

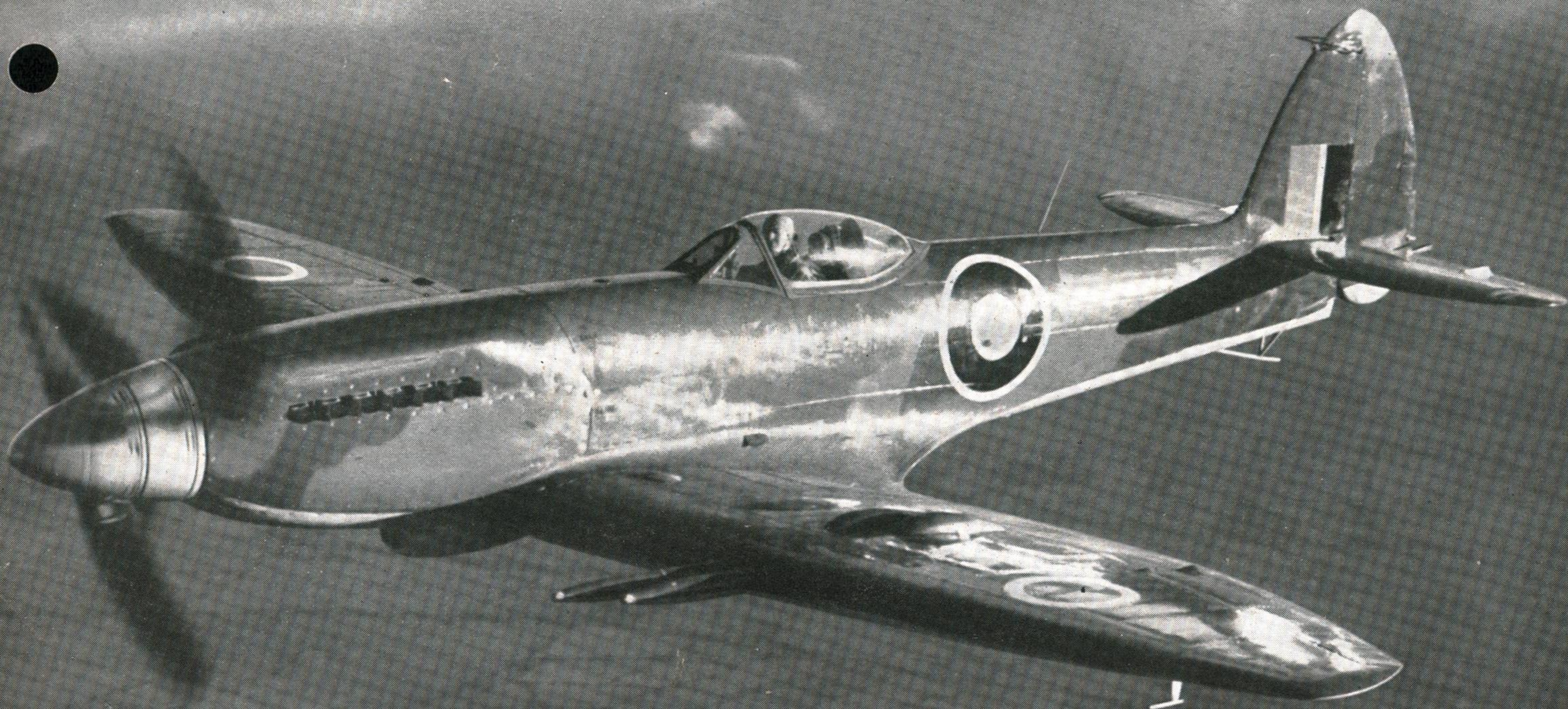
THE INTER



SERVICES

# AIRCRAFT RECOGNITION

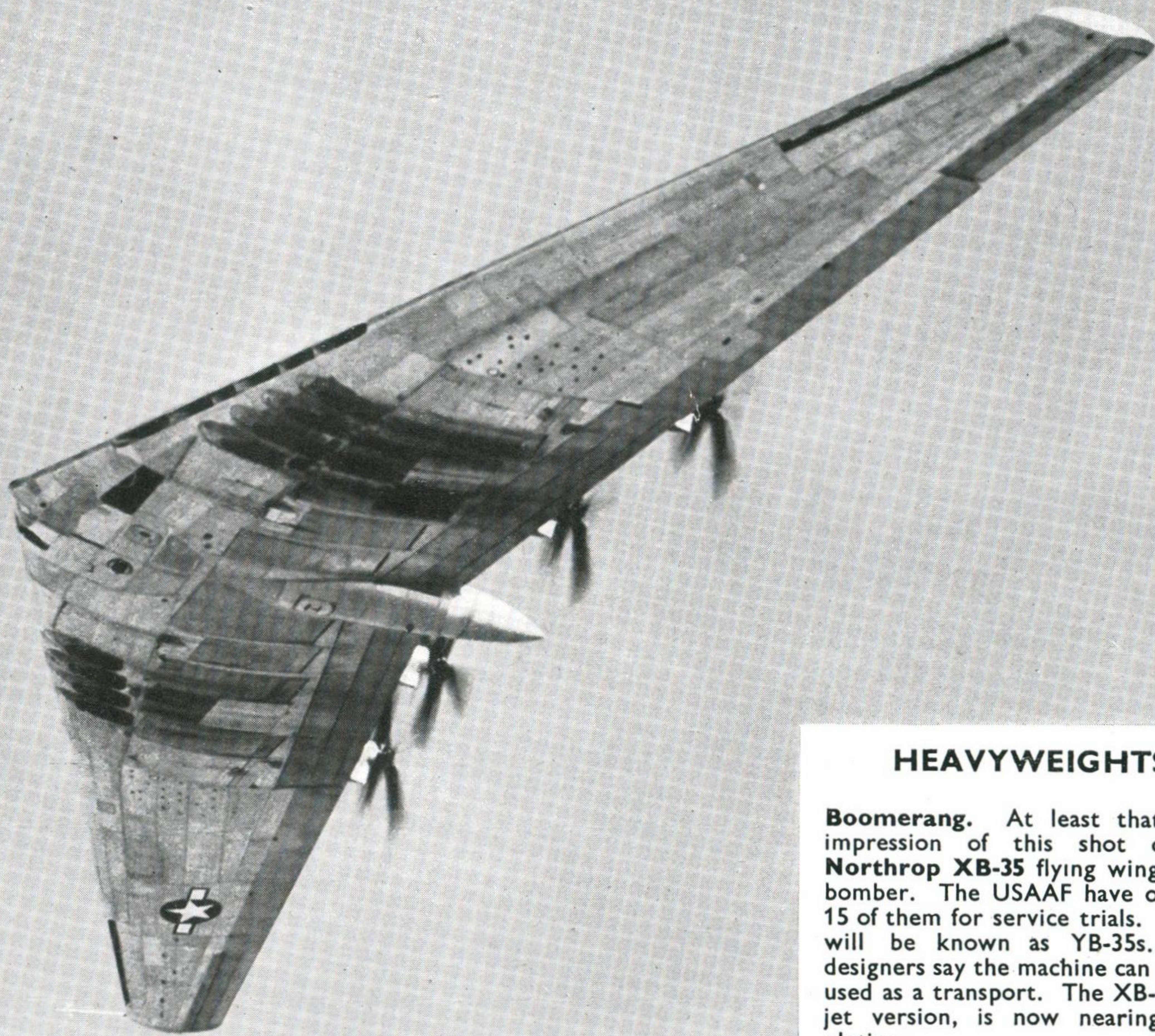
*Journal*



New Series

MARCH 1947

Volume I. No. 9



## HEAVYWEIGHTS

**Boomerang.** At least that's our impression of this shot of the **Northrop XB-35** flying wing heavy bomber. The USAAF have ordered 15 of them for service trials. These will be known as YB-35s. The designers say the machine can also be used as a transport. The XB-49, the jet version, is now nearing completion.

Below is an impression of the giant **Boeing Stratocruiser** (4 Pratt and Whitney Wasp Majors) which is now beginning to take shape at the Boeing factory. A transocean 80-seater, it has two decks and is pressurized. BOAC as well as many United States airline operators have ordered it.





# AIRCRAFT RECOGNITION JOURNAL

(NEW SERIES)

## Gen . . .

**A**LL production **De Havilland Sea Hornets** are to have their fin areas increased by a dorsal fillet.

**Armstrong Whitworth** are going to produce a four-jet all-wing civil transport in the passenger-carrying class. The A.W.52 twin-jet flying wing will provide the necessary data.

**Hawker Aircraft** announce that they are to supply the Iraqi Government with **Hawker Furies (Bristol Centaurus XVIII)**. Four of them will be two-seater versions for training. The normal single-seat version will be called the **Fury "Baghdad"**.

The reconditioned **Hawker Hurricanes IIC** for the Royal Iranian Air Force are to be fitted with rear cockpit hoods as a measure against back draught.

**Hawker Sea Fury Xs** are also to be supplied to Holland.

**Materiel Command of USAAF** has a projected design for a strategic bomber with twelve power-units: six prop-jets and six pure jets. It will carry its own air cover in the form of two parasite fighters stowed in the bomb bay.

**Bristol Freighters** powered by Gnome Rhône 14 R radials are to be built in France by Louis Breguet.

Apart from six **Boeing Stratocruisers** and three **Sikorsky S.51** helicopters, **B.O.A.C.** are said to be expecting delivery of twelve **Republic Rainbows** towards the end of the year.

Radio controlled pilotless **Gloster Meteor Vs** are to be used as high speed targets for training anti-aircraft gunners.

The four **Vickers Vikings C. Mk. II** of the King's Flight are similar to the Viking 1B air liner, differing only in internal furnishings and external markings. Markings consist of the normal roundels, the fin flash, and a large serial number. (See page 101 for illustration.)

If there are any recognition fans at the South Pole they will be happy to learn that **Martin PBM-5 Mariner** flying boats are to be used in the Byrd Antarctic Expedition as well as a number of **Douglas Skytrains, Curtiss SOC Seagulls, Sikorsky** helicopters, and a **Noorduyn Norseman**. They will be used for mapping, photographing, and surveying.

Under the designation **XF2 R-1**, the **Ryan Aeronautical Corporation** announce a new super **Fireball** fighter for the U.S. Navy. Fitted with a prop-jet power unit it is larger and faster than the present model.

Following their experiments with the **XB-42 Mixmaster**, **Douglas** has produced a five-seat cabin aeroplane called the **Cloudster**. It has two 500 h.p. Continental engines coupled together and built inside the fuselage. They drive, through shafting, a pusher-prop at the extreme tail. The **Cloudster** has a tricycle undercarriage and inherits the **Mixmaster's** cruciform tail unit.



