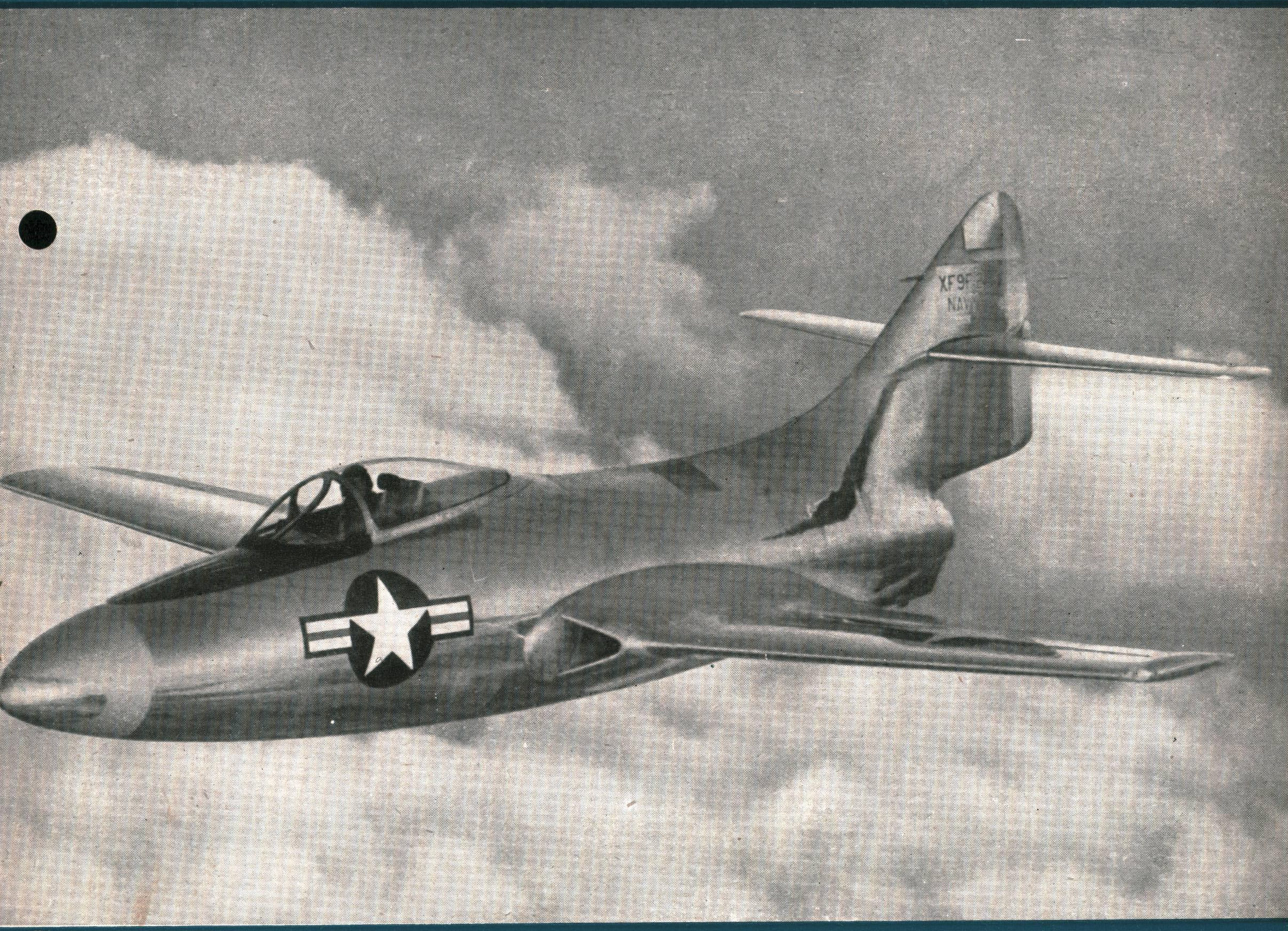
THE INTER SERVICES

AIRCRAFT RECOGNITION

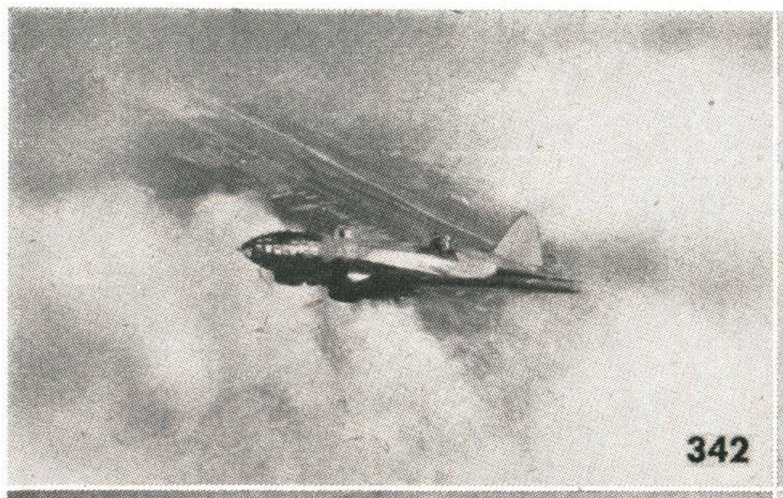
Journal



New Series MARCH 1948 Volume 2. No. 8

ELEMENTARY SPOTTING

Recognition Test No. 58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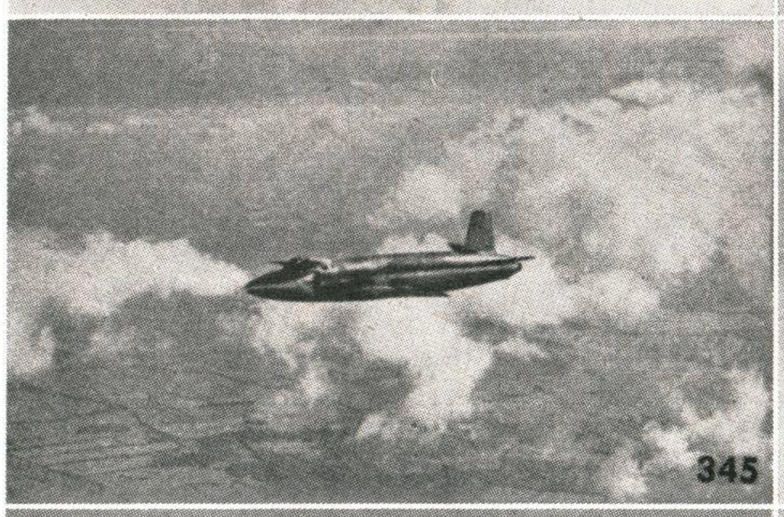
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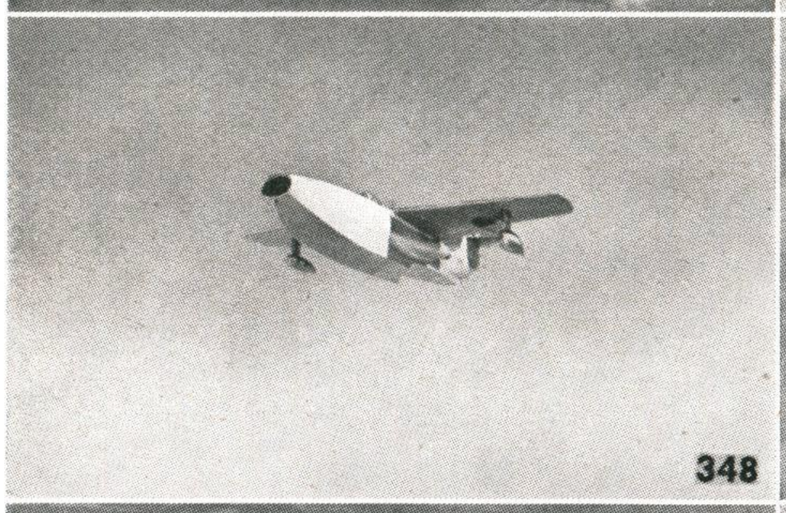
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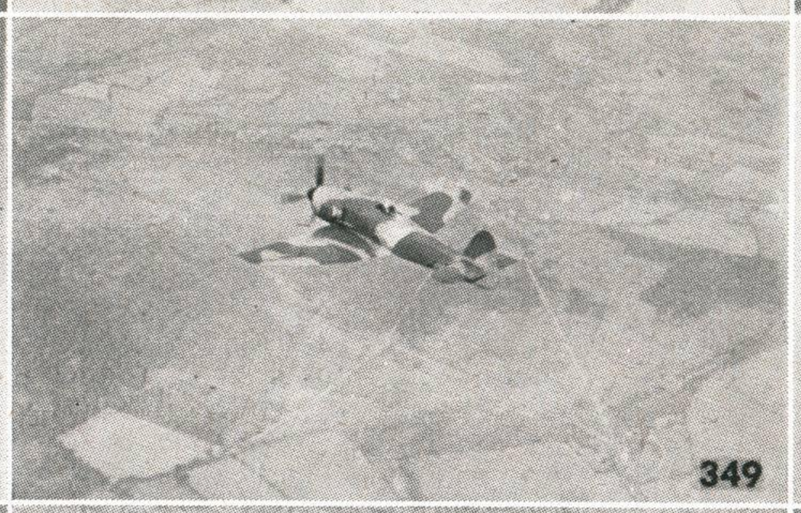
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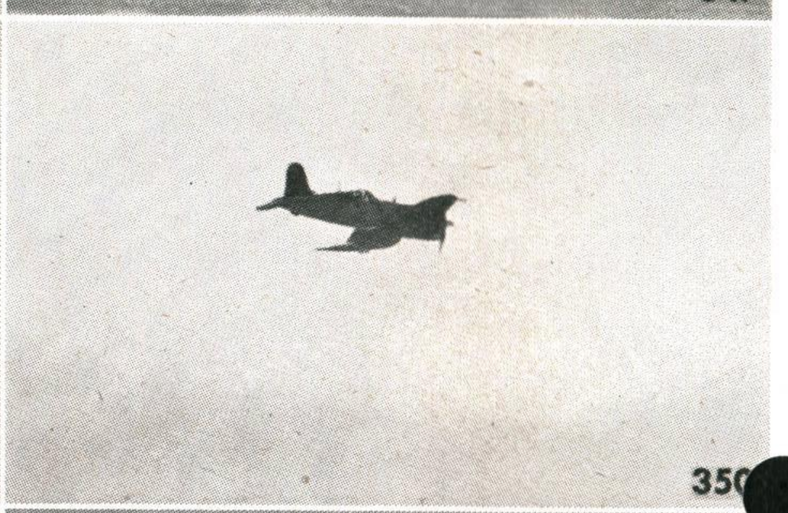
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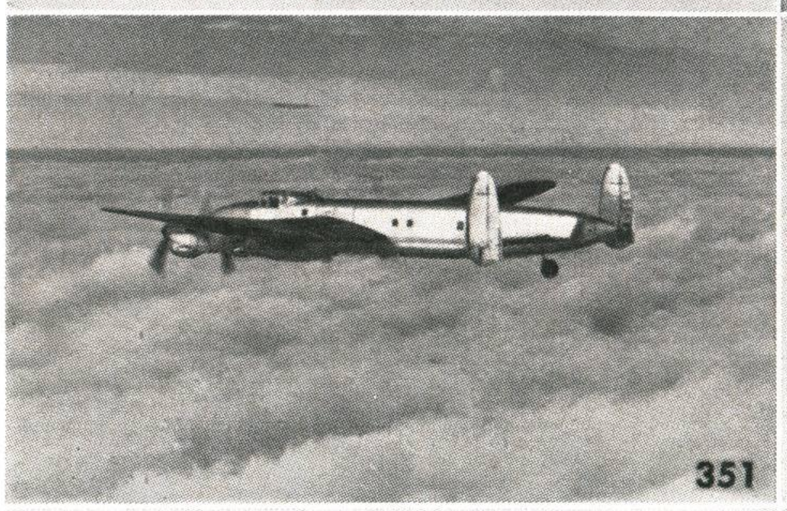
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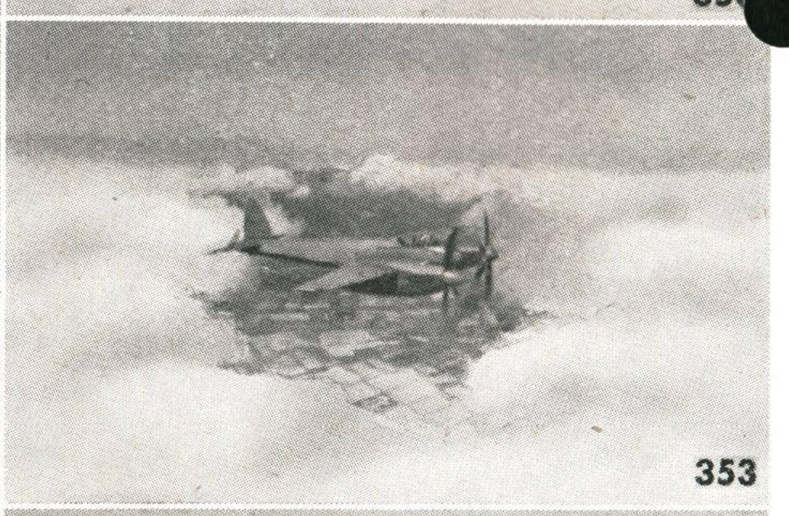
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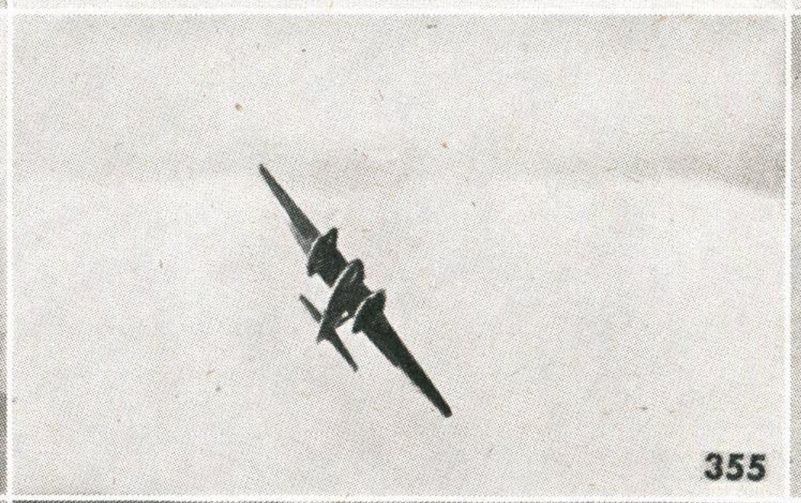
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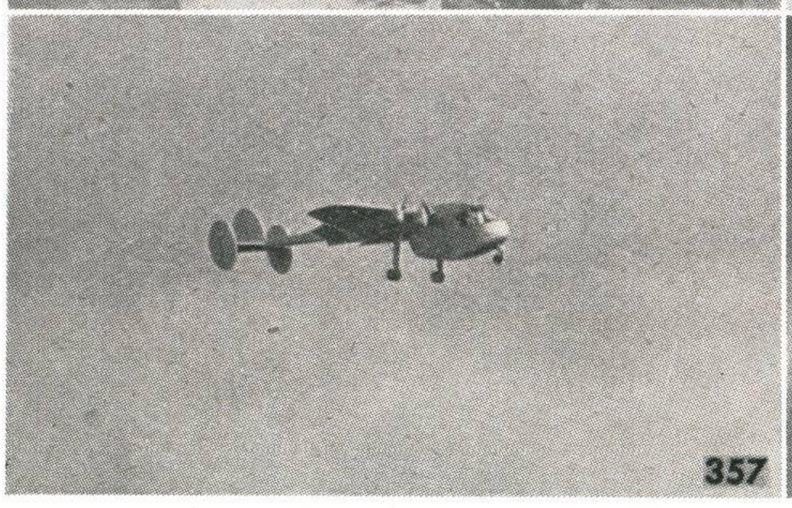
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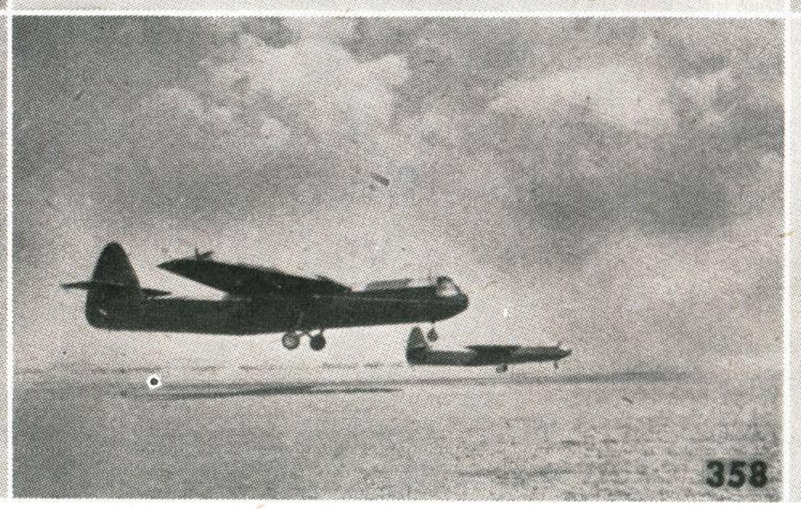
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MARCH 1948 Vol. 2 No. 8

THE INTER SERVICES

AIRCRAFT RECOGNITION JOURNAL

(NEW SERIES)

Facts and Figures

De Havilland

Sweden has placed a further large order for Vampire fighters with De Havillands. They will be of the type now entering the Royal Air Force as the Mk. III, fitted with the " long range wing " incorporating fuel tanks of greatly increased capacity, and the later tail unit design of " acorn " fins and rudders and lowered tail plane. The original order for Vampires, given by the Swedish Government in 1946, has been completed.

The Nene-engine Vampire no longer has the large intakes on top of the fuselage behind the cockpit, the normal intakes in the wing roots having been modified to cope, though not noticeably so from the outside.

