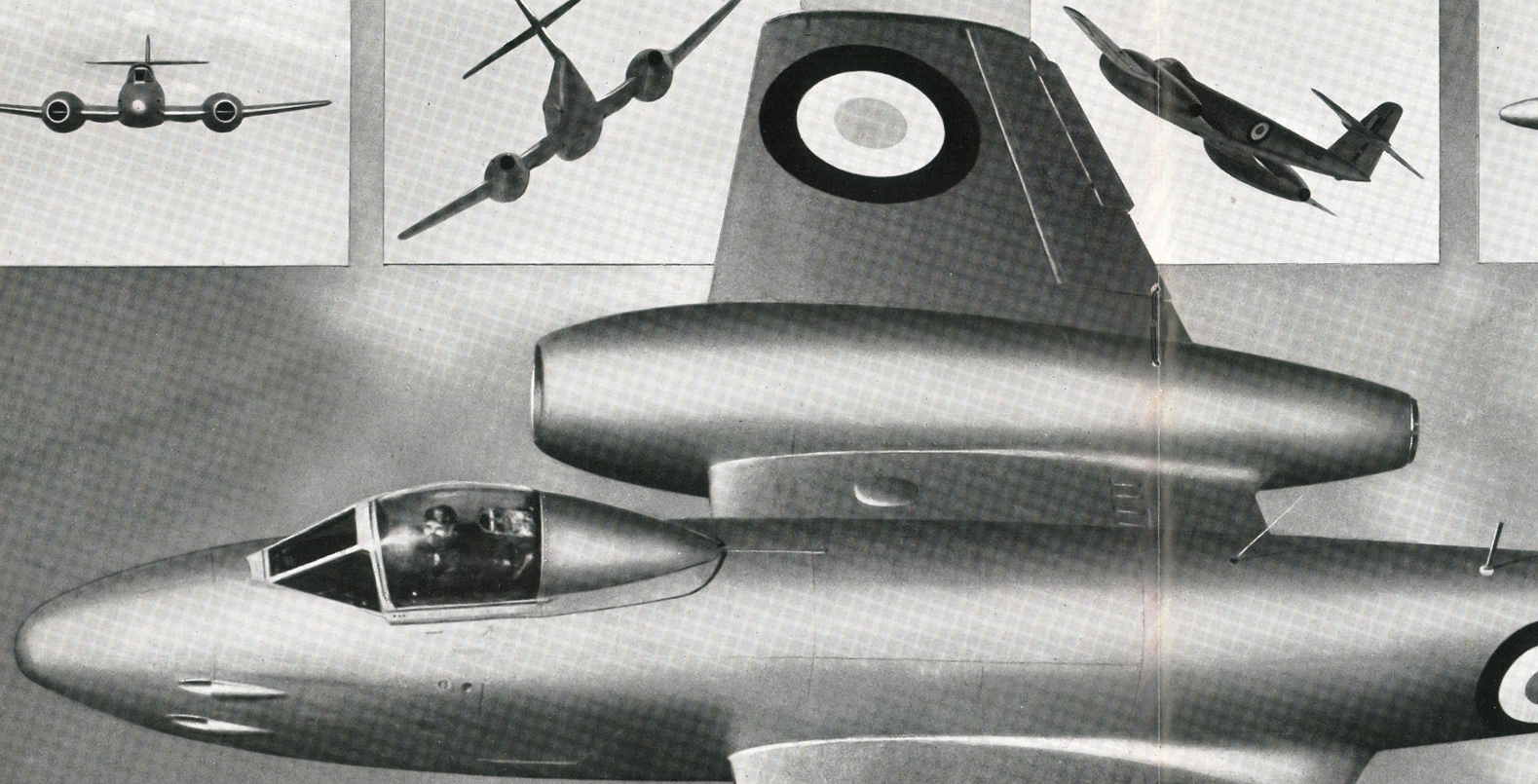








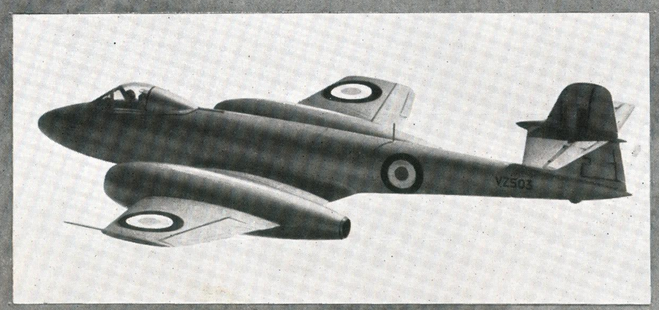


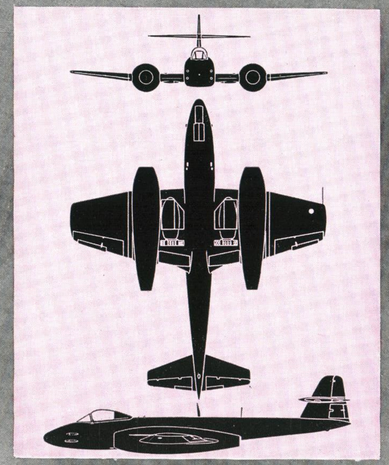


Meteor 8











Britain's Spotting Possibles

No strange aeroplane can appear over Britain without causing a shower of postcards and letters to descend upon us. We regard this as a Good Thing—and comforting—because it is an indication of the Country's recognition potential ! As a result of such recent eagle-eye activity, we have again revised the list of spotting possibles.

Our first list, published in December, was known to be incomplete. Our second, in April, was thought to be reasonably full. The current list shows it was not. By the end of the " air-show " season we anticipate further revision.

All aircraft on the list have been cross-reported from more than one source. We have included occasional foreign visitors as they may well come again. We have also included certain flying " test-beds " as they are no less practical recognition tests than any other aeroplane and are seen in many areas. However, we felt obliged to draw the line before sailplanes.

Spotting logs are useful and instructive, and they keep spotting in good form. We look forward to many more " showers ".

Aeronca
Aerovan
Air Horse
Albemarle
Ambassador
Anson
Apollo
Argus
Arrow
Athena
Attacker
Auster
Autocrat
Avenger
A.W. 52
B-17 Fortress
B-29 Superfortress
B-50 Superfortress
B.A. Swallow
Balliol
Barracuda
Beaufighter
Beaver
Beach AT-7 Navigator
Bellatrix
Benes Mraz Be 550 Bibi
Blackburn B2
Blackburn YA5
Bobcat
Bonanza
Brabazon
Brigand
Bristol 171
Buckmaster
Canadair DC-4M
Canberra
Chipmunk
Cierva C30
Comet
Commando
Comper Swift
Constellation
Consul (Oxford)
Convair-Liner
Crislea Skyjeep
Dakota
Dart Kitten
DC-4
DC-6
Devon
DH 86B
DH 113
Dominie
Dove
Dragon
Dragonfly
Envoy
Ercoupe
Expeditor
F-80 Shooting Star
F-84 Thunderjet
Fairey 17
Fairey Junior
Fiat G 212
Firebrand
Firefly
Fokker S12
Fouga Cyclone
Fouga Sylphe
Fox Moth
Freighter
Fulmar
Gemini
Globemaster
Globe Swift
Gloster E1/44
Goëland
Gyrodyne
Hadrian
Halifax
Halton
Harrow
Harvard
Hastings
Hawker Cygnet
Hawker Hart
Hawker Tomtit
Hendy Heck
Hermes
Heron
HPR 2
Hurel Dubois HD 10
Hurricane
IL-12
Invader
Junkers Ju 52/3m
Junkers Ju 86
Junkers Ju 290
Junkers Junior
Lancaster
Lancastrian
Languedoc
Leopard Moth
Luscombe Silvaire
Magister
Mallard
Marathon
Martinet
Master
Me 108
Mentor
Mercator
Messenger
Meteor
Miles Falcon
Miles Hawk Major
Miles Mercury
Miles Monarch
Miles Nighthawk
Miles Whitney Straight
Mitchell
Monitor
Mosquito
Mosscraft MA 4
Moth Minor
Neptune
Newbury Eon
Norecrin
Oxford (Consul)
P.1052
P.1081
Packet
Percival P 56
Percival Q 6
Phoenix
Piper Cub
Piper Super Cruiser
Prentice
Prince
Privateer
Proctor
Puss Moth
Reliant
Sandringham
Seabee
Seafury
Seahawk
Seagull
Sealand
Sea Otter
Sea Vampire
Sentinel
Shackleton
Siebel 204
Sikorski S 51
Skeeter
SM 95
Solent
Sopwith Pup
Spitfire
Stampe & Vertongen SV 4b
Stratocruiser
Sturgeon
Sunderland
Super Ace
Supermarine 510
Swordfish
Taylorcraft Plus C
Tempest
Tiger Moth
Tipsy B 2
Traveller
Universal Freighter
Valetta
Vampire
Varsity
Venom
Viking
Viscount
Walrus
Warwick
Wayfarer
Wellington
Wyvern
York
Zaunkoenig