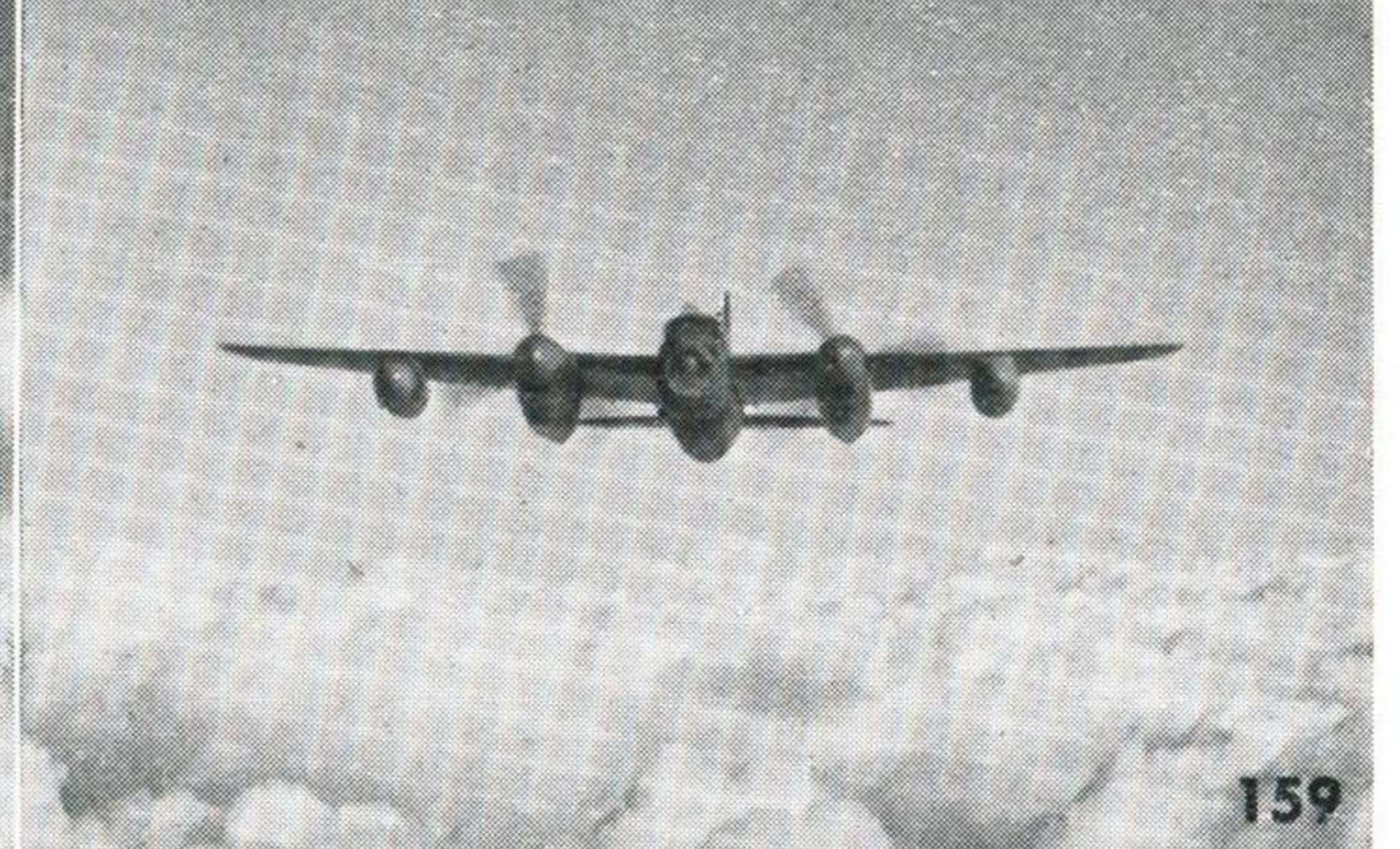
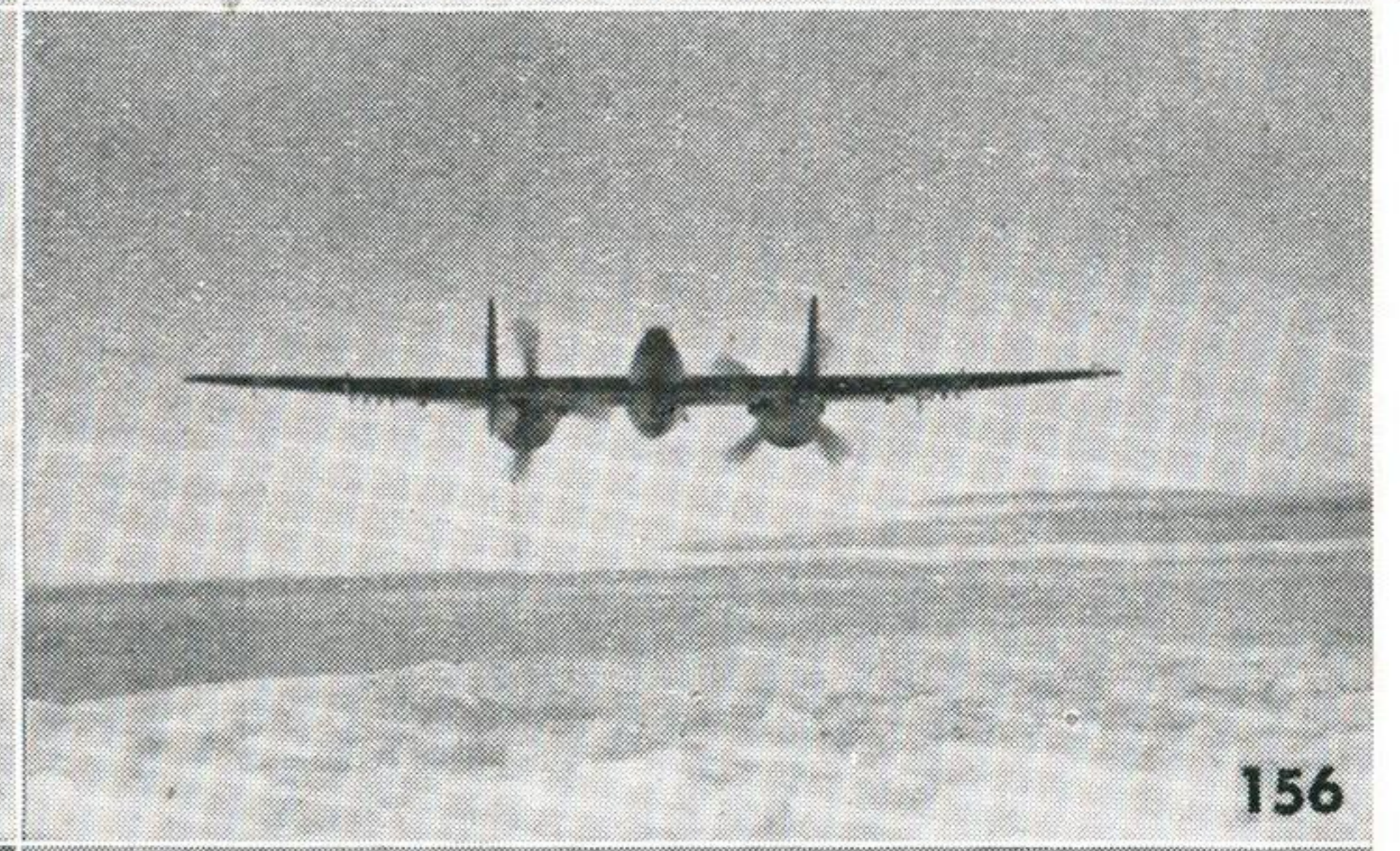
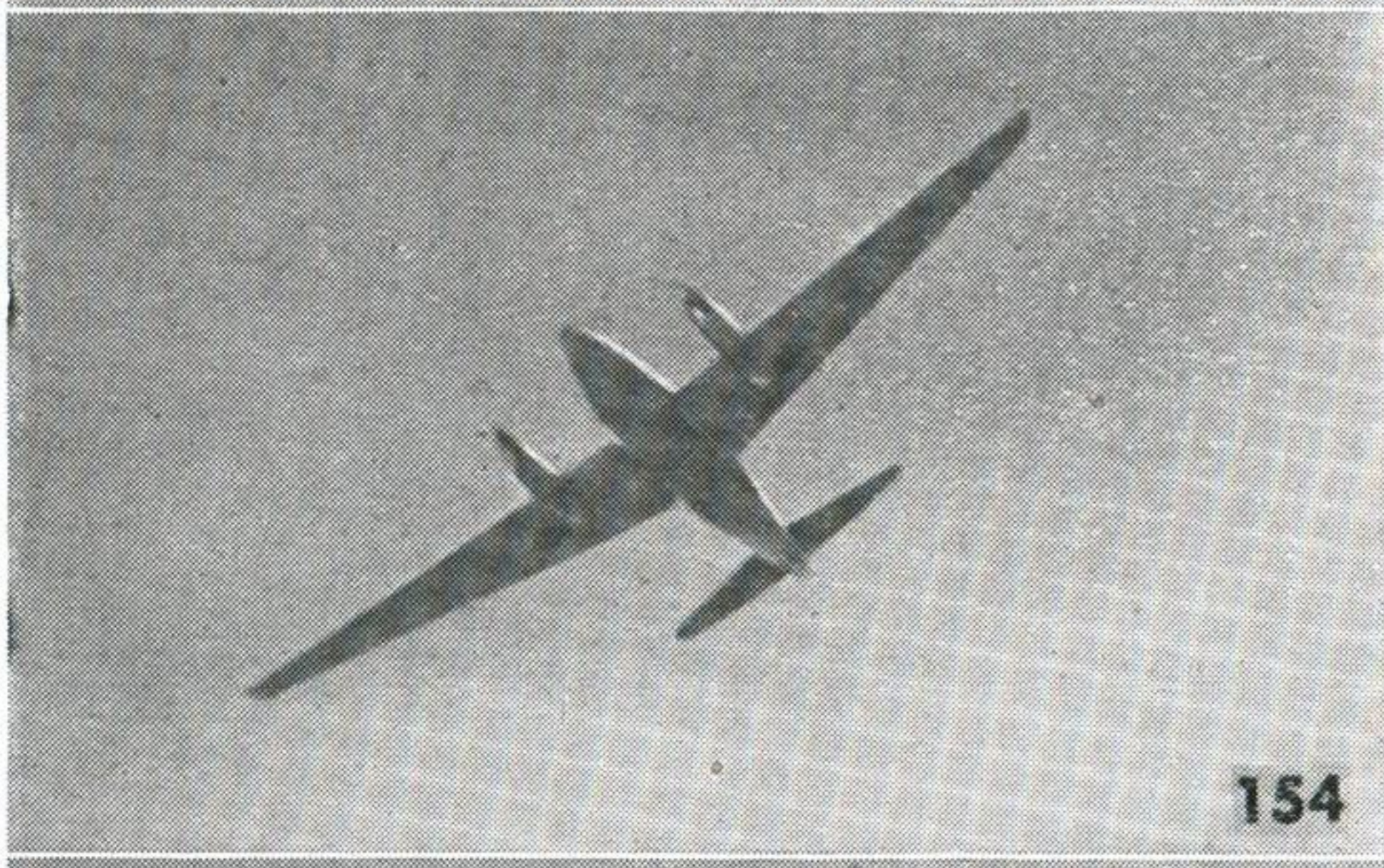
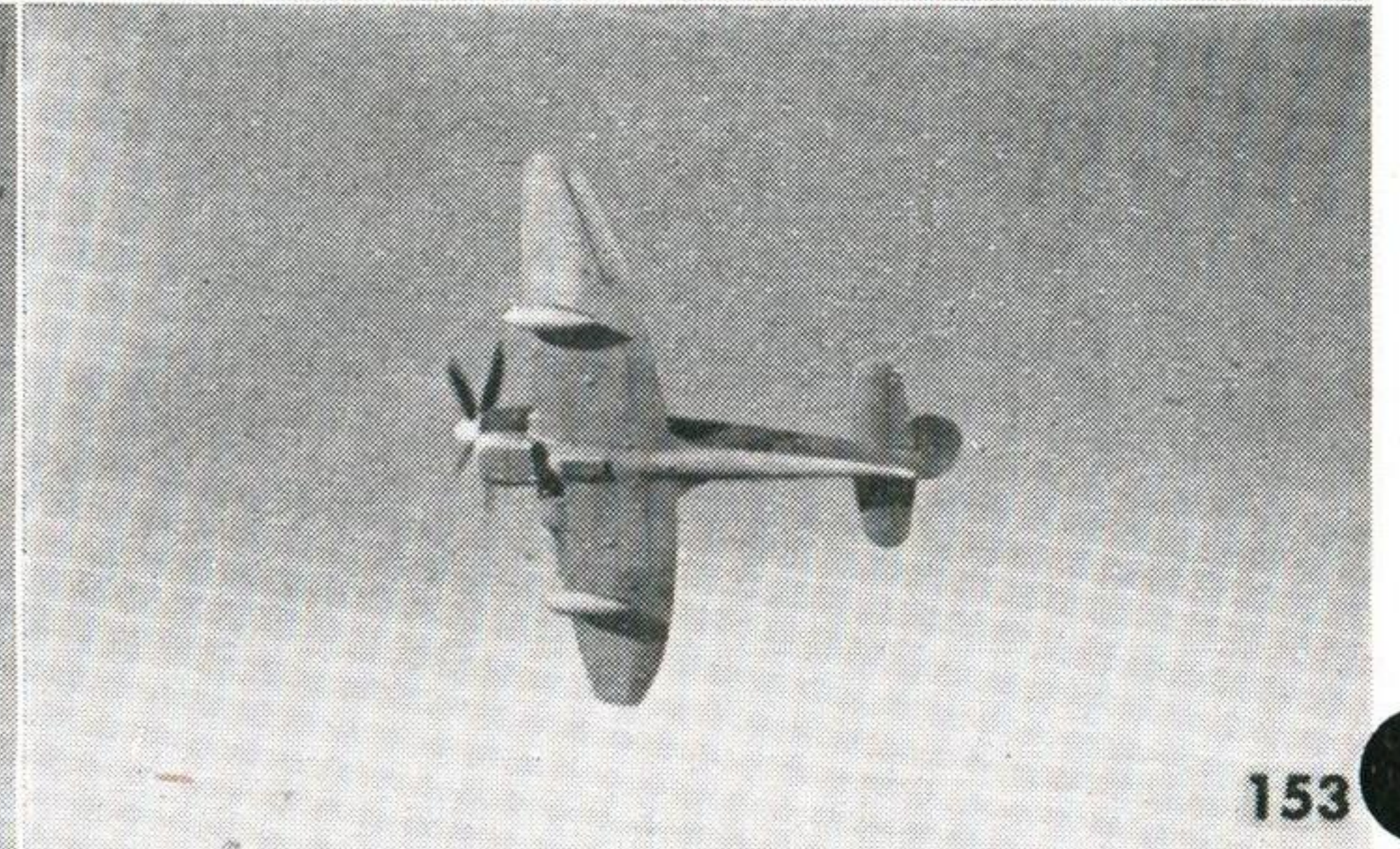
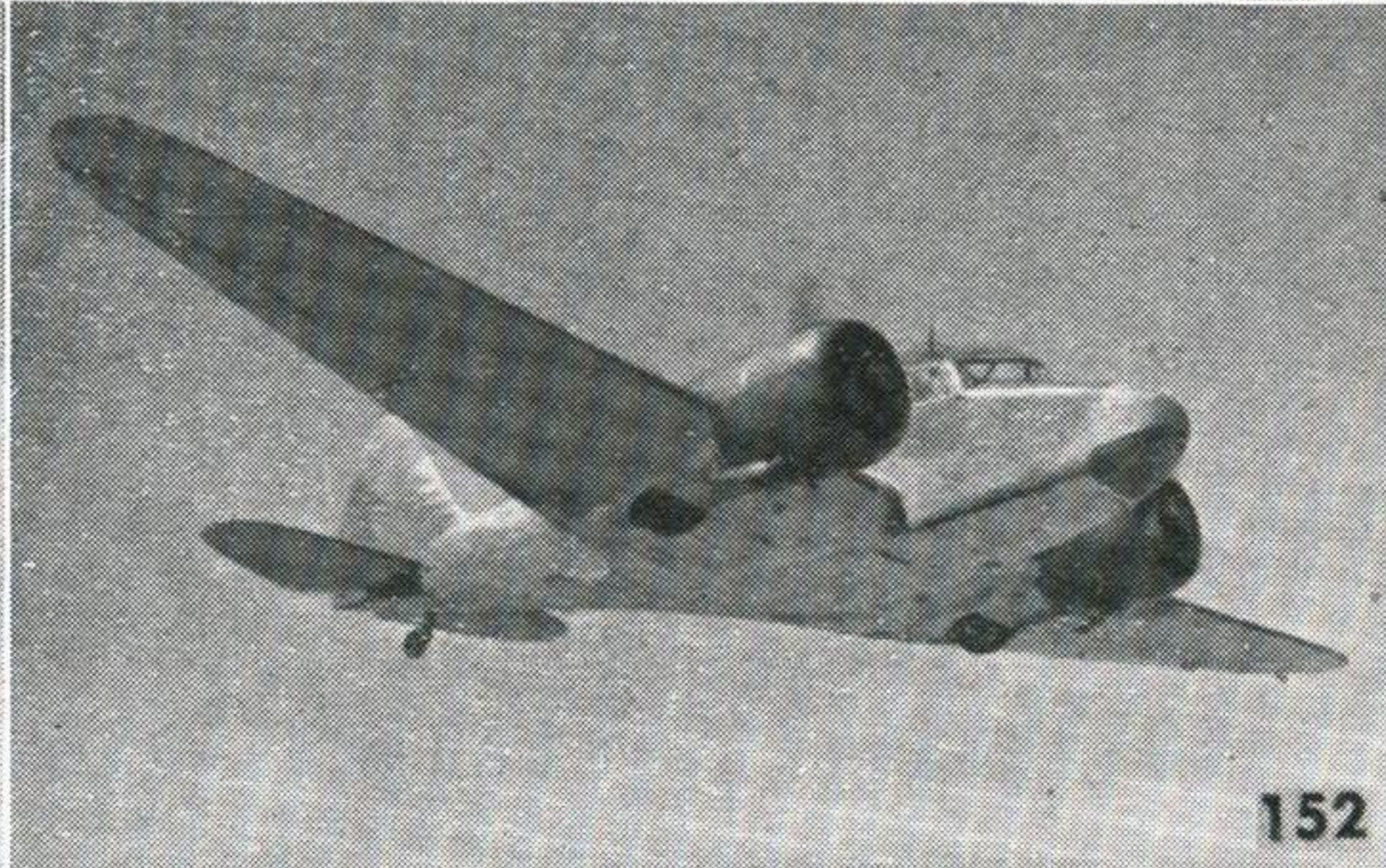