Nene-Vampires are being built in Australia.

Saunders-Roe

The first three models of the SR/45 ten-engine trans-atlantic flying boat are taking shape at Cowes, Isle of Wight. Good progress is being made with the hulls, the form of which incorporates the " double bubble " section giving two decks. Numerous watertight compartments in the lower part of the hull and watertight wing tips provide safeguards in the event of damage when afloat.

McDonnell

Press reports describe the XP-85 as being only 21 ft. in span and 15 ft. in length. The prototype is nearing completion and is said to have a folding swept-back wing. The fuselage is tubby. The aircraft has no undercarriage. It is thought that three XP-85s will be carried in the bomb-bay of the B-36 and they will be able to fly off and be taken in again by means of a hook device, presumably similar to that used on the erstwhile U.S. airships.

U.S. Navy Aircraft

The U.S. Navy will take delivery of 1,208 aircraft during 1948, say Press reports. Of the 1948 total, 95 per cent are propeller-driven craft of war-time design.

Types of aircraft and numbers to be delivere are given as :—

258 Chance Vought F4U-5 Corsairs ; 300 Grumman F8F-1 Bearcats ; 12 Grumman F9F-2 Panther jet-fighters, with further 88 for delivery in 1949 ; 30 North American FJ-1 jet-fighters ; 29 McDonnell FH-1 Phantom jet-fighters, completing an order for 60; 7 McDonnell F2H-1 Banshee jet-fighters, with a further 49 in 1949 ; 25 Douglas AD-1 Skyraiders per month, up to a total of 279 ; 163 Martin AM-1 Maulers, completing a contract for 178 ; 70 Lockheed P2V Neptunes, completing a contract for 105 ; 24 Martin PBM-5A Mariners ; 21 Sikorsky HO3S observation helicopters ; 24 Piasecki HRP transport helicopters, of total order for 40 ; 9 Bell HTL training helicopters, of total order for 22. In 1949 two new types, the Vought F6U and Martin P4M, will go into production.