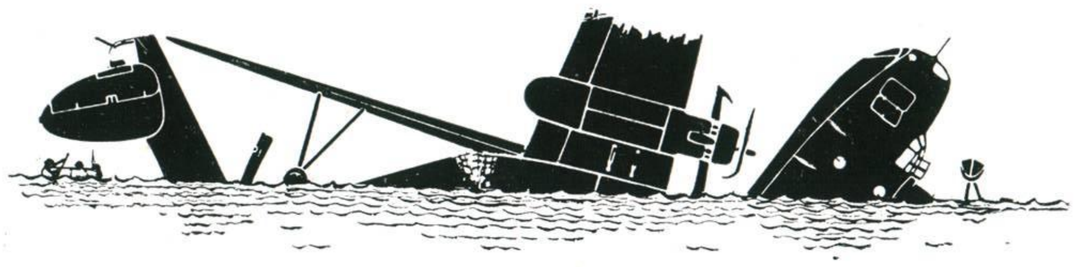
Zaunkönig

We have received many enquiries about the makers (and spelling) of the B.T.H.S. Zaunkönig, parasol-wing monoplane. Zaunkönig is correct, or Zaunkoenig if the printer has no umlauts. The Zaunkönig was built by students of the Brunswick Technical High School in 1942. An illustration of the Zaunkönig will be found on page 74 of the February, 1949 Journal. The name freely translated means " wren ".

The Birth of a Saucer ?

" Sheet " vapour trails from aircraft are nothing new to the observer. However, an odd trick of sunlight playing upon a diving Meteor 7 recently seen, imparted to its trailing edges a shimmering, almost incandescent halo. As it swiftly faded into the distance, sending its characteristic thunder reverberating through the heavens, the Meteor turned into a formless, hazy glitter. There, we thought, but for some pre-cognition, not to mention recognition, might have gone another " saucer."

Wreck-cognition



(Answer on rear cover)

New Aircraft Recognition Material

1/72 Scale Model

Stores Ref. 52/899 LA-9

Working Drawings 1/72 Scale Models

A.D. 4644 Convair-Liner

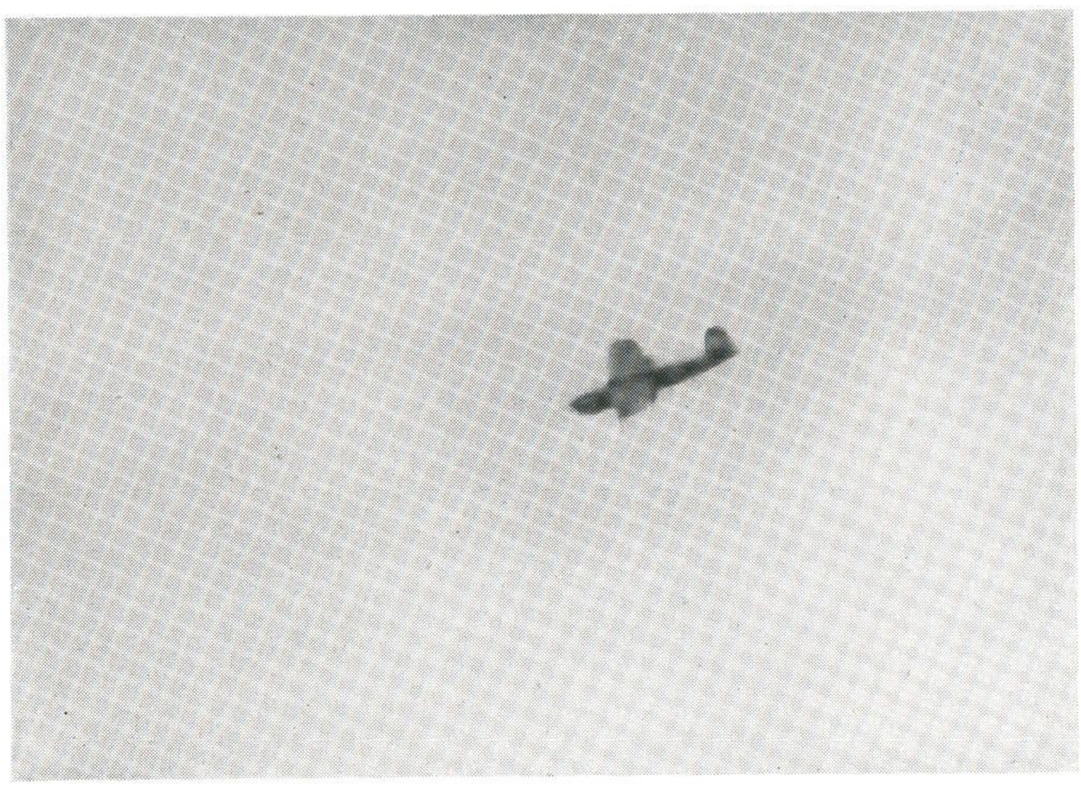
A.D. 4778 F2H-1 Banshee

Pictorial Chart

A.D. 4647 Ambassador

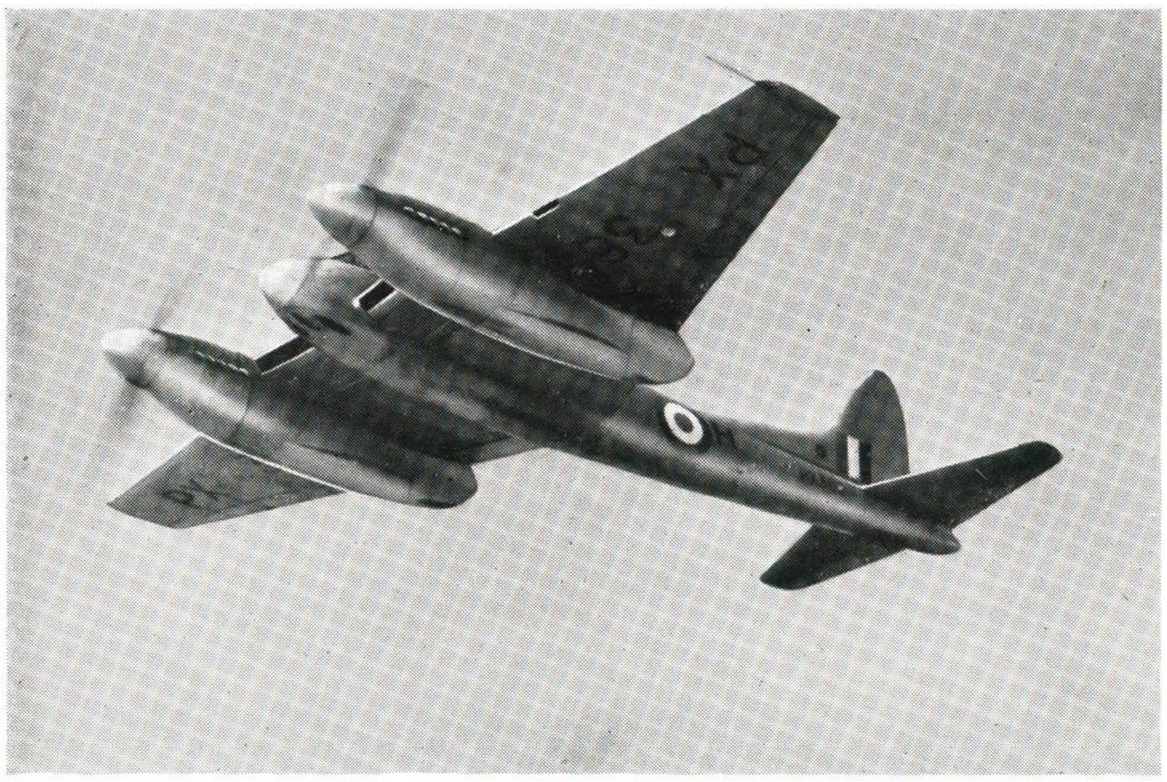
Applications for supplies should be made through the usual official channels quoting reference numbers as above.