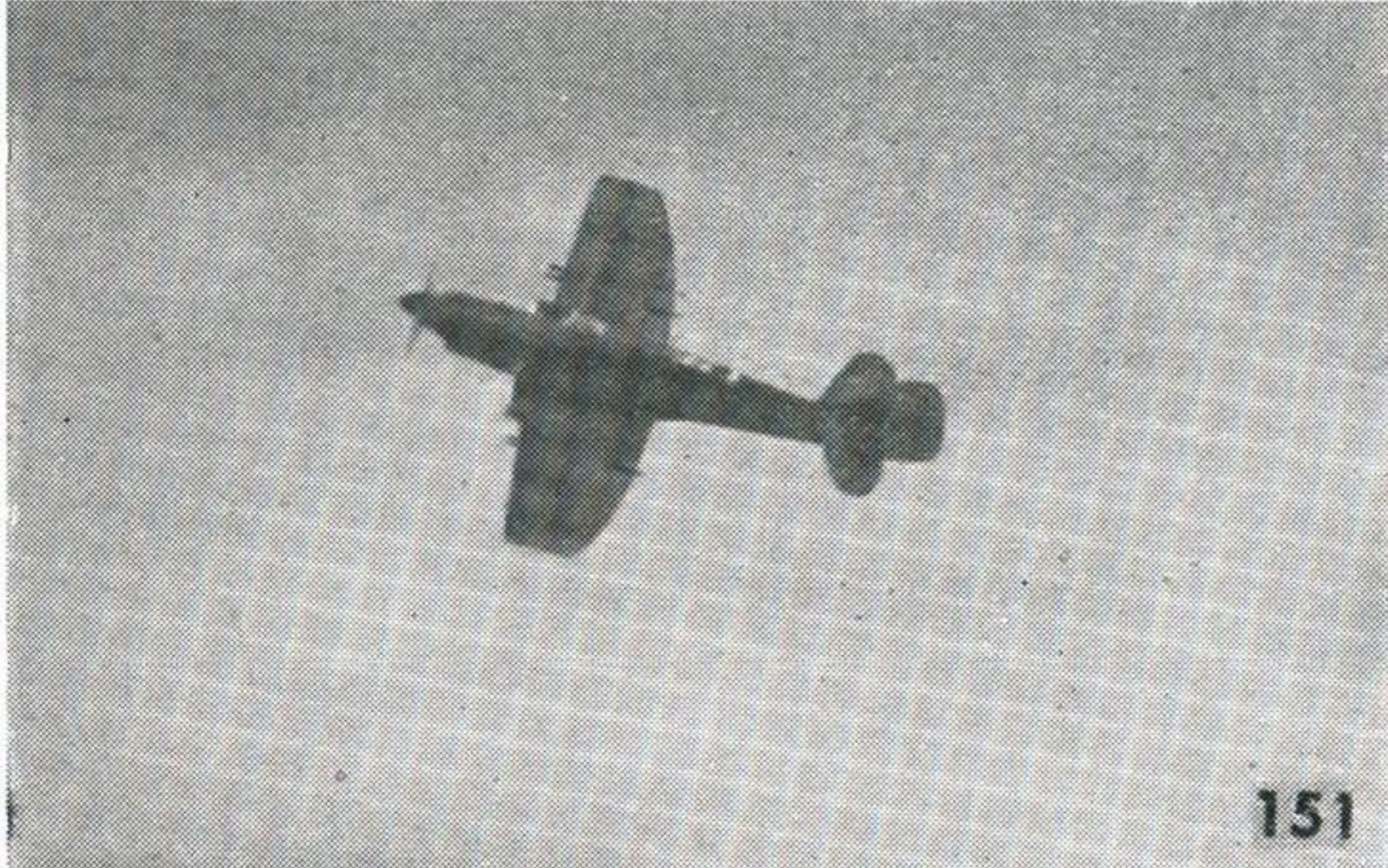
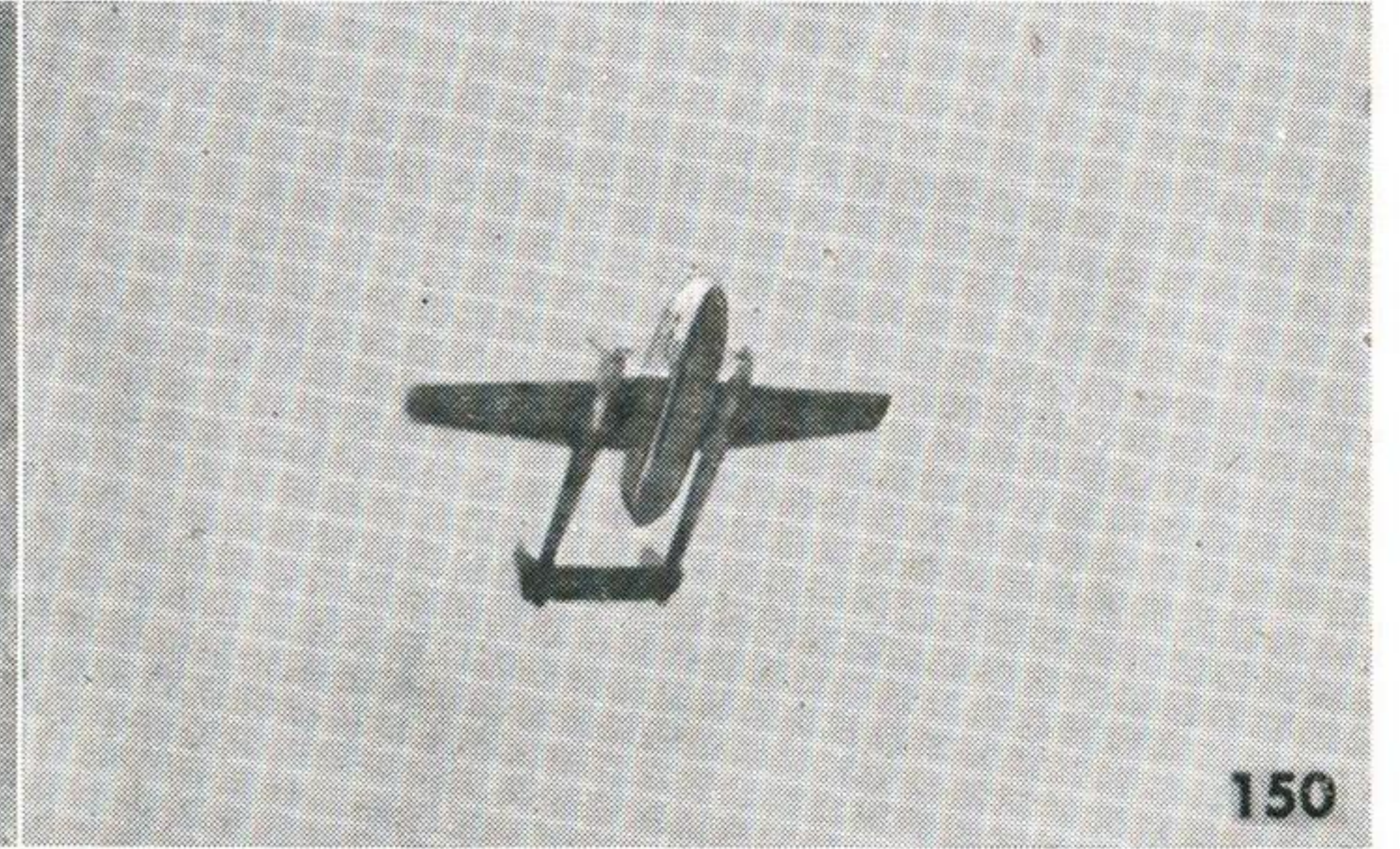
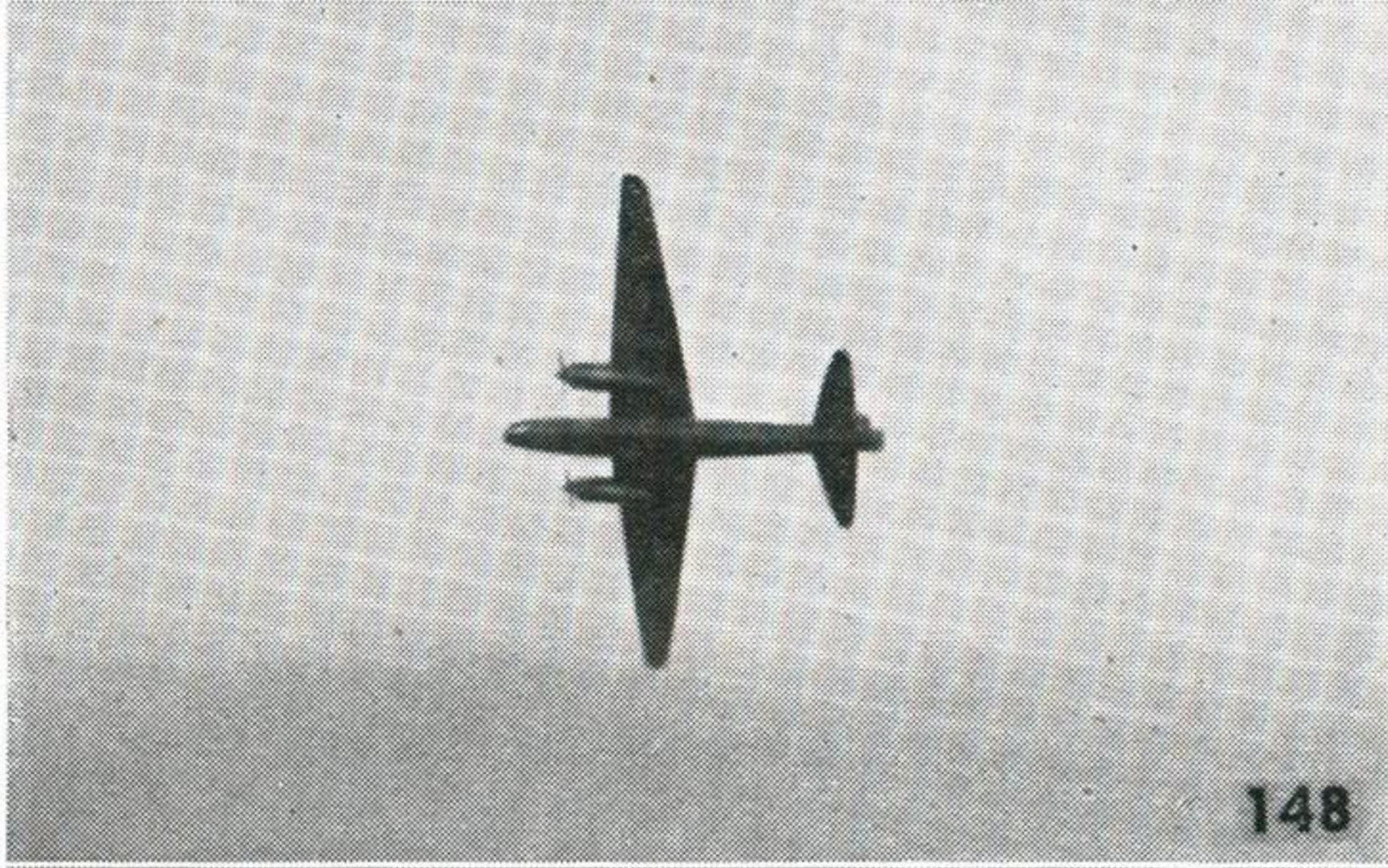
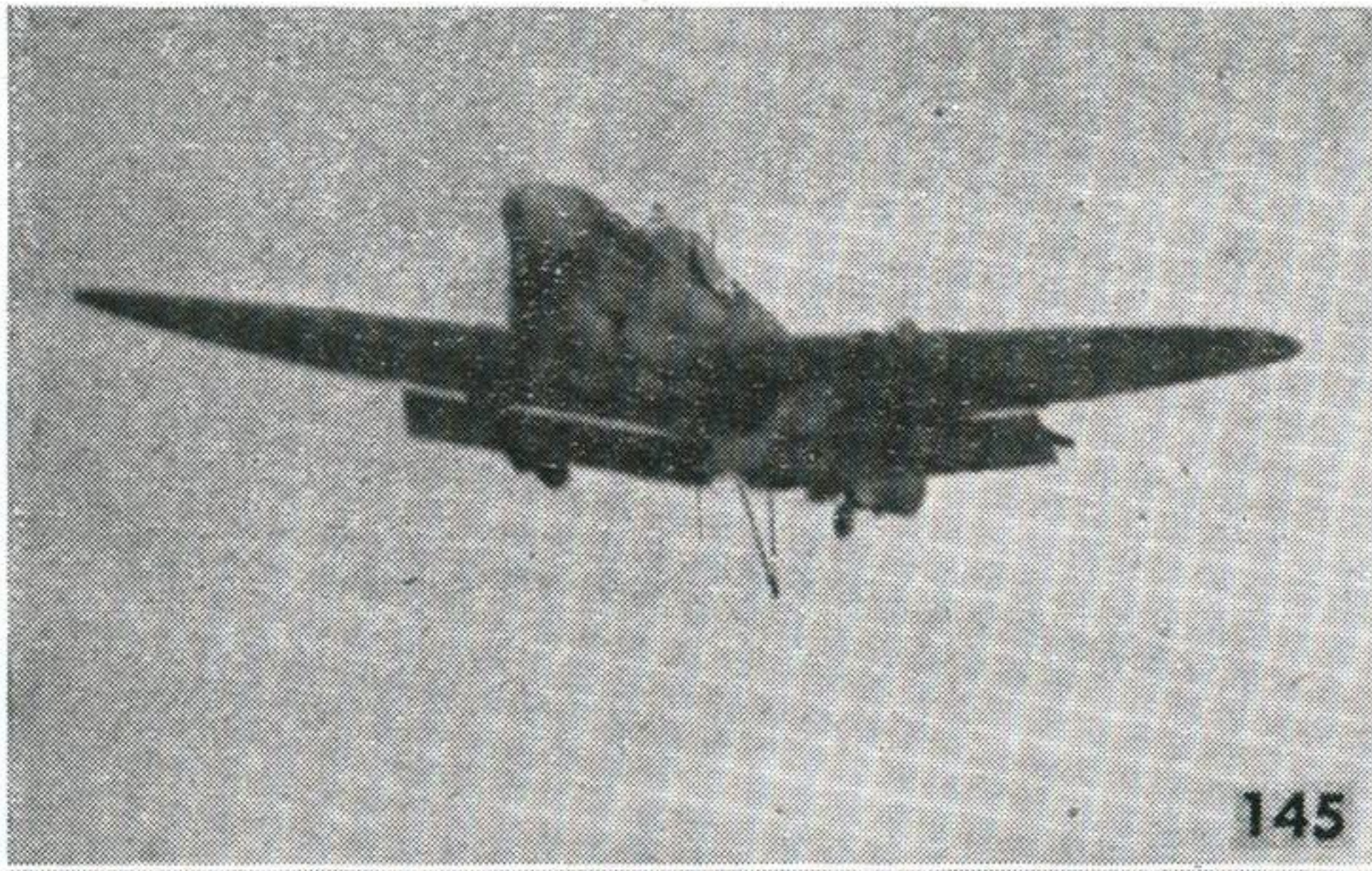
## SILLOGRAPH STUDY