U.S.A.A.F. Combat Aircraft

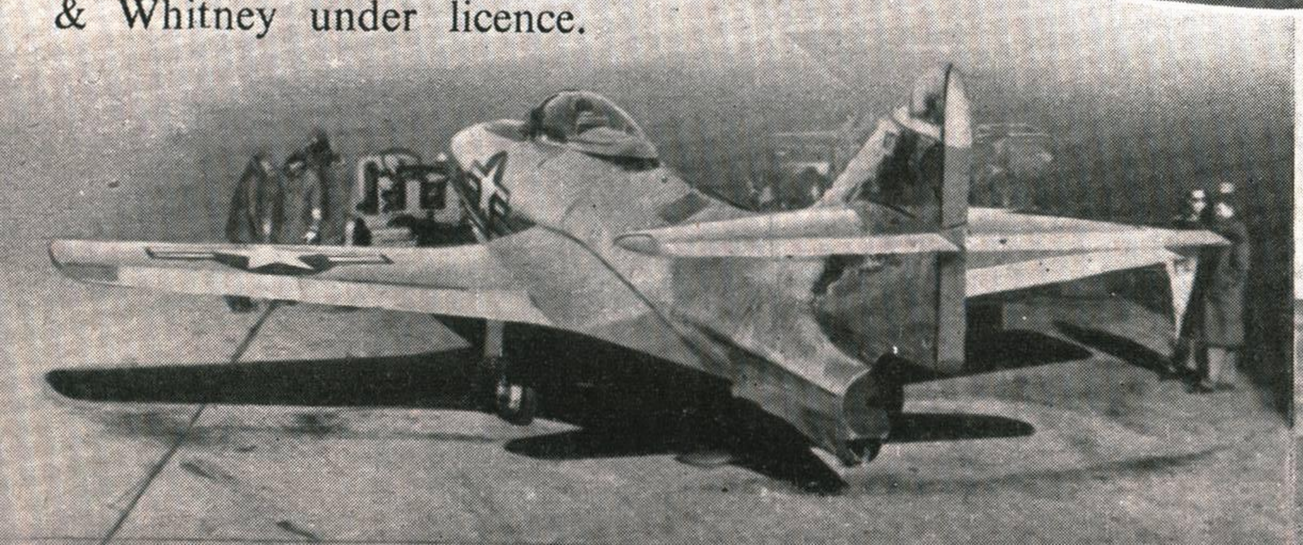
Production orders for the U.S.A.A.F. total 1,150 aeroplanes. North American Aviation, Boeing, Convair, and Lockheed are the main producers. North American P8-6, contract increased by 82 to total 215 ; 100 North American B-45 ; 100 Convair B-36 ; 100 North American P-82, P-82E plus 150 later models ; Republic P-84, earlier order for 500 increased to 600 ; 10 Boeing C-97, additional order for 27 anticipated ; Lockheed P-80, current production of P-80B will be maintained throughout the year, there are about 350 P-80A and 200 P-80B now in service ; 10 Boeing L-15 ; 37 Fairchild Packets, further order anticipated ; Republic F-12, contract for 20 anticipated.

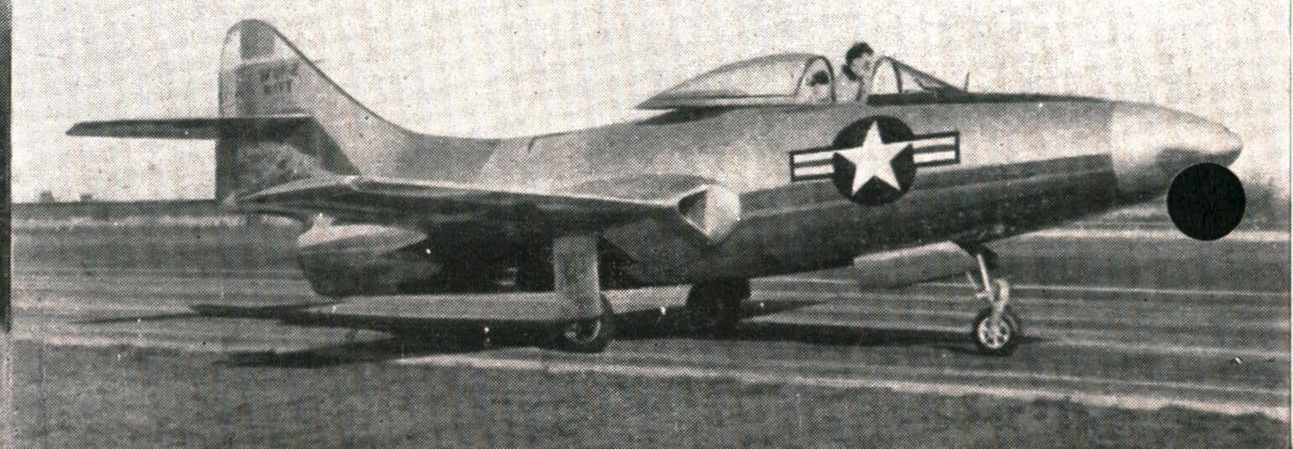
The New Look. *The picture above shows the Boeing XB-47 coming in to land at Moses Lake airfield after its maiden flight.*

Grumman Panther

The XF9F-2 Panther, carrier based jet-fighter for the U.S. Navy, is now being test flown. Of three prototypes one will have a British - built Rolls - Royce Nene turbojet. Production models will probably have American-built Nenes, designated J-42's, made by Pratt & Whitney under licence.

The Panther's most outstanding feature is its " semi-detached " tail-unit, faired to the "projectile" fuselage. A straight, forward-tapered wing ; a straight, backward-tapered tailplane, high-set; large wing-root intakes and root-fillets complete the picture of a very handsome and easily recognizable fighter.





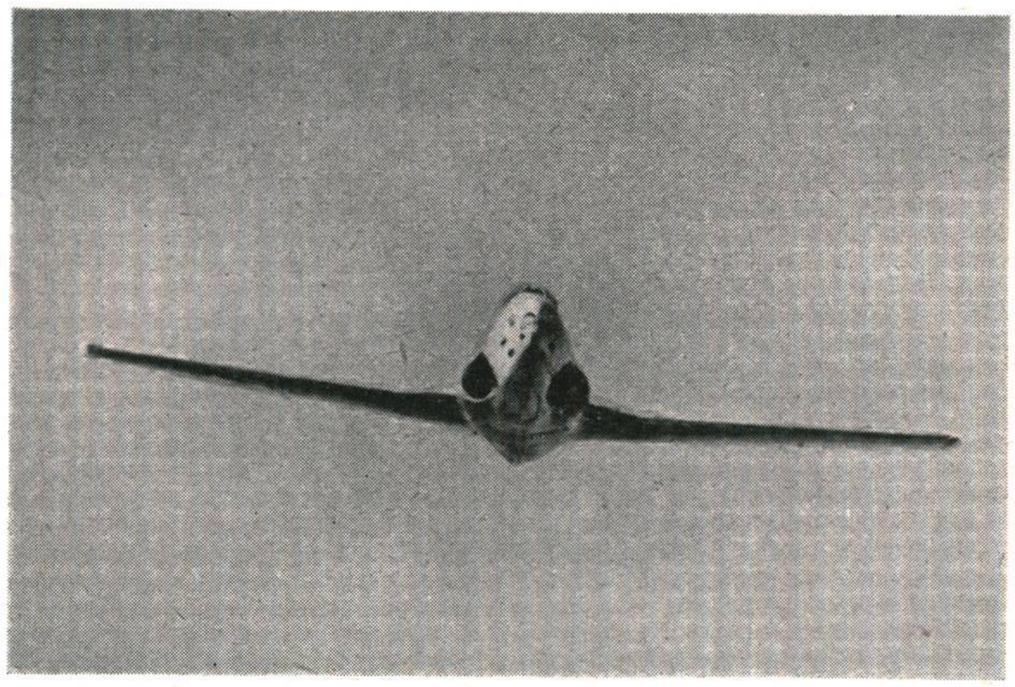
What's the Difference ?—3.

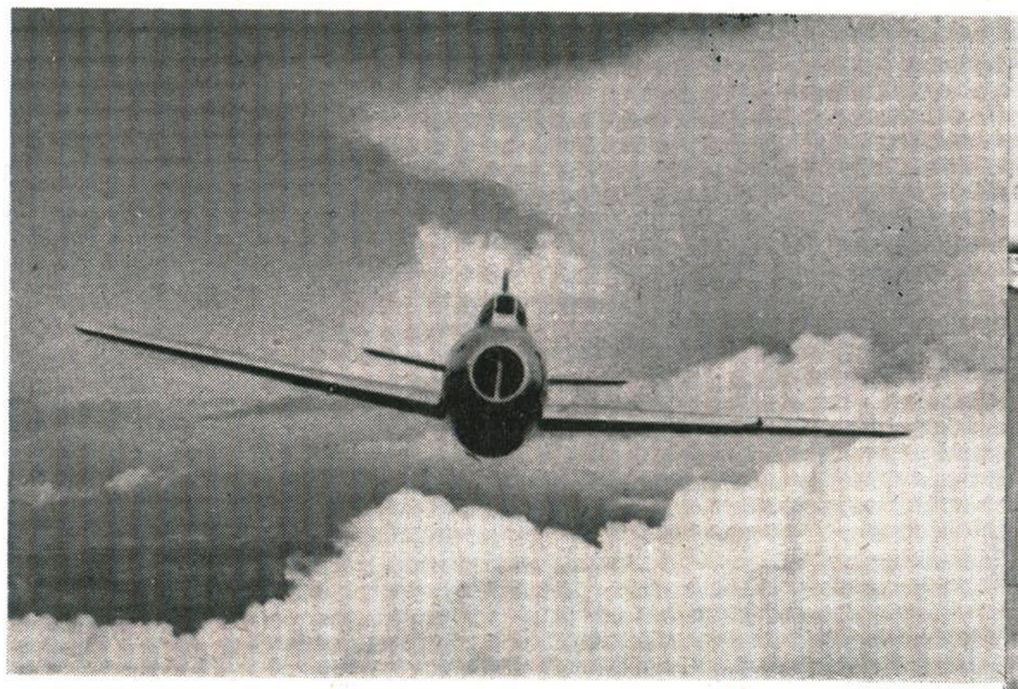
MAIN POINTS OF DIFFERENCE :

