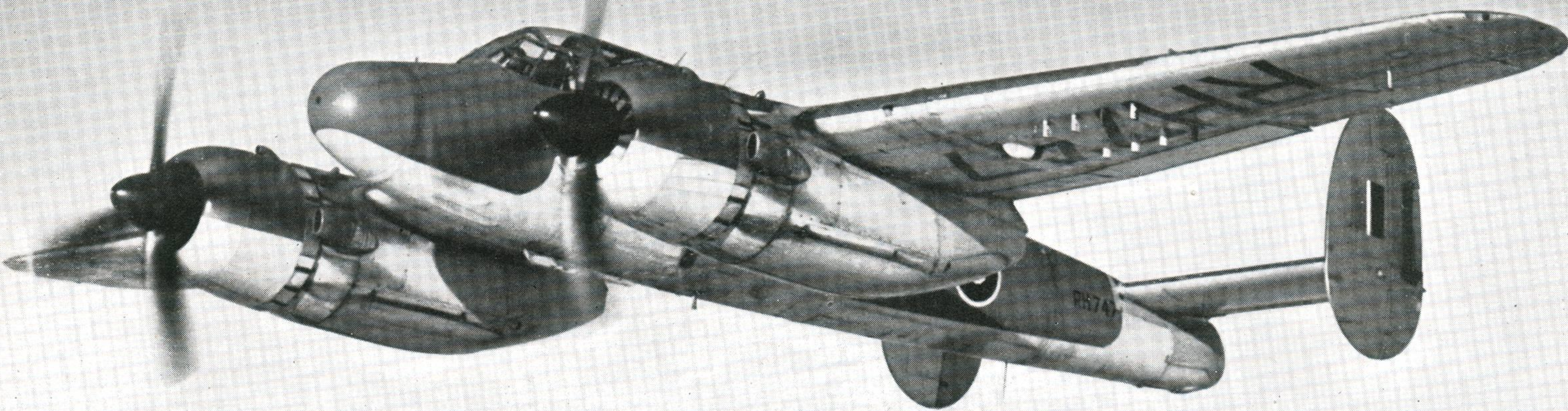


THE INTER



SERVICES

AIRCRAFT RECOGNITION *Journal*



ROYAL OBSERVER CORPS NUMBER

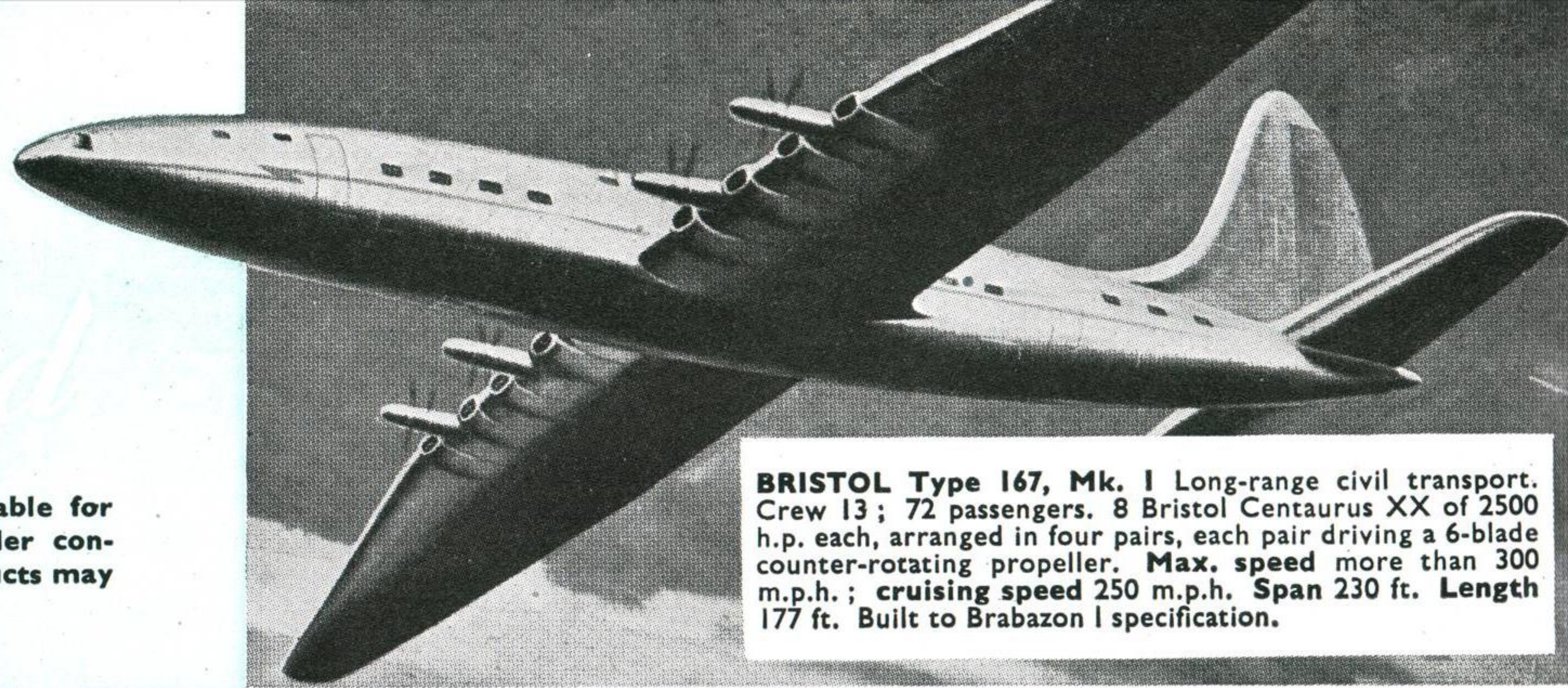
New Series

JANUARY 1947

Volume I. No. 7

Forearmed is Forearmed

The motto of the Royal Observer Corps is particularly suitable for this page of pictures of British aircraft, which are now under construction. It will be interesting to see how the finished products may differ from their original conceptions.



BRISTOL Type 167, Mk. I Long-range civil transport. Crew 13; 72 passengers. 8 Bristol Centaurus XX of 2500 h.p. each, arranged in four pairs, each pair driving a 6-blade counter-rotating propeller. **Max. speed** more than 300 m.p.h.; **cruising speed** 250 m.p.h. **Span** 230 ft. **Length** 177 ft. Built to Brabazon I specification.

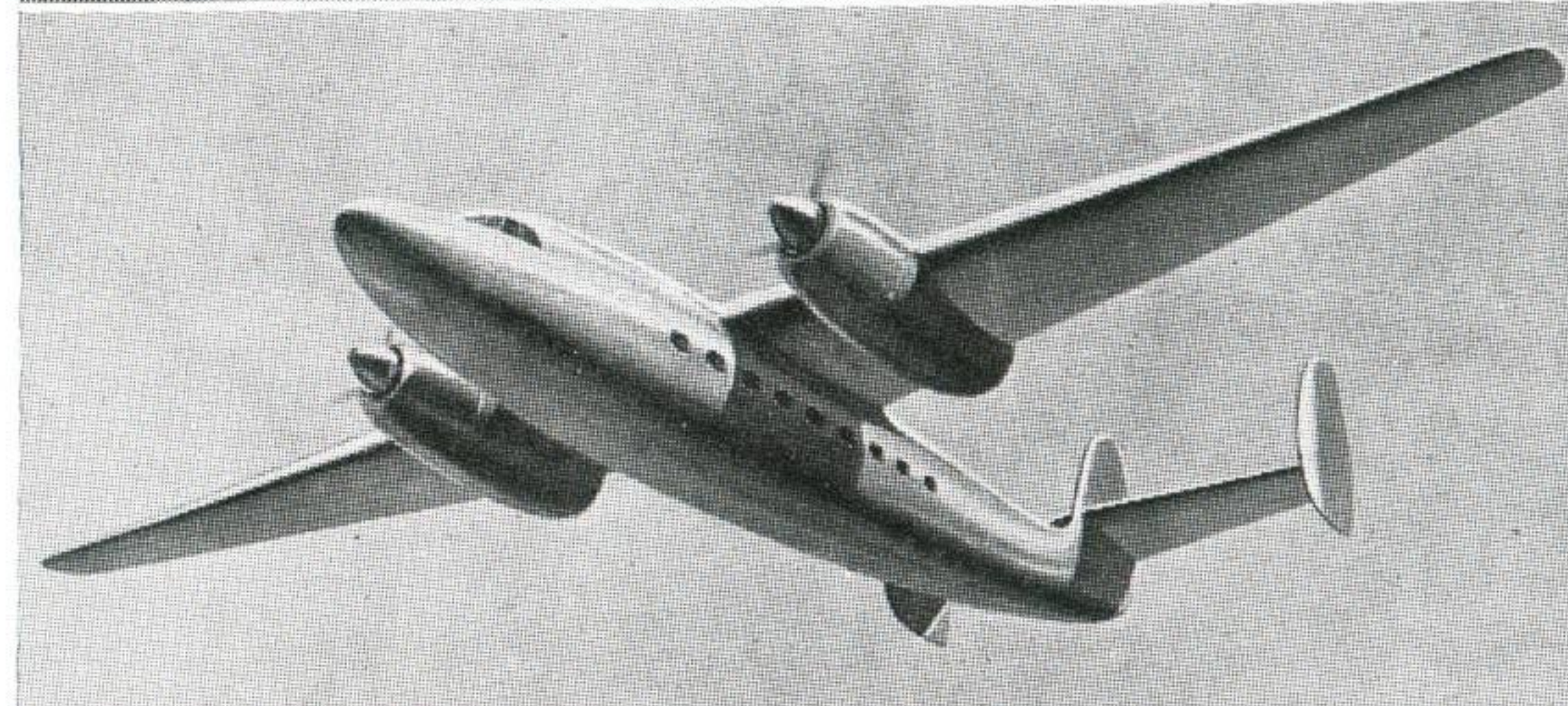
General Aircraft UNIVERSAL

Civil transport. Crew 4; 90 passengers. 4 Bristol Hercules 260 of 1950 h.p. **Max. cruising speed** (rich mixture) 247 m.p.h.; **max. cruising** (civil rating) 195 m.p.h. **Range** (full tanks), 2000 miles; with 90 passengers, 550 miles; with freight, 660 miles. **Span** 162 ft.



Airspeed AMBASSADOR

Civil transport. Crew 3-4; 28-50 passengers. 2 Bristol Centaurus 130 of 3000 h.p. **Max. speed** 335 m.p.h.; **max. cruising speed** 286 m.p.h. **Range** (40 passengers), 1000 miles; (24 passengers), 2000 miles. **Span** 115 ft. Built to Brabazon IIB specification. R.A.F. transport version will be the **Ayrshire C.Mk.I.**



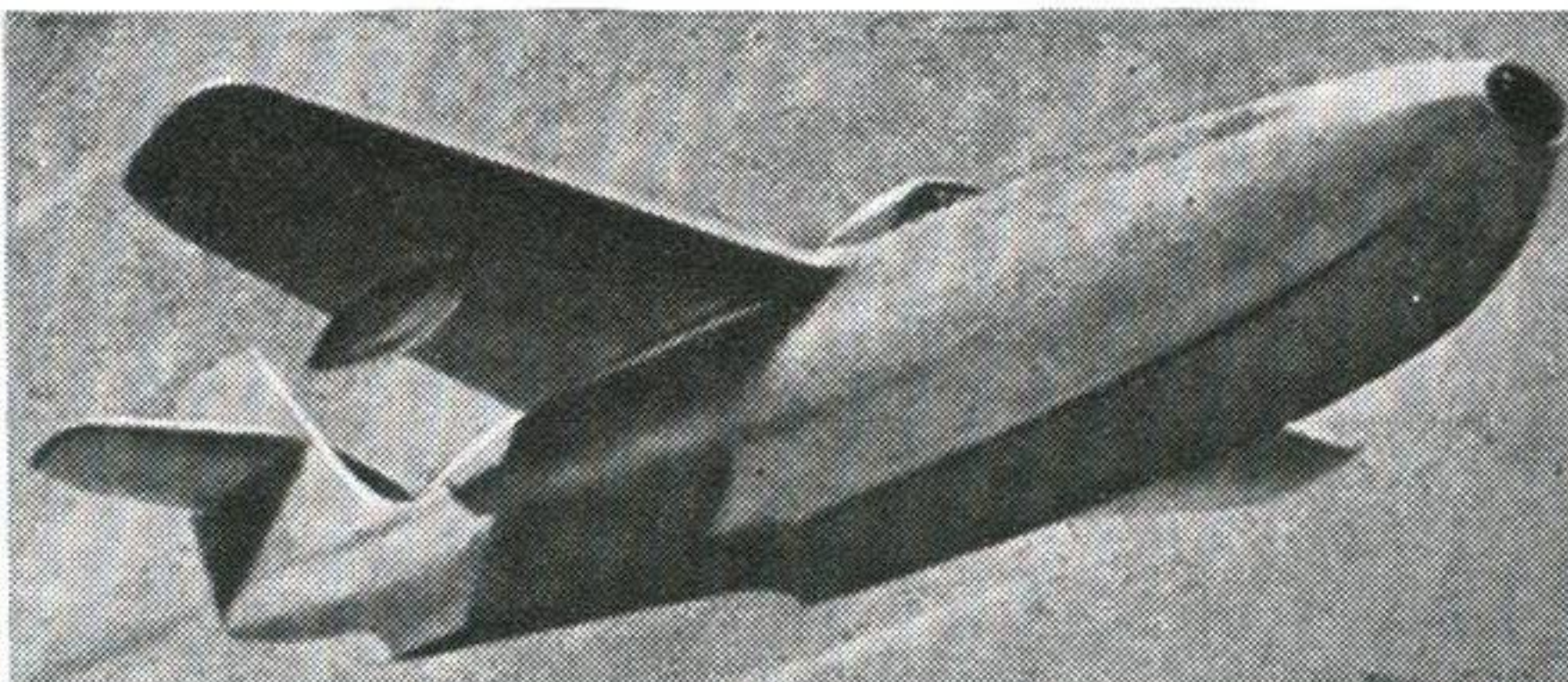
Cunliffe-Owen CONCORDIA

Civil transport. Crew 2; 10-12 passengers. 2 Alvis Leonides of 525 h.p. **Max. speed** 223 m.p.h.; **Max. cruising speed** 214 m.p.h. **Range** 1200 miles. **Span** 57 ft.



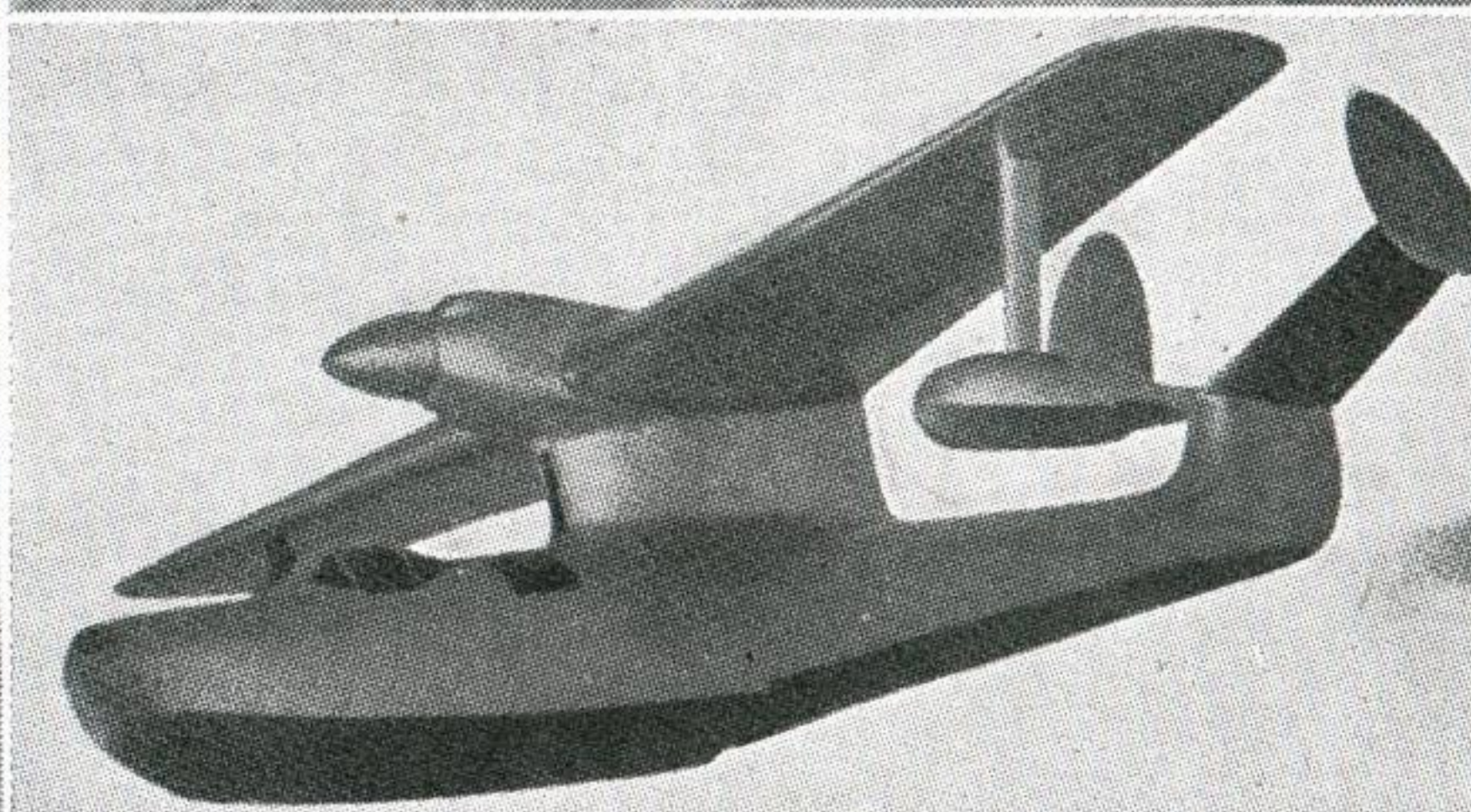
Portsmouth Aviation AEROCAR

Civil transport. Pilot and 5 passengers. 2 Blackburn Cirrus Major III of 155 h.p. **Max. speed** 167 m.p.h.; **max. cruising speed** 153 m.p.h. **Range** 616 miles. **Span** 42 ft. Ski or float undercarriage may be substituted for wheels



Saro SR/A1

Single-seat flying boat fighter. Pressurized cabin; ejector seat; retractable wing floats. 2 Metropolitan-Vickers F2/4 axial flow turbo-jets. **Armament**, four 20 mm. cannon in nose. **Span** 46 ft. Performance data not available.



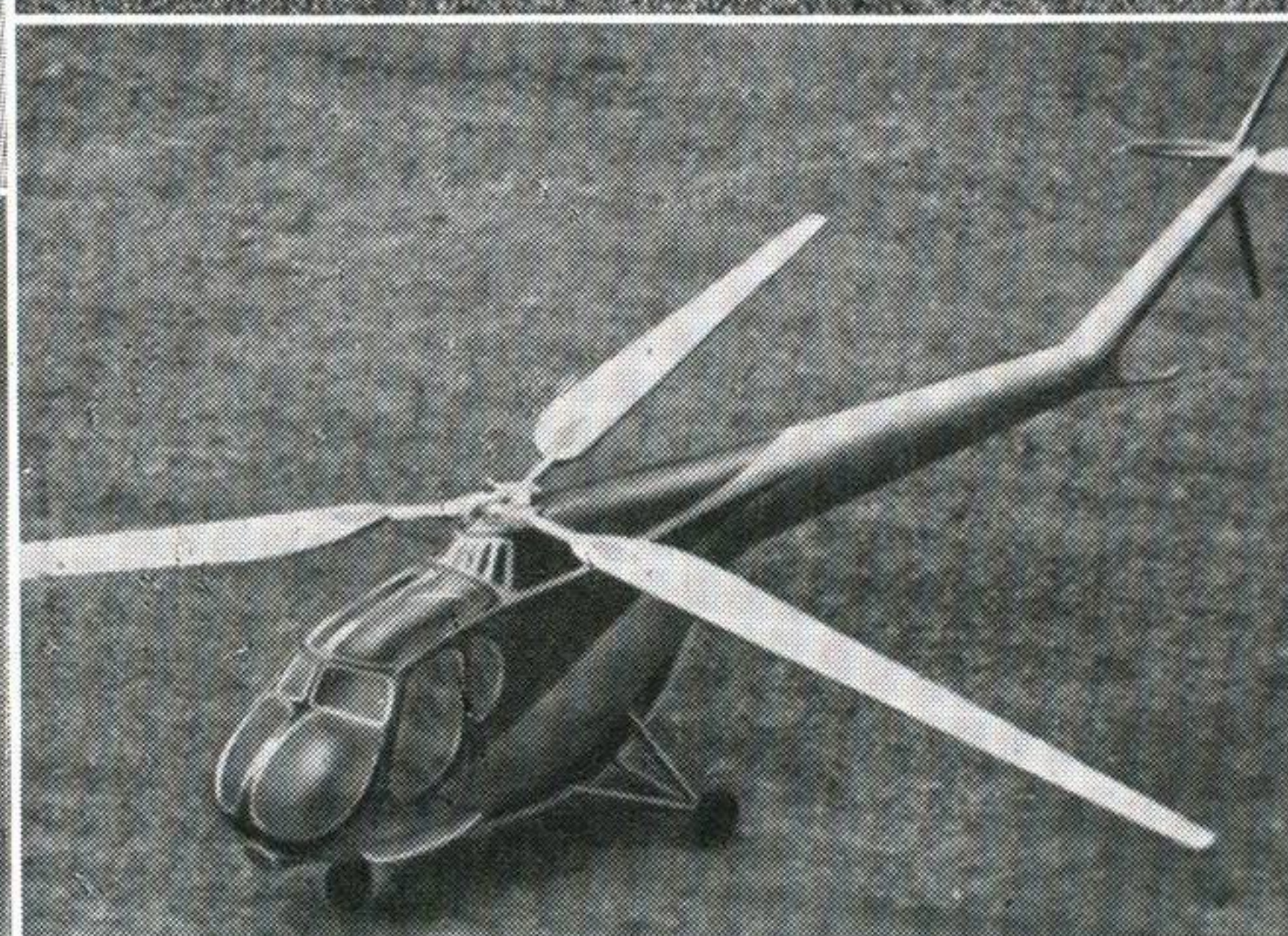
Vickers Supermarine S. 14/44

Naval amphibian designed as replacement for Sea Otter. Crew 3. Variable incidence wing with full span slots. Dual controls. Rolls-Royce Griffon engine driving a 6-blade counter-rotating propeller. Performance data not available. **Span** 50 ft. 6 ins.; **Width** (wings folded) 23 ft.; **Length** 44 ft.