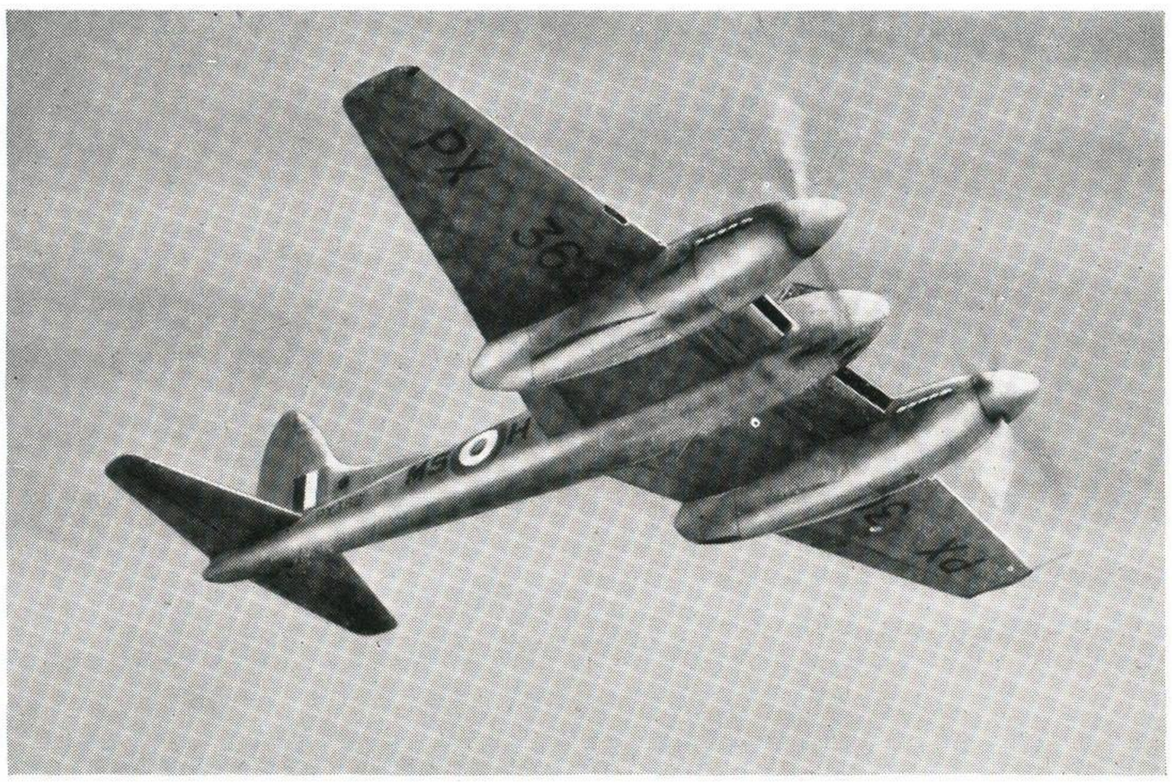
Aerogram

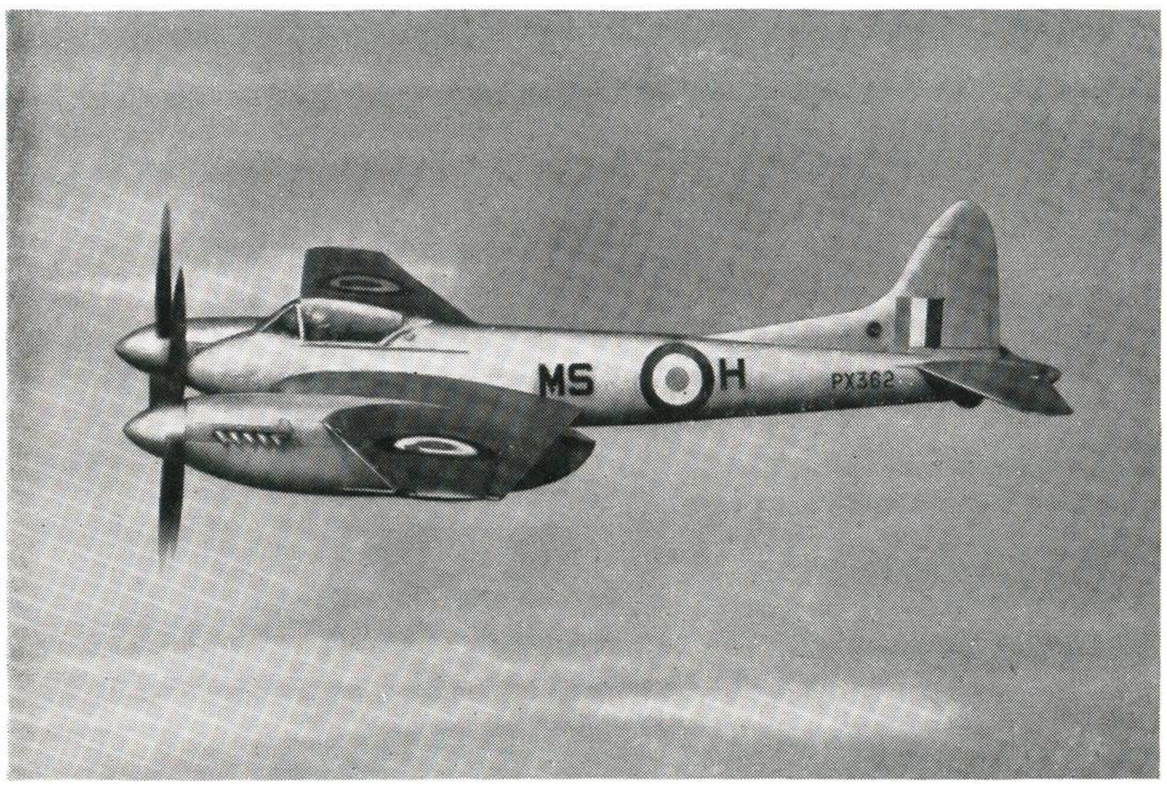


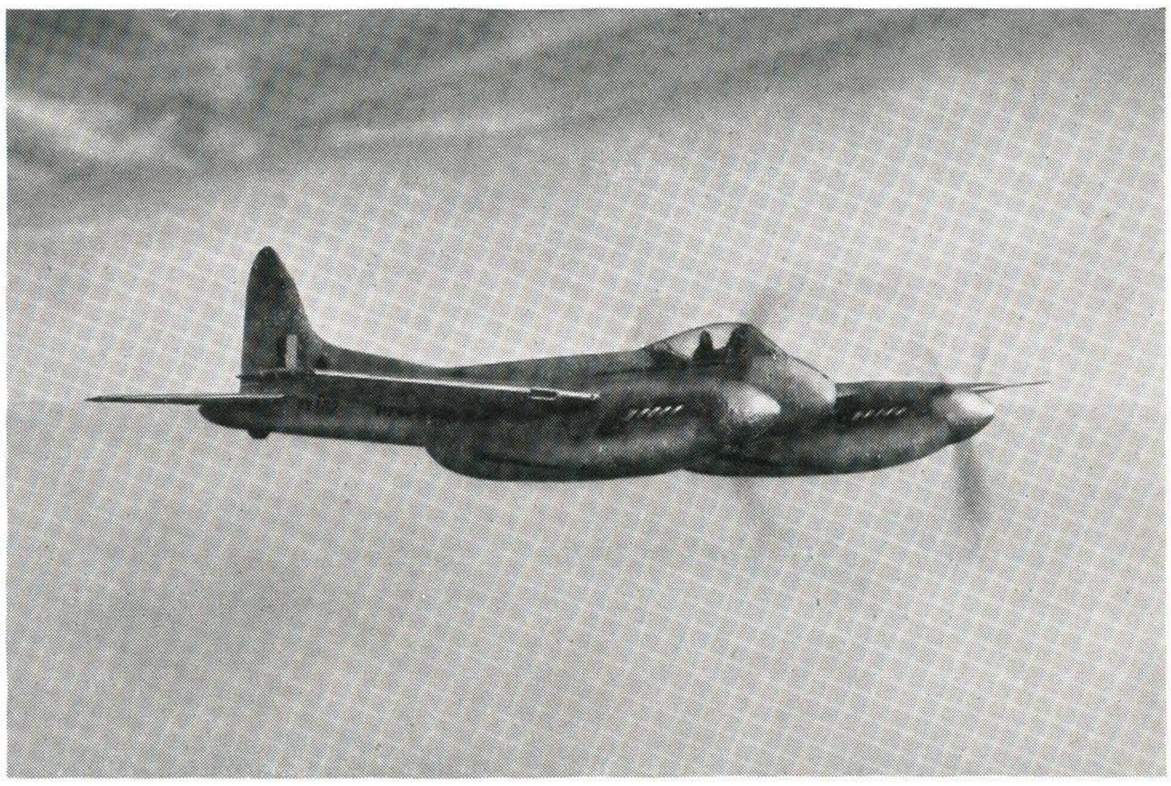
A Radar Cub (Answer on rear cover)

The Hornet F Mk. 3









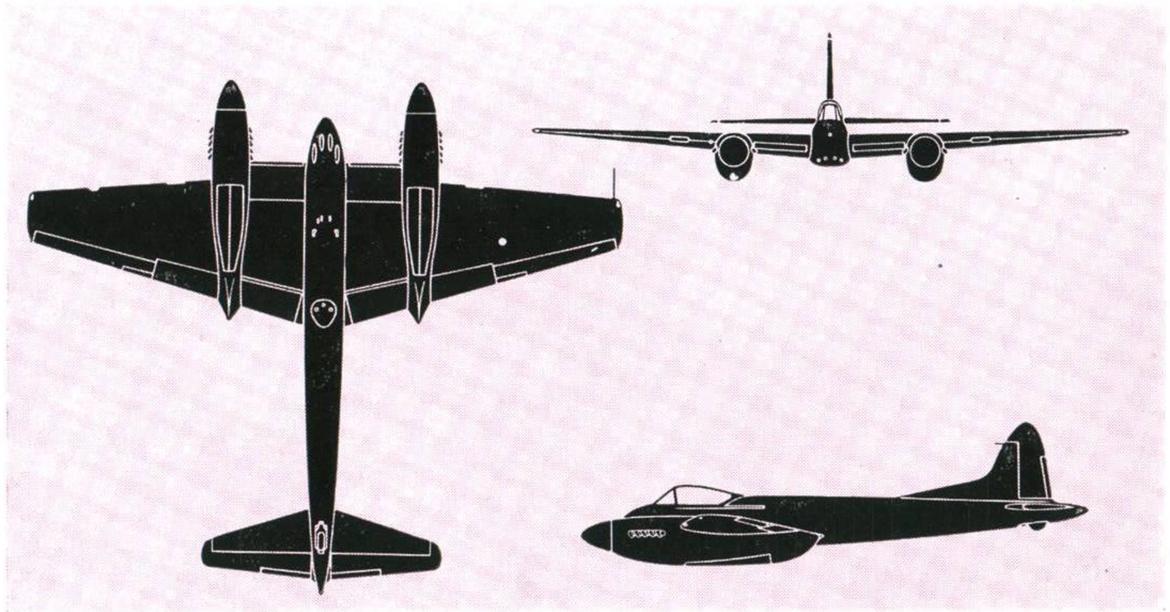




(2 Rolls-Royce Merlin 130 and 131 in-line engines)

THIS long-range single-seat fighter, in service with the Royal Air Force, specializes in high-speed hedge- (or wave-) hopping tactics in its rôle of low-level attacker. Though not limited to these tactics, their use, rather than the fighter's configuration, makes for certain difficulties in recognition from the ground- (or ship-) to-air point of view, and special practice on eye-level views is desirable. From above and below the long and short of its recognition characteristics are in its engines and nose respectively. The whole aeroplane is a finely balanced composition of beautiful forms, shapely curves, hard lines and abrupt ends.

Data :—Maximum Speed 470 m.p.h. (415 knots). Span 45 feet.
Armament : 4 20 mm. cannon beneath nose.



BOOK REVIEWS

by JOHN W. R. TAYLOR

Although intended mainly as a picture book for the unenlightened, **Airliners of Today,** published at London Airport by Brenard Publications, is a useful little book to have lying around the Observer Corps Post or Service Recognition Room. It contains 53 photographs—mostly very good ones—of more than 30 of the best-known modern airliners, and thus offers useful material to any recognition instructor blessed with the sort of pupils who distinguish a Tudor 2 from a Tudor 1 by the number of windscreen panels in the head-on silhouette drawing.

Each photograph is accompanied by brief background notes which, although occasionally a little naïve, contain much that is of interest, making this book quite good value for its modest cost.