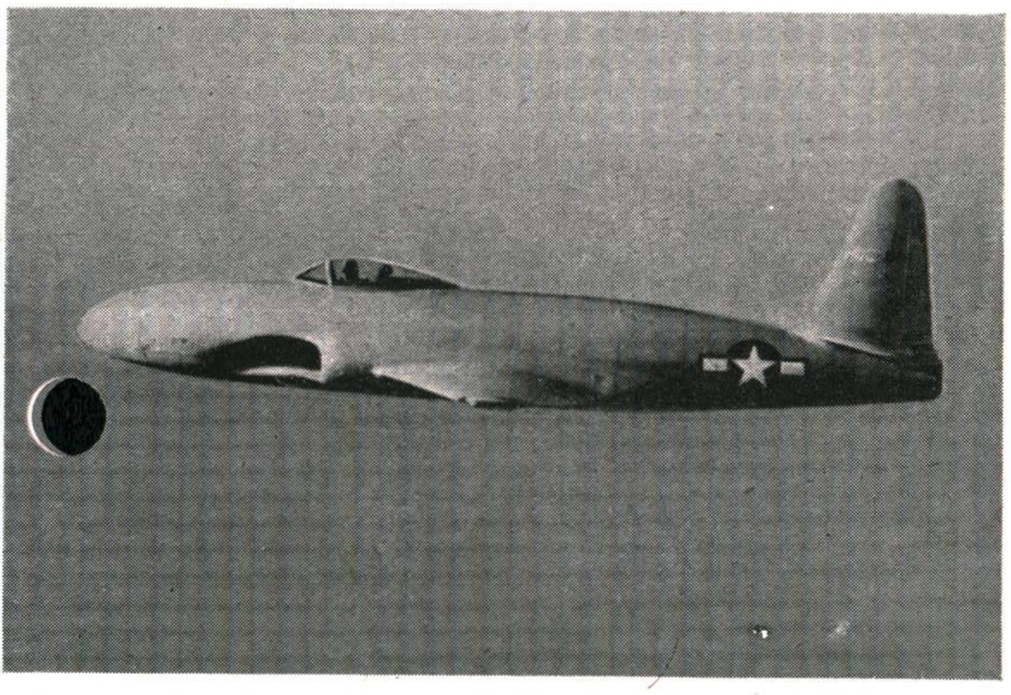
P.80 : diamond-shaped wings and tail surfaces—large wing root intakes and fillets—a " droop snoot." (Span : 38 ft. 10 ins.)

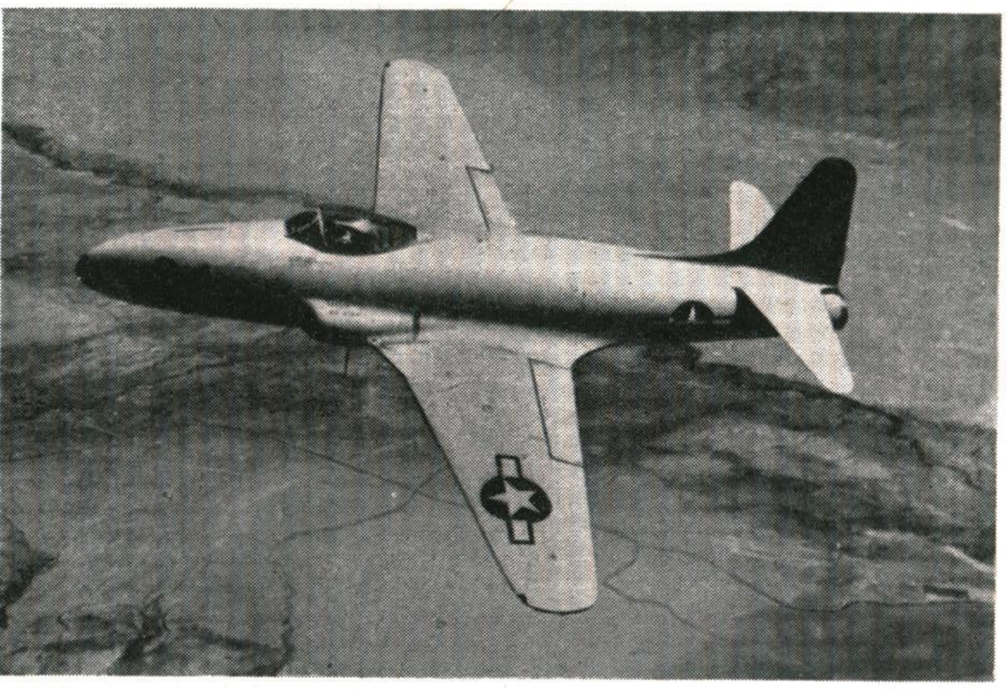
P.84 : a bottle or Indian-club shaped fuselage with a sawn-off nose tip—a long cockpit canopy—a broad chord blunt tipped wing—a dihedral in its tailplane. (Span : 36 ft. 10 ins.)

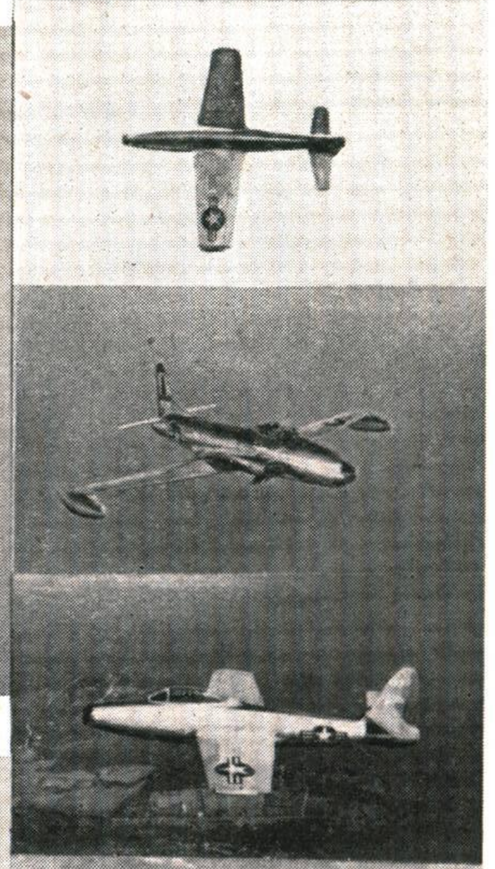
(*Answers to test on back cover*)