Three **Avro Lincolns** of Bomber Command sillograph themselves in the evening sky. The Lincoln retains some characteristics of the Lancaster though its larger structures are on "leaner" lines. Differences in detail include turret position, engine cowlings and nose shapes.

The Lincoln has a maximum speed of 304 m.p.h. at 18,200 ft. Its maximum bomb load is 22,500 lbs.

# ELEMENTARY SPOTTING

Recognition Test No. 28



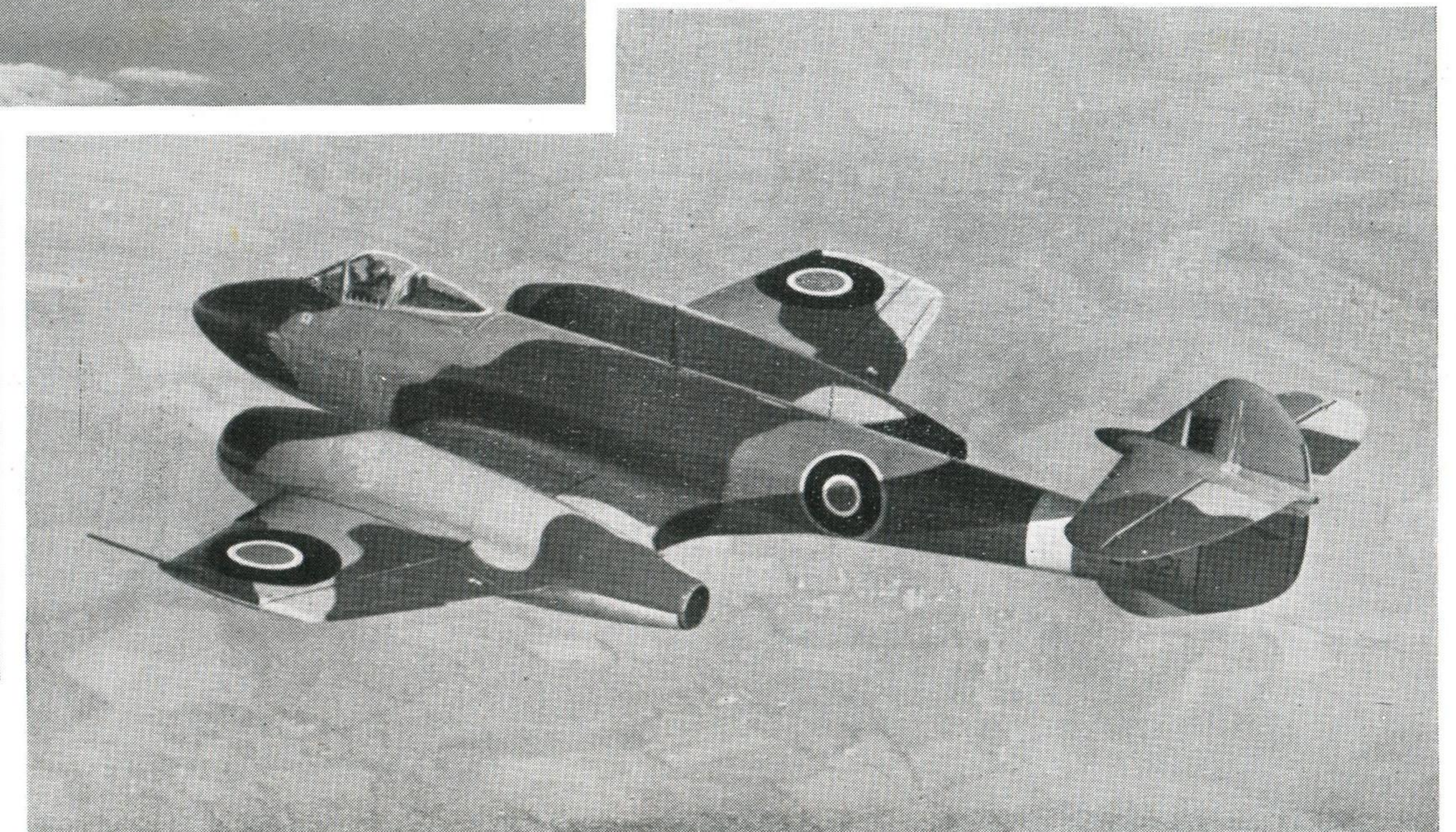
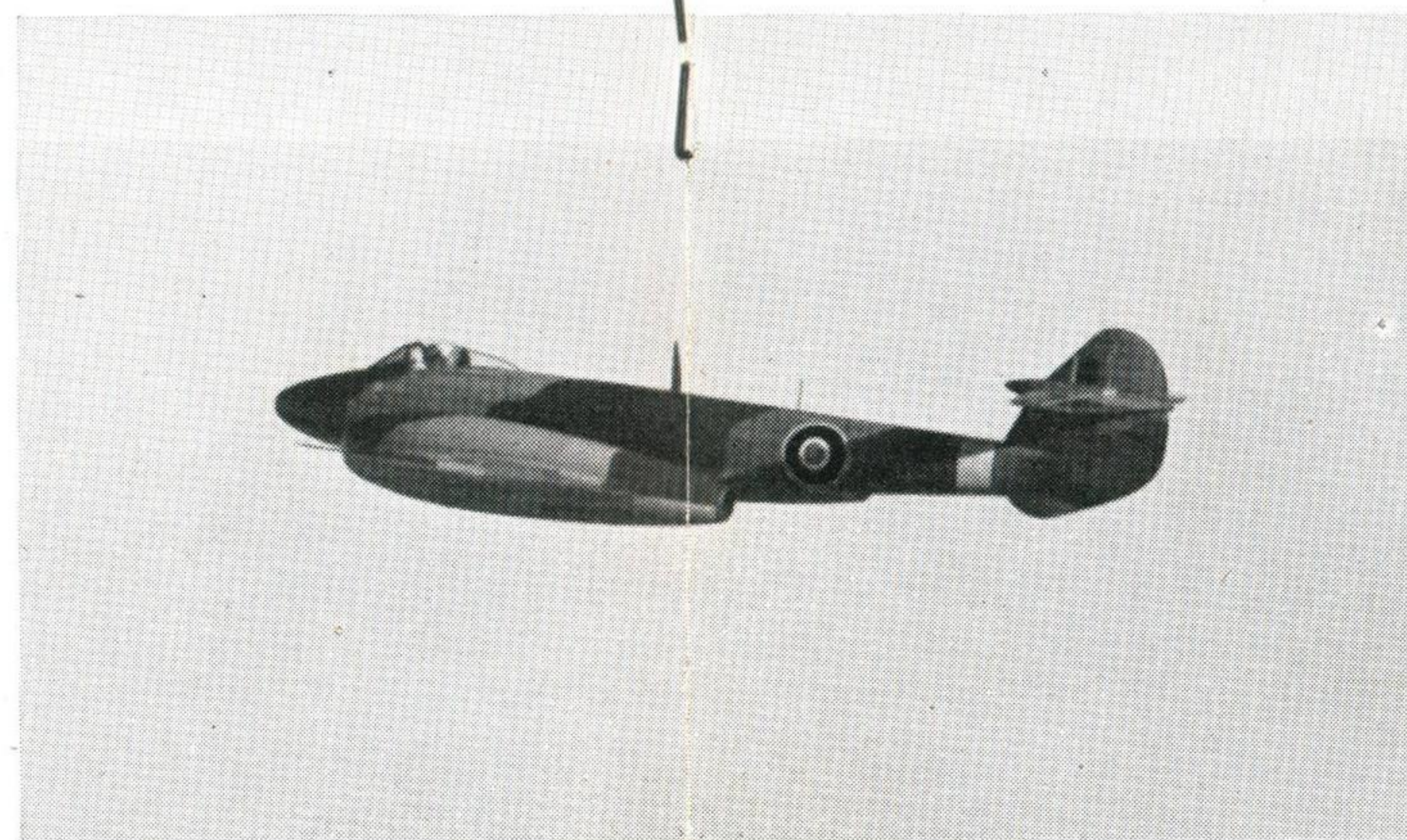
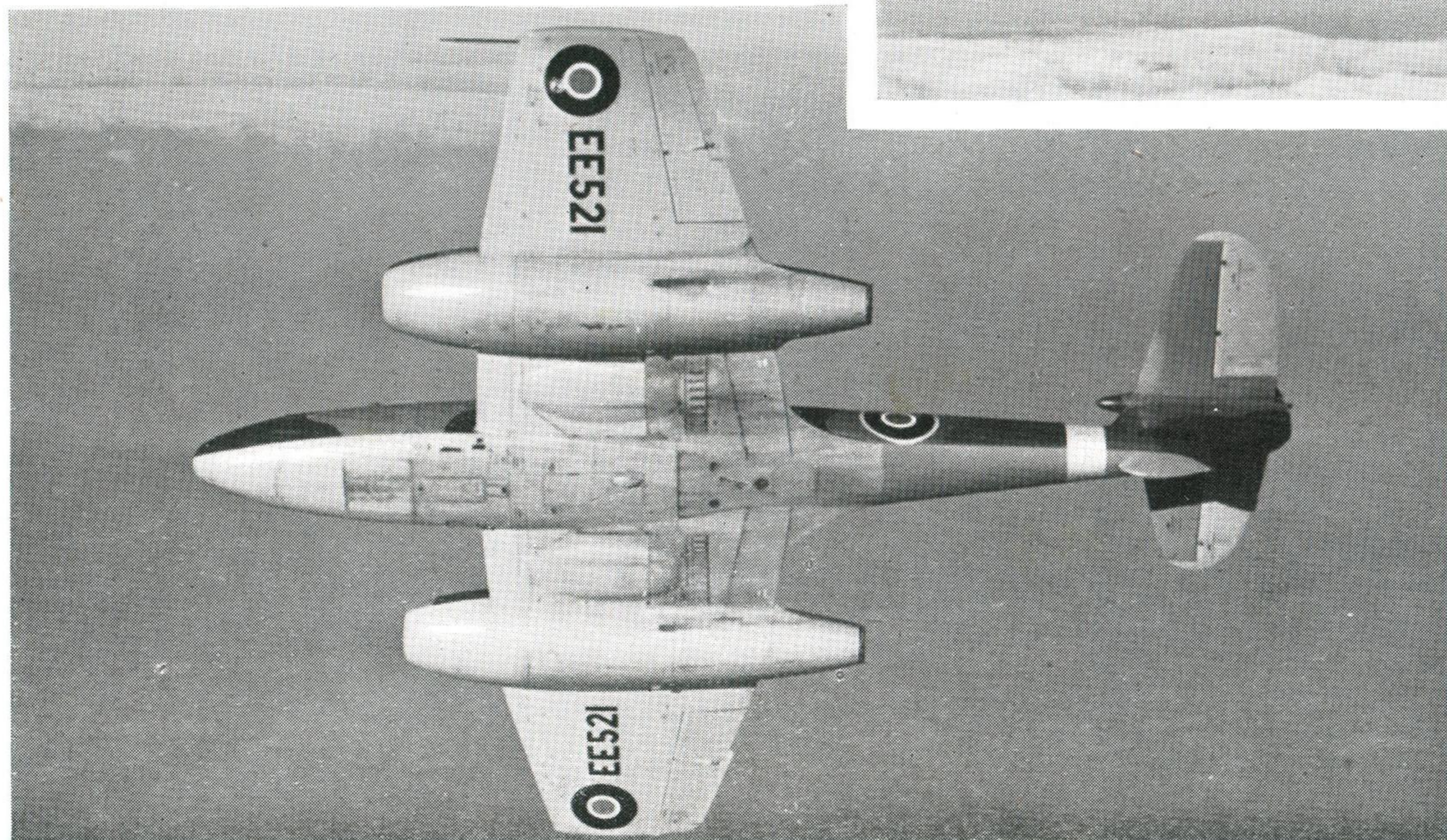
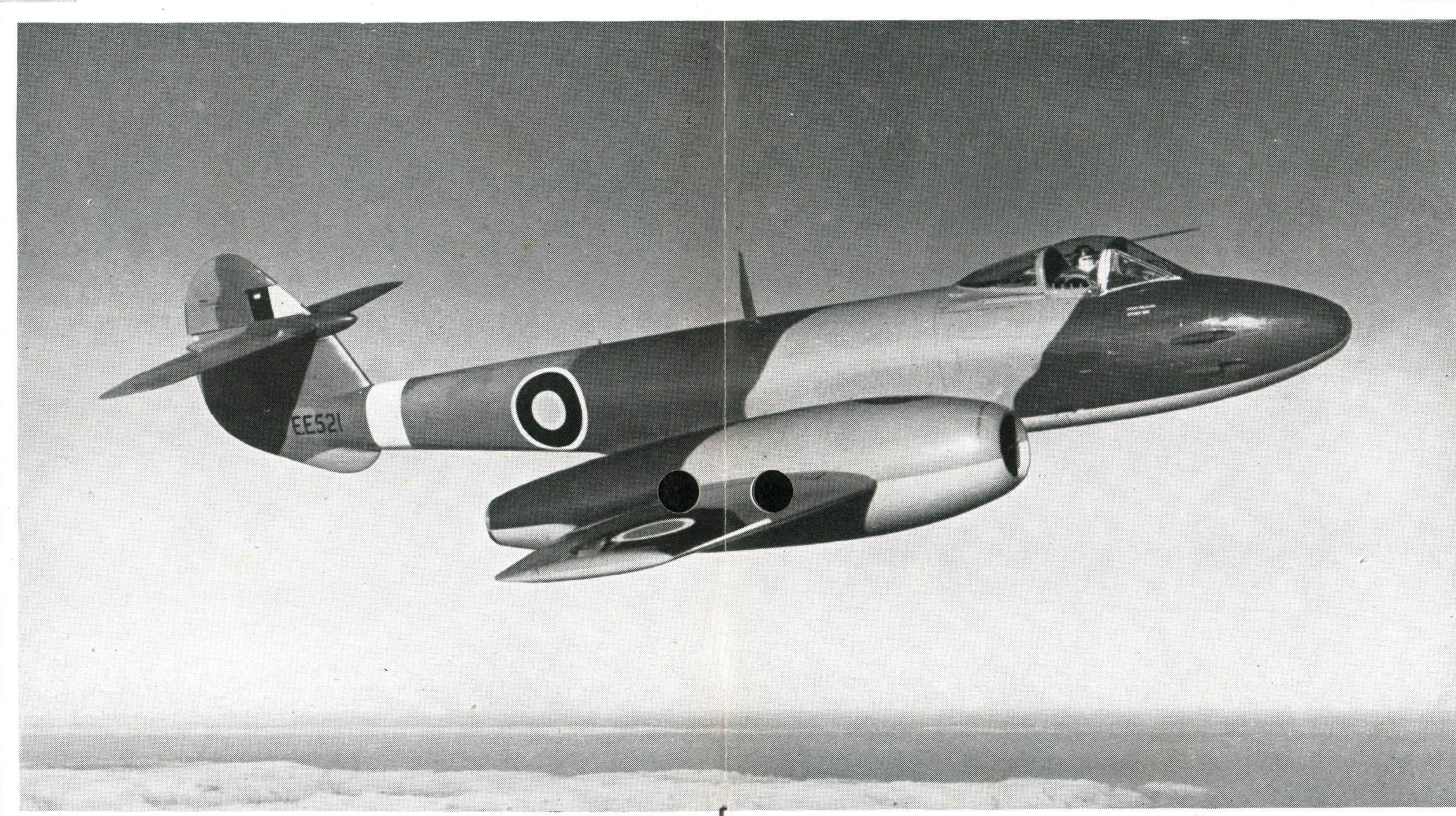
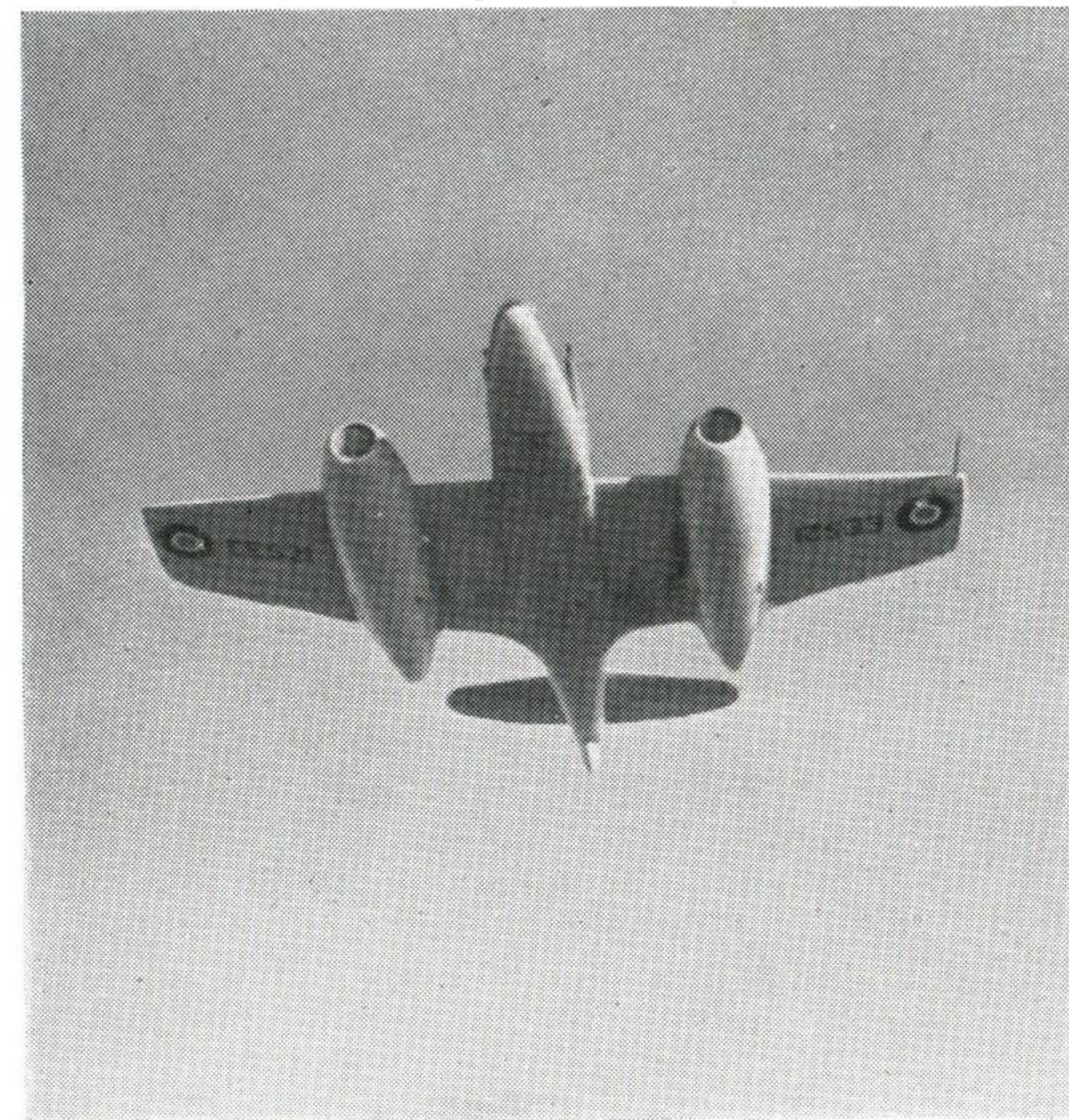
# Return of the VIKINGS