Fairey FB-1

Research helicopter; first of a novel class of rotary wing aircraft known as a Gyrodyne. Differs from normal helicopter practice by being propelled forward by an orthodox propeller. Safety in flight is promoted by the low pitch of the rotor blades. Military and civil versions are contemplated. No further information yet available.



Bristol TYPE 171

Single-rotor helicopter with tail propeller to counteract rotor torque. Pilot and 3 passengers. One air-cooled radial engine of approx. 450 h.p. No further information yet available.



Short SEALAND

Civil amphibian transport. Pilot and up to seven passengers. 2 Gipsy Queen 71 of 330 h.p. **Cruising speed** 127 m.p.h. **Range** 585 miles. **Span** 59 ft.



Saro SR/45

Product of Saunders-Roe Ltd. Civil long-range transport. Crew of about 12; up to 100 passengers. Retractable wing floats; pressurized 2-deck cabin. 6 gas turbines of unspecified type, approx. 5000 h.p. each. **Cruising speed** more than 300 m.p.h.; **range** about 5000 miles. **Span** 220 ft.; **Length** 146 ft.

Percival MERGANSER

Civil transport. Crew 1 or 2; 5/8 passengers. 2 D.H. Gipsy Queen 51 of 295 h.p. **Max. speed** 194 m.p.h., **max. cruising** 183 m.p.h. **Range** 830 miles (5.1 hours at 163 m.p.h.). **Span** 47 ft. 9 ins.





THE INTER

SERVICES

AIRCRAFT RECOGNITION JOURNAL

(NEW SERIES)

Foreword

by *Air Marshal Sir James M. Robb,*
KBE · CB · DSO · DFC · AFC

Air Officer Commanding-in-Chief, Fighter Command.

I AM glad to see that the Inter-Services Aircraft Recognition Journal has been revived. Although the Journal is of the utmost importance to all the Services, it is of special value to Fighter Command. Every fighter pilot has to learn early in his career the vital necessity of quick Aircraft Recognition if he is to achieve success and not jeopardise his own safety. The great increase in speeds brought about by the introduction of jet aircraft, and which will have a still further step up in the near future when the latest marks of these aircraft come into Service use, makes speedy and accurate recognition more vital than ever.

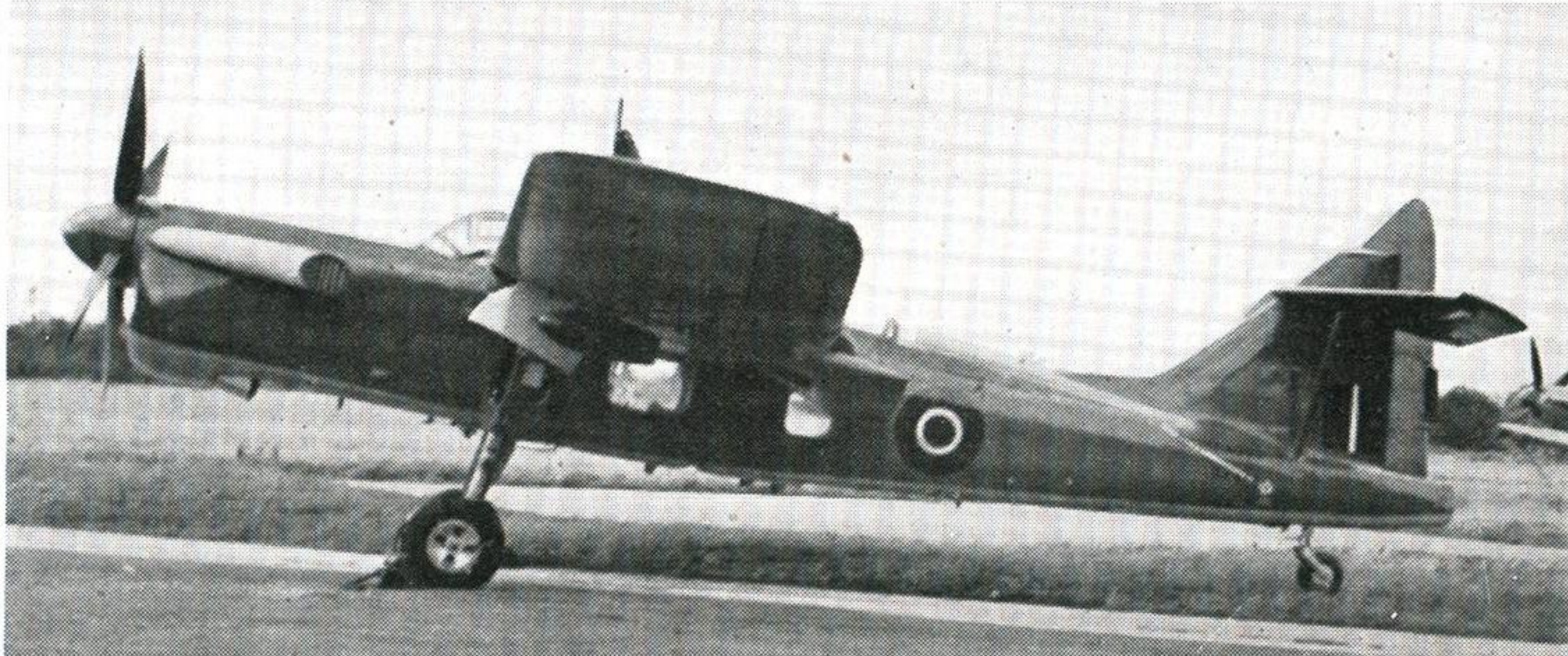
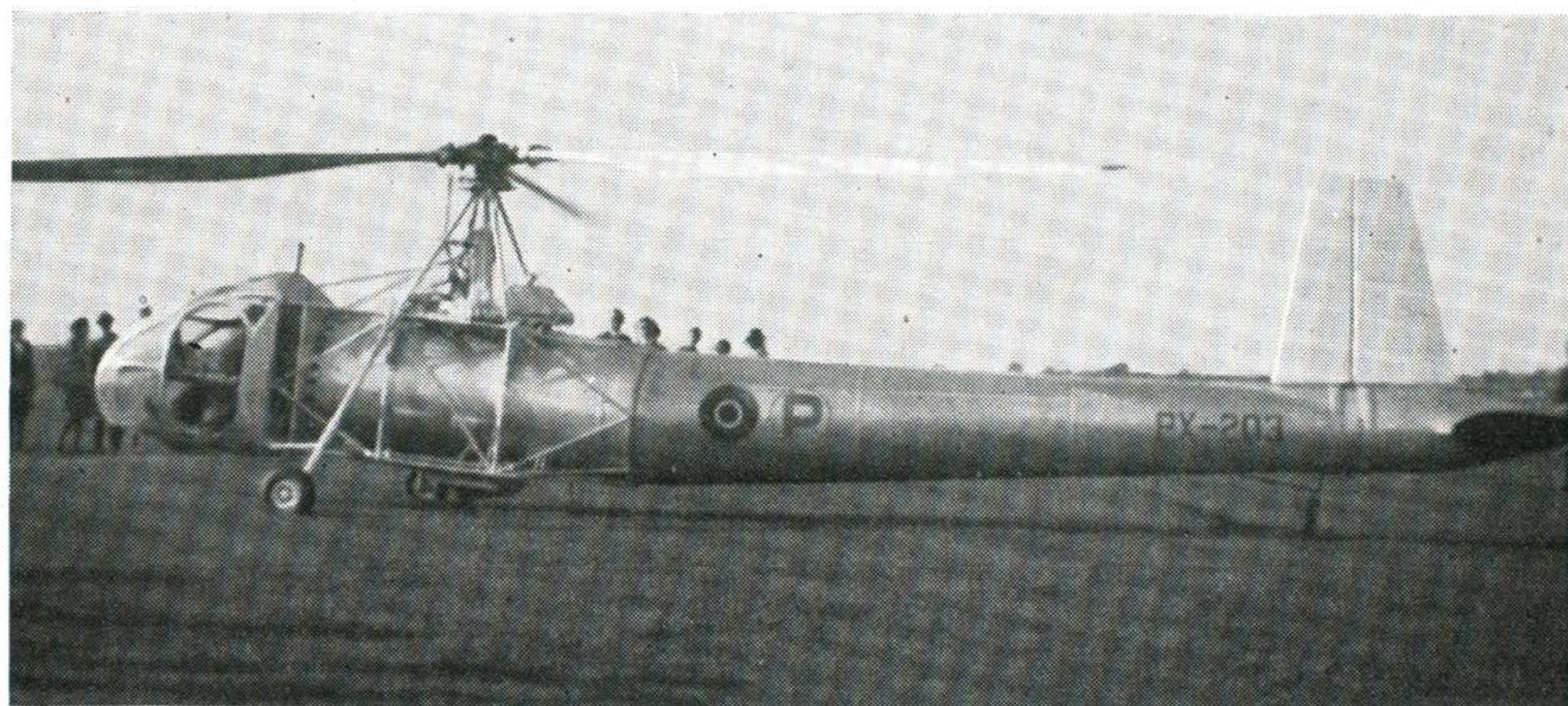
This issue of the Aircraft Recognition Journal coincides with the commencement of peace-time training of the Royal Observer Corps. Like everyone who is concerned with the Air Defence of the country, I welcomed the recent official statement concerning the re-establishment of the Corps, and I pay tribute to the Corps for the patience and steadfastness with which the long period of uncertainty about the future was endured. I need only state now what has been said with such truth many times before—the Royal Observer Corps is an integral and essential part of the Air Defences of this country and if these are to be rebuilt to give us that measure of protection that the country expects, it is imperative that the standard of Aircraft Recognition achieved by the Corps during the war years is not only maintained but improved upon in the future.

Readers' Own Contributions



In response to our request for photographs, we have received these three interesting pictures, among others, from R.O.C. members.

Top right comes from G. R. Wrixon and was taken at the Radlett Show. It is the **Cierva W.9** research helicopter, in which the exhaust gases from the 200 h.p. D.H. Gipsy Queen II engine are ejected sideways from the tail to counteract the rotor torque. Without something like this, the aircraft would revolve in the opposite direction to the rotor. The Bristol 171 (see opposite page), and some others, use a propeller for this purpose. The two lower pictures, from M. Gates, show (left) a **Fairey Firefly Mk. I** with the clipped wing and wing radar of the Mk. IV fitted as a Trial Installation, and (right), the **Fairey Barracuda Mk. V** in the glossy finish of Naval high-performance aircraft. This production version has an angular outline and a pointed top to the fin and rudder—the engine is a Rolls-Royce Griffon 37.





The Royal Observer Corps

ITS HISTORY, ITS PURPOSE, AND ITS AIM



BEGINNING with the reign of Queen Elizabeth, it will be seen by readers of history that on each occasion when this island home of ours was threatened with attack from the continent of Europe, a chain of observation posts was set up to give warning to the people.

As the threat receded, and all danger passed, the system of observation was discontinued. There was no great harm in this discontinuance of observation while the destructive power of warfare was confined to the old ideas of pitched army or sea battles.

With the war of 1914/1918, the use of the dirigible and the aeroplane created a new force in warfare and the air arm developed. It then became obvious that this island was no longer immune from attack, for during that war the Zeppelins, the Gothas and the Taubes ranged over the greater part of England. The fact that these machines could fly in the sky over our countryside, in its turn called for a new style of defensive measures.

Thus it was, after the experience gained in World War I, that in 1924 the Air Defence of Great Britain was consolidated and Fighter Command of the Royal Air Force was charged with the responsibility of bringing it into effect.

It was apparent that the primary need of the air defence system was information showing the latest position of hostile aircraft.

This would enable action to be taken by the R.A.F. Fighter Command squadrons, anti-aircraft guns and balloon barrages.

In the beginning

To obtain this information, the Observer Corps was called into being. The work required of this Observer Corps was that they should plot, record a track, and by means of the telephone communication network, report the position of each aircraft to a central point.

To understand more fully the work of the Observer Corps, it is necessary to have a knowledge of the general strategy of Fighter Command.

On R.A.F. Fighter Command Headquarters the overall responsibility was placed for the strategic control of all the fighter aircraft in the country, and a map showing the whole of Great Britain was installed. On this map was displayed the tracks of all hostile aircraft. The Air Officer Commanding-in-Chief, Fighter Command, was thus in a position to see the numbers in each hostile formation and estimate which constituted the greater danger. In this manner he was able to husband the resources of his fighter aircraft and direct his fighter group controllers in the strategy as it affected their respective areas.

From this mention of fighter group controllers, it will be apparent that the area of Great Britain had been sub-divided into smaller working areas, and these in their turn were still further sub-divided into Fighter Sectors. These sectors were required to undertake the actual battle, acting under the general guidance of the fighter group controller, who, by reason of the bigger picture on his operations room table, was able to see the position of other enemy formations in his area.

The Eyes and Ears

It will be understood that the information from which the picture was compiled must come from sources spread over the countryside. These sources were, in fact, the observer posts and centres which formed the Observer Corps.

The reports of aircraft in the sky were plotted by means of counters of different shapes and colours

by the plotters seated round the table, on which was drawn the map of the district wherein the reporting posts were sited.

From the observer centre, telephone lines went direct to the operations rooms of both R.A.F. Fighter Groups and Fighter Sectors, and the tellers at the observer centre told the plotters in the operations rooms the position of the hostile aircraft, plot by plot. Suitable counters were then placed on these tables on the positions told. From this general information it will be seen that the track, direction, height and numbers of aircraft in the raid formed the material of the "picture" being displayed.

It should be borne in mind, also, that the scope of radio location was being improved day by day and upon them fell the task of detecting the early approach of aircraft from over the sea towards these shores. On these aircraft reaching the coast it then became the task of the Observer Corps to commence their tracking, at the same time giving the identity of the aircraft.

When the teething troubles of both systems had been lessened, the "picture" displayed covered a wider field and the link between the R.A.F. Radiolocation and the Observer Corps grew stronger. Today, it promises to grow still stronger.

In this description of the participation by the Observer Corps in the active defence of the country, it must not be overlooked that the need for warning the public of the approach of hostile aircraft became more acute. The Ministry of Home Security officers, who had the responsibility for sounding the various forms of warning, were able to watch the tracks as they appeared on the operations rooms tables and take the necessary steps.

This warning system grew daily in importance, because not only were the general public to be given protection, but equally important was the point that production in the factories must not stop until it became imperative to cease work for the while and not imperil the lives of all who were producing the weapons that led eventually to victory.

So it can in truth be said that the Observer Corps played its part in what is termed the passive defence of this country.

Honour where honour is due

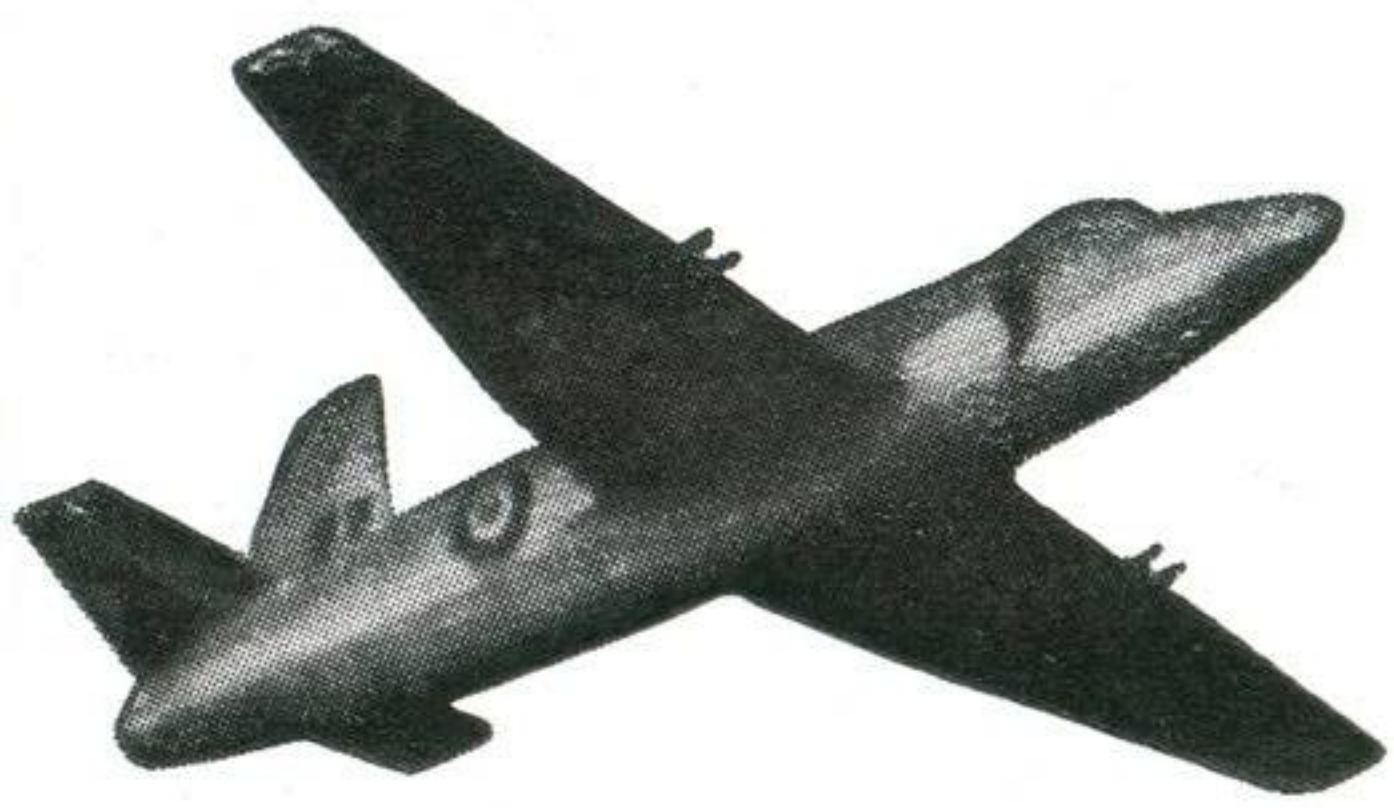
The work of the Observer Corps does not, nor is it indeed desirable that it should, lend itself to publicity, but all who served in the Corps learned with pride that His Majesty the King had granted his Royal Patronage to the Corps and that henceforth it would be known as The Royal Observer Corps. That date—9th April, 1941—stands out in our annals, coming as it did in the midst of the greatest struggle this nation had been called upon to face.

The reports on which the tracking of aircraft depended came in from 1,431 observer posts spread over the whole of Great Britain, excluding Ireland. These posts were connected by direct telephone land lines to 40 observer centres, which, as has been mentioned already, were connected directly to the R.A.F.

Fighter Group and Fighter Sector operations rooms. Thus the circle is complete.

Who were the people who served the Royal Observer Corps? First and foremost, they were volunteers, who, drawn by a desire to be of some service to their country, in addition to their daily work, undertook to do duty in their spare time. For those who lived in the villages and hamlets near the observer post, it meant turning out from a warm home at all hours and in all weathers—walking or cycling to a spot which, in order to obtain the greatest possible vantage point, was often situated in an isolated position. For those who lived in a large town in which the operations building





of the centre was placed, it meant also leaving their families with the risk that that town might be attacked that night whilst they toiled in the operations room of the centre, tracking those self same

raiders. Such is the spirit of those volunteers, both at the posts and centres, that at no time, from that day—24th August, 1939, when they were called to “Action Stations” until the 30th June, 1945, when they were “Stood-down”, was a post or centre left “un-manned”.

The greatest number serving at any one time throughout the whole Observer Corps was only 34,000, of whom a considerable number were women.

Seaborne

Another matter of some great pride is the fact that in an effort to lessen the risks run by our own aircraft when in the vicinity of the ships of the invasion fleet, the Royal Observer Corps was asked to supply a number of highly trained observers in Aircraft Recognition, to work with the gun crews on the ships which accompanied the invasion fleet to the beaches of Normandy. Within a few days of the call the total number needed was filled by men—of all ages and stages of physical fitness—who eagerly volunteered, willing to share the risks of the venture with those of their kinsmen who were destined to take a more active part in the liberation. Their job over, one month after the landings, they quietly returned to their duty at their posts or centres and resumed their routine plotting. Many of their friends were quite

unaware that these volunteers had been away, having played their part in landing the force that was to march to ultimate victory.