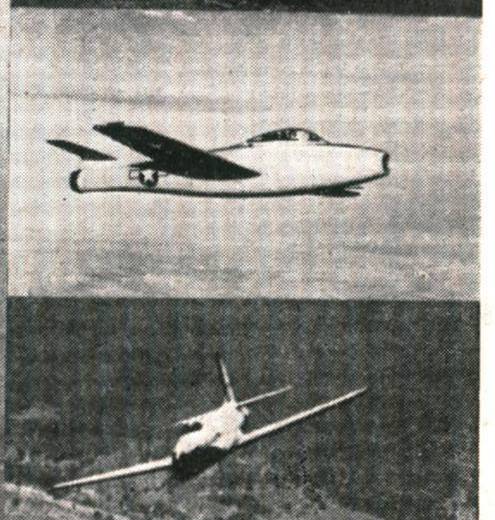




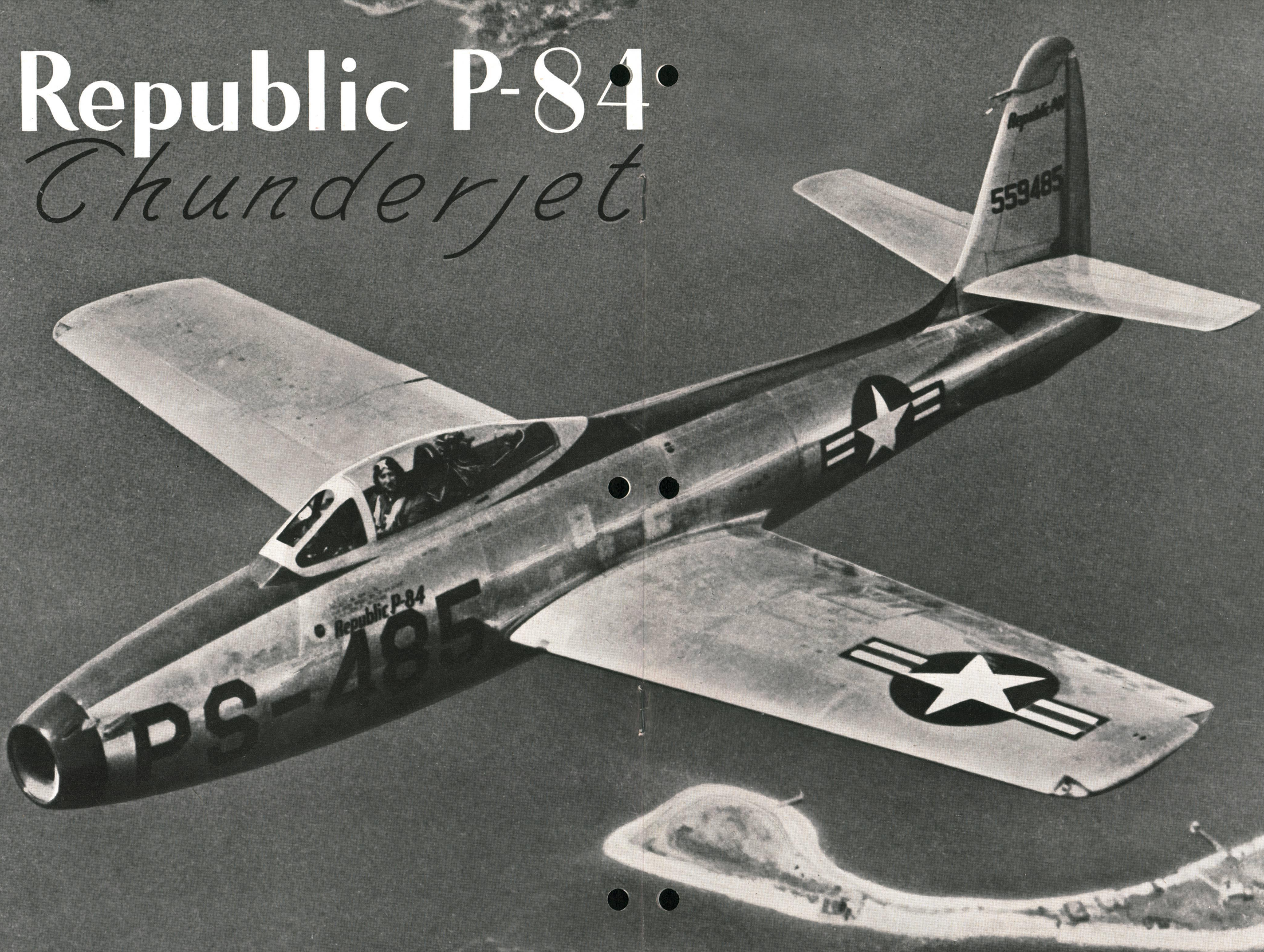




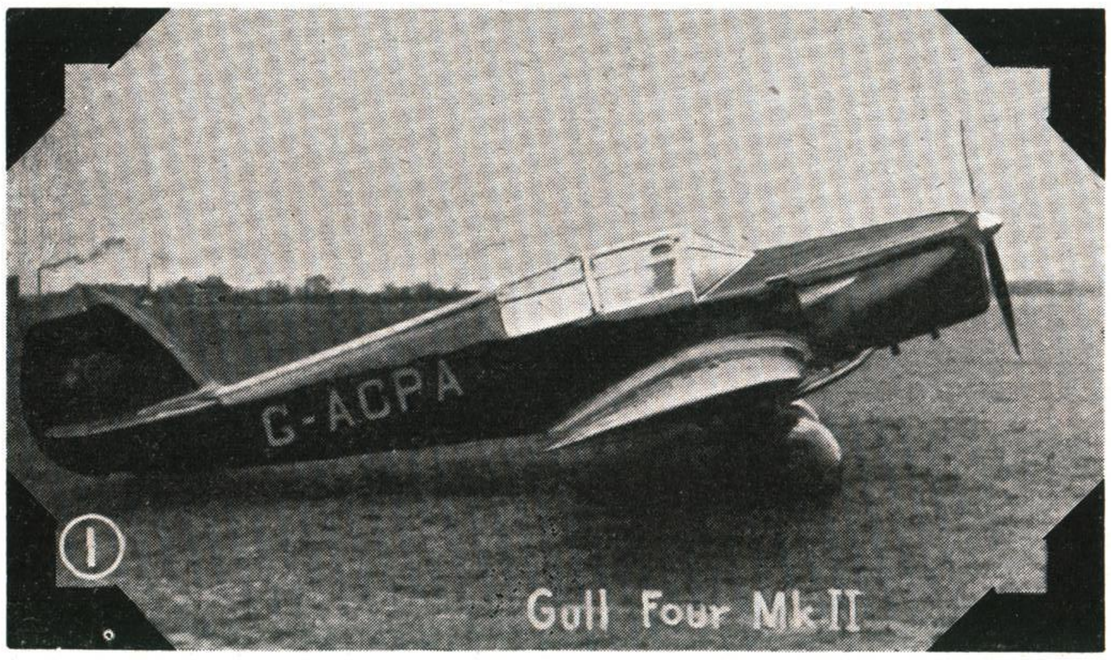




Republic P-84
Thunderjet



Percivalities



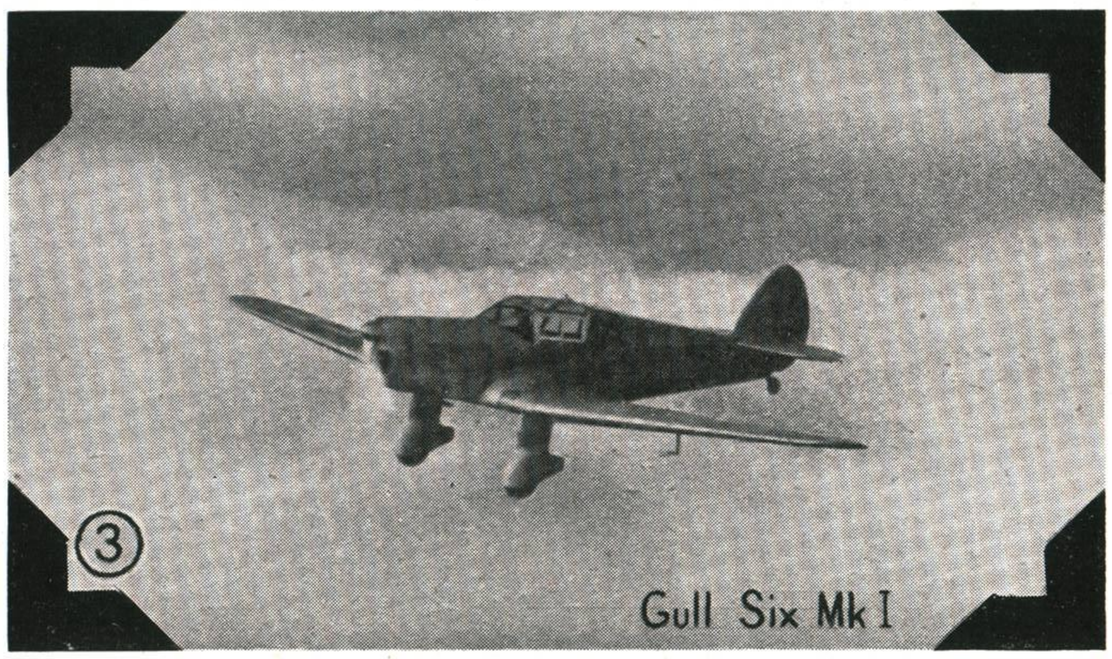
1 P.1 **Gull-Four Mk. II** (D.H. Gipsy Major I) three-seat civil type designed in 1931. Span : 36 ft.

2 P.2 **Mew Gull** (Napier Javelin 1a. Mew Gull II, D.H. Gipsy VI). Racing monoplane designed in 1933, built and flown 1934. Span : 24 ft. 9 in.

3 P.3 **Gull Six Mk. I** (D.H. Gipsy VI) three-seat civil type designed in 1934. Span : 36 ft.

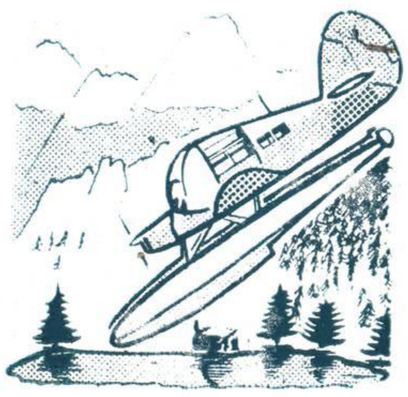
4 P.10 **Vega Gull** (D.H. Gipsy VI) two- to three-seat civil type designed in 1935. P.10 to 15 and P.20 designs were Vega Gull variants. Span : 39 ft. 6 in.

5 P.17 **Q-6 Mk. I** (2 D.H. Gipsy Queen II). Twin-engine six- to seven-seat civil type designed in 1937. Span : 46 ft. 8 in.



IN 1931 Captain E. W. Percival designed his first aeroplane—the Gull. It was built for him by the Parnall Aircraft Company, at Bristol, in 1932. During that year the Percival Aircraft Company was formed. The first works were established at Gravesend in 1934, but moved to Luton in 1936 and stayed there.

Mr. A. A. Bage is now Percivals' chief designer. Since the first Gull—the P.1—there have been 50 Percival designs. The P.50 Prince is the latest. Of the designs which have got beyond the drawing office, we have selected 13 for illustration.



Up to the war, Percivals built civil types of aircraft. Many of them won contests and made record flights. We are, unfortunately, unable to mention them in great detail here. Possibly the high-lights of these flights were : the England-Australia and Australia-England records made by Miss Jean Batten in her Gull-Six in 1936 and 1937, though these were subsequently broken ; the winning of the King's Cup Race on several occasions by the Mew Gull and subsequently by the Vega Gull ; a Mew Gull record flight from Gravesend to Capetown. There are still Vega Gulls and Gull-Sixes flying today.

Came the war, and the need for training and communications aircraft of various types. The Gull-Six was re-christened the Proctor and, with internal modifications became the Mks. I, II or III. On communi-

6 P.28 **Proctor Mk. I** (D.H. Gipsy Queen II) radio trainer developed from Gull-Six and rechristened Proctor I. Proctor II and III similar in appearance. Span : 39 ft. 6 in.