From " modest cost " to the height of luxury, symbolised by the name of " Rolls-Royce ". **Magic of a Name** tells the story behind this famous trade-mark from the day in 1904 when Henry Royce drove his first 10 h.p. motor car out of his crane and dynamo factory in Manchester to the present day, when Rolls-Royce cars are universally accepted as the finest in the world, and Rolls-Royce aero-engines of tremendous power can thrust a Meteor to 40,000 ft. in four minutes.

In this time, " Rolls-Royce " has become a synonym for excellence, so much so that " The highest advertising boast of the manufacturers of such widely assorted articles as gramophones, perambulators, cigarettes, looms, sparking plugs, motor cycles, and even certain types of motor-cars has been to say that they are the Rolls-Royces of their kind."

Magic of a Name tells how this extraordinary reputation was achieved. Its pages are studded with the names of famous cars, aircraft and men, whose achievements are not only part of the Rolls-Royce story, but part of the history of Britain itself in this twentieth century.

We can share again the excitement of Continental trials, read of the exploits of Rolls-Royce armoured cars in the first World War and of Rolls-Royce powered tanks in the second ; of how Rolls-Royce aero-engines were first across the Atlantic and first to Australia, of how they carried Sir Alan Cobham 20,000 miles round Africa in a flying boat, won the Schneider Trophy for Britain in R. J. Mitchell's superb seaplanes and then powered his final masterpiece, the Spitfire, and Sydney Camm's Hurricane in the greatest air battles of history.

There are scores of other good stories, interspersed with fine colour reproductions of paintings by Roy Nockolds, making this a book worthy of the great name whose history it traces.

From history, **Interplanetary Flight** by A. C. Clarke takes us into the exciting future when even the stars may not be beyond the range of our aircraft. This is not, however, a book of woolly pipe-dreams, for Mr. Clarke leaves no doubt of the immense problems to be solved before space-flight becomes a possibility. In fact, he proves that interplanetary flight using present-day fuels is virtually impracticable.