Of the future it is safe to say that the Royal Observer Corps will function for as long as the nation and the Royal Air Force need the service it can render. The need for the “picture” is the same today as it was yesterday. The system is young and healthy and elastic enough to change with the speedier requirements of tomorrow.

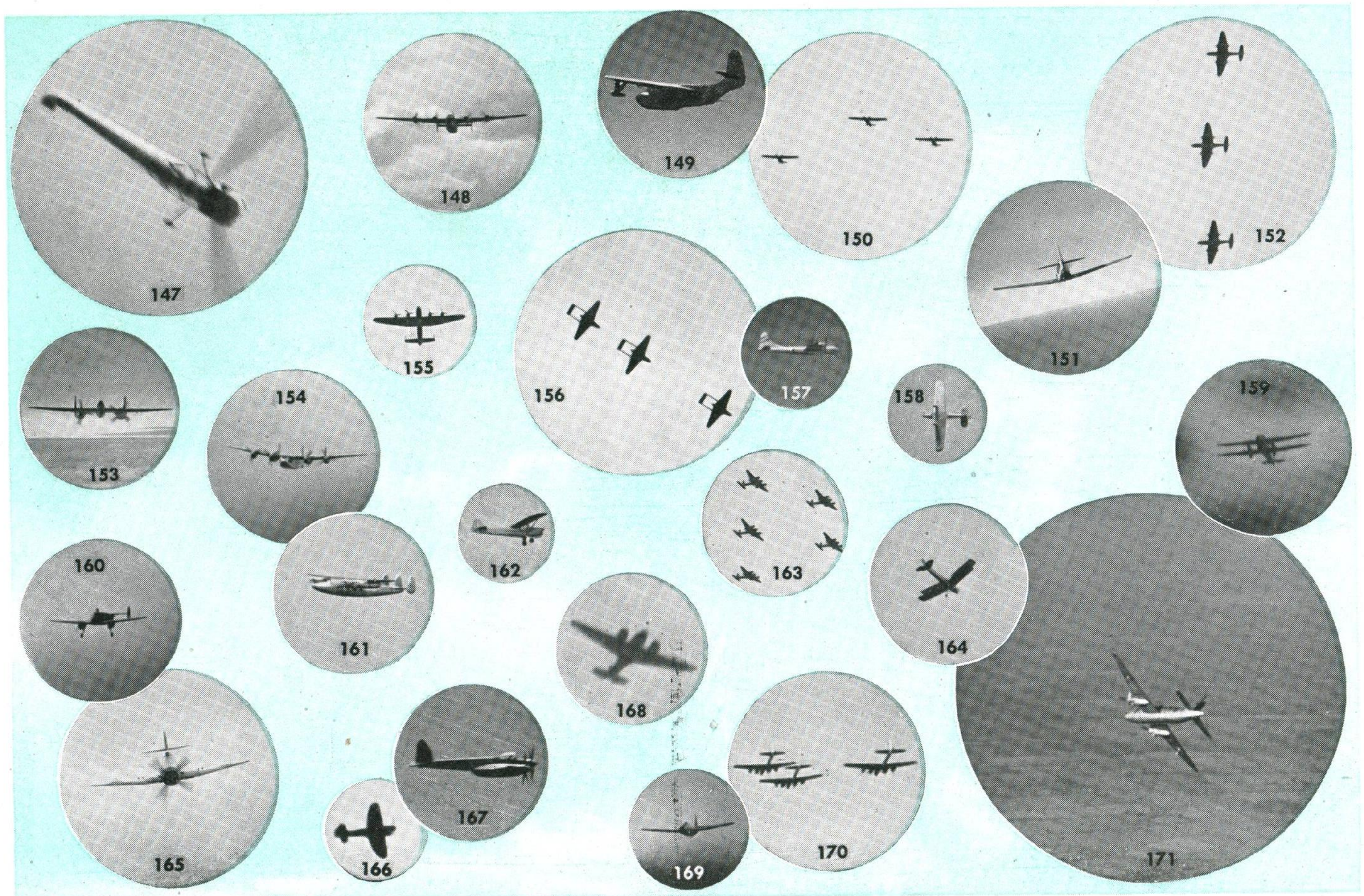
The words of the crest of the Royal Observer Corps are very apt. “Forewarned is Forearmed” will stand the searching test of history.



“It must be in the Journal somewhere!”

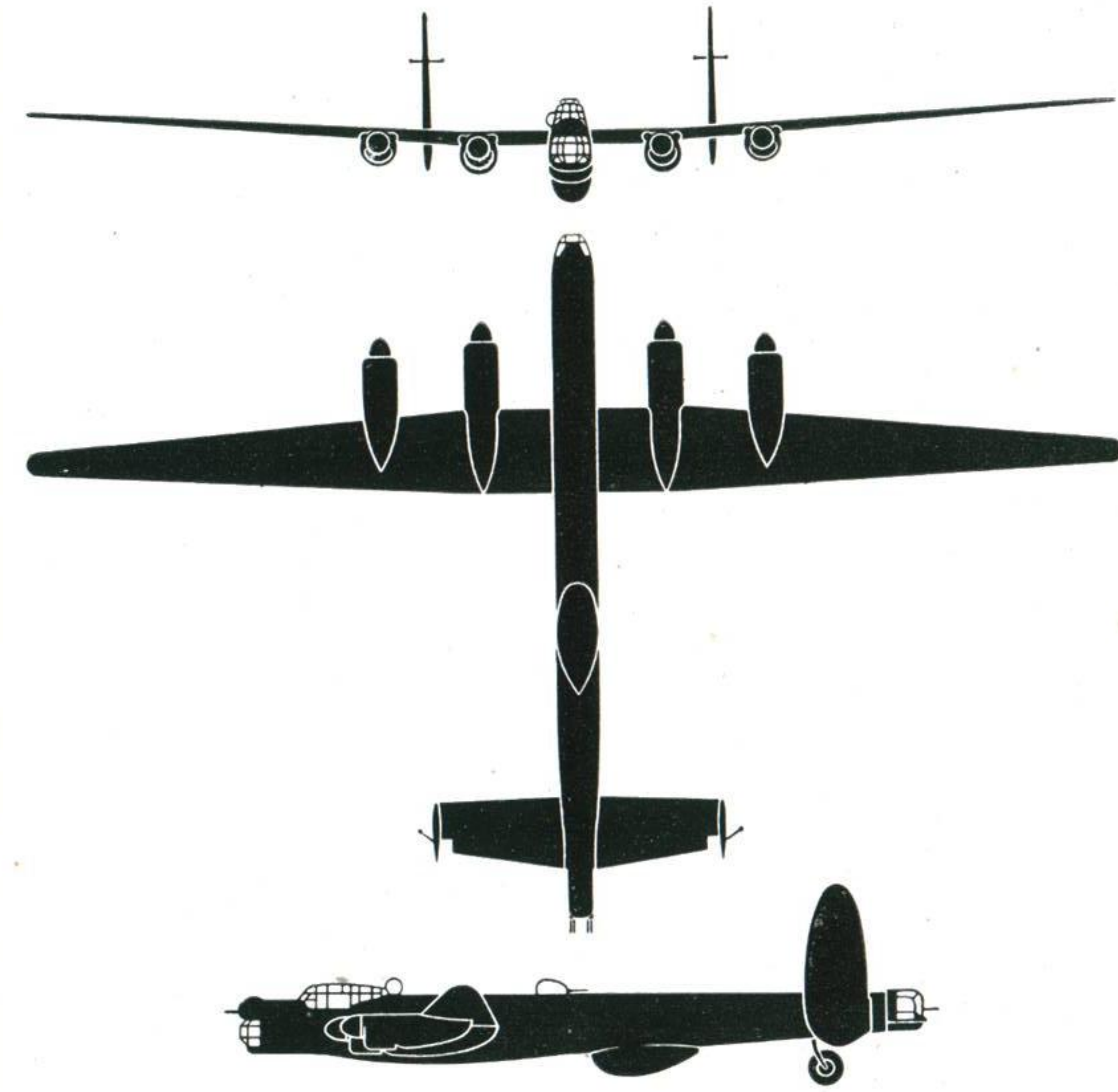
ADVANCED SPOTTING (R.O.C. Brand)

Recognition Test No. 22



Silly-ettes

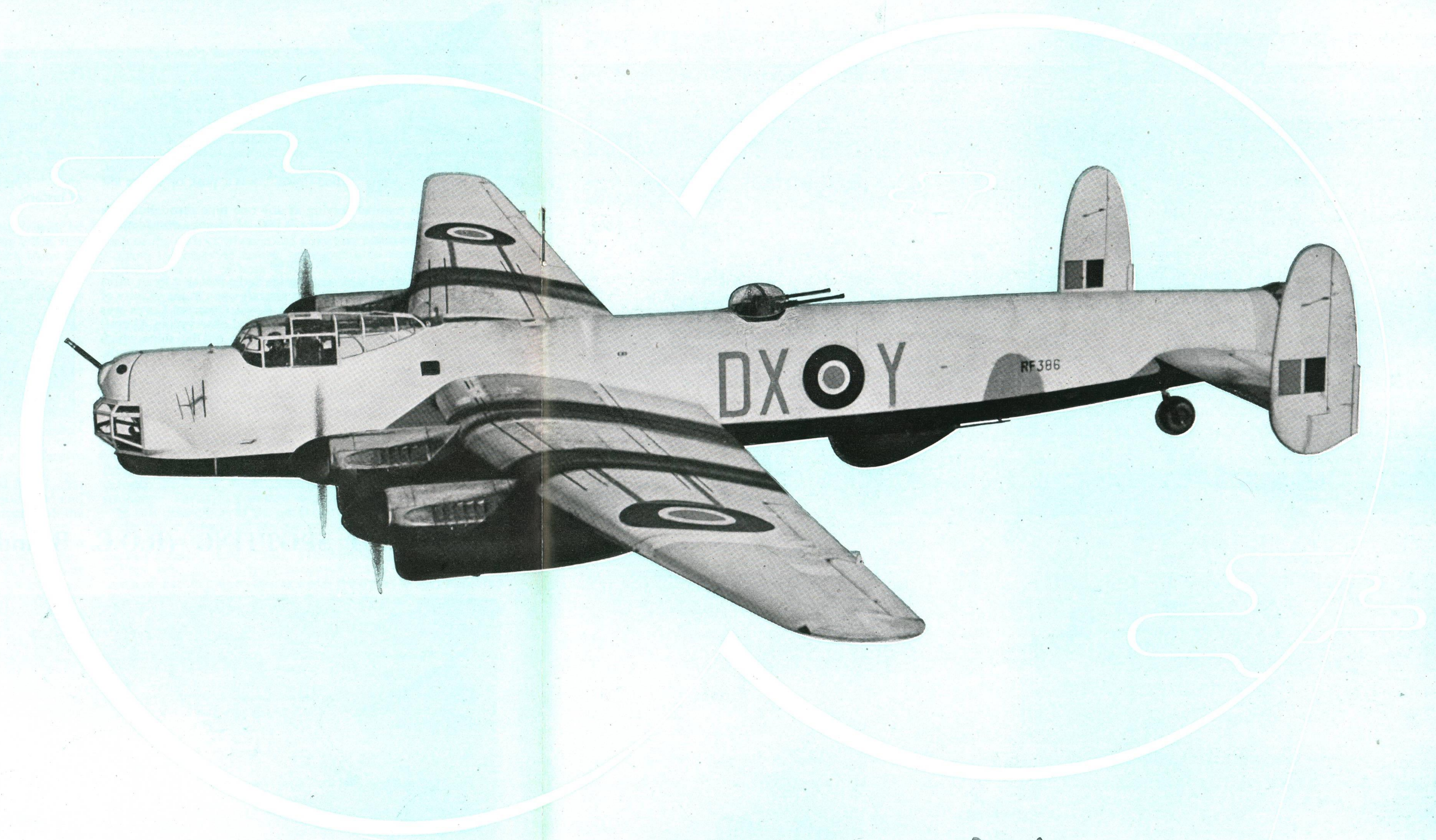
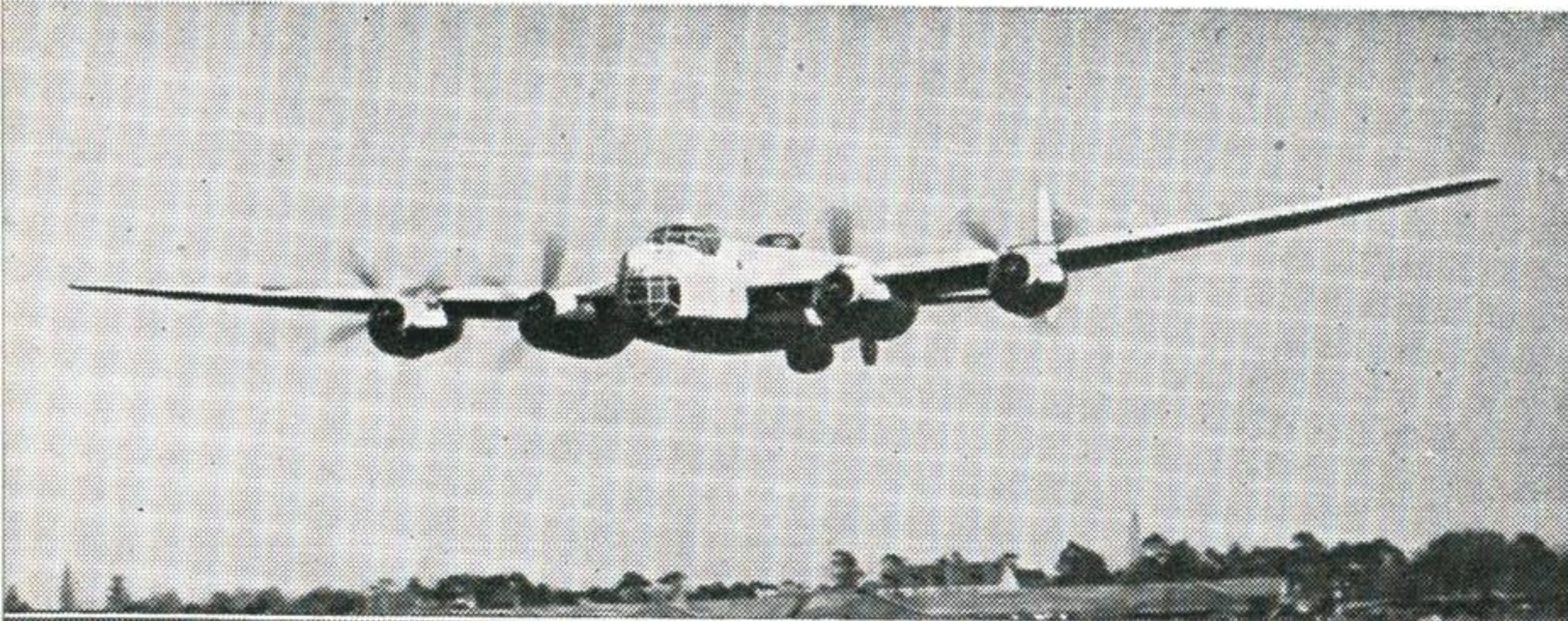
(Not to be taken too seriously !)



The Avro Lincoln B.Mk. II.

Heavy Bomber. Product of A. V. Roe and Co., Ltd., the Lincoln's original designation of Lancaster IV is a useful clue to its Recognition features. Basically a Lanc., the Lincoln differs in having a wider wing (about 18 ft. more span), a re-designed nose, heavier defensive armament, and engine cowlings which have a "radial engine" appearance from some aspects. The tail unit has not changed.

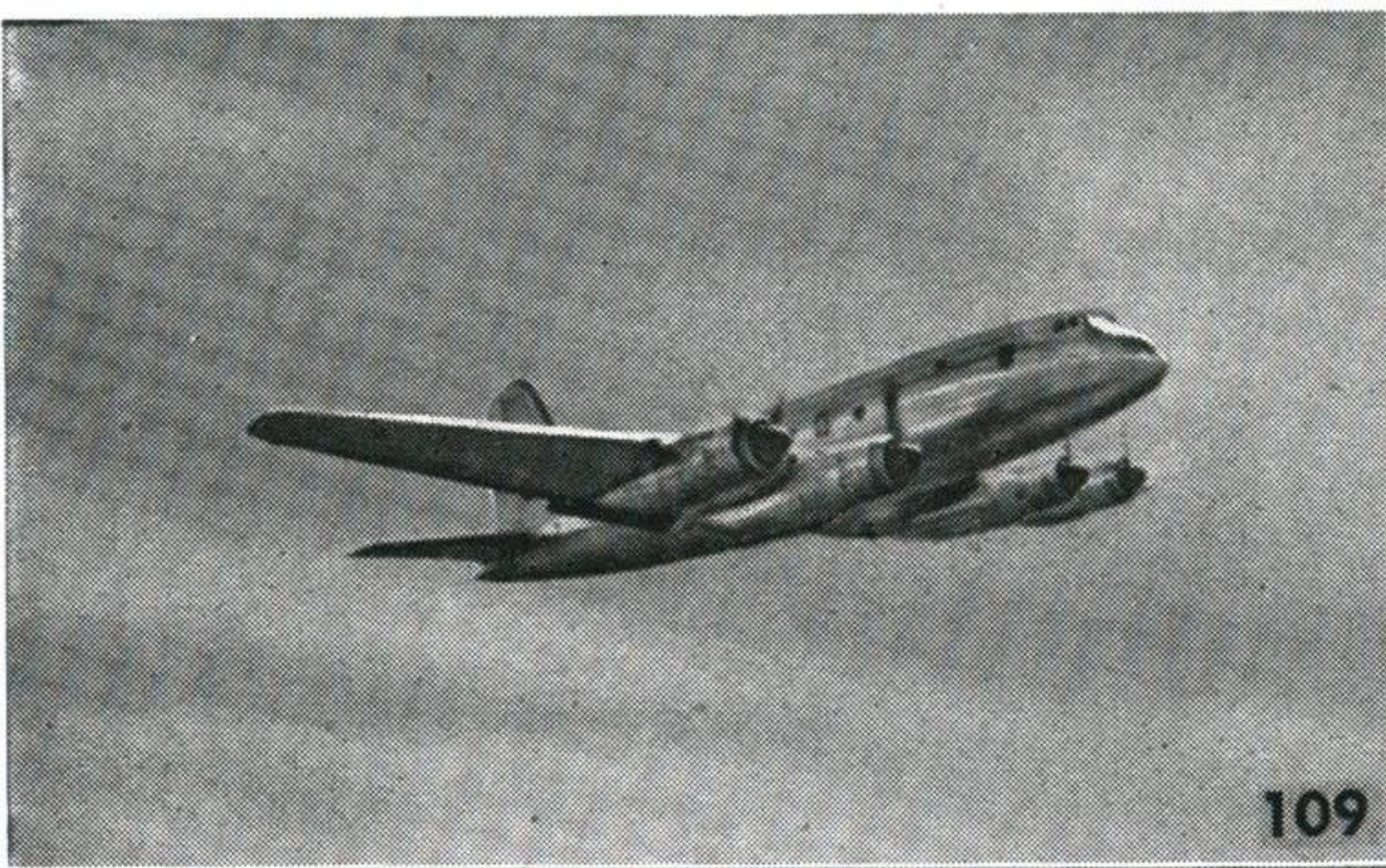
Engines : Rolls-Royce Merlin 68's of 1705 h.p. **Max. speed :** 304 m.p.h., cruising speed 245 m.p.h. **Service ceiling :** 25,700 ft. **Range :** (14,000 lb. of bombs), 2,640 miles ; (3000 lb. of bombs), 4,450 miles. **Crew :** 7. **Span:** 120 ft. **Length:** 78 ft. 8 ins. **Armament:** 3 power-operated turrets ; two .50 in. guns in nose and tail turrets ; two 20 mm. cannon in mid-upper.