7 P.31 **T9/41** (D.H. Gipsy Queen II) special naval version of Proctor Mk. IV. Span : 39 ft. 6 in.

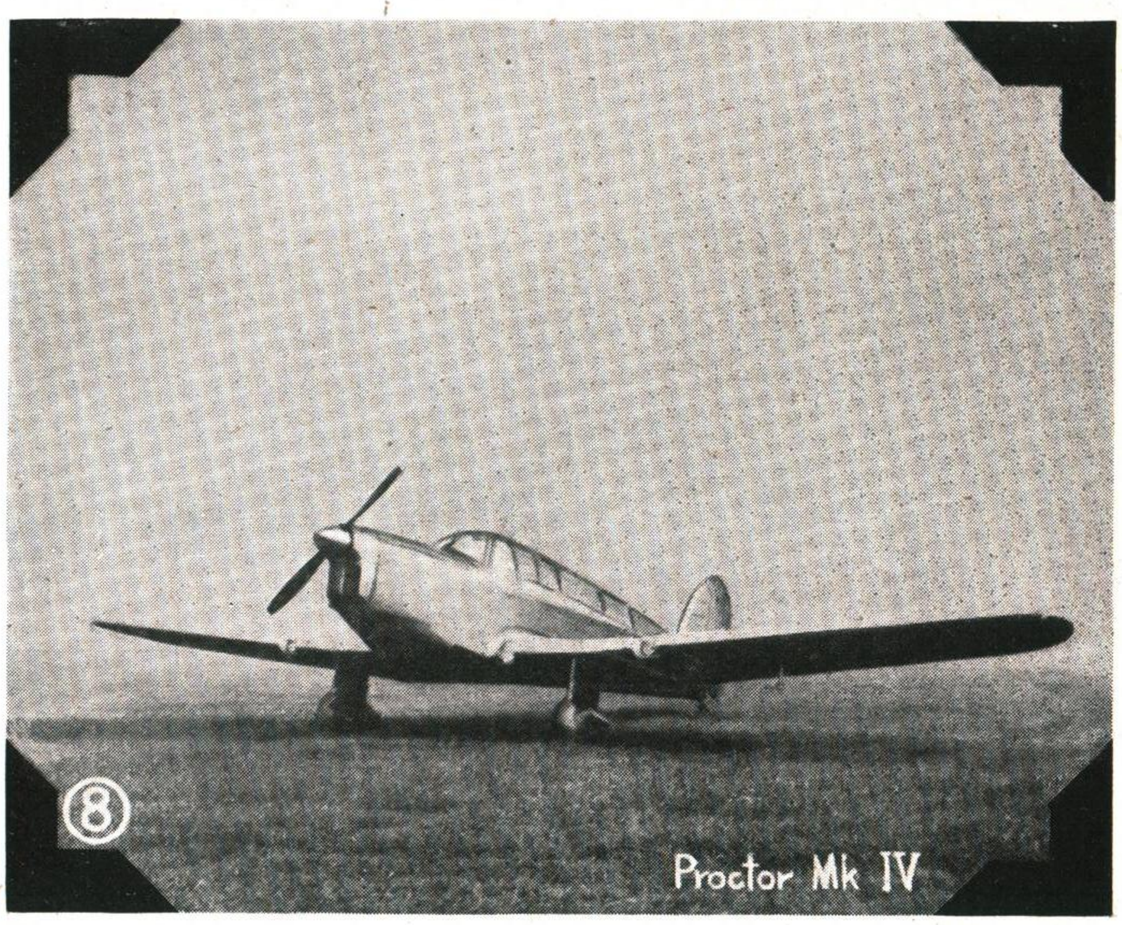
8 P.31 **Proctor Mk. IV** (D.H. Gipsy Queen II) radio and navigational trainer designed in 1943. Span : 39 ft. 6 in.

9 P.44 **Proctor Mk. V** (D.H. Gipsy Queen II) 3/4-seat civil type designed in 1946—still in production. Span : 39 ft. 6 in.

10 P.47 **Proctor Mk. VI** (D.H. Gipsy Queen II) float seaplane modified from Mk. V airframe. It is to be used in Canada. Span : 39 ft. 6 in.

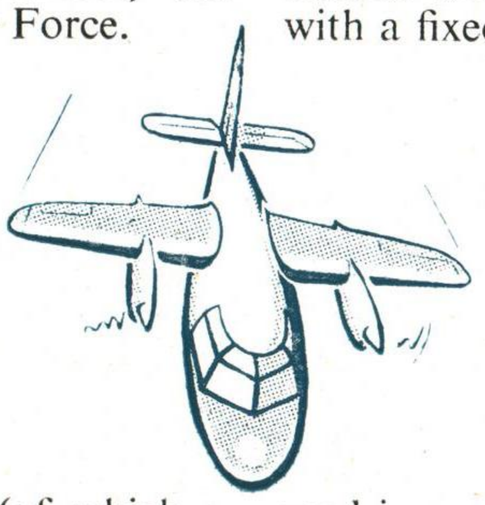
11 P.48 **Merganser** (2 D.H. Gipsy Queen 51) six- to eight-seater, feeder work ; designed in 1946. Span : 47 ft. 9 in. (*Photo overleaf*).

12 P.50 **Prince** (2 Alvis Leonidas radials) eight- to ten-seater, for feeder and charter work ; designed in 1947. Span : 56 ft. (*Photo overleaf.*)



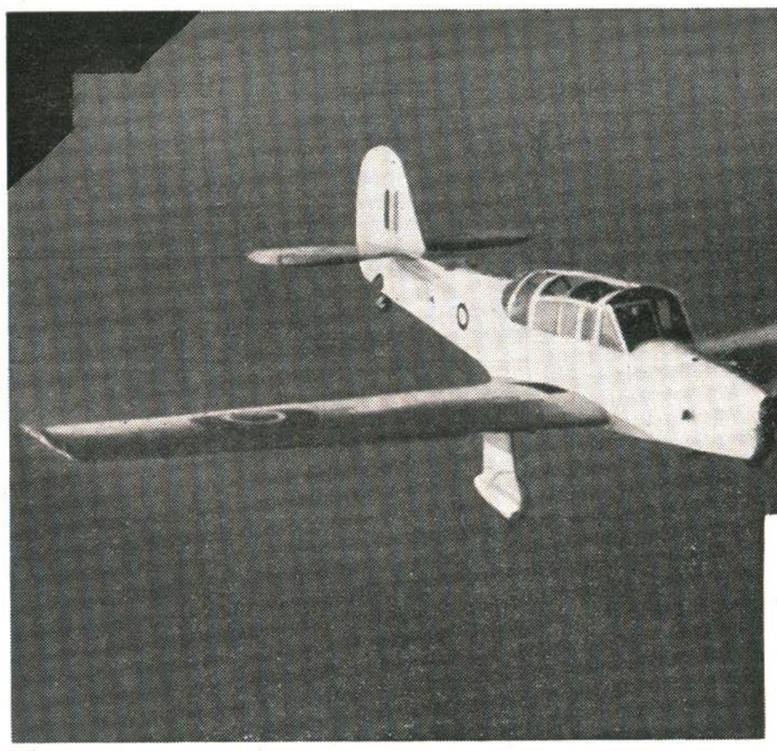
cations duties it was used by all three Services, the U.S.A.A.F., and by Marshal Tito's Balkan Air Force.

In 1943, a new design of Proctor was produced. It resembled the earlier Proctors and Gulls closely, but had a lengthened, widened, and deepened fuselage. The tailplane was raised relative to the wings, and the engine cowling was redesigned. Cabin windows were reshaped, and the pilot and crew were given better all-round views. It was stronger than the earlier Proctors. Altogether, 1,154 Proctors of Mks. I to IV were produced by Percivals for war purposes.



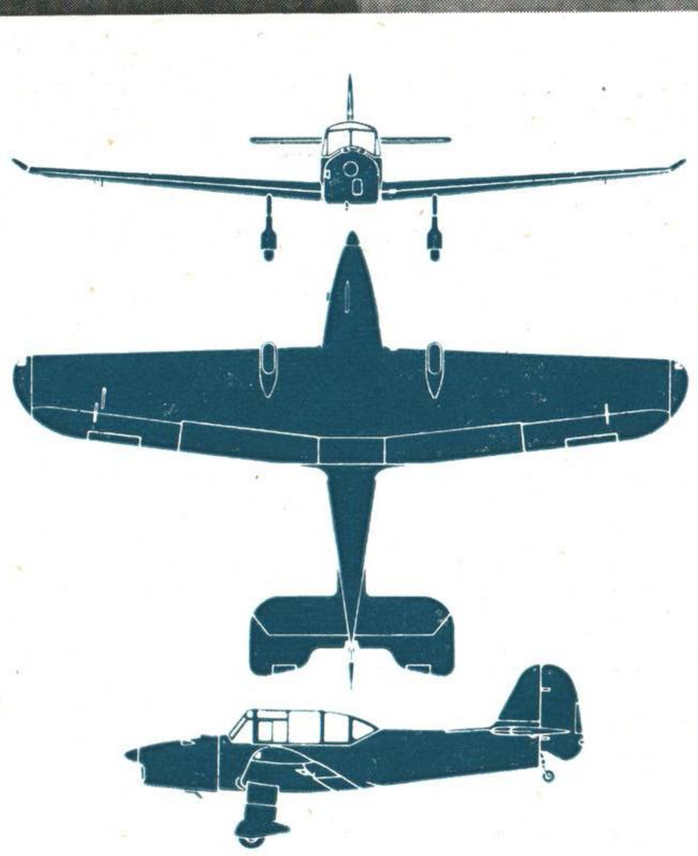
Percivals' first twin-engine venture, the Q.6 (of which a total of 27 were built before the war) also did communications work for the Royal Air Force. There was a Mk. I with a fixed undercarriage and a Mk. II with a retractable undercarriage. Q.6s are still flying today.

With the coming of peace, Percivals converted a few Mk. IV Proctors to civil use ; then a new design was made, based upon the Mk. IV. The new design, known as the Mk. V, is a civil aircraft entirely. Similar in appearance to all earlier Proctors, it is easily recognizable as coming from the Gull family, and from Percivals in particular. This machine is now in production, which is going strong, and is being used in many different countries from Sweden to Australia, and from the Belgian Congo to the Argentine. It also sells



Built to Air Ministry Spec. No. T.23/43, this " Percivality " is now in production for the Royal Air Force.

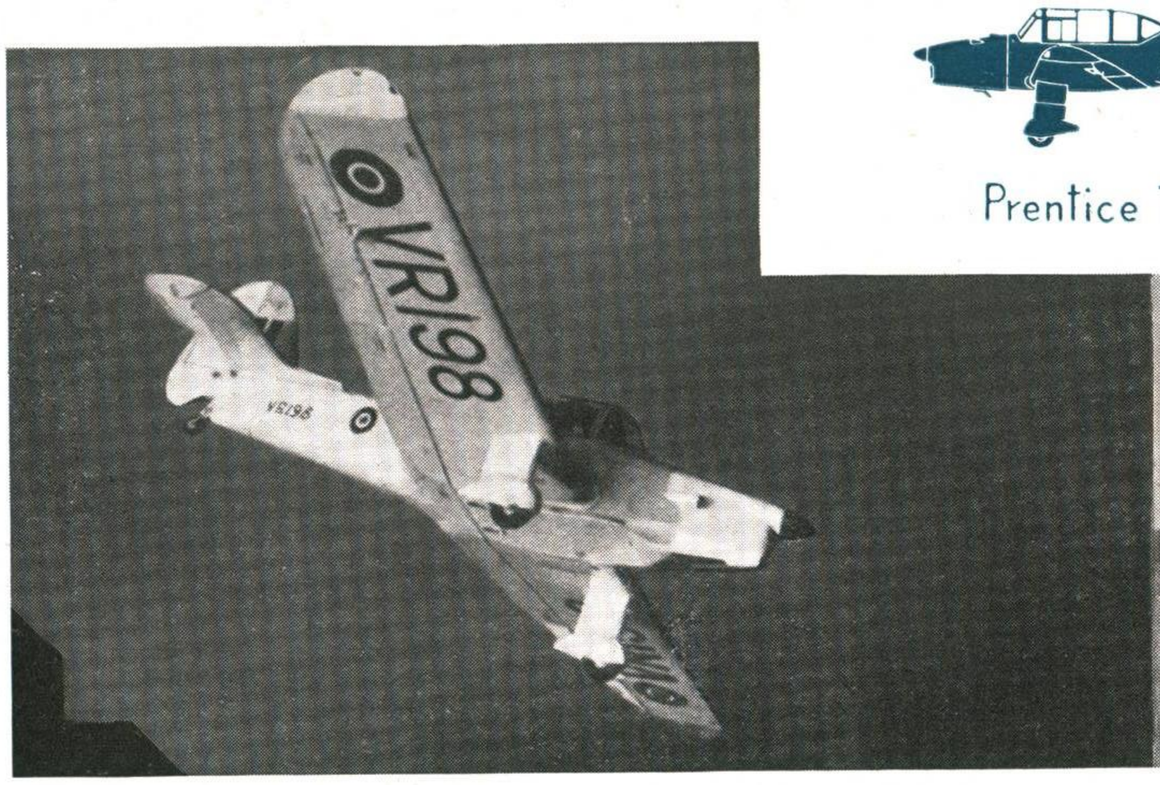
As an elementary trainer it is equipped for many forms of flying training, including instrument flying and navigation. It carries a third seat for a second pupil in its large cabin.