He goes on to outline ways in which the problems may be overcome, first to permit landings on the moon by radio-controlled, unmanned rockets and later, by true spaceships. He backs up his theories with facts and figures that can be understood by any technically-minded person. If some of them sound fantastic, it is well to remember that powered flight of any sort sounded pretty fantastic only 50 years ago.

Interplanetary Flight is the first of a series of " Technical Trends " books, designed to " help the busy technical man to keep abreast with developments in subjects not strictly his own but which closely concern him." If succeeding titles maintain its high standard, the series should prove highly popular.

" AIRLINERS OF TODAY ". Published at London Airport by Brenard Publications. 52 pp. Illustrated. 2*s*. 6*d*.

" THE MAGIC OF A NAME," by Harold Nockolds. Published by G. T. Foulis & Co. 283 pp. Illustrated. 25*s*. net.

" INTERPLANETARY FLIGHT," by A. C. Clarke, B.Sc. Published by Temple Press Ltd. 164 pp. Illustrated. 8*s*. 6*d*. net.

INTELLIGENCE

9, 10, 11

Numerical advance and increasing versatility are marked by the introduction of three new variants of the Gloster Meteor. They are the FR Mk. 9, PR Mk. 10 and NF Mk. 11. The FR Mk. 9 (photo, page 229) is similar to the F Mk. 8 except for the nose, which has been redesigned to house photographic equipment. In the extended nose there is a flat down-view angle window with two others at each side. Armament consists of four 20 mm. cannon. The PR Mk. 10 is adapted for high-altitude photographic reconnaissance and differs from the FR Mk. 9 in that it has long span tapered wings and no armament. The same photographic nose is employed together with extra cameras in the rear fuselage. Ventral and wing drop tanks may be carried. Hybrid of the species is the NF Mk. 11, which combines the latest Mk. 8 tail unit, a Mk. 7 cockpit canopy, the rest resembling a Mk. 3 with an extended bulbous nose and increased wing span. A ventral tank may be carried. All three versions are fitted with Rolls-Royce Derwent turbojets.

Overloading the B-50

Recent B-50 Superfortress overload tests included flights at a gross weight of 173,000 pounds. Normal gross weight is 164,000 pounds. Other B-50 operational proving tests consisted of simulated radar bombing missions conducted at 40,000 feet.

Hawker P.1081

Latest development of the P.1052 swept-wing jet fighter is the Hawker P.1081. A similar airframe to the P.1052 is utilized with the same forward fuselage characteristics, wings and jet intakes. The single Rolls-Royce Nene turbojet now exhausts through a single tail-pipe, however, which protrudes slightly beyond the fin and rudder. The tail-unit is of the low " crosstree " type, and all tail surfaces are swept back with blunt tips.

Packet with a Pack

Developed from the C-82 and C-119 Packet, the Fairchild XC-120 twin engine " Pack Plane " has a large detachable freight container added to the centre underside of the fuselage. The container protrudes at the front to form a " double bubble " nose. Loading and unloading time is minimized by the use of interchangeable containers, and for landing, two additional pairs of retractable nose wheels are fitted at the front of each engine nacelle. Four wheel bogies may be fitted for road haulage.

The Washington

Officially adopted name for the Royal Air Force B-29 is the Washington.

Skyknight

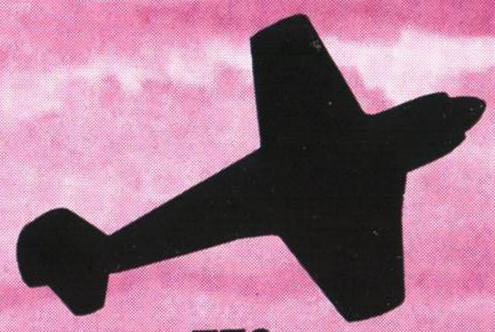
Designed from the start as a side-by-side two-seat night fighter, the Douglas F3D Skyknight is a sleek twin-jet mid-wing monoplane. Wings have straight taper with blunt tips and the tailplane, which is of the low " crosstree " type set on the rear of the fin and rudder, has leading edge taper and a straight trailing edge. Fin and rudder is tall and rectangular with an extended dorsal fairing similar to that of the Skyraider. The twin Westinghouse J-34 turbojets appear as two cylindrical bulges on the underside of the fuselage. Perhaps one of the most distinctive recognition features is the " reptile " nose with its pointed upturned " look " and broad streamlined cockpit canopy.



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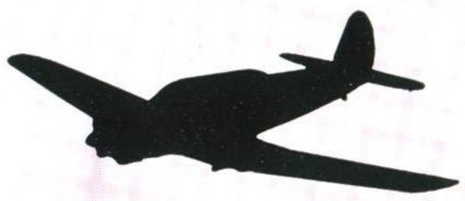
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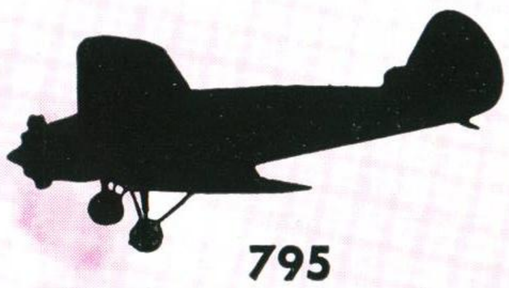
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THE YUGOSLAV AIR FORCE

THE YUGOSLAV AIR FORCE as at present constituted is a product of the partisan operations against the Germans during World War II. Its first aircraft were two German fighters, captured by some partisans during a raid on an enemy occupied airfield. This exploit took place on May 21st, 1942, and this date is still celebrated as Air Force Day.

The Royal Yugoslav Air Force, the present Service's predecessor, was a moderately efficient Balkan Air Force, which suffered from the fierce political faction which was one of the curses of the Yugoslav kingdom. It was, however, the Air Force Commander, General Simovic, who led the coup in the spring of 1941, when the Regent, Prince Paul, and his government, who had signed a pact with Hitler were overthrown, and the gallant, if hopeless, challenge was flung in the face of a triumphant Germany. Operationally the Air Force suffered largely the same fate as the Polish Air Force some eighteen months previously. The overwhelming superiority of the Luftwaffe allowed it no chance to offer any serious resistance and a large number of its aircraft were destroyed on the ground. After Yugoslavia had been finally overrun, a number of officers and airmen managed to escape and Yugoslav squadrons, owing allegiance to King Peter, served with distinction in the Middle East.

In the meantime the partisan armies inside the country were growing in strength and importance, and air units were playing a part, though under the circumstances a fairly small one, in the operations.

In 1944 the Air Force began to expand, aircraft were supplied by all the major Allies and a number of promising young partisans went to Russia for flying training. By 1946 the Yugoslav Air Force had become a force to be reckoned with, by South-East European standards, and even certain Western European countries would have had cause to respect it. Its aircraft were mostly Russian, and its training and organization were all largely on Russian lines. This was in the great days when Tito was still apparently the Kremlin's "golden-haired boy," and he was feeling sufficiently emboldened to cause his fighters to shoot down two unarmed American Dakotas, which had inadvertently strayed over Yugoslav territory.