The Vickers Viking IB (2 Bristol Hercules 634 Radials of 1690 hp.) passenger transport now in regular airline service, is also in production as a RAF transport which is known as the Viking C. Mk. II. The span of all variants is 89 ft. 3 ins. The King's Flight is equipped with four Vikings C. Mk. II and our first picture (top left) shows VL 245 of the Royal Flight. In the top right picture a standard airline Viking IB displays its portly fuselage whilst, centre, another, just airborne, tucks up its chassis. Notice the family characteristics, also seen clearly, in the lower right view. The lower left picture lets you see cowlings and nose detail almost close enough to touch.



# METEOR MOODS

The Gloster Meteor Mk. IV (2 Rolls-Royce Derwent V Turbo-jet units) has been further "oddentified" by the clipping of the wings. This modification is now standard and all Royal Air Force Meteor IV fighters are to be so modified. This selection of photographs of the Meteor IV provides enough information to put you on familiar recognition terms with this excellent aeroplane. The large pictures show detail, the small ones, impressions. The photographic art of Mr. Charles Brown, represented by the centre picture, is supported by some of the fine work of Flying Officer L. H. Hammond, staff photographer to the Ministry of Supply and the *Journal*.



# ON YOUR MARKS

by L. E. BRADFORD

UNTIL March 1942, all British service aircraft were known by a name and mark number. However, due to airframe modifications necessitated by operational requirements, it was decided to allot role letters, preceding the mark number of the aircraft. These role letters were to denote the function of that particular machine, for example—B for bomber, F for fighter, and so on. Thus, the special function of any one mark of aircraft could be identified by its designation.

The following list gives most of the role letters used by the Royal Navy and the R.A.F.

- A. Airborne troop transport or glider towing. (Halifax A.IX)
- A.S.R. Air/Sea Rescue (Sea Otter A.S.R. Mk. II)
- B. Bomber (Lincoln B. Mk. II)
- B.R. Bomber reconnaissance. (Applied only to aircraft used for co-operation with the Army)
- C. Freighter or transport (York C. Mk. I)
- D.B. Dive Bomber (Vengeance D.B. Mk. IV)
- F. Fighter in its basic form (Tempest F. Mk. VI)
- F.B. Fighter bomber (Mosquito F.B. Mk. VI)
- F.R. Fighter reconnaissance. Camera installation for work with the Army (Spitfire F.R. Mk. XIV), originally known as R.F. (Recce-fighter).

- L.F. Fighter with engine rated for low altitude work (Spitfire L.F. Mk. XVI)
- Met. Meteorological research (Halifax Met. III)
- N.F. Night Fighter (Mosquito N.F. Mk. 36)
- P.R. Photographic reconnaissance (Hornet P.R. Mk. II)
- T. Trainer (Tiger Moth T. Mk. II)
- T.F. Torpedo fighter (Beaufighter T.F. Mk. X)
- T.T. Target training (Martinet T.T. Mk. I)

## Naval Types

- A.R. Amphibian reconnaissance
- 2.F. Two-seat fighter
- S.R. Seaplane reconnaissance
- T.D. Torpedo dive bomber (Spearfish T.D. Mk. I)
- T.R. Torpedo reconnaissance (Mosquito T.R. Mk. 33)

The allocation of basic mark numbers is simple, since a change of mark usually indicates a new engine or a major airframe alteration. In the case of an aircraft being modified for use by the Royal Navy, or being built under contract within the Empire, a high mark number is usually allotted. Examples are: the "navalized" Centaurus Fury becomes the Sea Fury Mk. X; the Canadian built Lincoln becomes the Lincoln Mk. XV; the Australian built Mosquito becomes the Mosquito Mk. 40.

This does not quite complete the picture, because as a further extension of the official designation, suffixes are used, usually to indicate modified armament or internal equipment. A few examples are given below:

### Lancaster B. Mk. I (F.E.)

Equipped for Far East operations.

### Lancaster B. Mk. I (Spec.)

Modified to take 8,000 lb., 12,000 lb., or 22,000 lb. bombs.

### Tempest F. Mk. V. Series 2

Fitted with R.P. Use of series number usually means armament change.

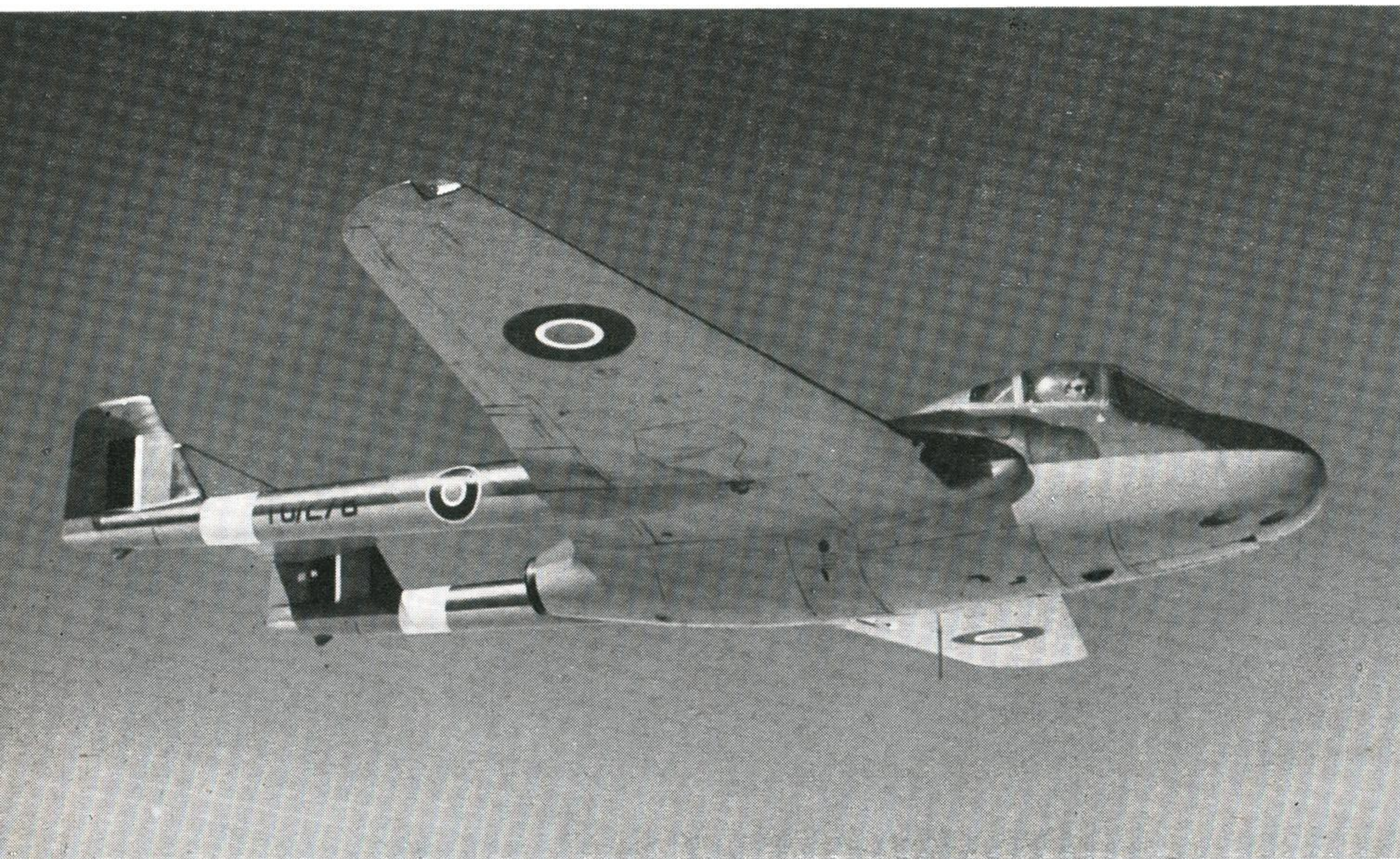
### Spitfire F.R. Mk. XIVe

Again the suffix concerns the armament. In this case it's the Spitfire's 'E-wing', with two 20 mm. cannon and two .50 in. machine guns.

### Anson Mk. XII V.I.P.

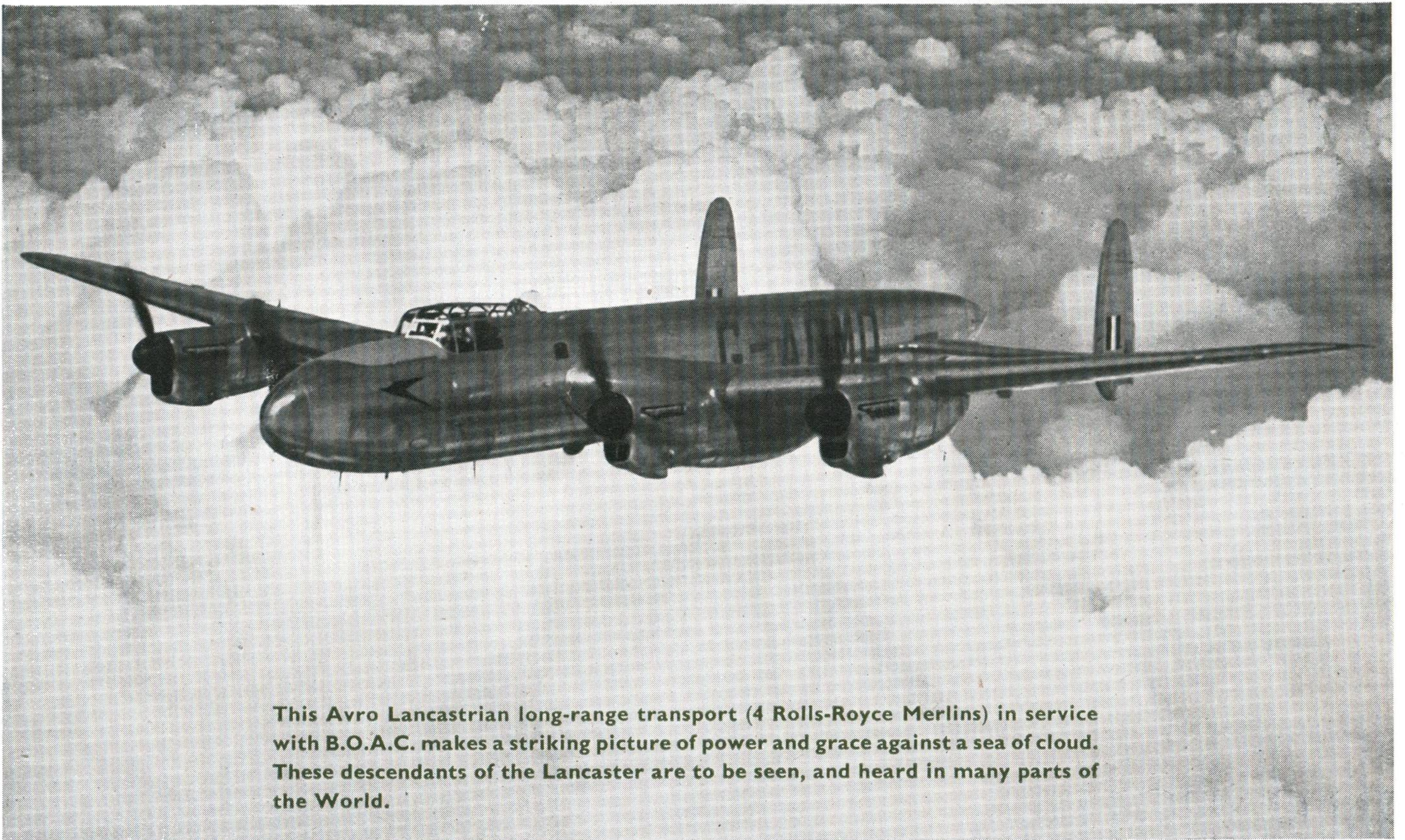
Luxury model for V.I.P. use only.