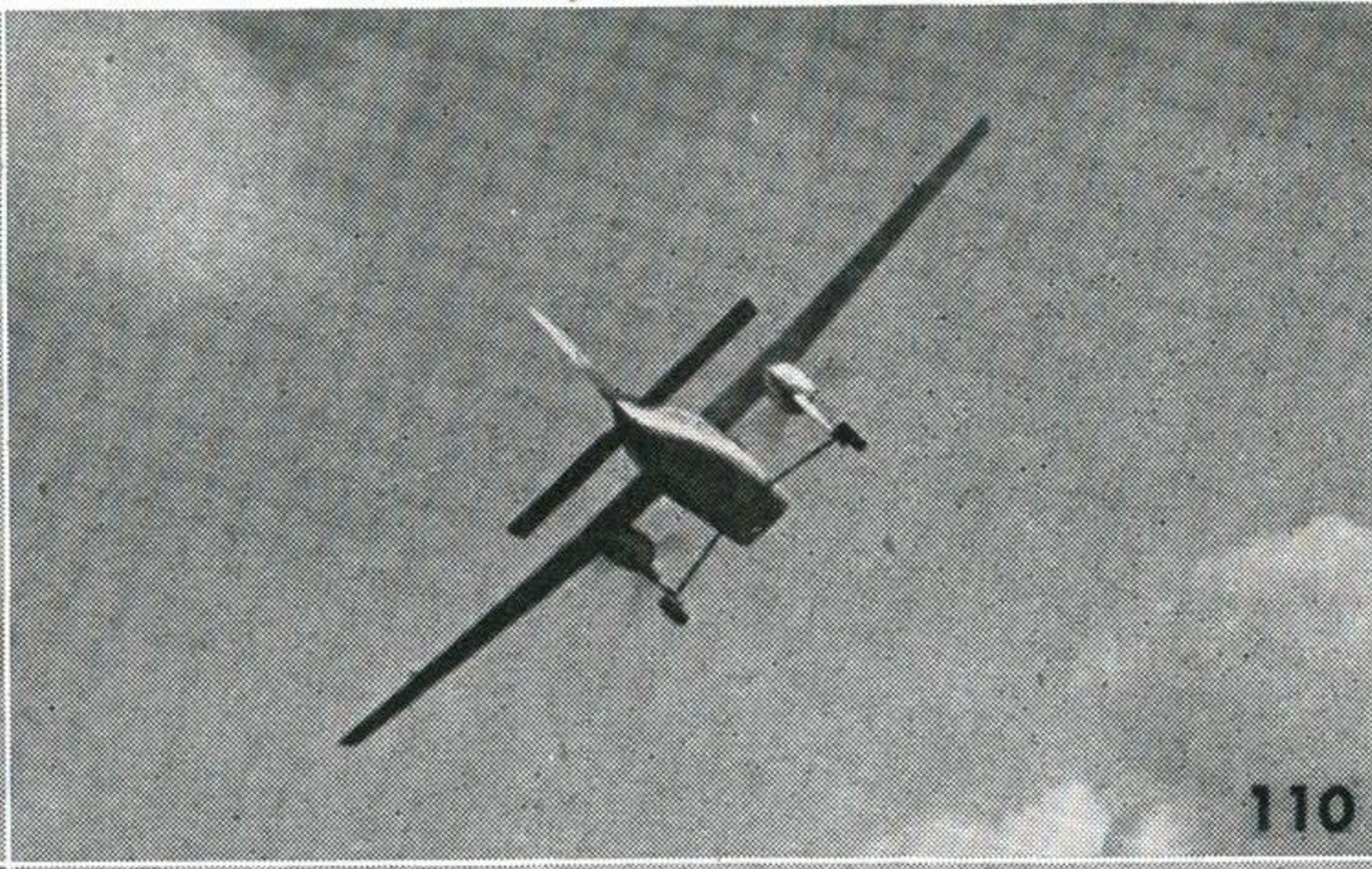
AVRO

LINCOLN

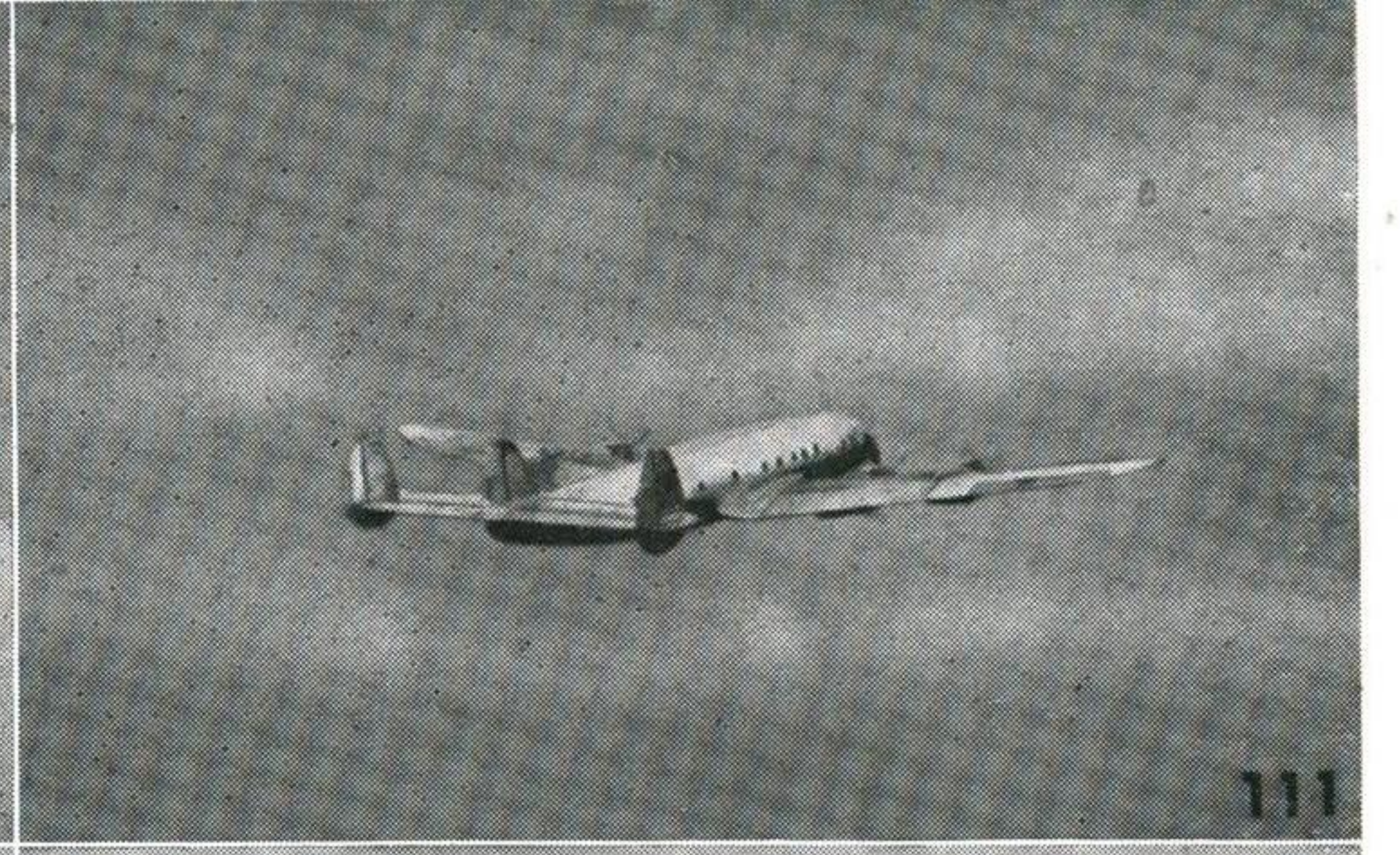




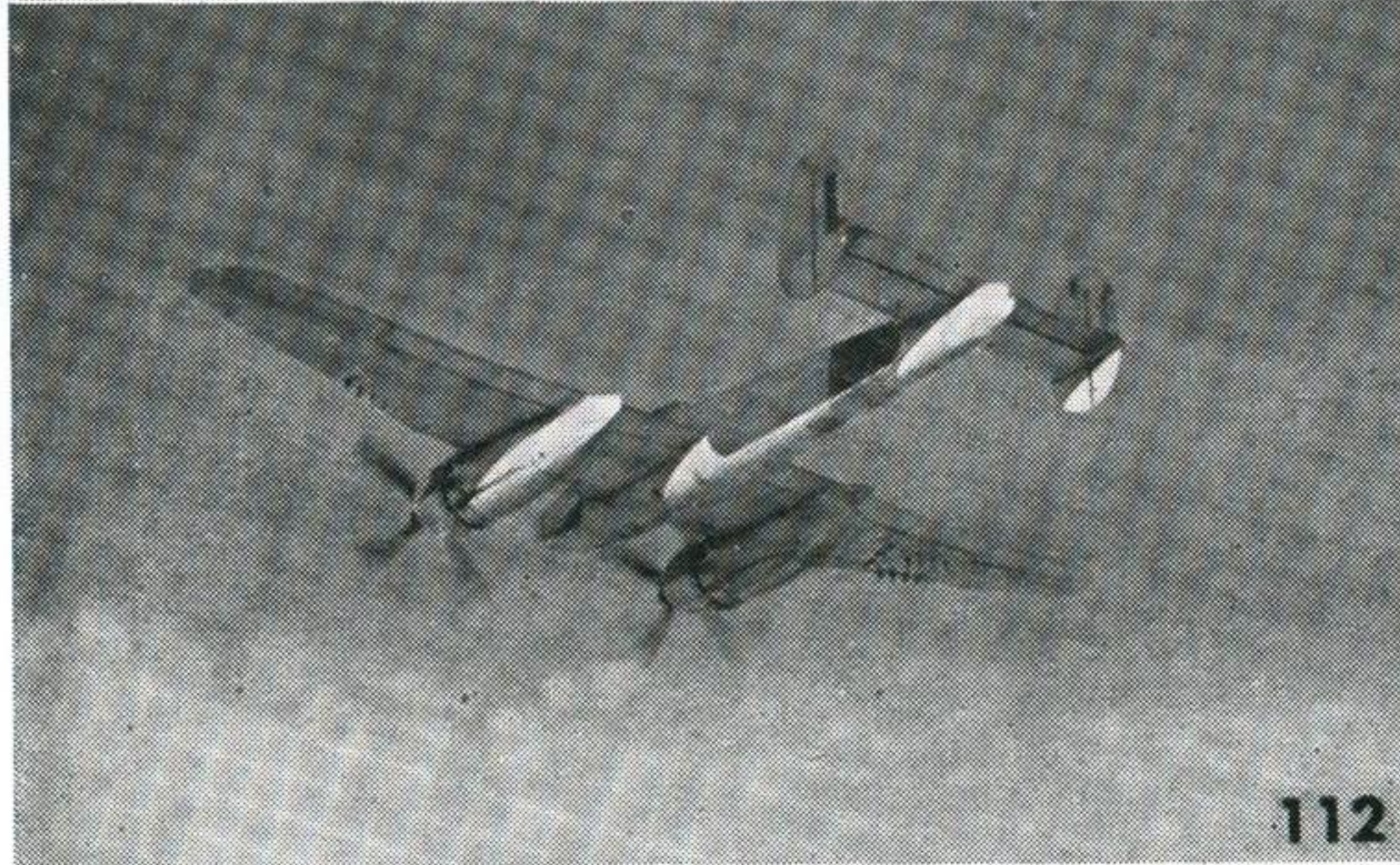
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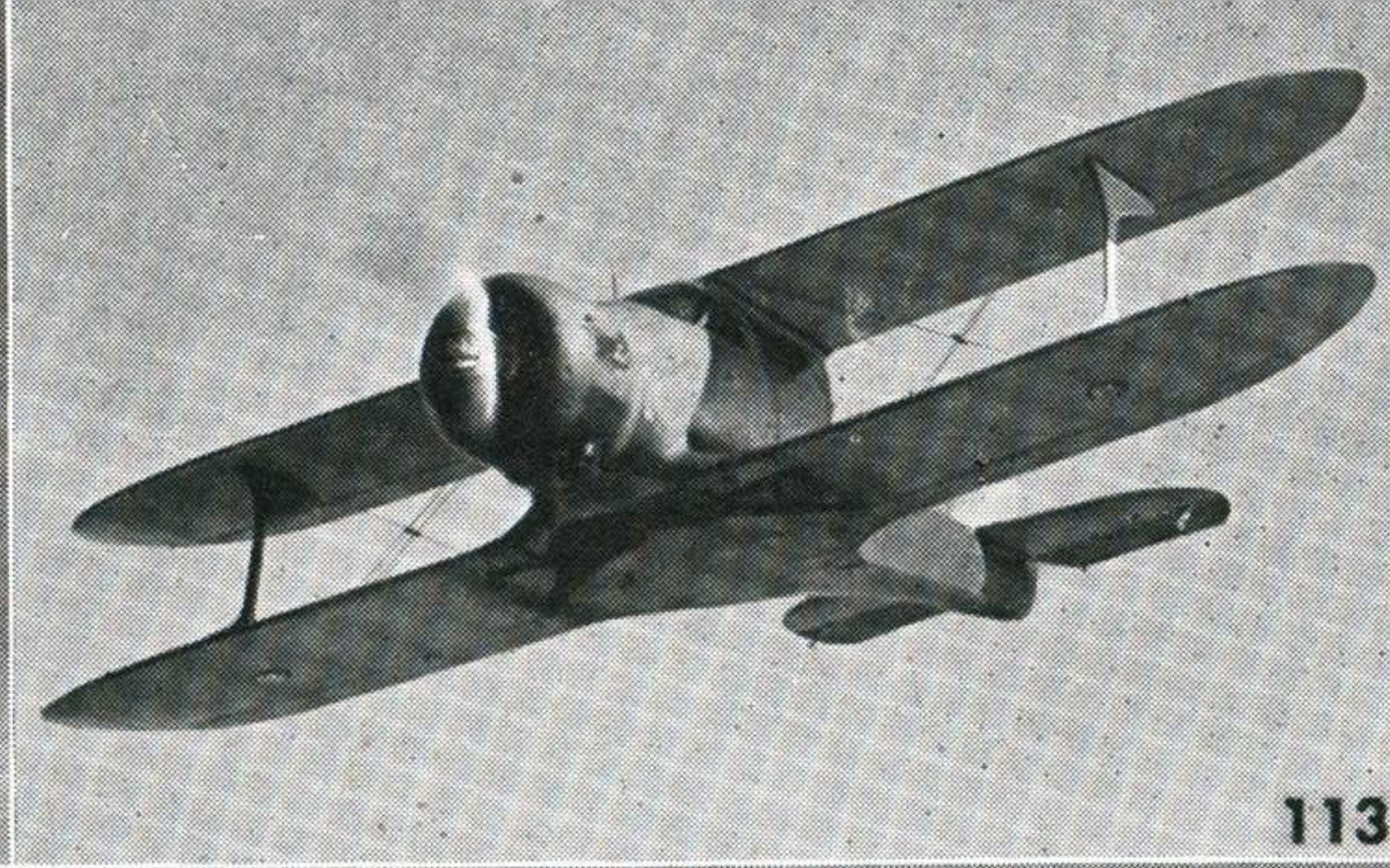
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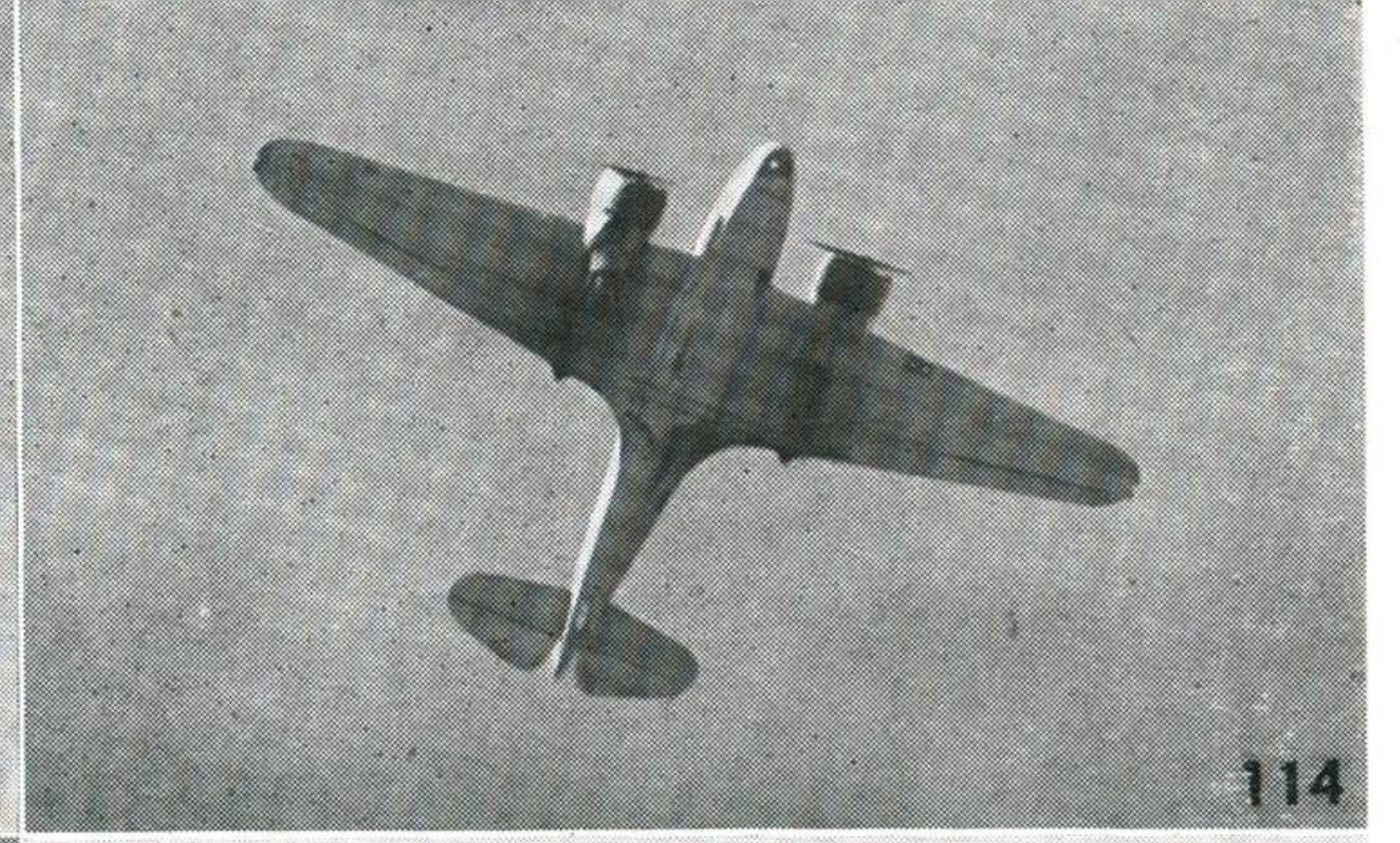
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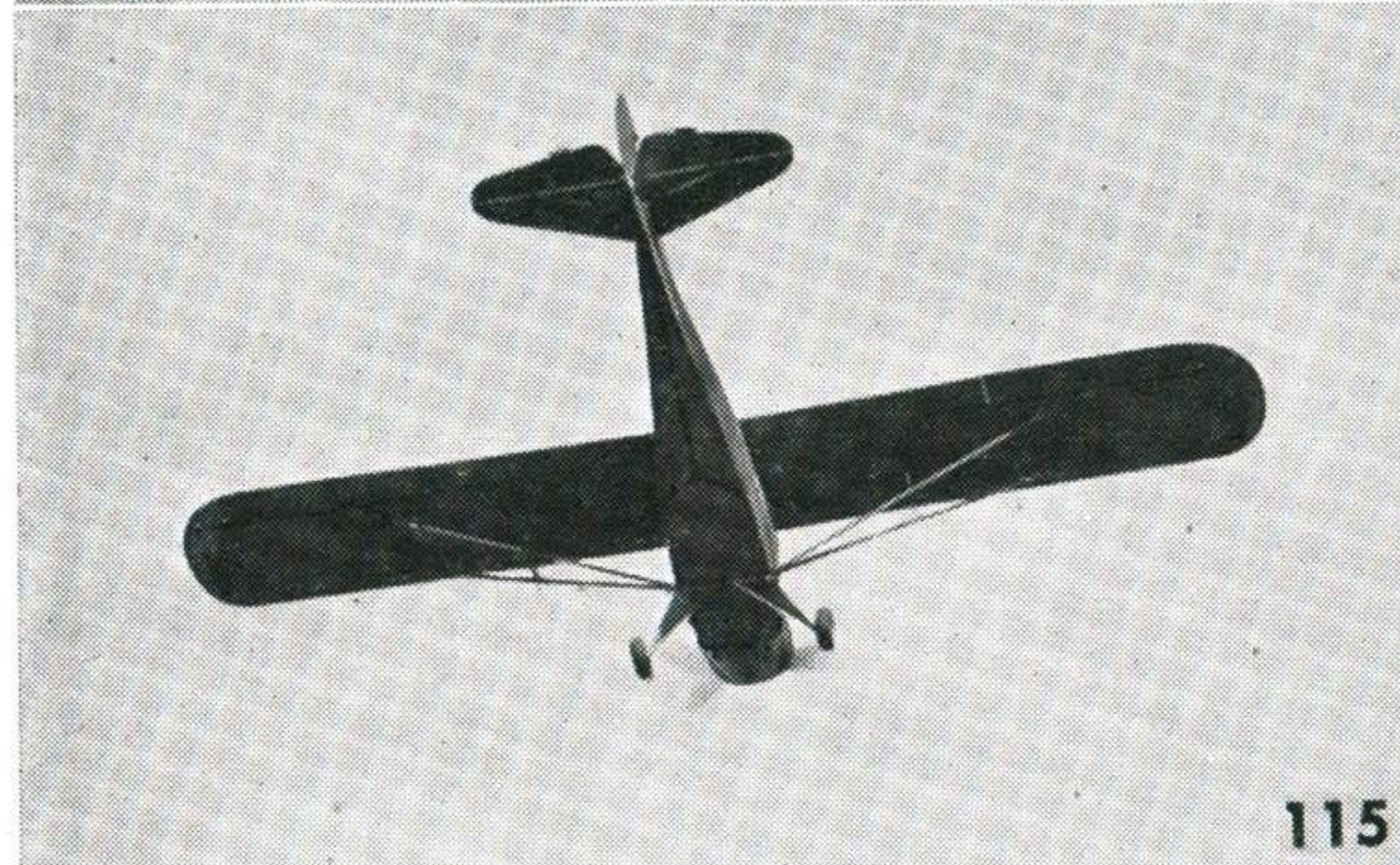
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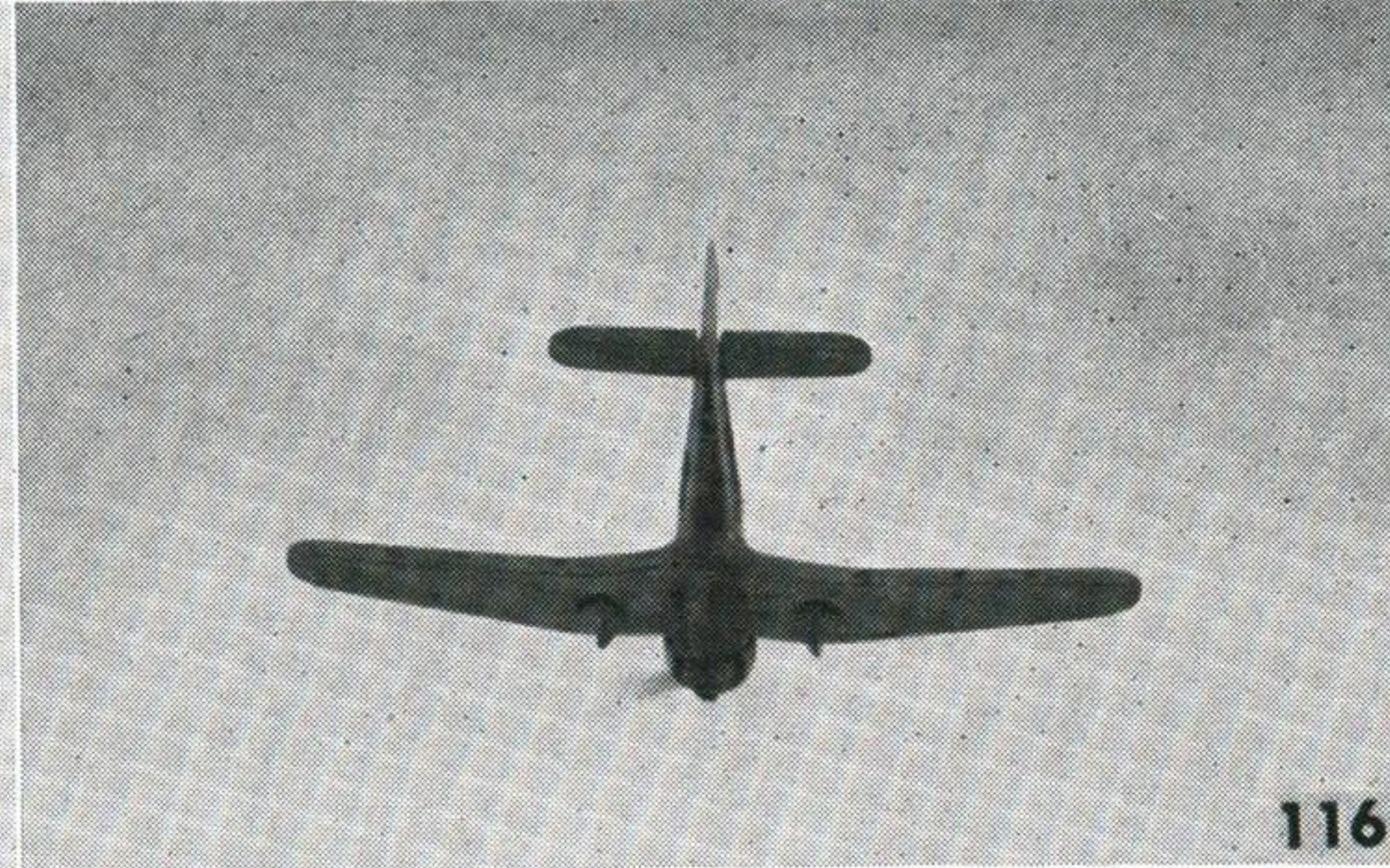
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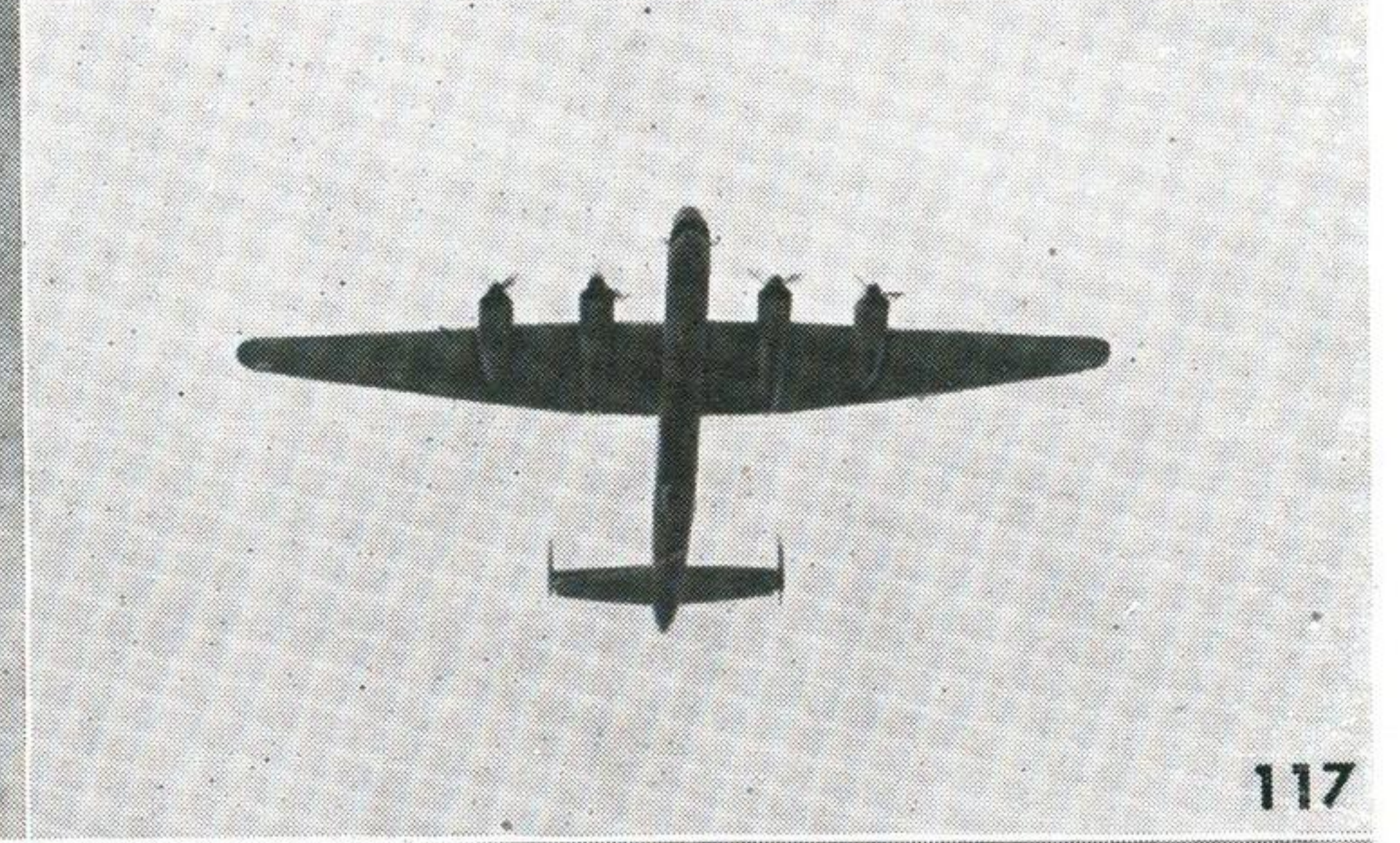
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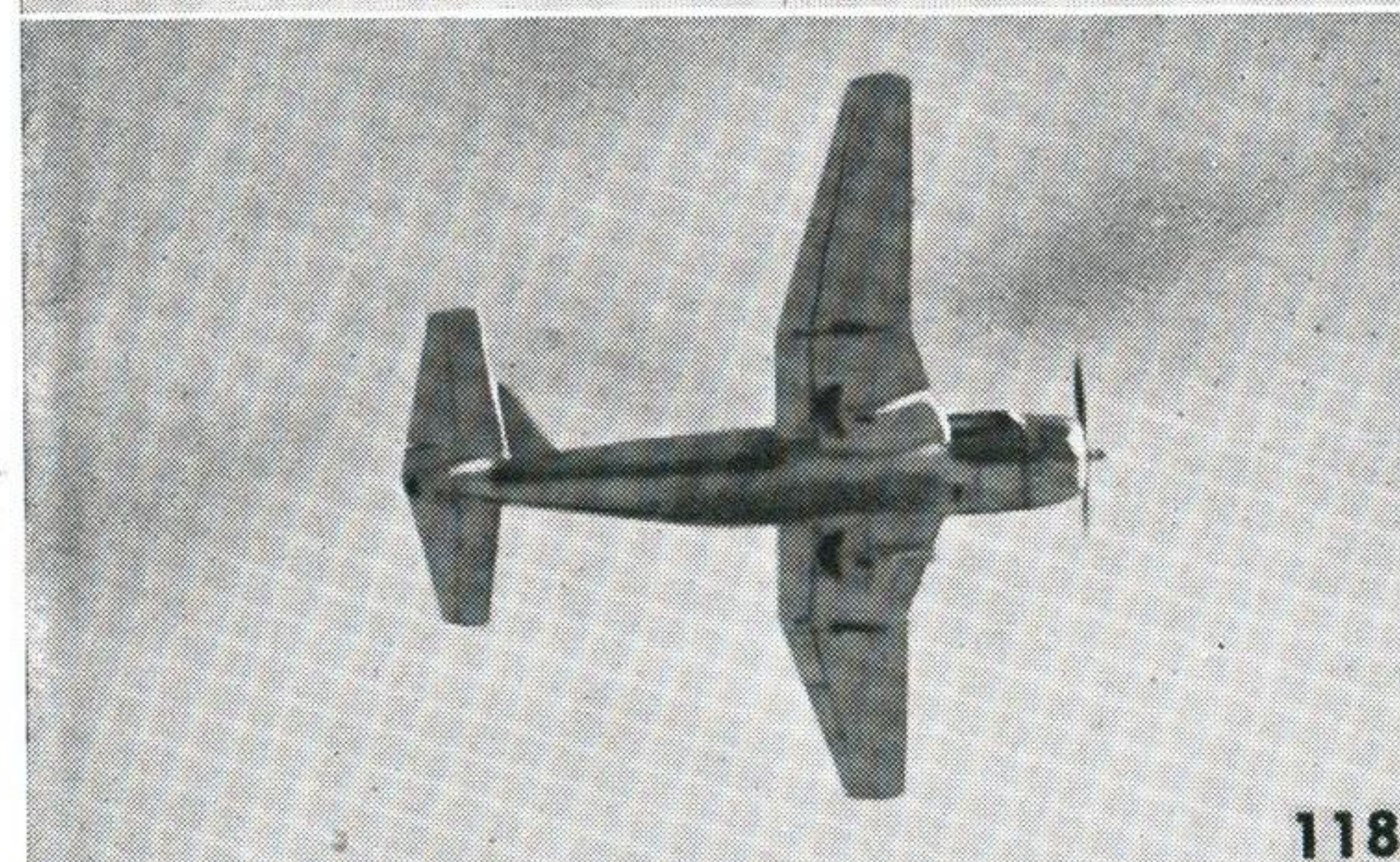
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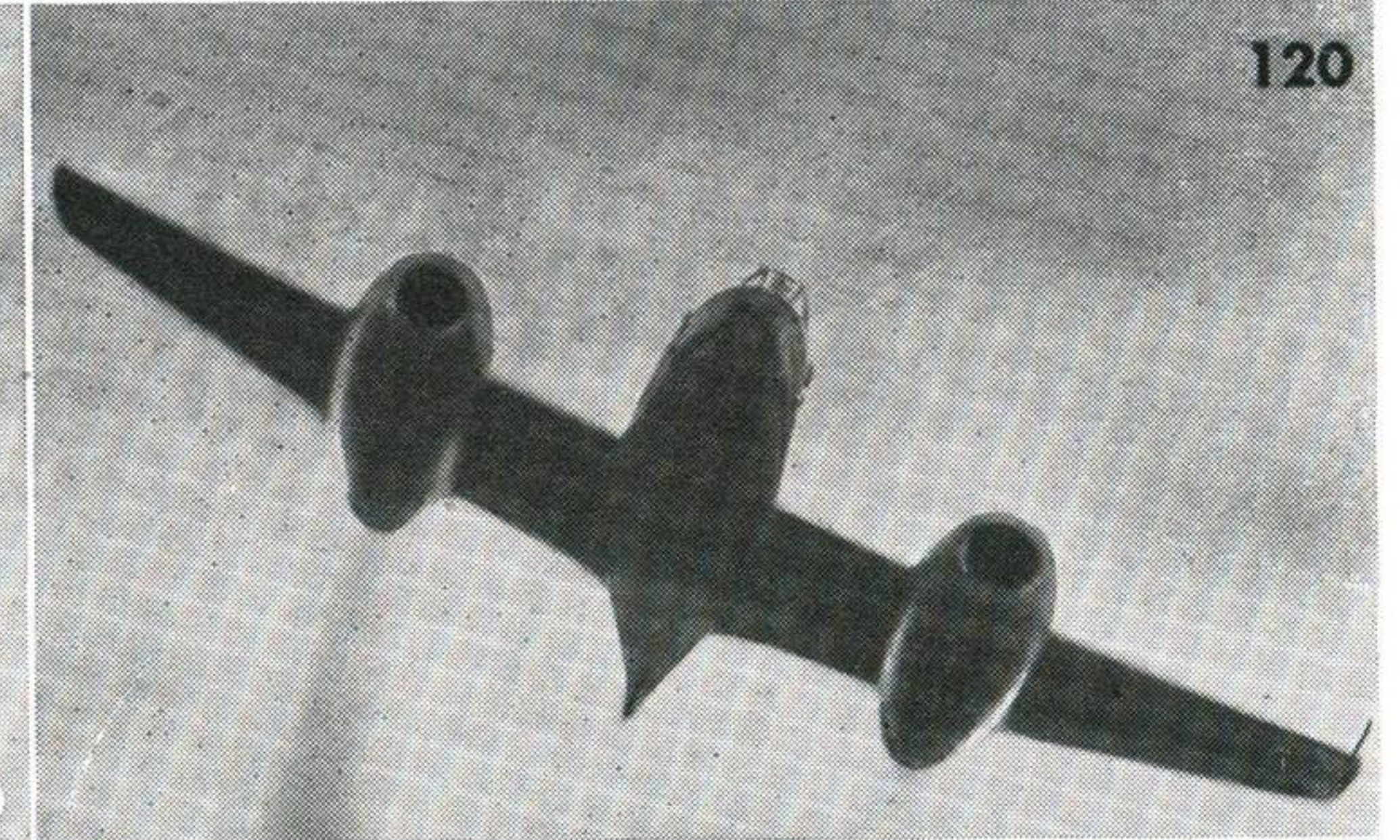