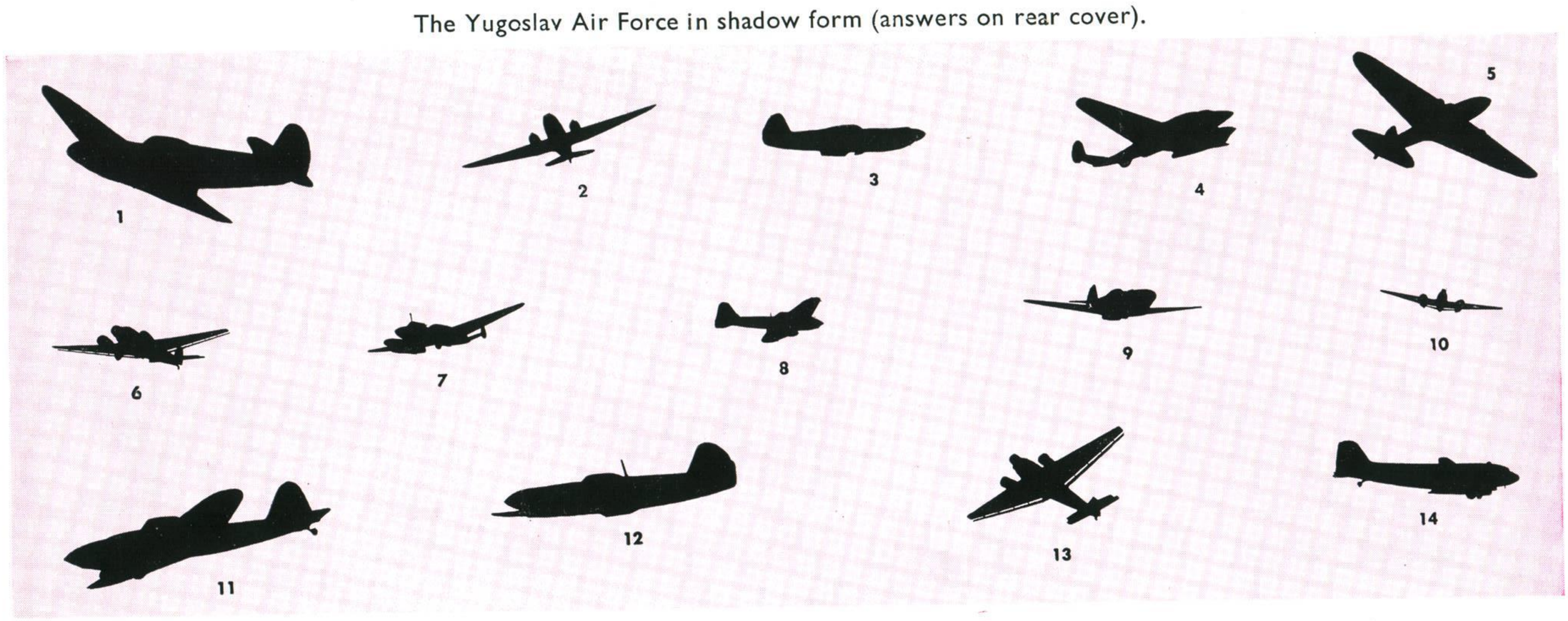
All plans for the expansion, and even the maintenance of the Yugoslav Air Force collapsed abruptly when the Cominform denounced Tito as a heretic in 1948. Supplies of aircraft and spares, not to mention oil and petrol from Russia and other Cominform countries were immediately cut off, and, out of favour with the West, the Yugoslavs were thrown back on their own inadequate resources. Serviceability decreased, flying hours fell steadily with the dwindling petrol stocks and morale dropped steadily. The fuel situation has now improved and by dint of cannibalizing and using every aircraft that could possibly become airborne, the Yugoslav Air Force has managed to maintain a reasonable strength, but the comparatively formidable force of three years ago is no longer capable of sustained operations.

The Yugoslav Air Force, like all Communist Air Forces is primarily tactical and is subordinate to the Army. Its organization is based on a system of Air Divisions and Regiments, with a separate Ground Organization, for servicing, maintenance, etc.

As already mentioned, most of the operational aircraft are Russian. The fighter regiments are equipped largely with Yak 3s though there are also some Yak 9s. IL-2s are used by the ground attack regiments and the bomber regiments have PE-2s. Dakotas and a few Ju 52s are in service as transport aircraft. Russian PO.2s were the main training aircraft, but now a Yugoslav built trainer, the Aero 2, is being extensively used for this purpose. This aircraft is the main product of the Yugoslav aircraft industry at present, and a certain amount of pride is being shown in it. During the First of May celebrations this year one was taxied through the streets of Belgrade. A version also exists fitted with floats as a seaplane. In spite of claims that an up-to-date fighter is being produced, the Aero 2 is probably the best that the Yugoslav aircraft industry, with its restricted resources, is capable of producing.

Service markings consist of a blue ring enclosing a red star on a white background, on the wings and fuselage, and three small bands of blue, white and red with a small red star in the middle on the fin.

The Yugoslav Air Force in shadow form (answers on rear cover).



SILHOUETTES — A PAIR TO COMPARE

MIG-JET

(provisional silhouette and information)



Russian Fighter

Engine : Unknown

Span : 34 ft. approx. Length : 32 ft. approx.

Recognition Points :

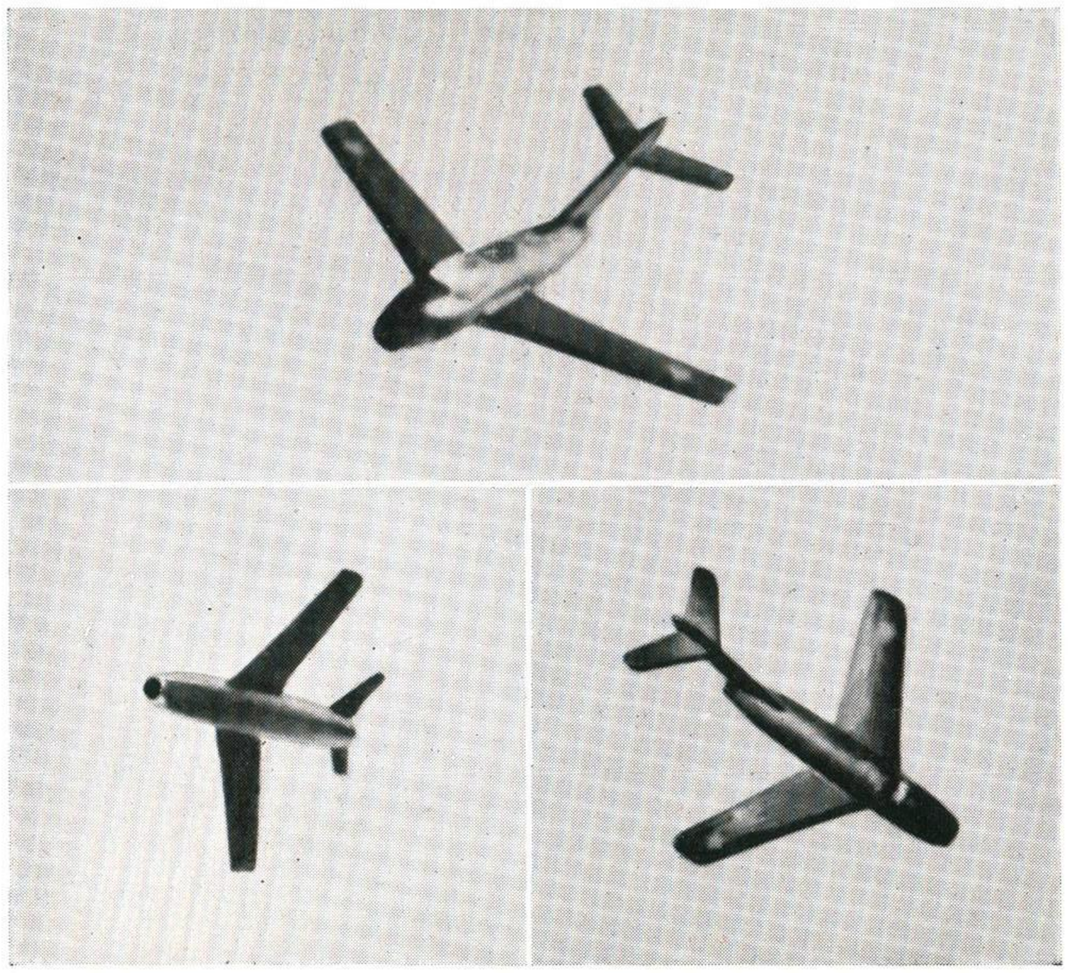
Wings : mid set, straight, swept back, blunt tips.