Mark numbers up to twenty are quoted in Roman figures thus: Spitfire F. Mk. XX. Above that the figures are given in the Arabic form: Mosquito P.R. Mk. 34.



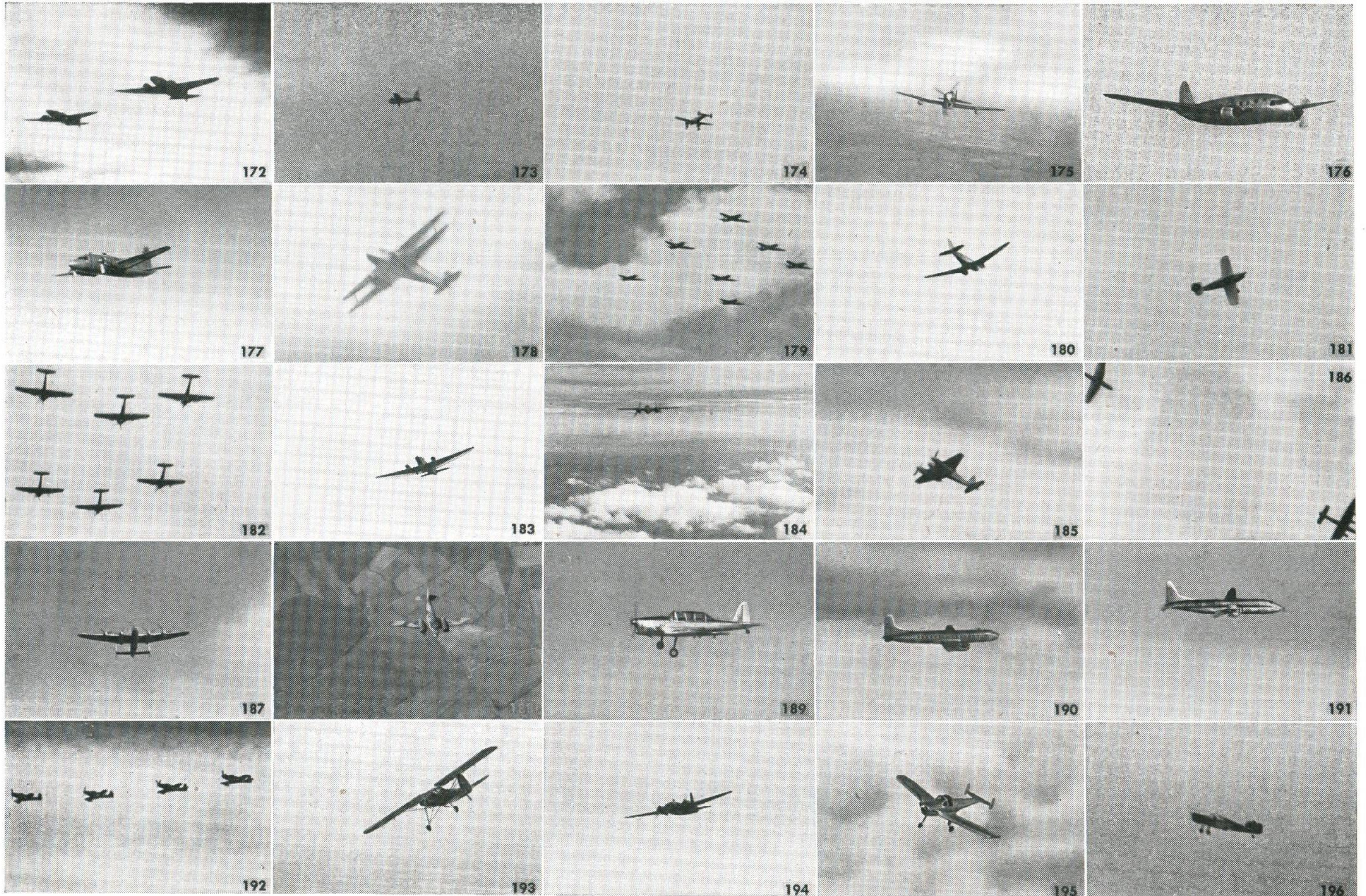
Vampire F. Mk. 1

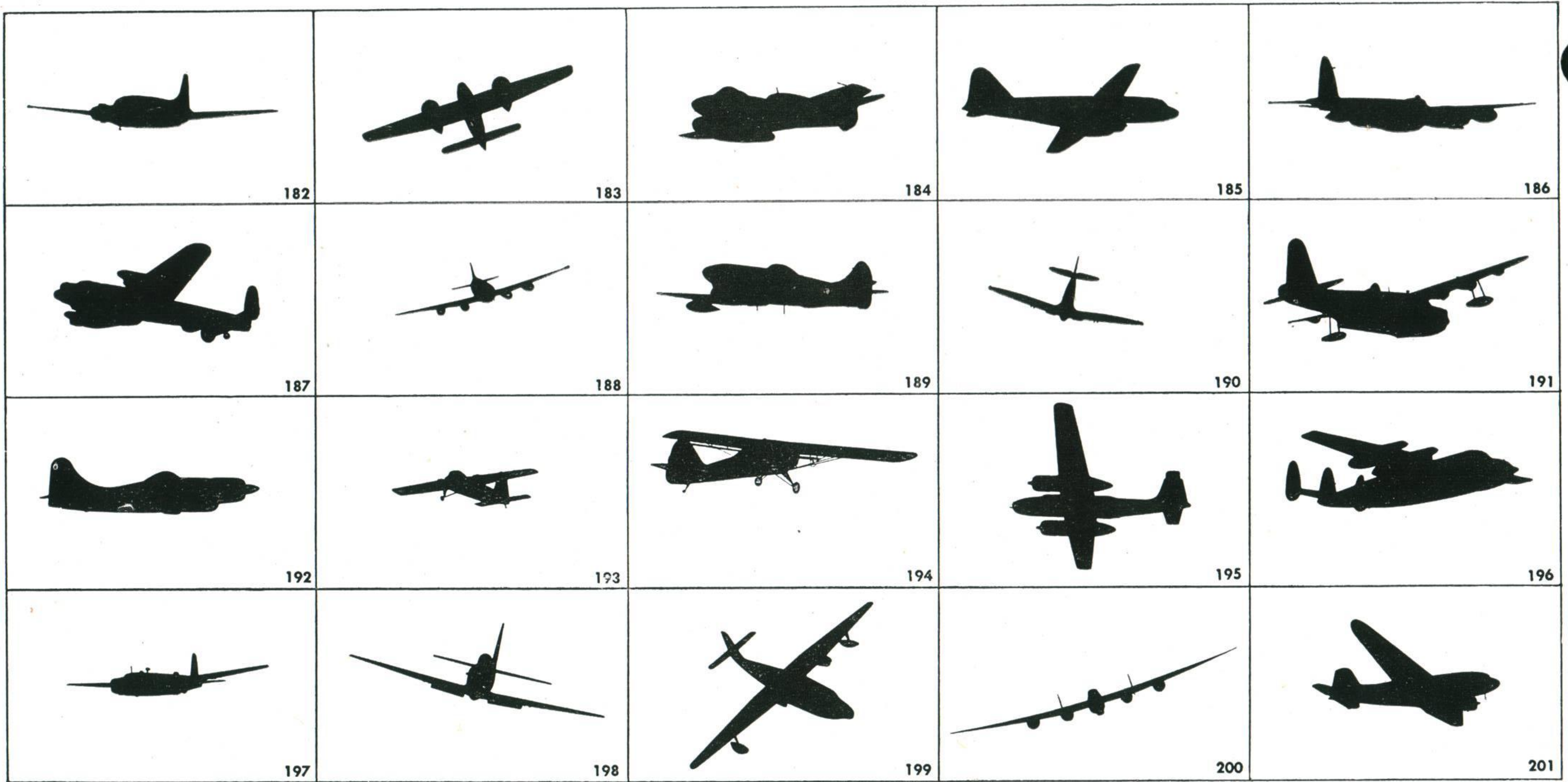
- G.A. Ground attack
- G.R. General reconnaissance (Warwick G.R. Mk. V)
- G.T. Glider-tug—now reclassified as A.
- H.F. Fighter with engine rated for high altitude work (Spitfire H.F. Mk. IX)



# ADVANCED SPOTTING

Recognition Test No. 29





# BIG FOUR

## *differences*

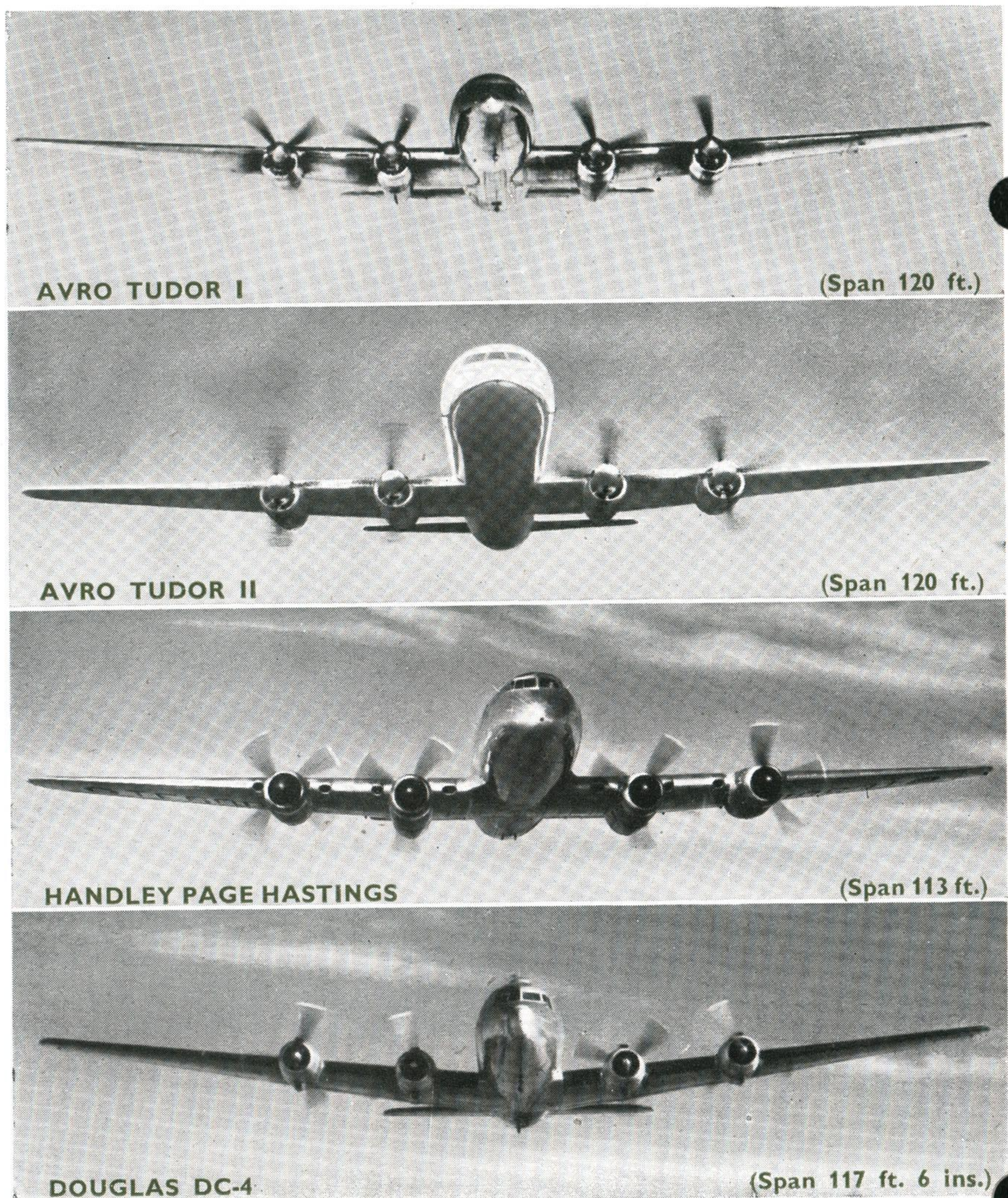
OUR own confusion, perish the thought, as much as anything, leads us to publish these head-on views of four of the big four-engine air liners in which the main structure appearances are similar. These views show exactly what are the differences. To know them, you will have to digest the smaller differences of detail and then gain an impression of each aircraft as a whole.