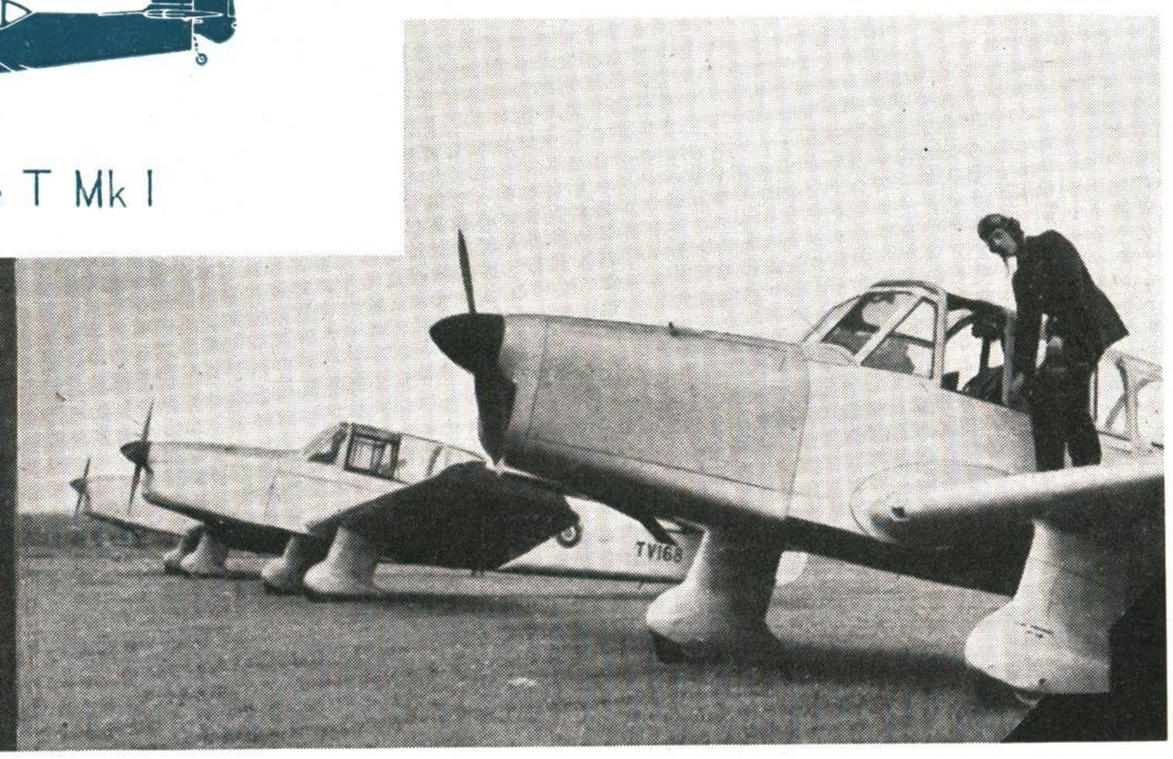


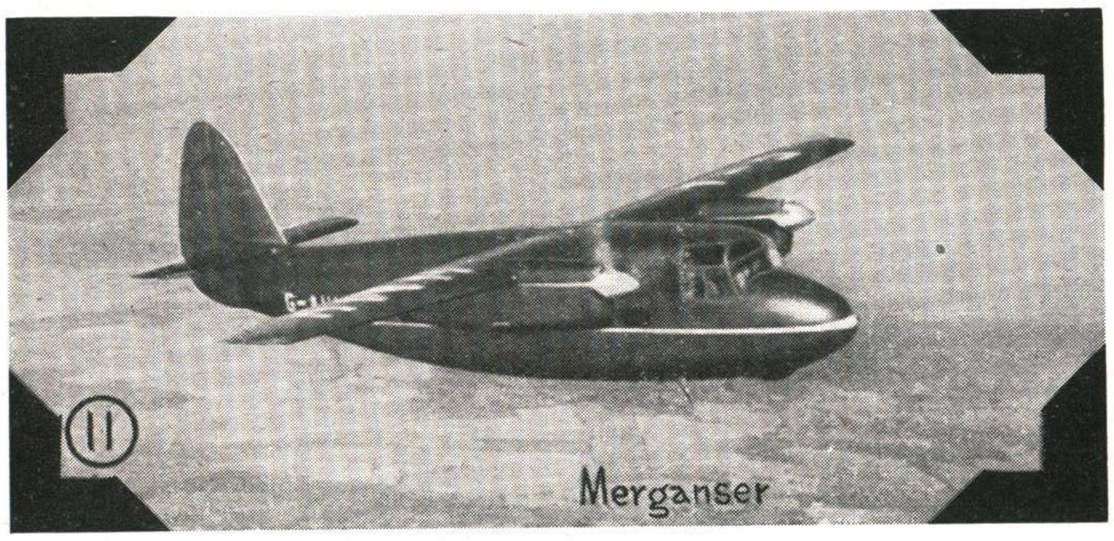
Prentice T Mk I

In spite of turned-up wing-tips, elevator cut-out and anti-spin fairings—all of which make it easy to recognize—it retains the characteristic shapes which speak of its Percival heritage.

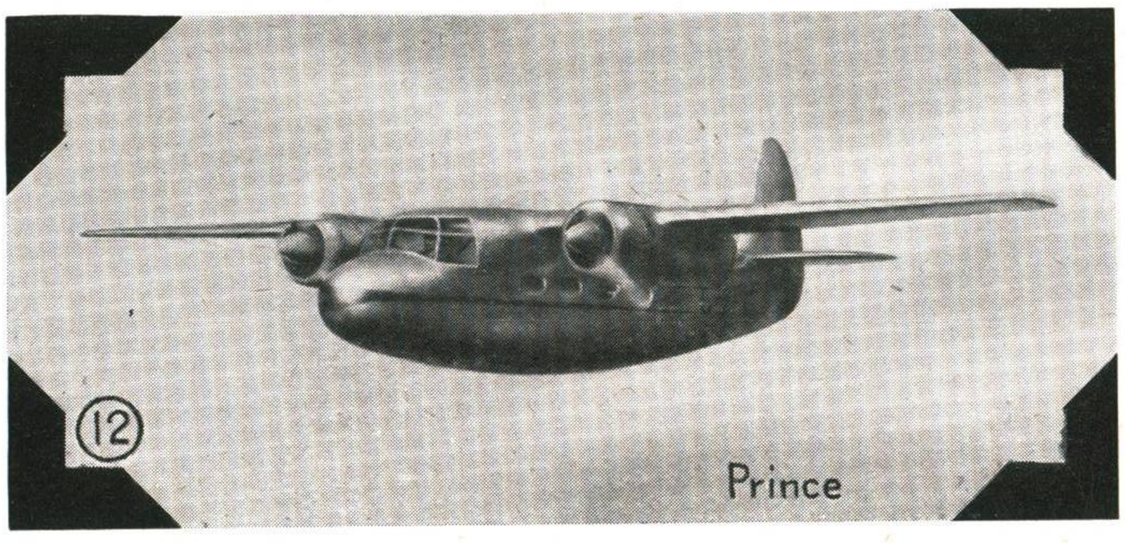
A D.H. Gipsy Queen 32 motor, of 250 h.p., powers the Prentice T. Mk. I giving a maximum speed of 150 m.p.h. The wing span is 46 ft.







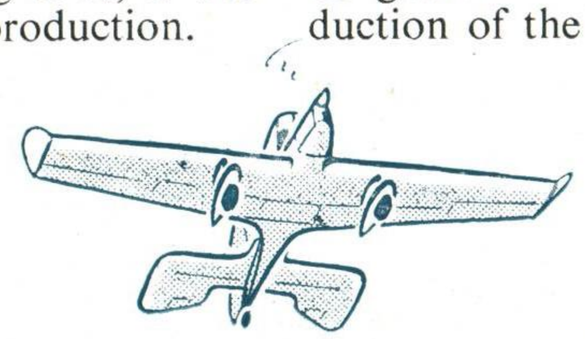
11 Merganser



12 Prince

pretty well within the Empire generally. A float version, known as the Proctor Mk. VI, is destined for Canada.

Although the Prentice was designed during 1944, it was not until after the war that it went into production. To us, it is the most striking " Percivality " yet produced, and we have devoted more space to it than the rest. It is now coming into service as a basic trainer.