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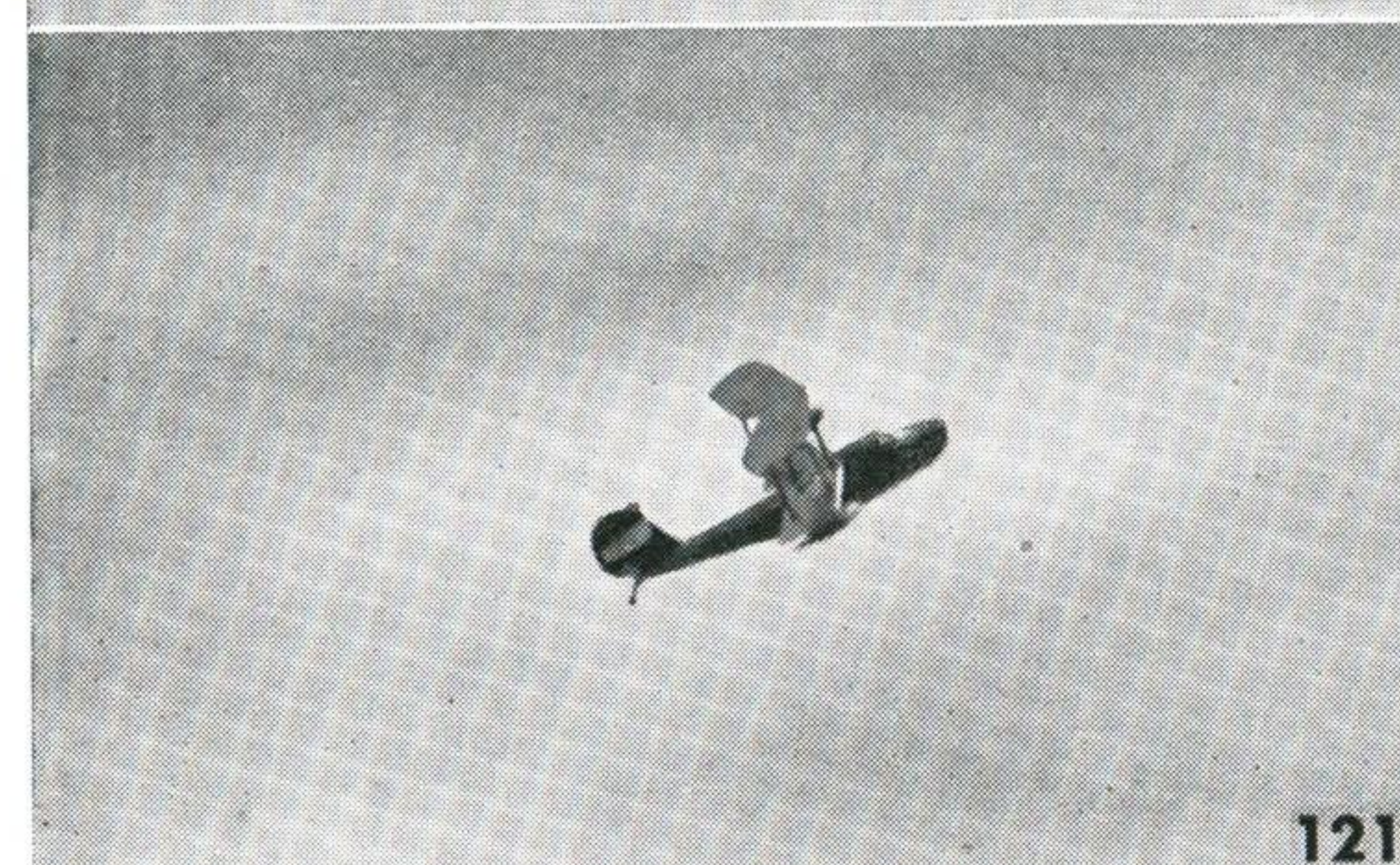
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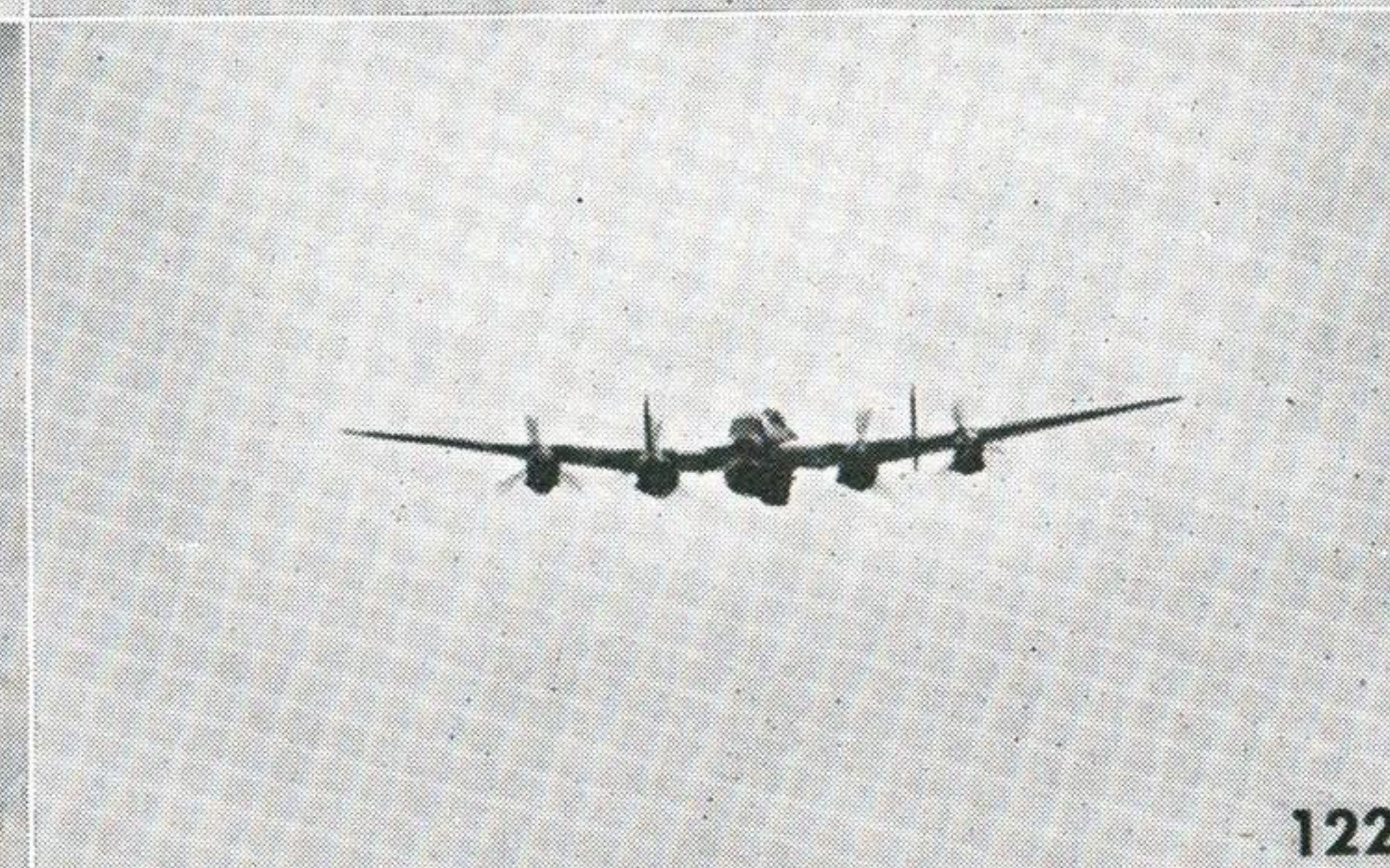
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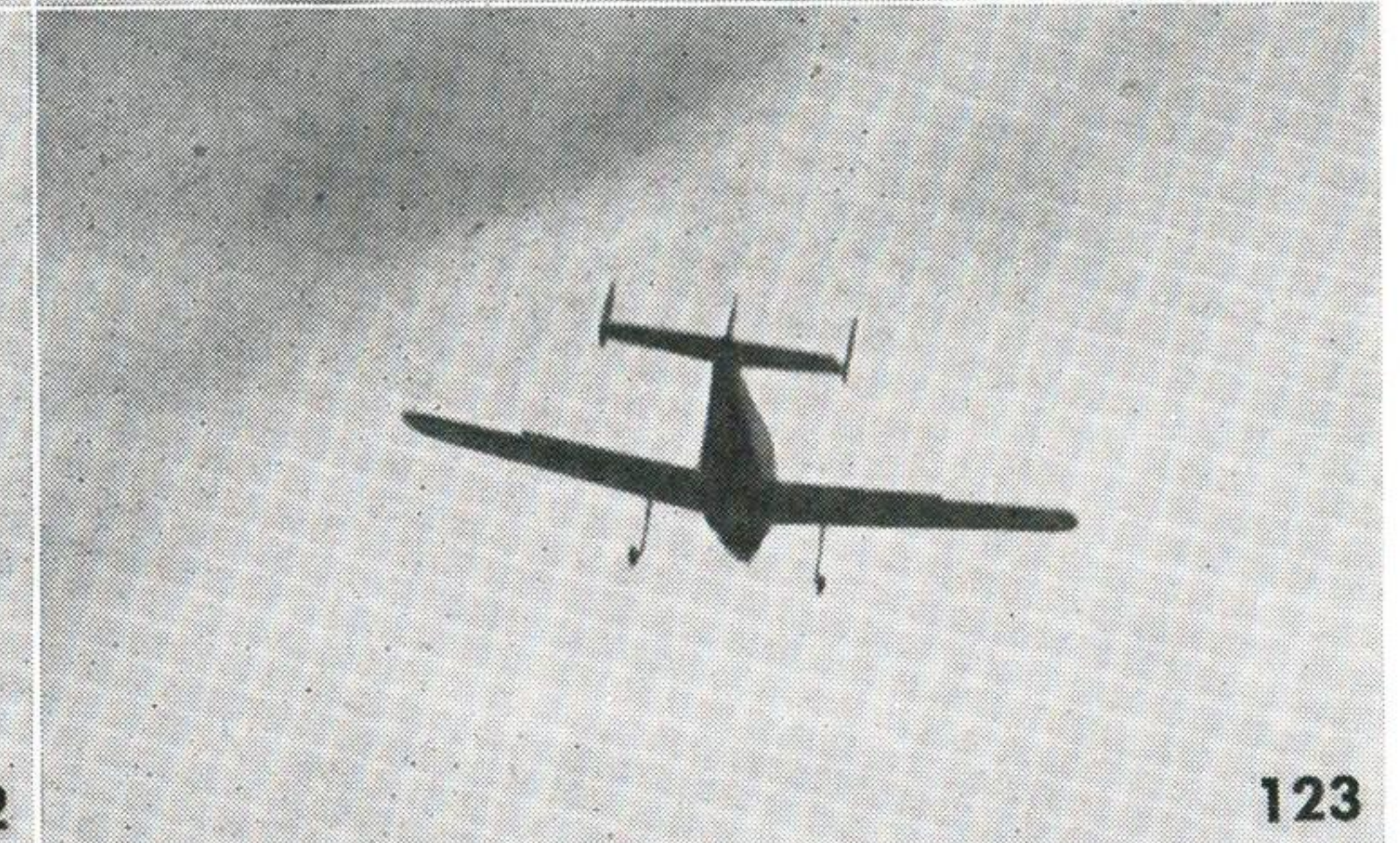
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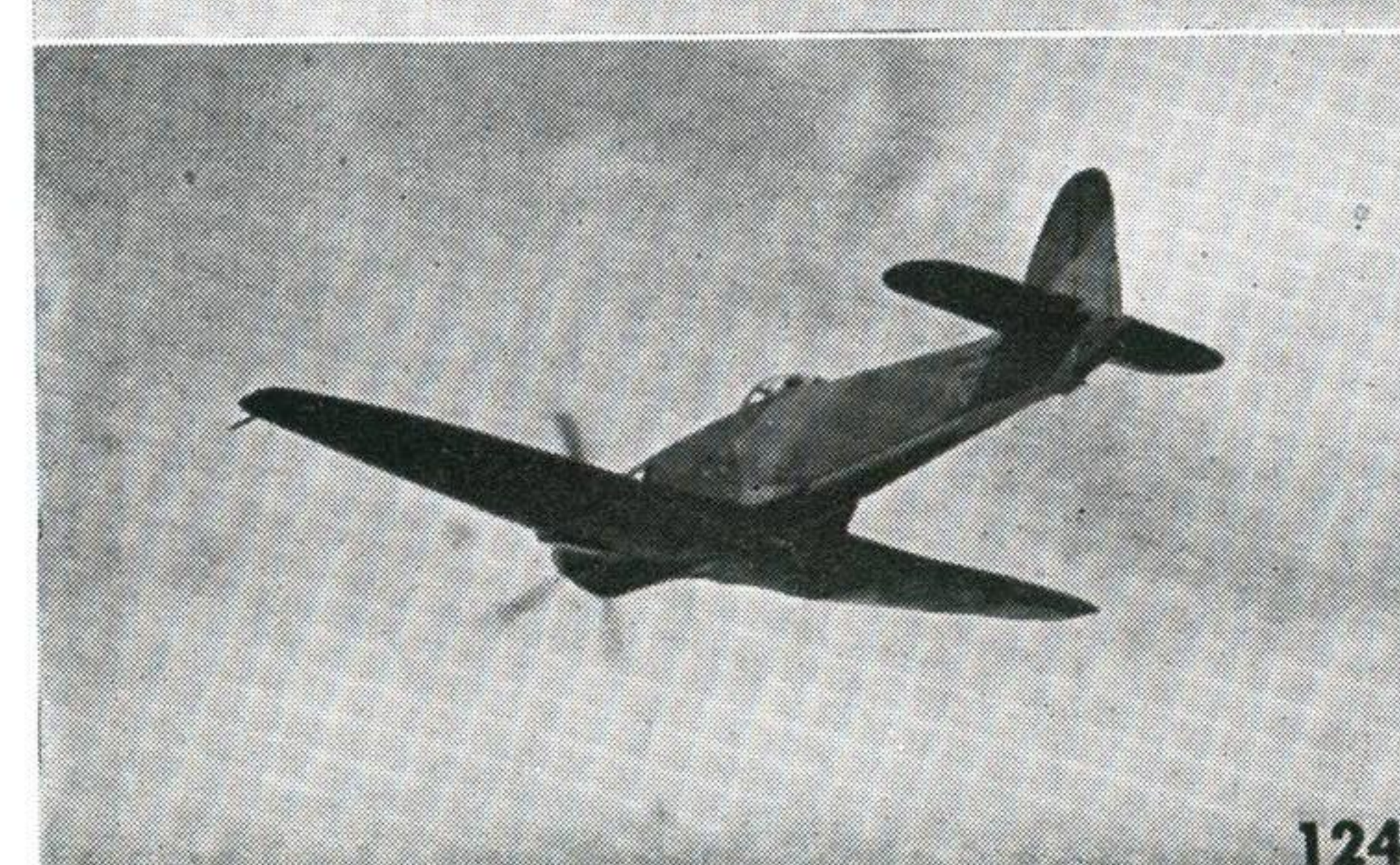
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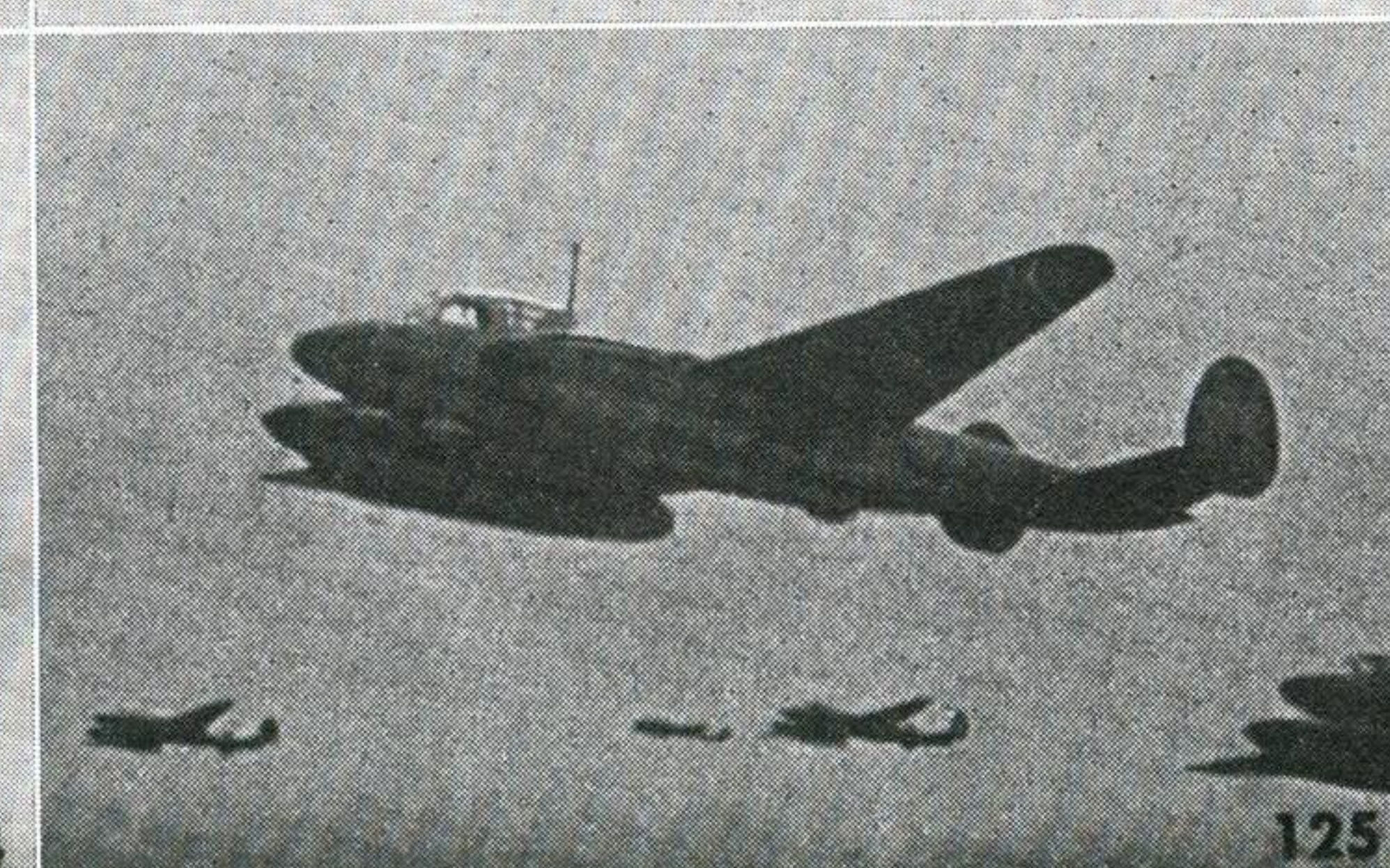
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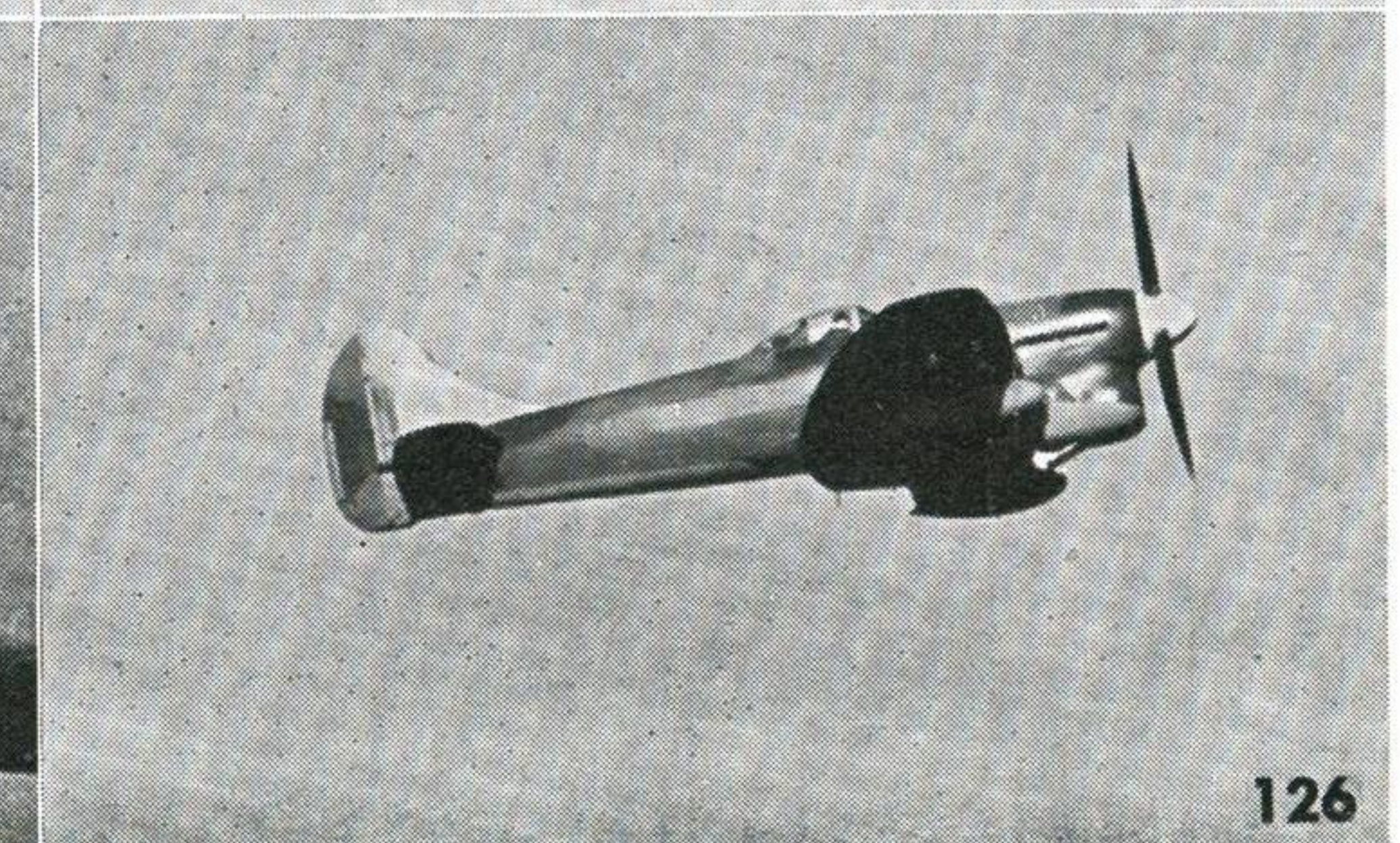
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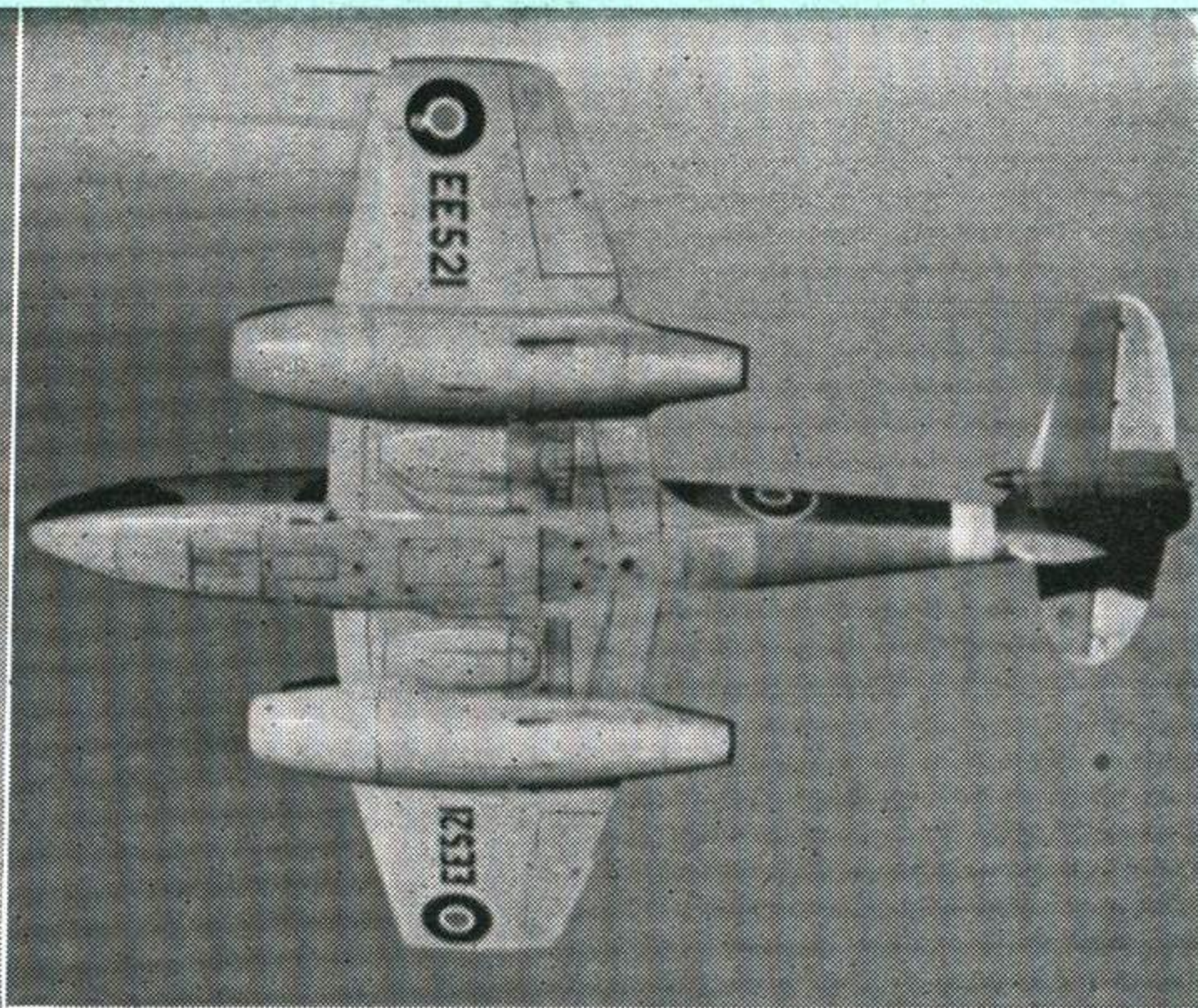
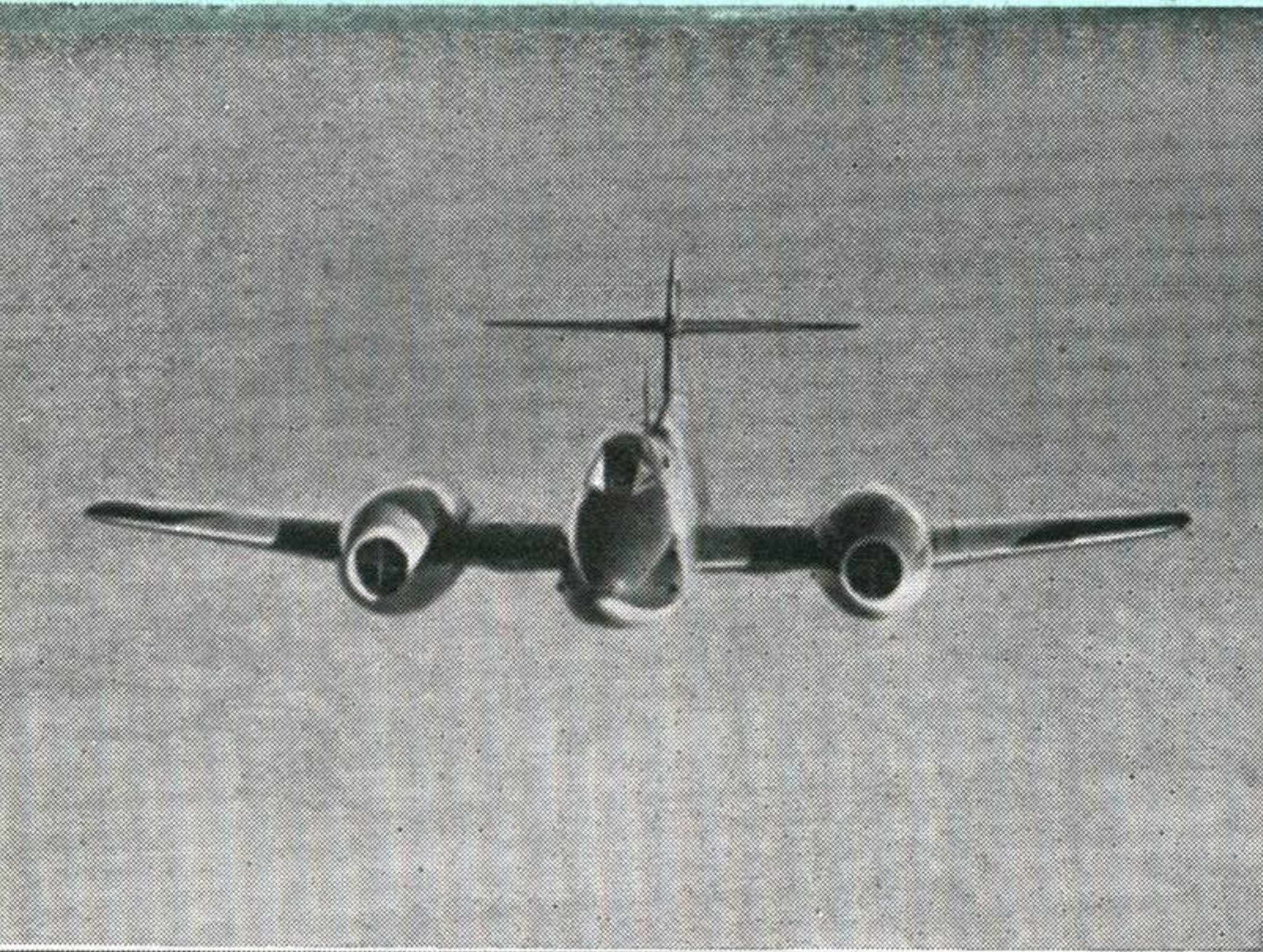
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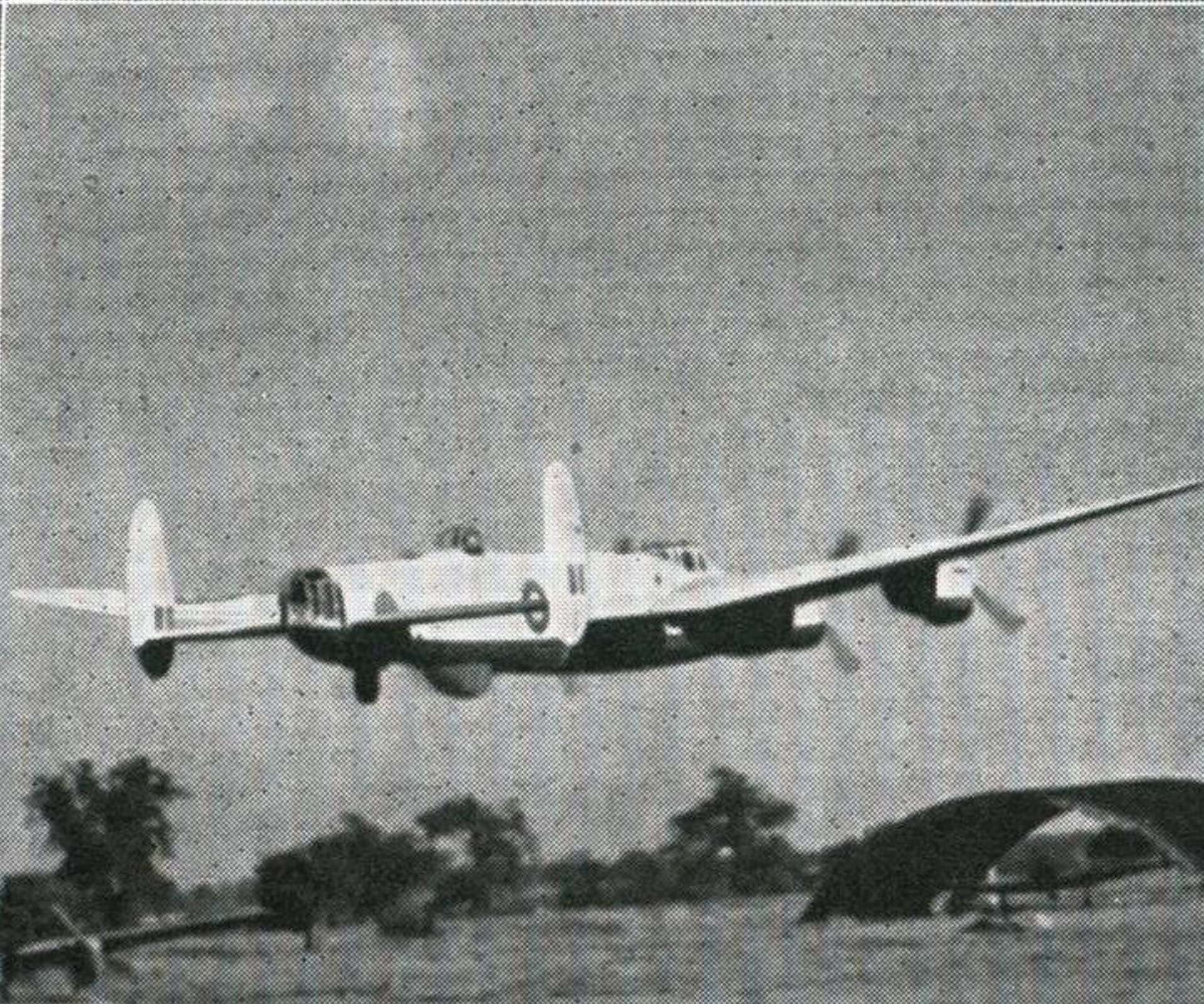
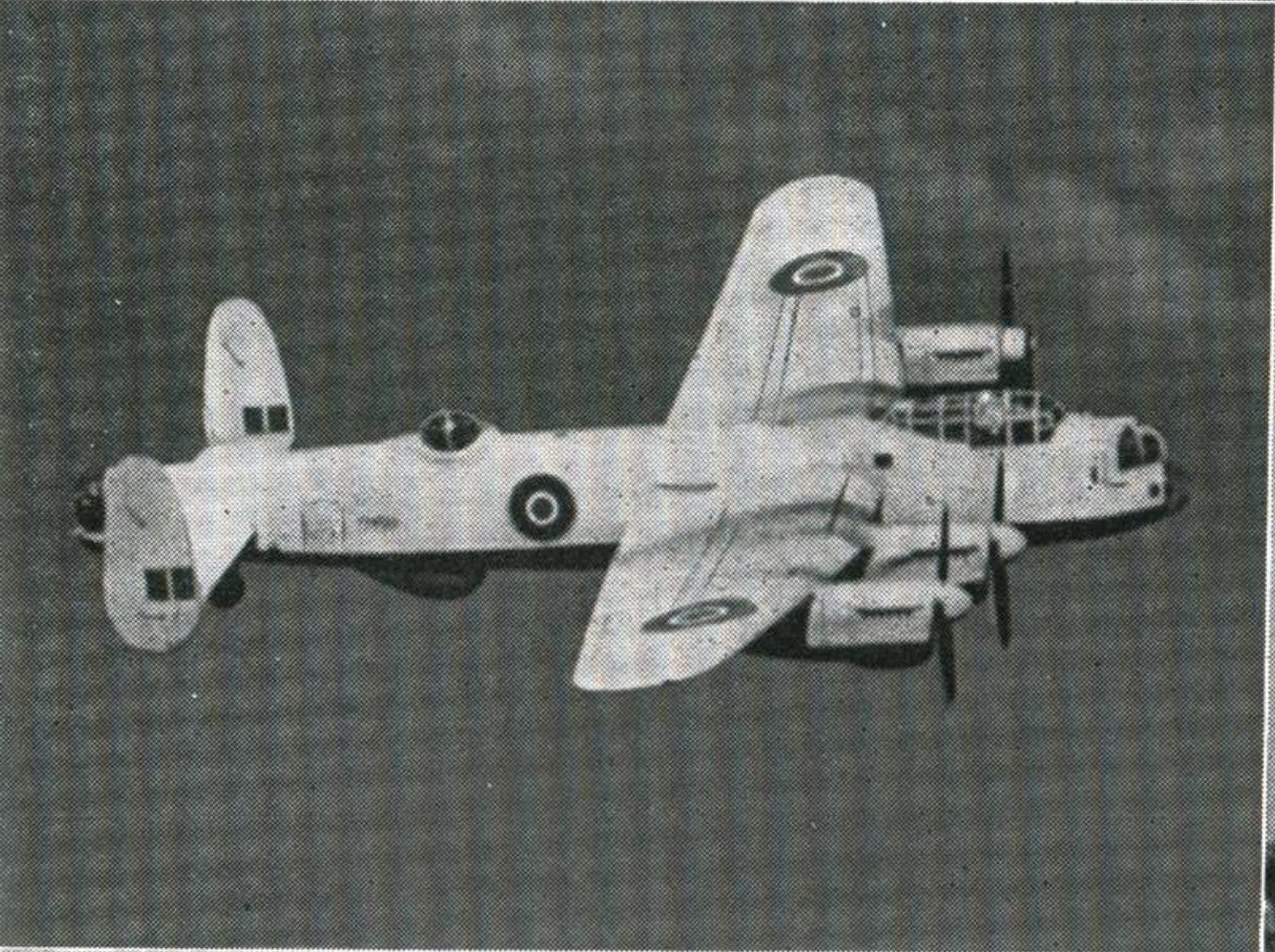