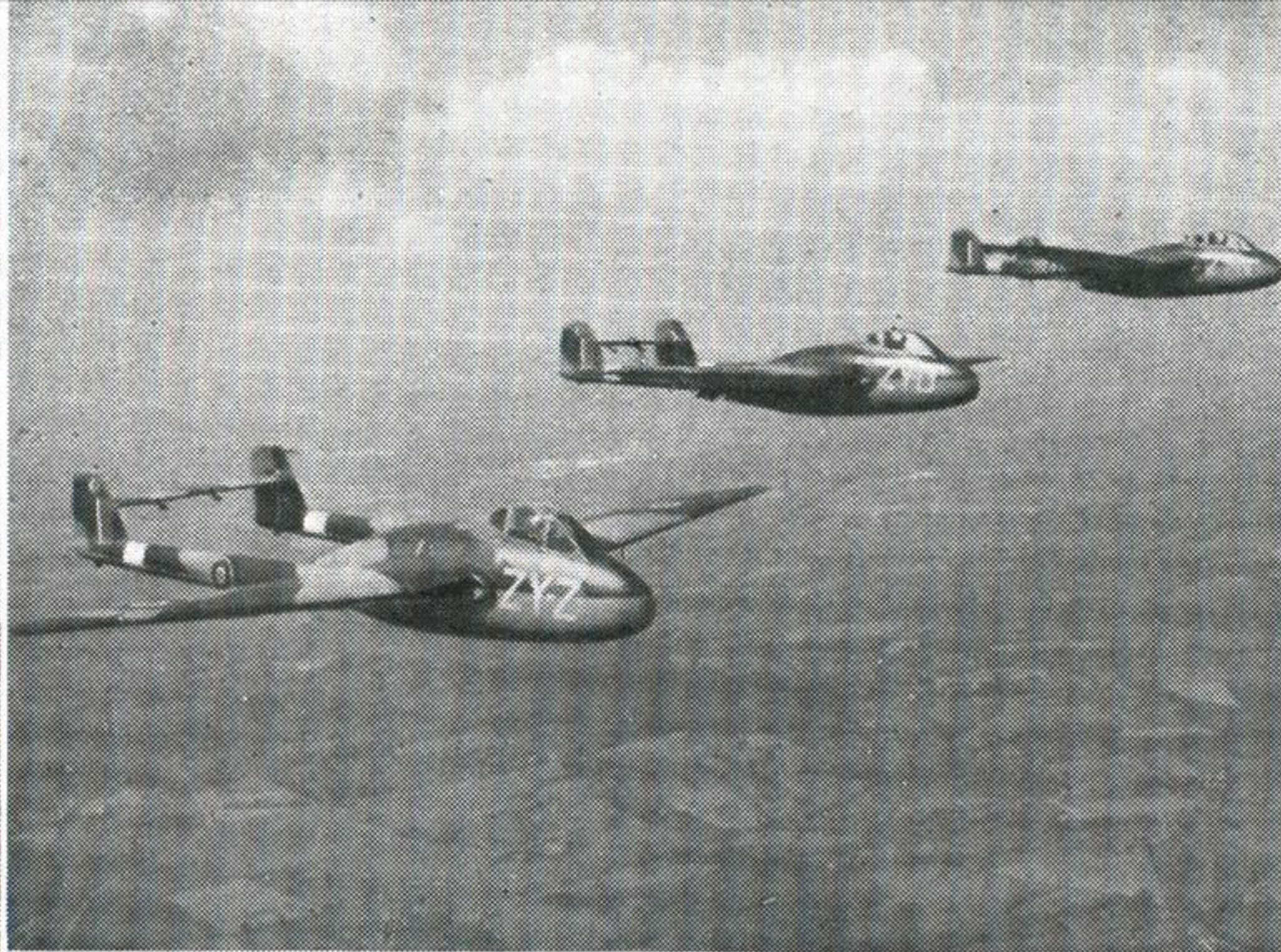
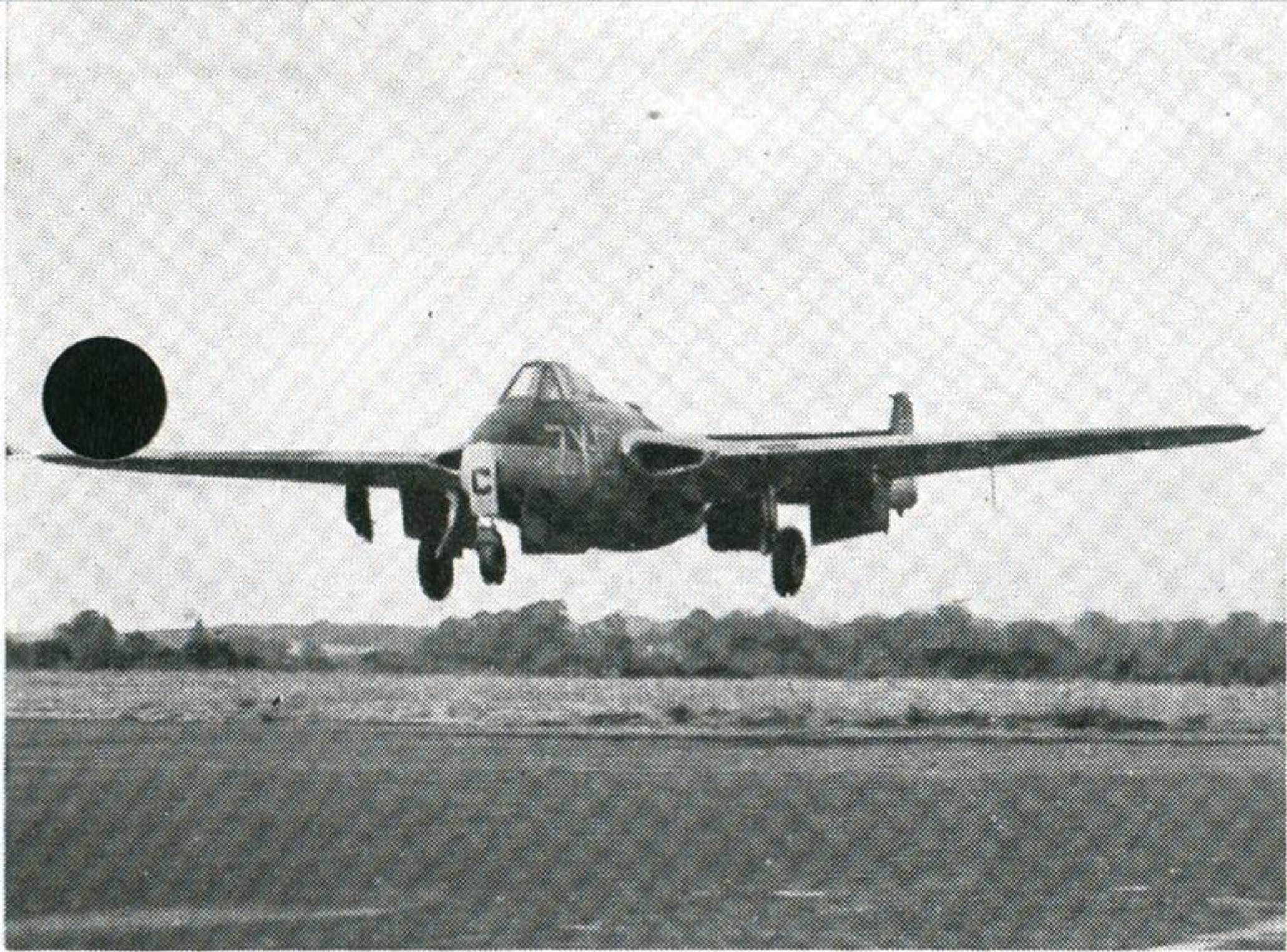
In regard to wing features, the Douglas DC-4 carries the day with its large angle of dihedral which starts from the roots. All the others have straight centre-sections up to the inner engines. The Hastings has the flattest dihedral angle of them all, though this is not entirely convincing in this view of it. However it takes the lead as regards wing thickness.

Engine mountings and cowling shapes are worth noting. The DC-4 carries intakes above and below its engines and its cowling forms are characteristically different from the rest. The central slinging of its radials is also peculiar to itself. Spinner sizes and positions differ in the three main types.

Nose shapes and sizes, except in the case of the Tudor II are not a great deal of help, though, if it is discernible, there is an astro-dome on the cabin roof of the DC-4.

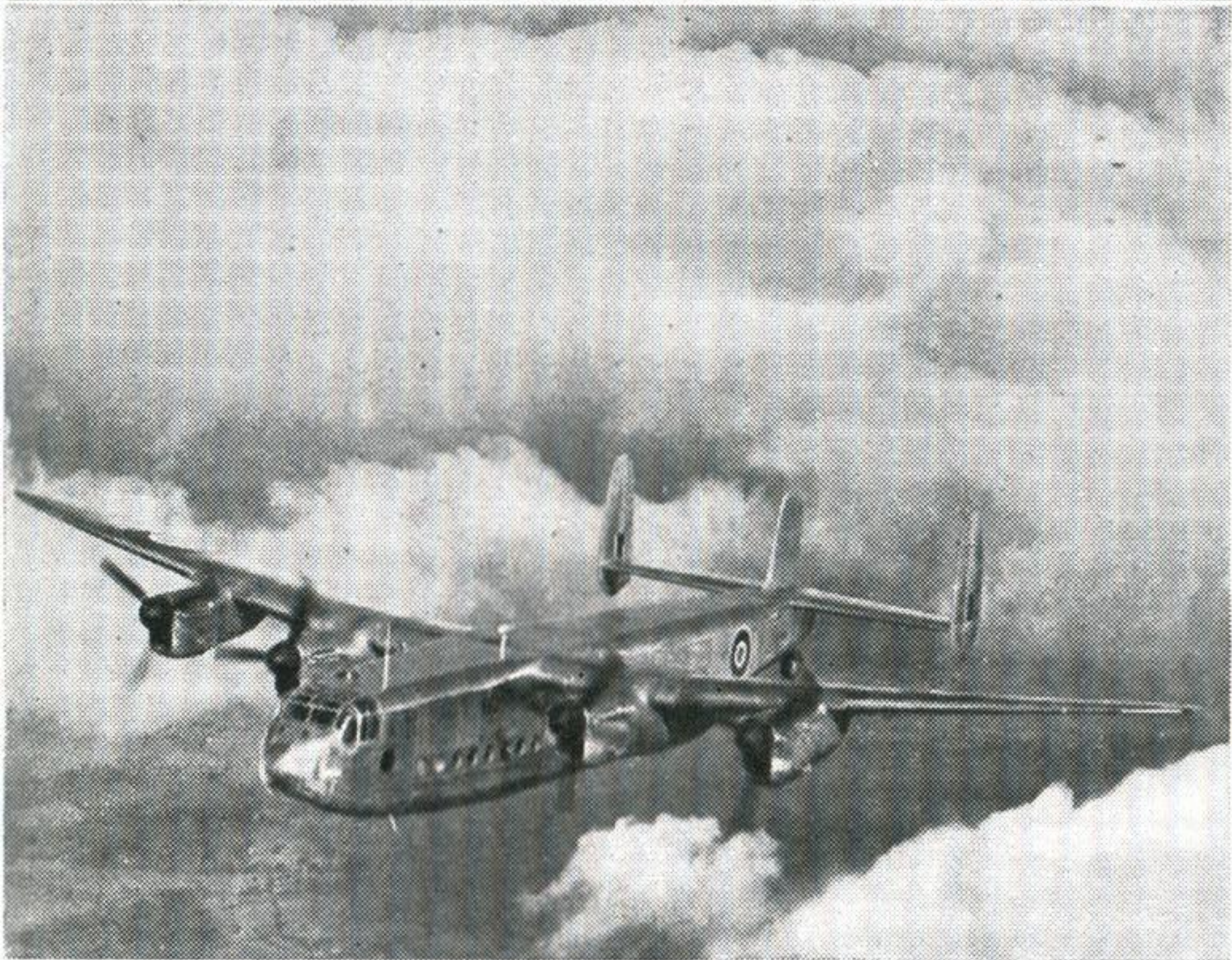
Tail planes are visible in all except the Hastings, in which it is set rather higher.





## Vampire I

One De Havilland Goblin II turbo-jet unit, static thrust 3,000 lbs. The D.H. 100 Vampire F. Mk. 1 shows what a mess flaps and undercarriage can make of the fine aerodynamic forms and shapes which are shown to perfection in the next picture. Note the extended air-brake beneath the wing of 0-oboe. These Vampires belong to No. 247 Fighter Squadron. The Vampire's maximum speed is 540 m.p.h. Length 30 ft. 0 ins. Span 40 ft. 0 ins. (Photos Crown Copyright.)



## York

Four Rolls-Royce Merlin T.24/2 in-line engines of 1635 h.p. each. Many Avro Yorks are in service in the capacity of civil and military transports. Those illustrated belong to Transport Command. Displaying many Avro family characteristics, the most obvious are the fins and rudders. The range of the York is 2,700 miles. Its maximum speed is 315 m.p.h. at 10,000 ft. Length 78 ft. 0 ins. Span 102 ft. 0 ins.



## Navion

One Continental "flat" of 185 hp. North American Aviation's popular contribution to the rising flood of privately-owned types in America reflects many characteristics of its illustrious elder brother the P.51 Mustang even to the fin fairing and general form of the cockpit canopy. A 4-seater, its maximum speed is 160 mph. Among other refinements it has a tricycle undercarriage. Length 27 ft. 6 ins. Span 33 ft. 4 ins.



## Firefly IV

One Rolls-Royce Griffon 74 in-line engine 2245 hp. In full production for the Royal Navy the Fairey Firefly IV is remarkable for the number of "operations" on its nose and for the superabundance of minor detail and not so minor projections adorning its wing. This one has finally got its nose absolutely clean. These views are of the very latest version. Its maximum speed is 386 m.p.h. at 14,700 ft. (Flight photo.) Length 37 ft. 11 ins. Span 41 ft. 2 ins.

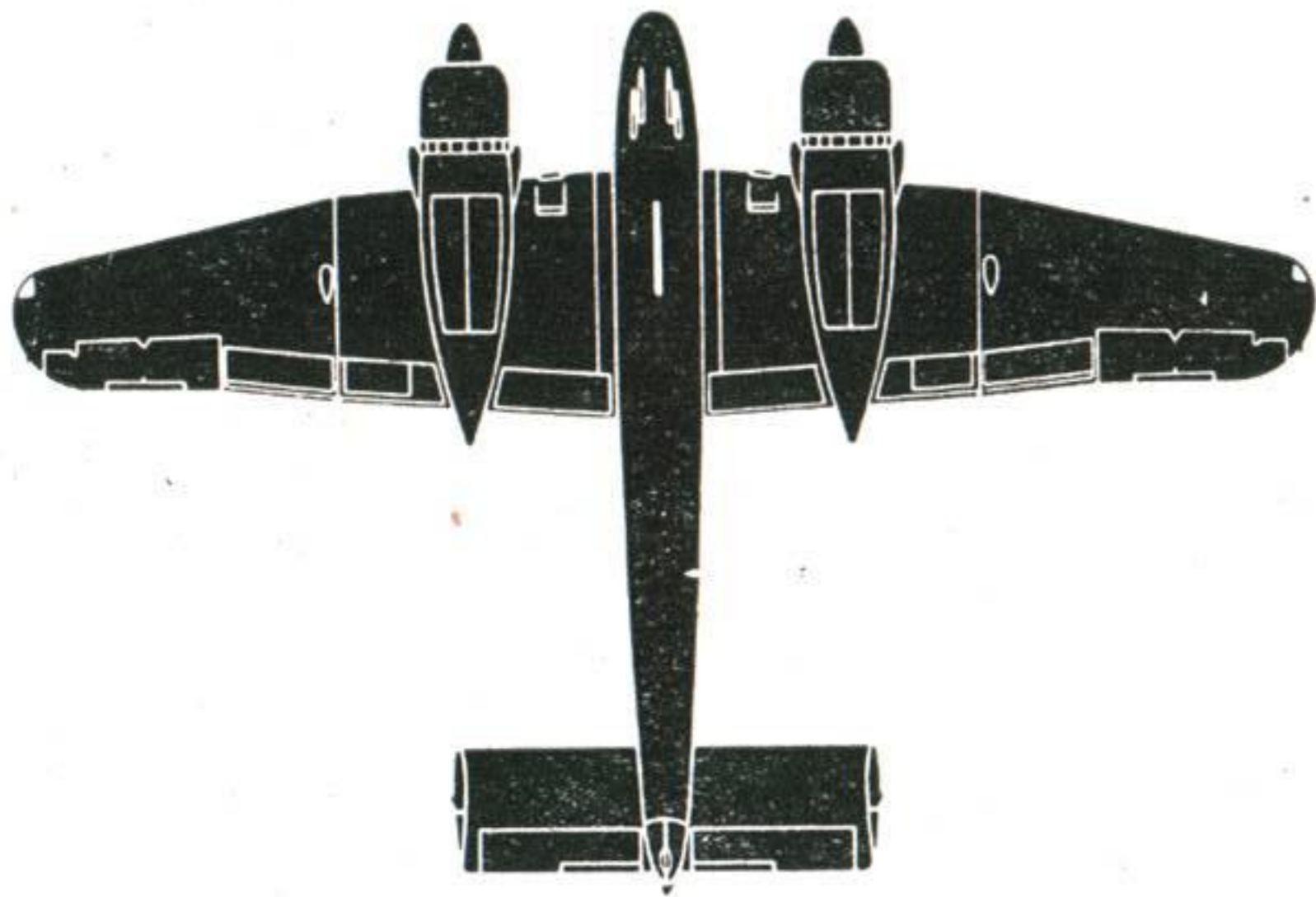


## Spitfire Trainer

One Rolls-Royce Merlin 66 in-line engine of 1705 h.p. The housing problem did not inspire this mod. A two-seat version has long been wanted but it has had to wait till now. This "double-bubble" Mk. VIII version is now undergoing extensive testing. The pupil occupies the front seat, the instructor the rear one. The maximum speed of the Mk. VIII trainer is 390 m.p.h. Length 31 ft. 4 ins. Span 36 ft. 10 ins.