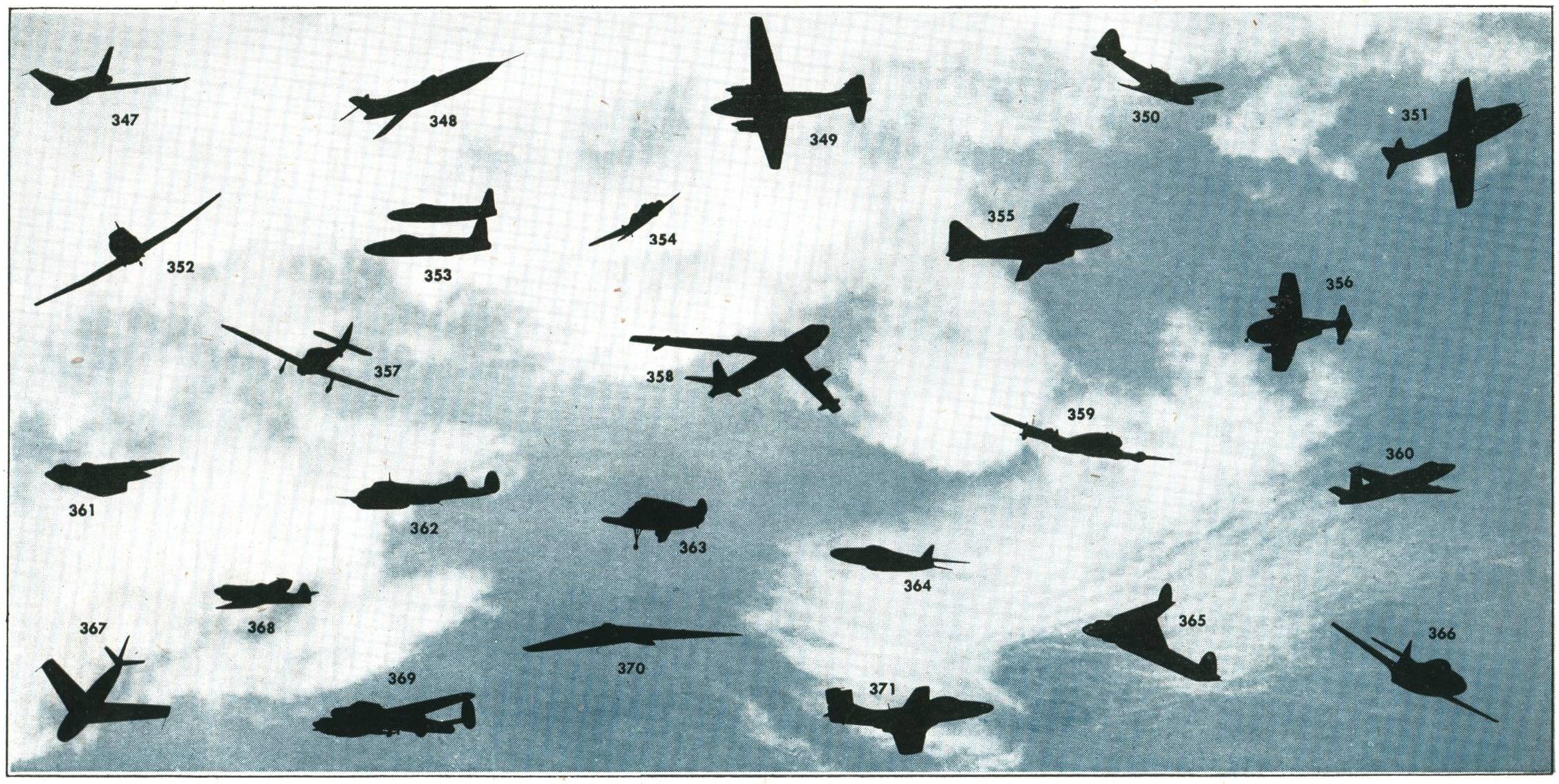
Percivals' second twin-engine production is the post-war Merganser. A neat, rather tubby, high-wing monoplane, its wing shape is very much like that of the Gulls and Proctors. It also has the tell-tale unit (silhouette in back cover). Designed for feeder-line or charter work, the prototype has been going through its test-flying recently.

From the Merganser test-flights much information may be gathered which, it is expected, will assist in the production of the new projected Percival Prince. This design is now in the building stage and can be said to be a larger and more powerful Merganser. This machine is also designed for feeder-line and charter work.

Throughout the wide range of Percival designs, the characteristic tail form and shape occurs regularly—and so does the wing shape. The only exceptions, of those we illustrate, are the Mew Gull's fin and rudder and the wing tips of the Prince, which are squared-off.

SILLOGRAPHS

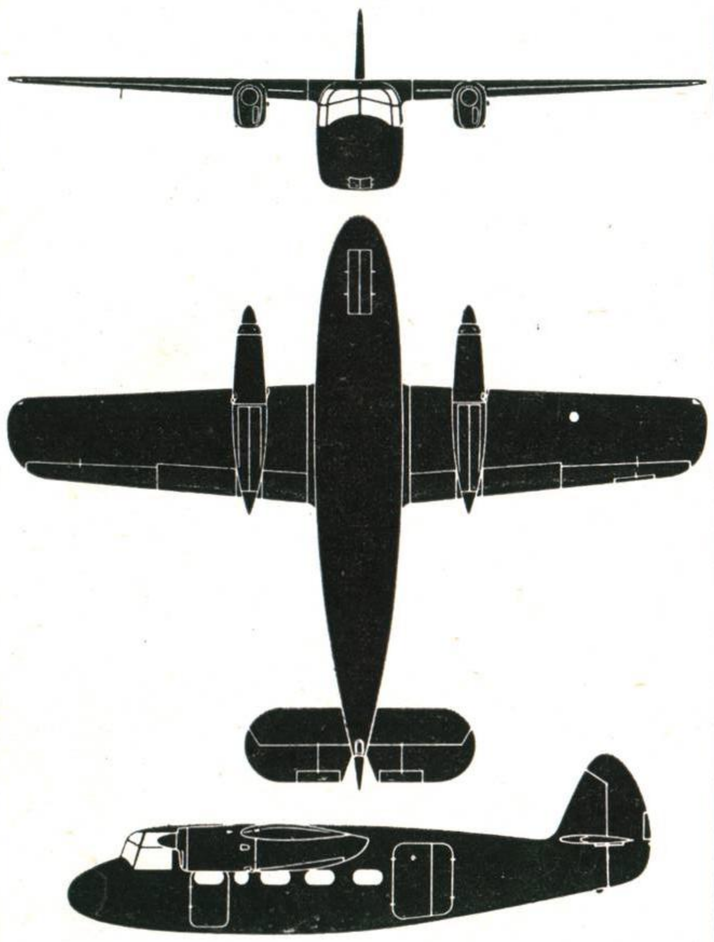
Recognition Test No. 59



ADVANCED SPOTTING

Recognition Test No 60

PERCIVAL MERGANSER



British Transport
2 DH Gipsy Queen. Span : 47ft. 9 ins.
New Silhouette

MERGANSER MAKE-UP: deeply-stepped nose to fat, roomy fuselage—high wing, slightly tapered—slim underslung motors—untapered tailplane semi-circular tips—pear-shaped fin and rudder.

ONE-SEVEN-ONE SHAPES : " dragon fly " body form—small triangular pitching damper at rear—tricycle undercarriage and tail skid—high riding tail rotor supported on bent boom.

BRISTOL TYPE 171

British Helicopter
1 P.W Wasp Junior. Rotor Dia: 47ft. 5ins.
New Silhouette

SOLUTIONS TO RECOGNITION TESTS IN THIS ISSUE :

No. 58 (ELEMENTARY):

342	IL-4	351	Lancastrian
343	Messenger	352	Dakota
344	Ambassador	353	Hornet
345	E10/44 Attacker	354	Chipmunk
346	Firefly FR IV	355	Sturgeon
347	Hermes	356	Lincoln (Theseus)
348	SR/AI	357	Miles M-68
349	Tempest II	358	Horsa
350	Corsair F4U-4	359	Merchantman

COVER PICTURE : *Grumman XF9F-2*

CENTRE-SPREAD PHOTO *by Harold G. Martin*

What's the difference No. 3 Test (*Top to bottom*) : P-80 ; P-80 ; P-84 ; P-84 ; P-80 ; P-84 ; P-80 : P-84 ; P-84 ; P-80.

No. 59 (SILLOGRAPHS):

347.	D.H.108 Swallow	360.	Attacker
348.	Skyrocket	361.	XB.35
349.	Dove	362.	PE-2
350.	IL-10	363.	XF5U-1
351.	Mig. jet	364.	Arsenal VG-70 (France)
352.	P.108 (Boulton Paul)	365.	AW-52
353.	P.80's	366.	XF9F-2 Panther
354.	Oxford or Consul	367.	XP-86
355.	IL-12	368.	Fury
356.	Merchantman	369.	Brigand
357.	Prentice	370.	XB-35
358.	Boeing XB-47	371	Banshee (XF 20-1)
359.	Constellation		

No. 60 (ADVANCED):

470	Lancaster (Experimental: jet at rear)	482	York C.1.
		483	Lancaster VII
471	Mig Jet	484	Fury
472	Oxford	485	P 103 (Boulton Paul)
473	YAK-9	486	Sunderland V
474	DH 108	487	Prentice TI
475	Dove	488	Tiger Moth
476	Lancaster VII	489	IL-10
477	AW 52	490	Spitfire 21
478	Hornet	491	Firecrest
479	Ambassador	492	Meteor (Clipped)
480	Mig Jet	493	Hermes
481	Tempest VI	494	Meteor IV

TIPS THAT PASS IN THE SLYPE

Some of the February copies of the *Journal* did not carry the name of the cover picture. It was the North American XP-86.

In the January issue there were two errors in the Spotting Results. In Test No. 54 (Advanced) picture No. 443 was a Vampire. In No. 55 (Elementary) picture No. 320 was a York and not a Yak. Sorry.

A GAGGLE OF GRUMMAN AMPHIBIANS. Leading, the G-44 Widgeon; second, the G-21 Goose; third, the G-73 Mallard. The Widgeon has inverted in-line Ranger motors. The Goose has radials—Pratt & Whitney Wasp Juniors. The Mallard also has Pratt and Whitney radials—the Wasp "H." Differences in structure forms, as seen from this angle, include motors, wing float supports, cabin windshield forms, and fins and rudders. The Widgeon and Goose are known in the U.S. Navy as the J4F-2 and the JRF-5 respectively. The Mallard is a commercial job. (Photo by Harold Martin)

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