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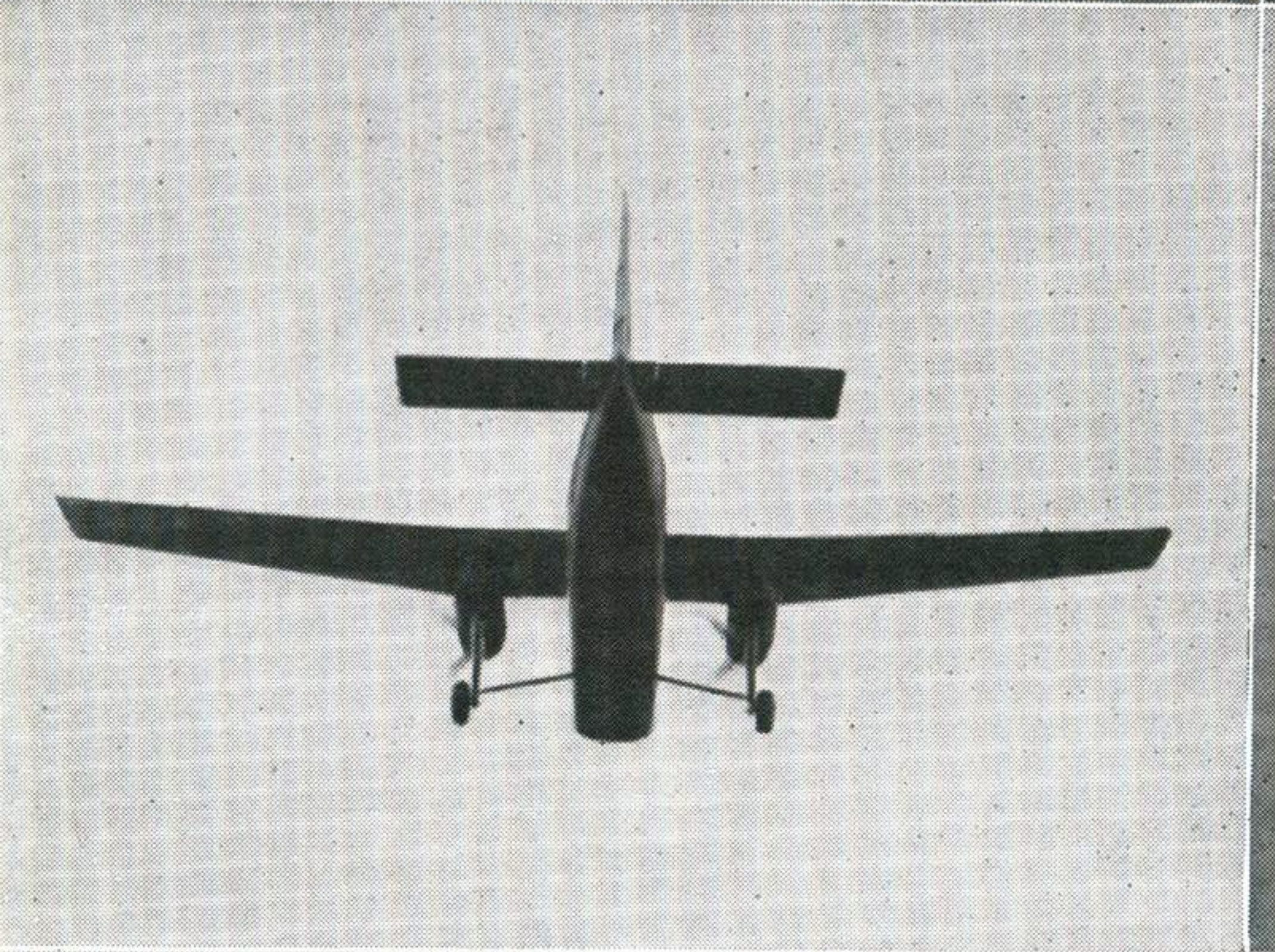
Meteor IV