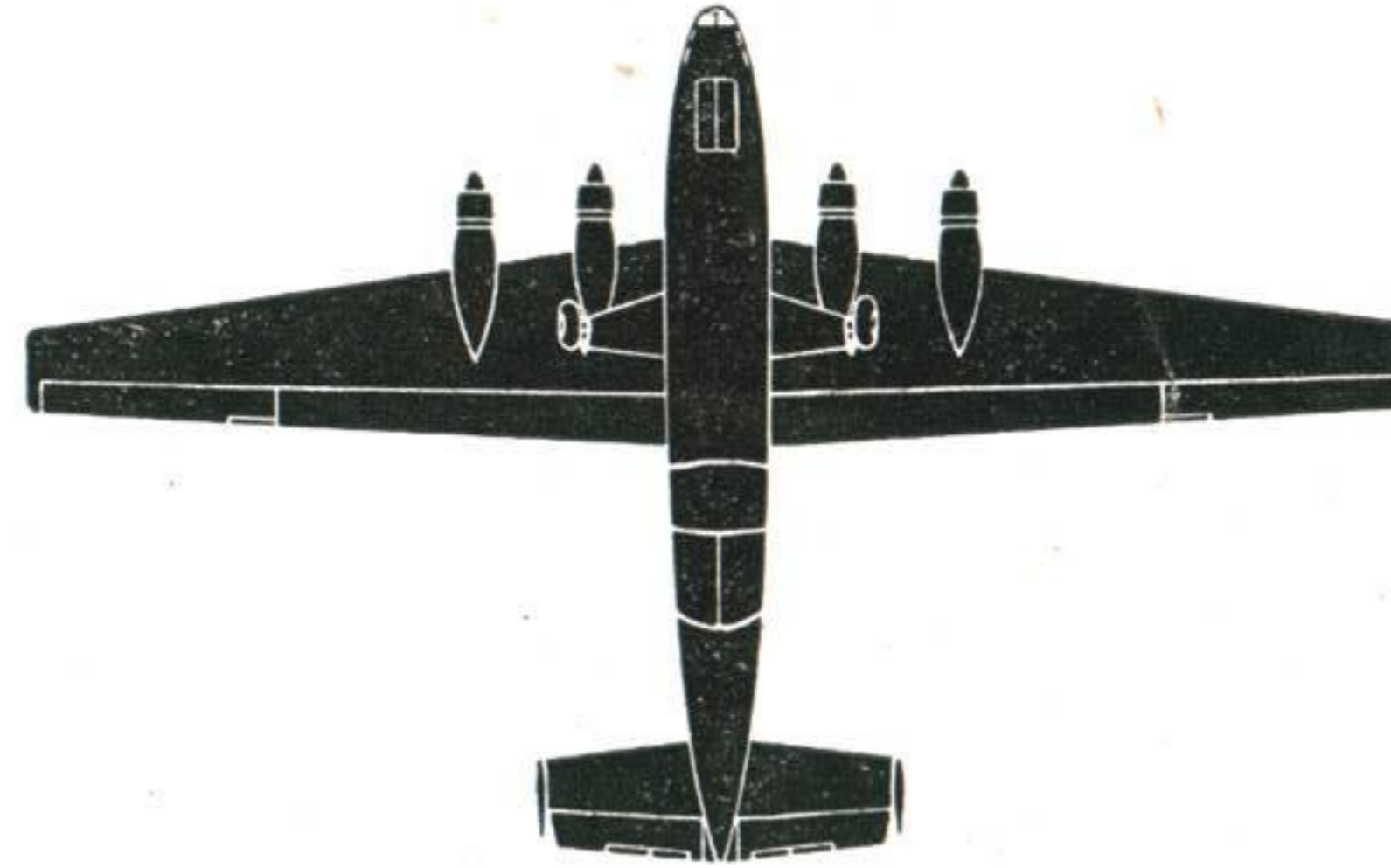
# NEW and REVISED SILHOUETTES

**BRISTOL BRIGAND T.F. Mk.1**



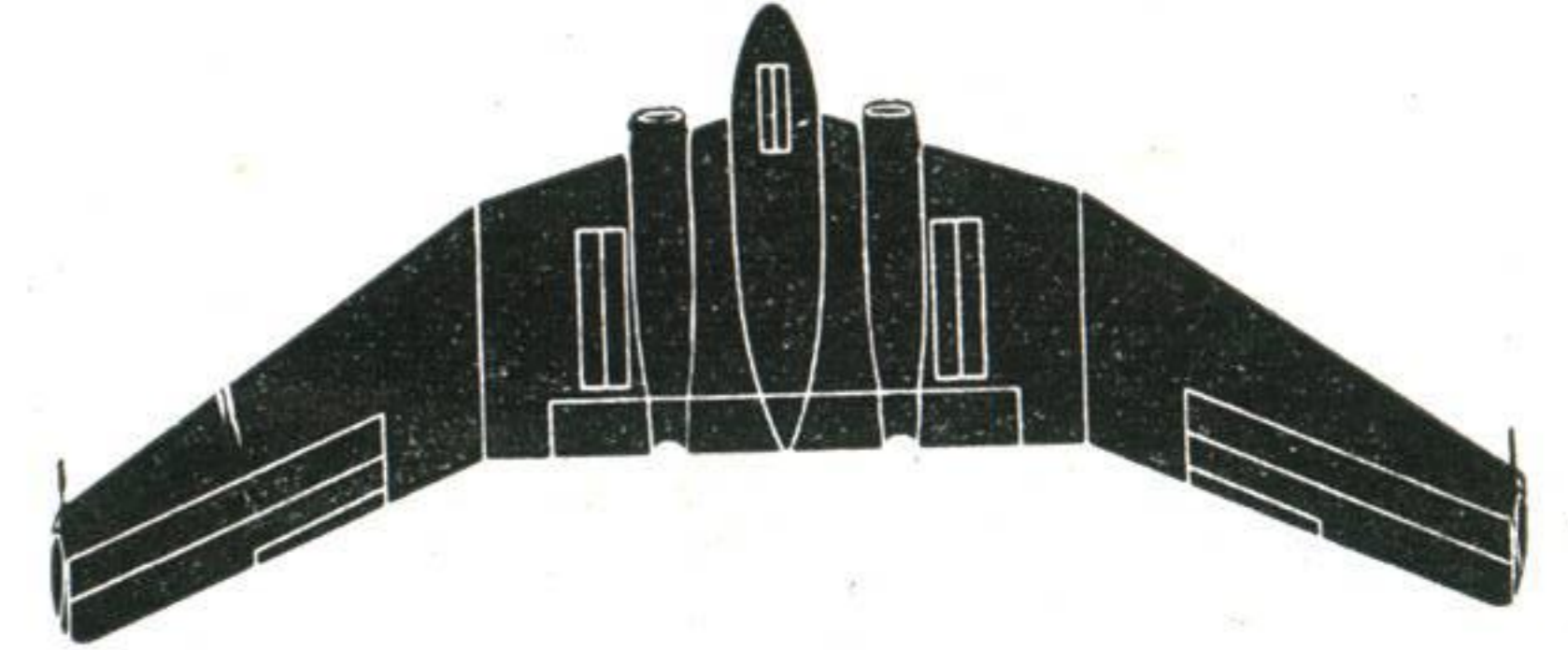
British Torpedo Fighter  
2 Centaurus Span 72 ft. 6 ins.  
New Silhouette

**GENERAL AIRCRAFT G.A.60**



British Civil Transport  
4 Hercules Span 162 ft.  
New Silhouette

**ARMSTRONG WHITWORTH AW-52**



British Tailless Research Aircraft  
2 Nene Span 90 ft. 11 ins.  
New Silhouette

## SOLUTIONS TO RECOGNITION TESTS IN THIS ISSUE

### No. 28 (ELEMENTARY SPOTTING):

- |                     |                      |
|---------------------|----------------------|
| 145. Firefly I      | 154. Dove            |
| 146. Sea Fury X     | 155. Halifax A.IX    |
| 147. Edo XOSE-I     | 156. Brigand T.F.I   |
| 148. Wellington T.X | 157. Lancaster VII   |
| 149. Harvard II     | 158. Sunderland III  |
| 150. C-82 Packet    | 159. Mosquito P.R.34 |
| 151. Firefly IV     | 160. Firebrand IV    |
| 152. Oxford         | 161. LAGG-3          |
| 153. Tempest VI     | 162. Sea Vampire     |

FRONT COVER: *Seafire 47.*

### No. 29 (ADVANCED SPOTTING):

- |                          |                        |
|--------------------------|------------------------|
| 172. IL-4 (DB-3F)        | 185. Hornet I          |
| 173. Wayfarer            | 186. Horsa and Halifax |
| 174. Desford             | 187. Lancaster VII     |
| 175. Tempest VI          | 188. Oxford I          |
| 176. SO 30 R. Bellatrix  | 189. Chipmunk          |
| 177. Viking              | 190. Tudor II          |
| 178. Dominie             | 191. Constitution      |
| 179. Spitfire IX         | 192. Kingcobras        |
| 180. Dakota              | 193. Fi 156 Storch     |
| 181. Proctor             | 194. Wellington T.X.   |
| 182. Firebrand IV        | 195. Ercoupe           |
| 183. Junkers Ju.52       | 196. Messenger         |
| 184. Mitchell III (B-25) |                        |

### No. 30 (SILLOGRAPHS):

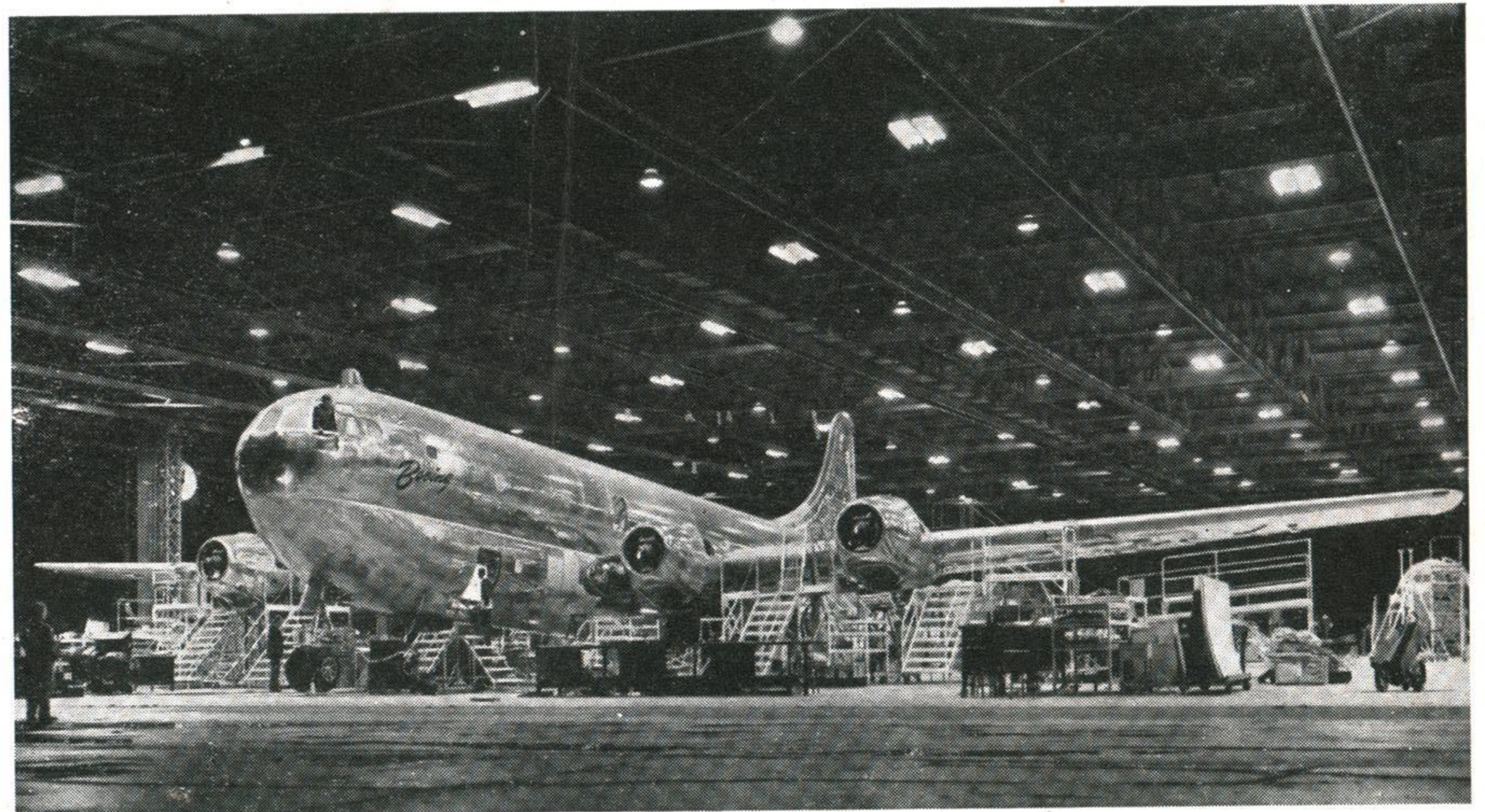
- |                      |                    |
|----------------------|--------------------|
| 182. Viking          | 192. Boeing XF8B-I |
| 183. Monitor         | 193. Wayfarer      |
| 184. Meteor IV       | 194. Auster VI     |
| 185. IL-12           | 195. A.26 Invader  |
| 186. Mosquito P.R.34 | 196. Marathon      |
| 187. Lancaster VII   | 197. Warwick       |
| 188. Hastings/Hermes | 198. Spiteful      |
| 189. Tempest VI      | 199. Sealand       |
| 190. Spitfire 22     | 200. Lincoln I     |
| 191. Sunderland III  | 201. Dakota        |

## PER-LEASE

We don't want to damp anyone's ardour but it is essential for all readers of the *Journal* whose enthusiasm leads them to write to us for copies, to realize that they must apply for them through official channels. So many impassioned appeals have reached us lately that, apart from the bitter anguish raised within the editorial breast, we find that instead of a forty-hour week, shall have to ask for a thirty-six hour day. In other words we can't cope with these requests; so we really can't reply to them. We don't even know of a good black market we can recommend. So have a heart, will you? Thanks.

### DUFF GEN

The date of the first flight of the D.H. Dove at Hatfield took place on September 25th 1945 and not 1946, as stated in our article "Dove Gen" in the January issue.



**Boeing Highlight.** This giant structure, worthy of the work of any Silversmith, is the Boeing YC-97 military transport now nearing completion. The civil cargo version, the Stratofreighter, will carry up to 41,000 lbs. payload. Powered by 4 Pratt and Whitney Wasp Majors, it will have a top speed of 340 m.p.h.

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