Fuselage : almost cylindrical, open at both ends.

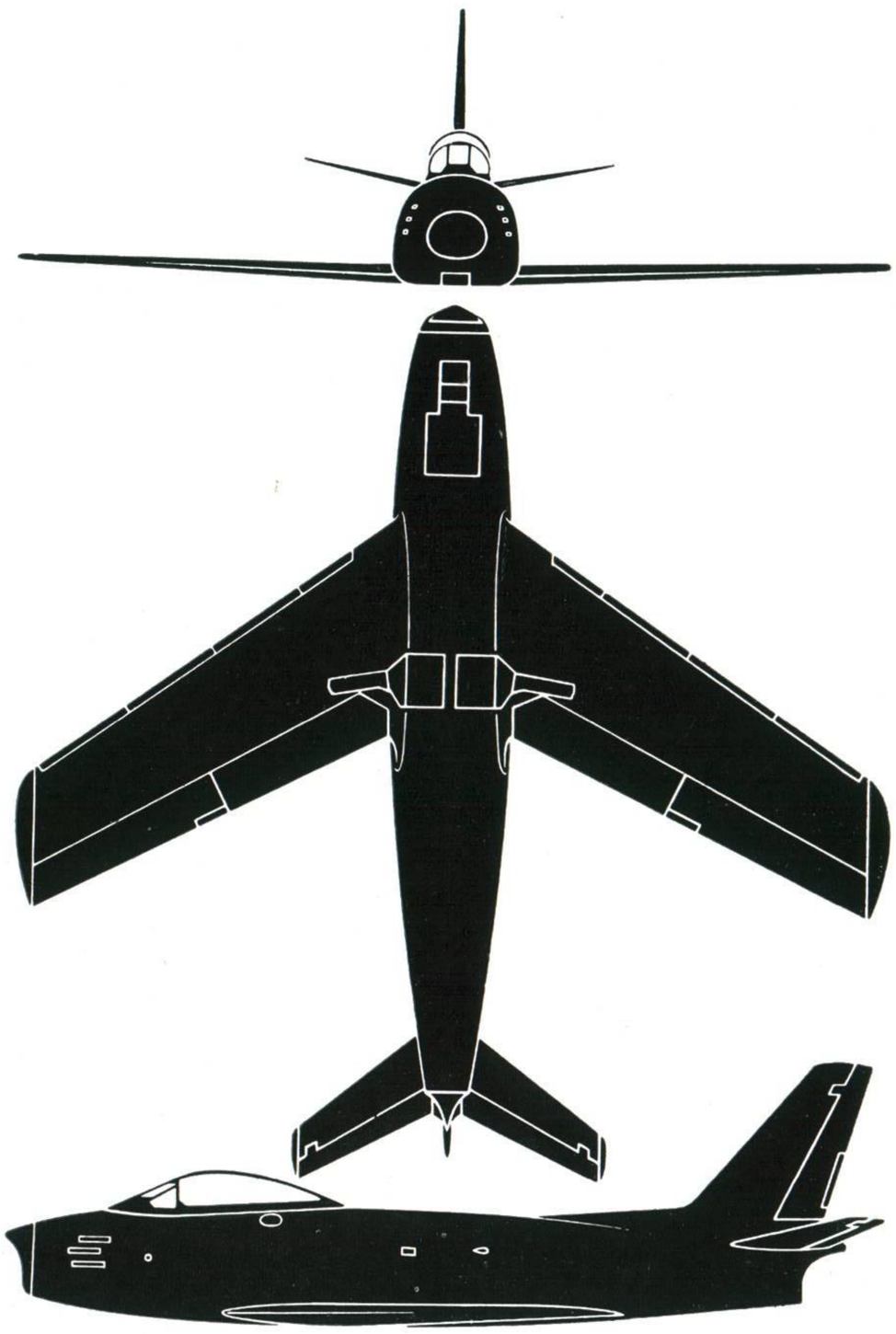
Tailplane : small, " crosstree " type set high on fin and rudder swept back, blunt tips.

Fin and Rudder : large, swept back well aft of tailpipe, marked taper on leading edge, pointed tip.

Detail : cockpit canopy on fuselage over leading edge of wing.



NORTH AMERICAN F-86A SABRE



American Fighter

Engine : 1 General Electric J-47 turbojet

Span : 37 ft. 1 in. Length : 37 ft. 6 in.

Recognition Points :

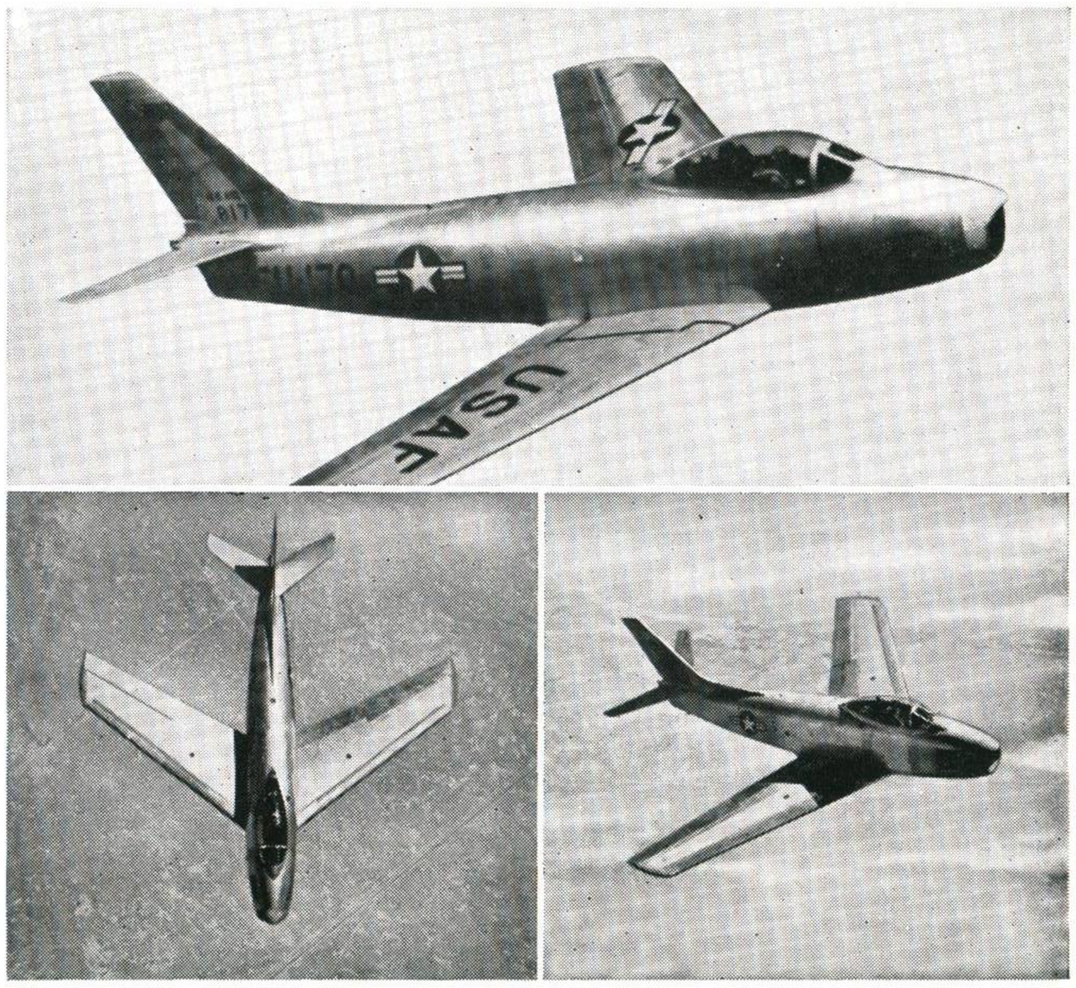
Wings : low set, very slight dihedral, swept back, blunt tips.