2 Rolls-Royce Derwent V turbo-jet units, each of 3500 lb. static thrust. Gloster's famous Speed Record holder has had 2ft. 10ins. clipped off the span, in its R.A.F. fighter form, to improve its rolling characteristics. **Maximum speed** is 580 m.p.h. from sea level up to about 20,000 feet, dropping to a mere 550 m.p.h. at 30,000 feet. **Normal range**, 560 miles; with 180-gallon belly tank, 920 miles. **Armament**, four 20 m.m. cannon. Note the air brakes, also fitted on top wing surface. **Span**, 37ft. 2ins., length 41ft.



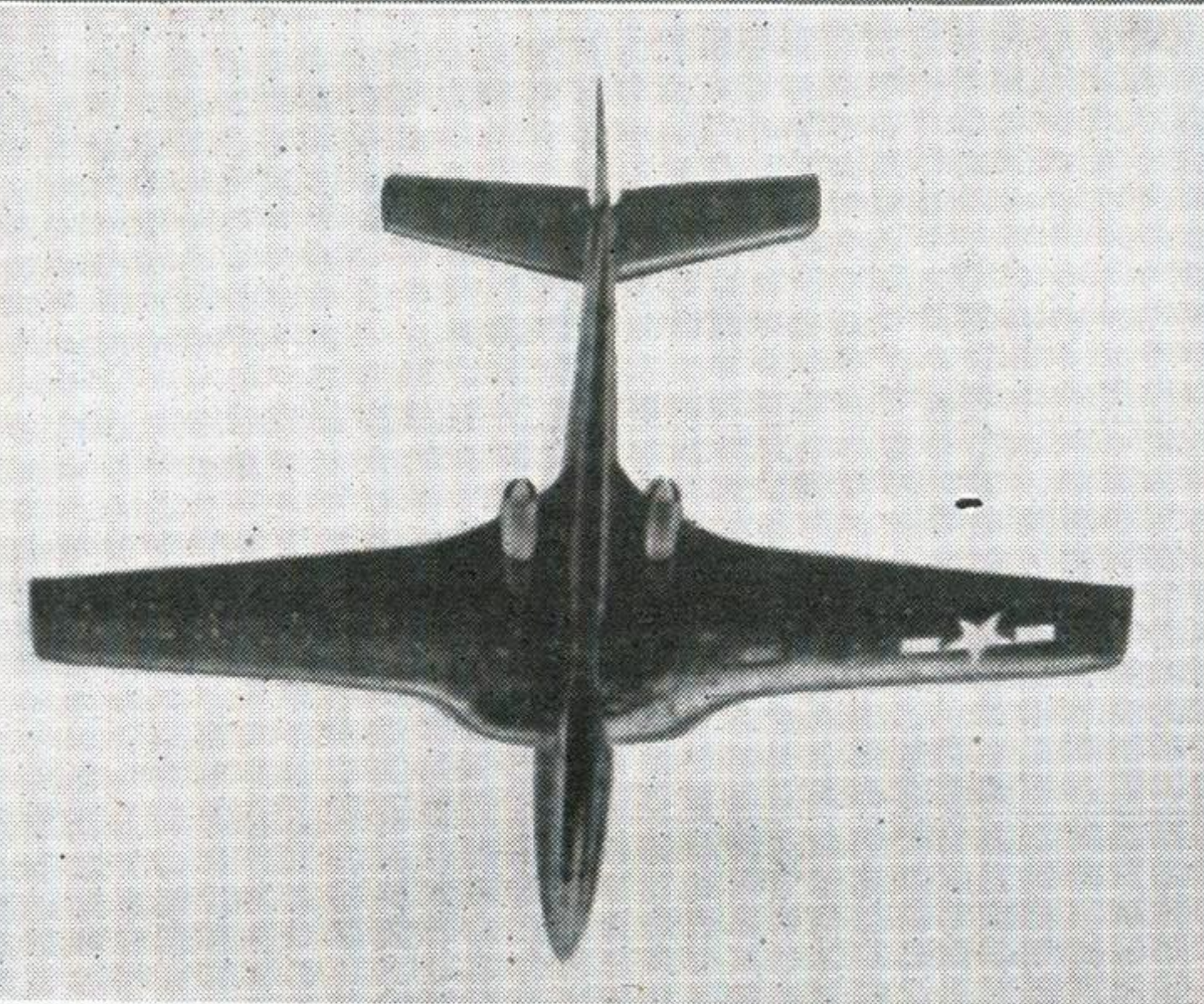
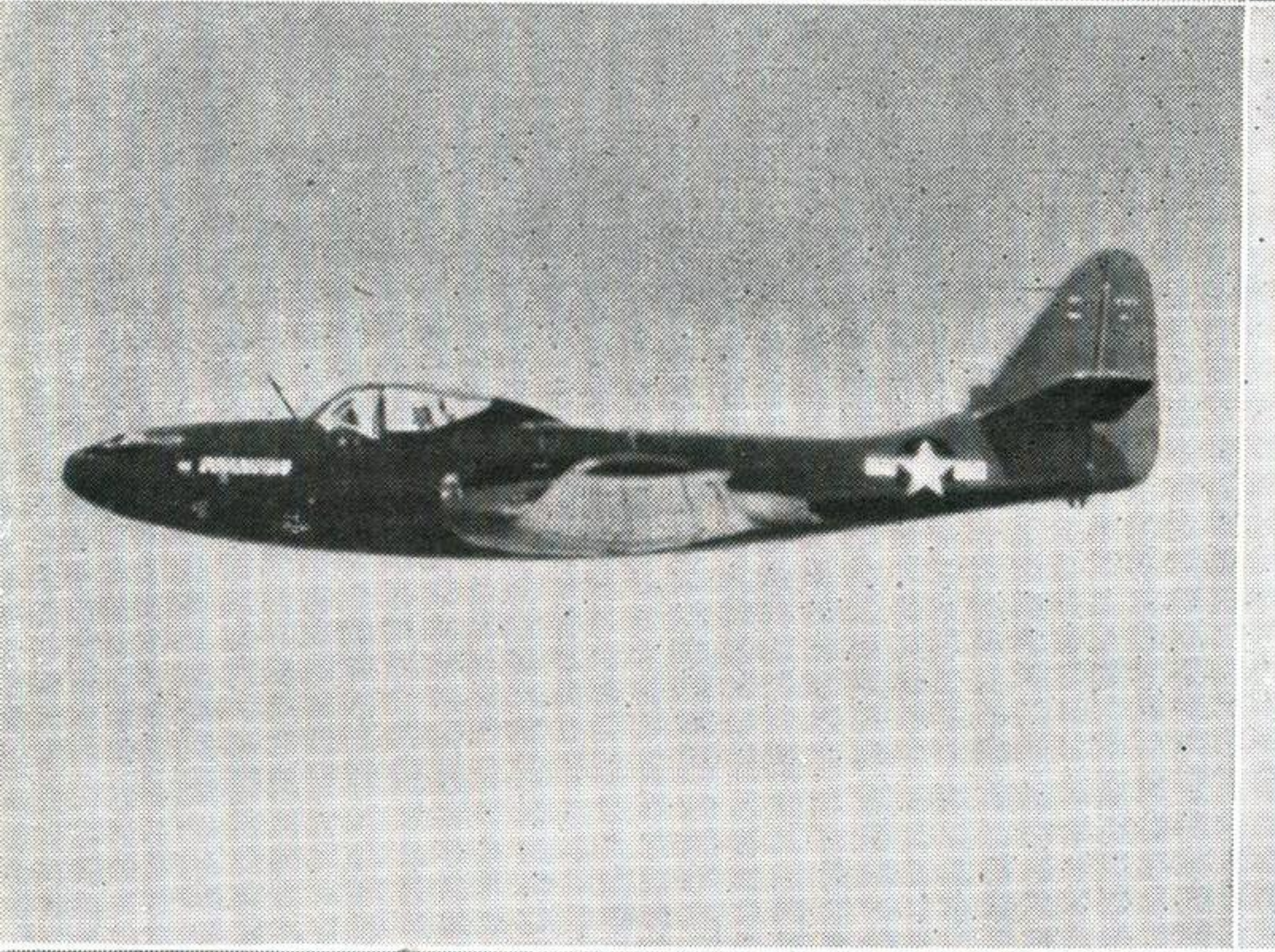
Lancaster I

4 Rolls-Royce Merlin 24 in-line engines, 1620 h.p. each. The splendid Lancaster of A. V. Roe and Co. is still to be seen wherever the R.A.F. is flying. The graceful dihedral of its mid-wing, the superstructure cabin, the wide, low-set tailplane which sets the deep oval fins and rudders so far apart—these are the features which we know and admire. They help us to know the other Avro types—the York, Lincoln and Tudors. **Maximum speed**, 287 m.p.h. **Normal range**, 1660 miles. **Maximum range**, 2680 miles. **Span**, 102ft.