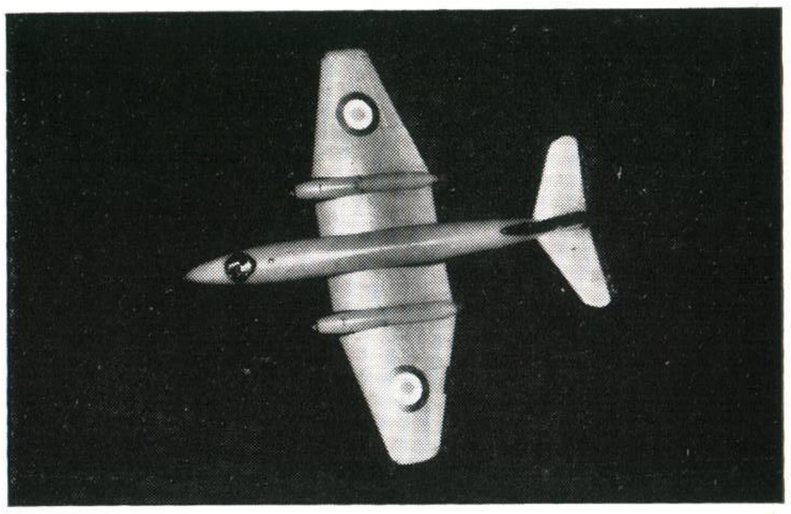
Fuselage : flattened " stirrup " section, open (with protruding upper " lips ") at both ends.

Tailplane : marked dihedral, swept back, blunt tips.

Fin and Rudder : swept back, blunt tip, dorsal fairing to fuselage.

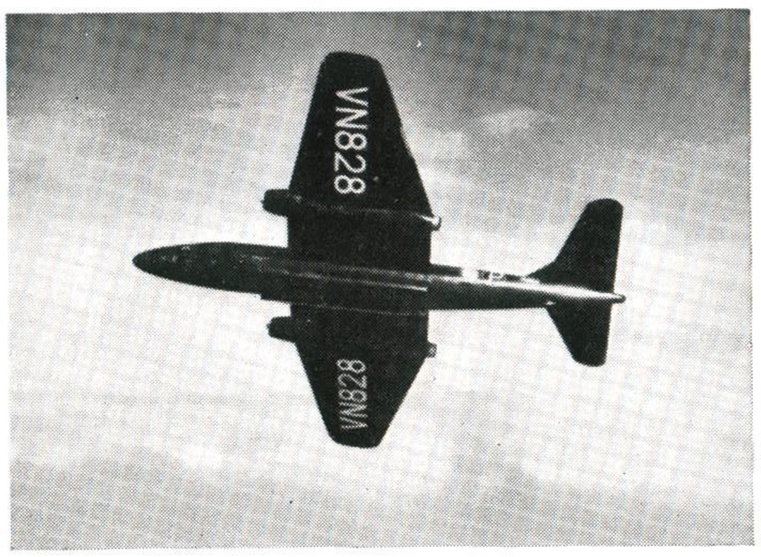
Detail : cockpit canopy on fuselage over leading edge of wing.





COVER : Canberra B Mk.1 finished in Bomber Command colours (grey topside and black underside) flies below the camera to reveal her unusual and very distinctive plan form. From the view above it can be seen that the original dorsal fin fairing is now replaced by a smaller fillet fairing.





WHAT'S THE DIFFERENCE?

Top line, L. to R. : Banshee, Seahawk, Seahawk, Banshee, Seahawk.
Bottom line, L. to R. : Banshee, Seahawk, Seahawk, Seahawk, Banshee.

SOLUTIONS TO RECOGNITION TESTS IN THIS EDITION :

ELEMENTARY

823. Lancaster FE Mk.1
824. Auster AOP Mk.6
825. Seafury FB Mk.11
826. Avro (Canada) Jetliner
827. LA-9
828. Saab J.29
829. Proctor T Mk.4
830. P4M-1 Mercator
831. Sea Hornet PR Mk. 22
832. Varsity T Mk.1
833. P.1052
834. Dominie
835. Marathon 1
836. Hermes 4
837. Convair T-29
838. Supermarine 510
839. DC-6A Liftmaster
840. Comet
841. DHA.3 Drover
842. B-50D Superfortress
843. AM-1 Mauler

ADVANCED

1. P.1052
2. Prentice T Mk.1
3. Seahawk F Mk.1
4. Chipmunk T Mk.10
5. Viking (Nene)
6. Horsa CX Mk.2
7. Venom FB Mk.1
8. B-29 Superfortress
9. Meteor F Mk.8
10. Buckmaster T Mk.1
11. Comet
12. Marathon 1
13. Drover
14. Firebrand TFB Mk.5
15. Prince T Mk.1
16. Seafury T Mk.20
17. Seafury F Mk.10
18. Hornet F Mk.1
19. Proctor T Mk.4
20. Seagull ASR Mk.1
21. Meteor 4 (after-burner)

RED SHADOWS

776. LA-9
777. MIG-jet
778. LA-9
779. MIG-9
780. PE-2
781. TU-4
782. PE-2
783. TU-2
784. YAK-15
785. YAK-15
786. IL-18
787. TU-2
788. IL-2
789. MIG-9
790. IL-12
791. YAK-11
792. PE-8
793. IL-18
794. IL-12
795. UT-2
796. YAK-3

WRECK-COGNITION

Martin PBM Mariner

YUGOSLAV SILLOGRAPHS

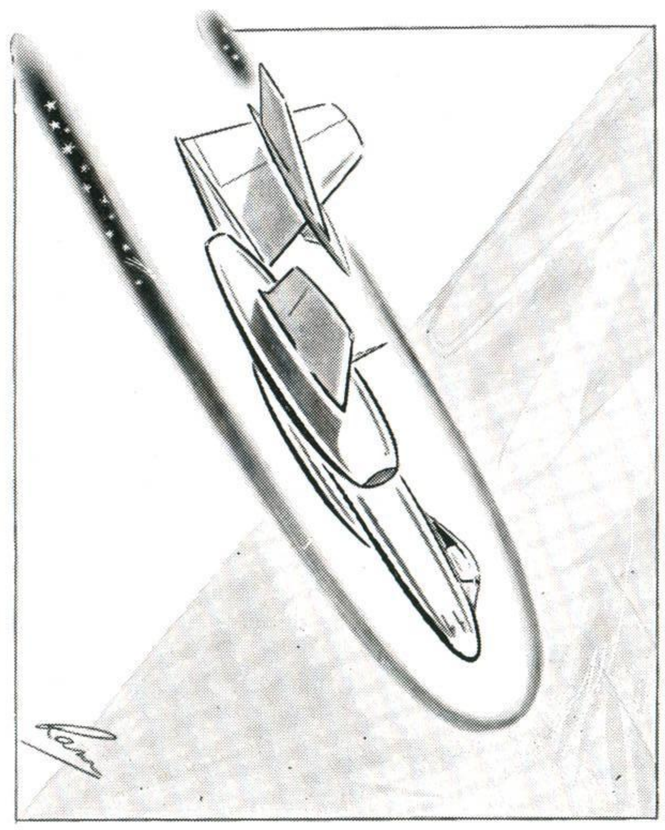
1. YAK-3.	8. IL-2
2. Dakota	9. YAK-9
3. YAK-3	10. PE-2
4. PE-2	11. IL-2
5. IL-2	12. YAK-9
6. Junkers Ju 52	13. Junkers Ju 52
7. PE-2	14. Dakota

AEROGRAM

A Radar Cub = Barracuda

TRICKY TRIO

Left to right : F-84 Thunderjet ; F-80 Shooting Star ; Attacker



Meteor F Mk.8—"some transient celestial body that enters the Earth's atmosphere with great velocity".

TRICKY TRIO



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