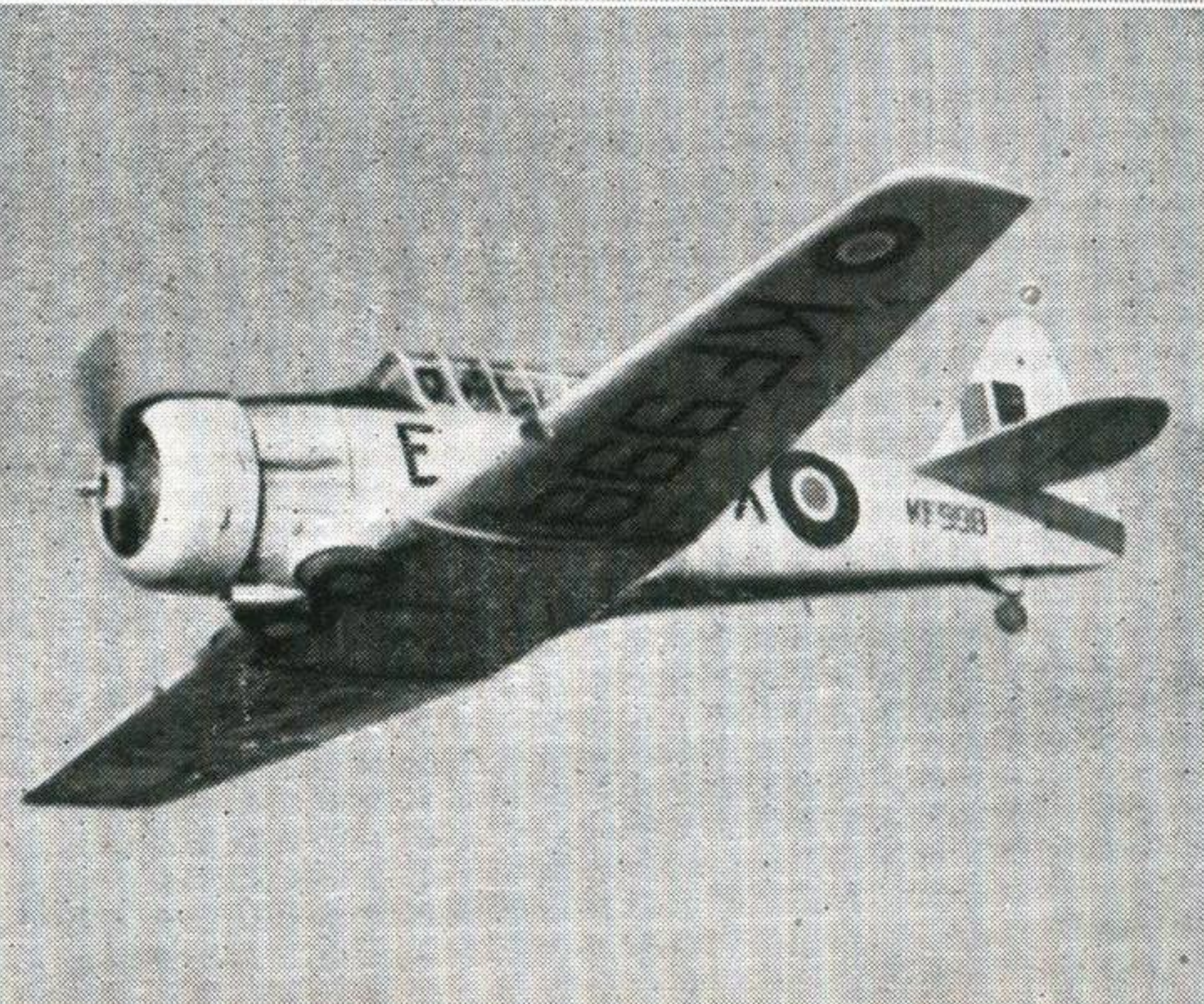
Wayfarer

2 Bristol Hercules 632 radial engines, of 1795 h.p. each. Although faintly reminiscent of the old Bombay in its general make-up, the Wayfarer's angular flying surfaces have none of the usual "Bristol" look about them. It is a strictly utilitarian job, designed to carry a large load at a fair speed for a reasonable distance. The Wayfarer's "load" is 32-40 passengers. As the Freighter, it can load 9200 lb. through large doors in the nose. **Maximum speed**, 240 m.p.h. **Normal cruising**, 163 m.p.h. **Range**, with full load, 300 miles. **Span**, 98ft.



FD-1 Phantom

2 Westinghouse 19-B Yankee turbo-jet units, each of 1365 lb. static thrust. The U.S. Navy has placed an initial order for 30 McDonnell FD-1 Phantom single seat fighters. We understand that they will have a square-topped rudder, unlike the prototype pictured here. The jet units are enclosed in tremendously thick wing roots; the tailplane has dihedral to raise it above the jet streams; the outer wing panels fold upwards. **Maximum speed**, 487 m.p.h. **Span**, 40ft. 9ins.

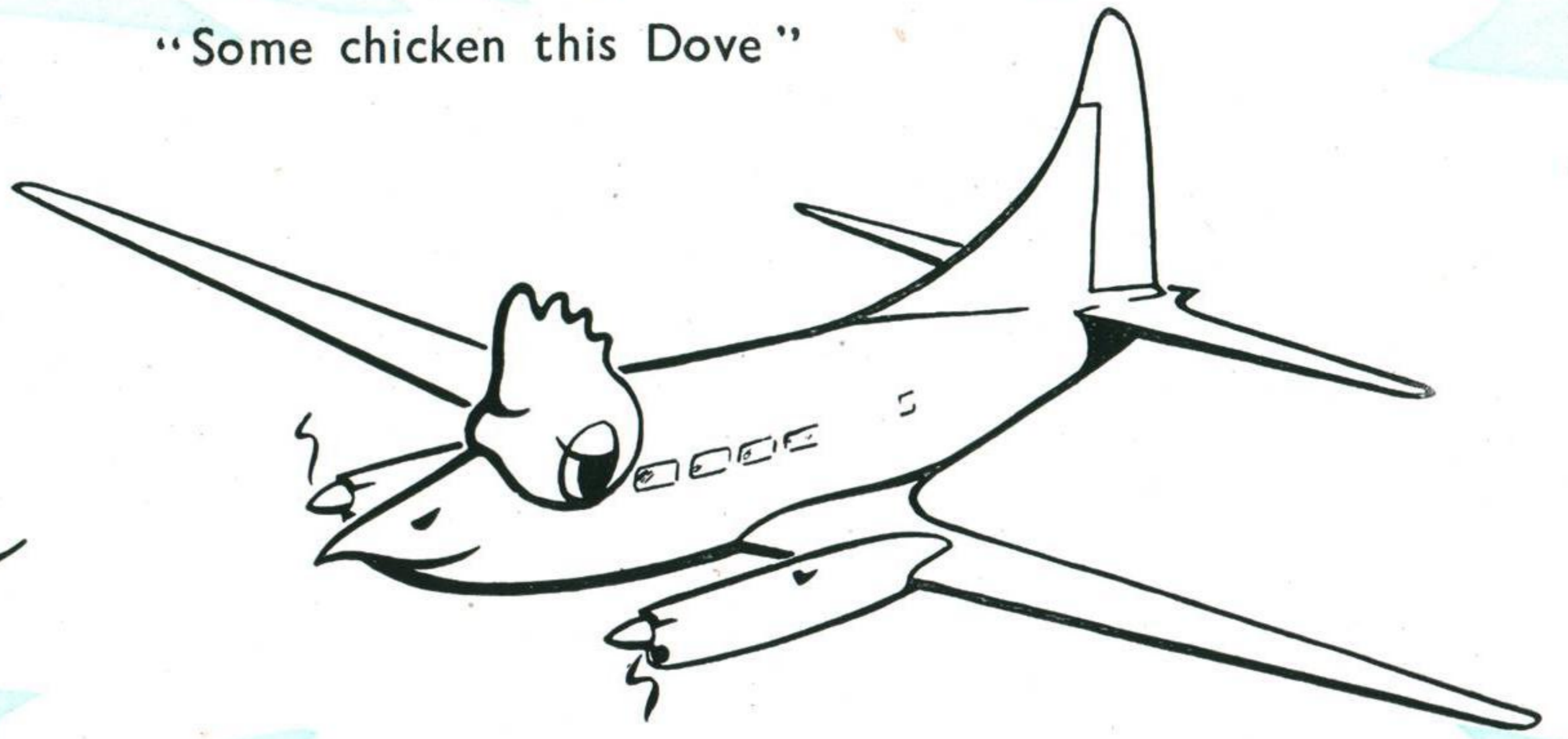


Harvard II

One 550 h.p. Pratt and Whitney Wasp R-1340 radial engine. A real old-timer is the North American Harvard advanced trainer. The noise which roars forth from its motor and propeller has caused more complaints from angry citizens than we care to think about. We can't print the noise here but we can display the easy Recognition Features—the stocky body with a large glass-house; the low wing, swept back; triangular fin and rudder; butterfly tailplane. **Maximum speed**, 205 m.p.h. **Span**, 42ft.

DOVE Gen

"Some chicken this Dove"



By Flight Lieutenant Charles Sargeant

THE DOVE, Symbol of Peace, was hatched in war. One of the Brabazon brood, it was given number VB and Air Ministry Specification No. 26/43. On 25th September, 1946, at its birth-place, Hatfield, before a gathering of its designers and builders, it took the air for the first time.

The De Havilland D.H. 104 Dove is a light civil transport built for feeder-line, private charter, executive or private owner work. If breeding means anything, the Dove is a winner. It has been conceived and built by the team which has produced every De Havilland aeroplane since 1916.

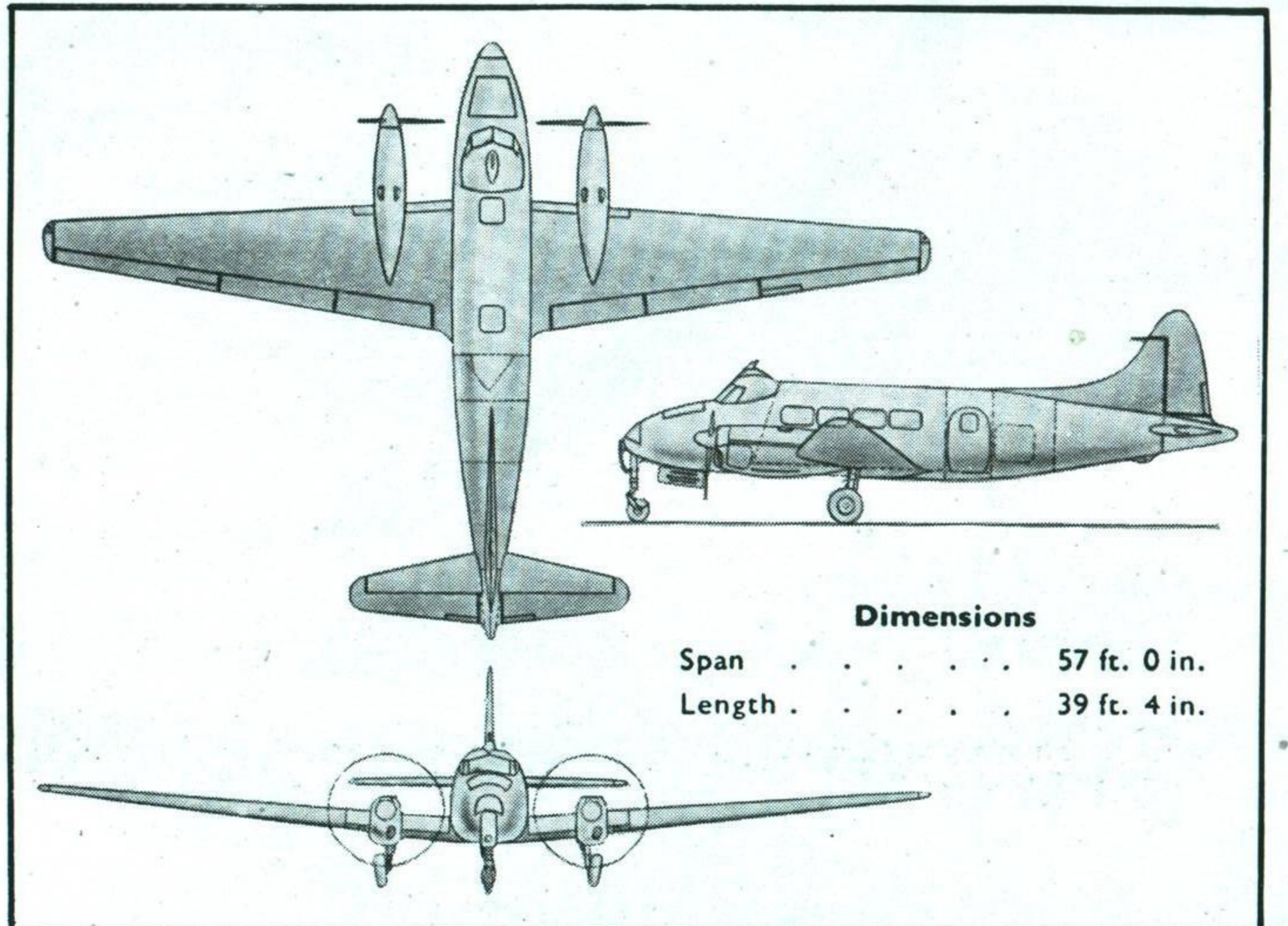
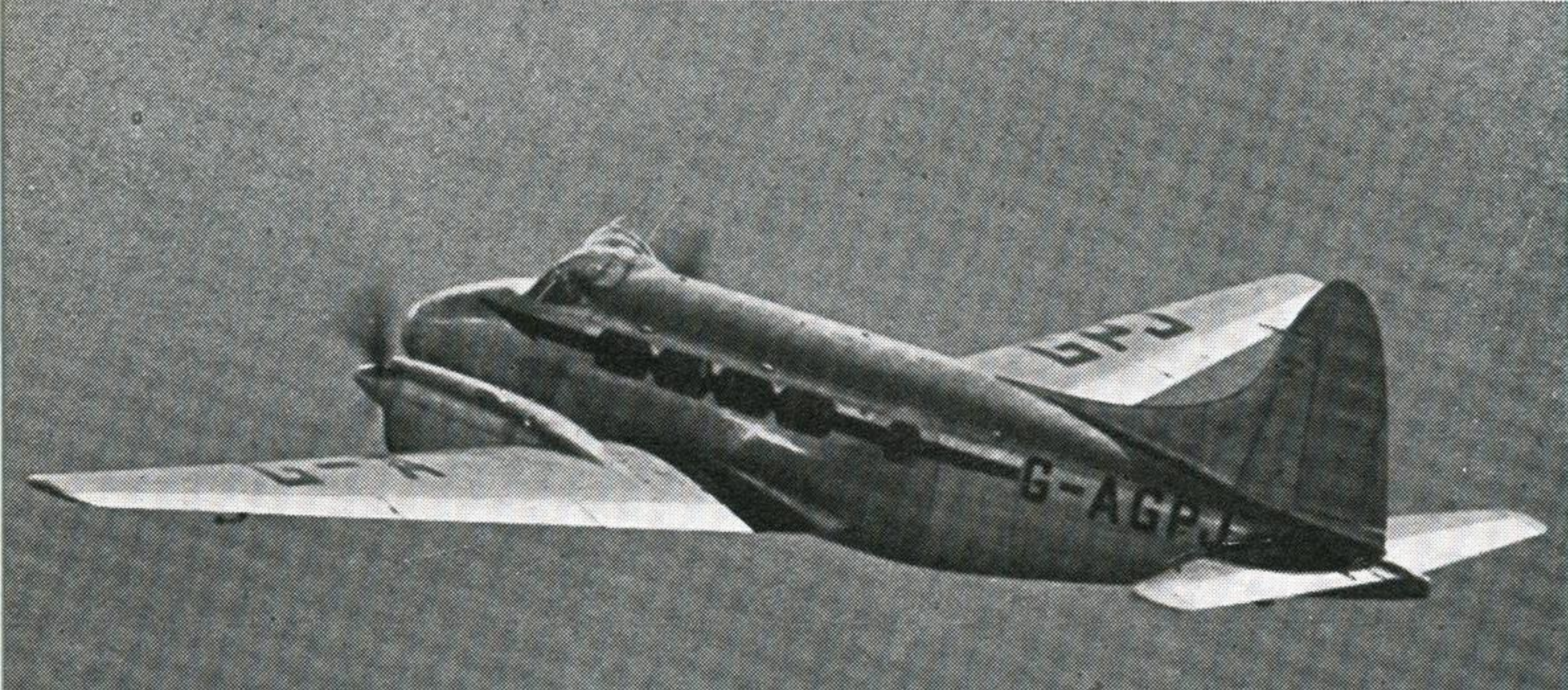
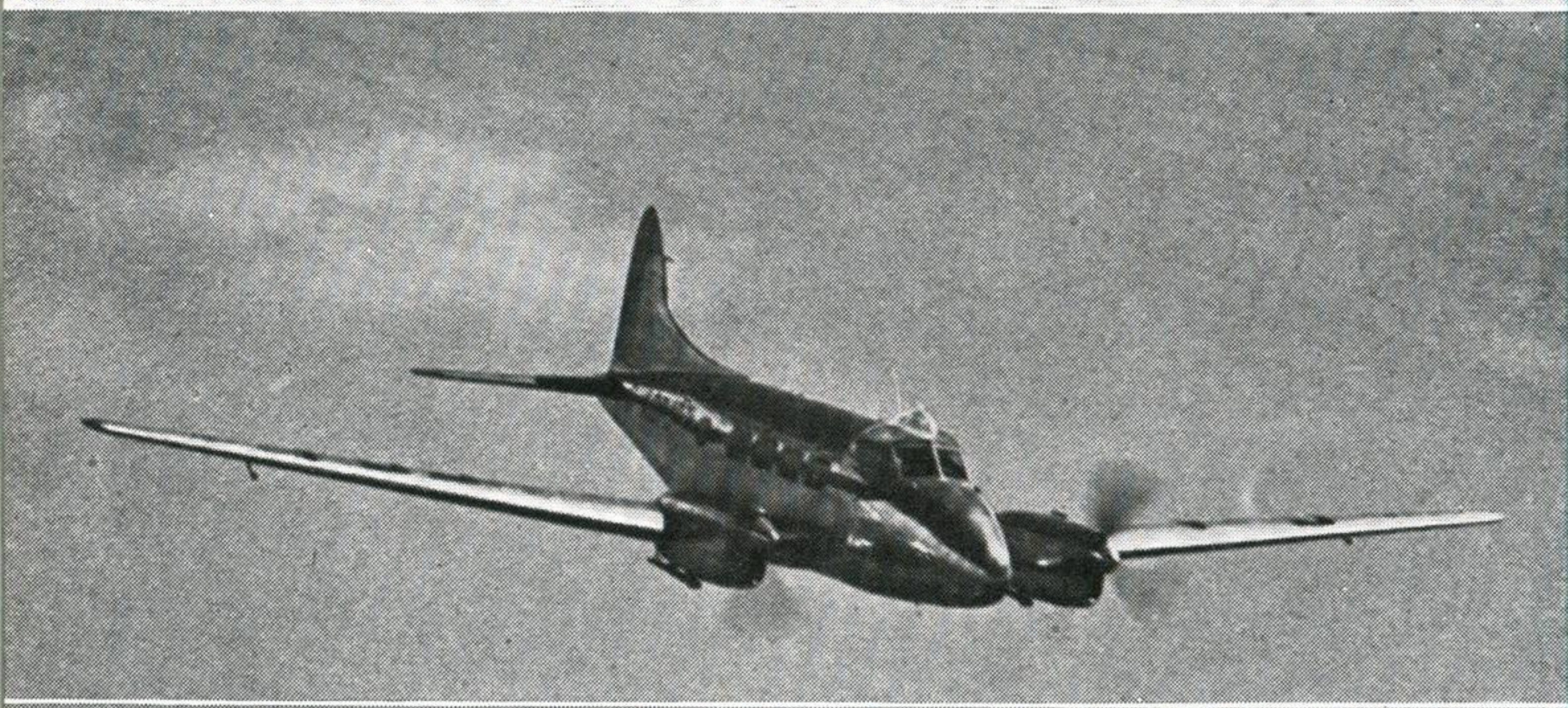
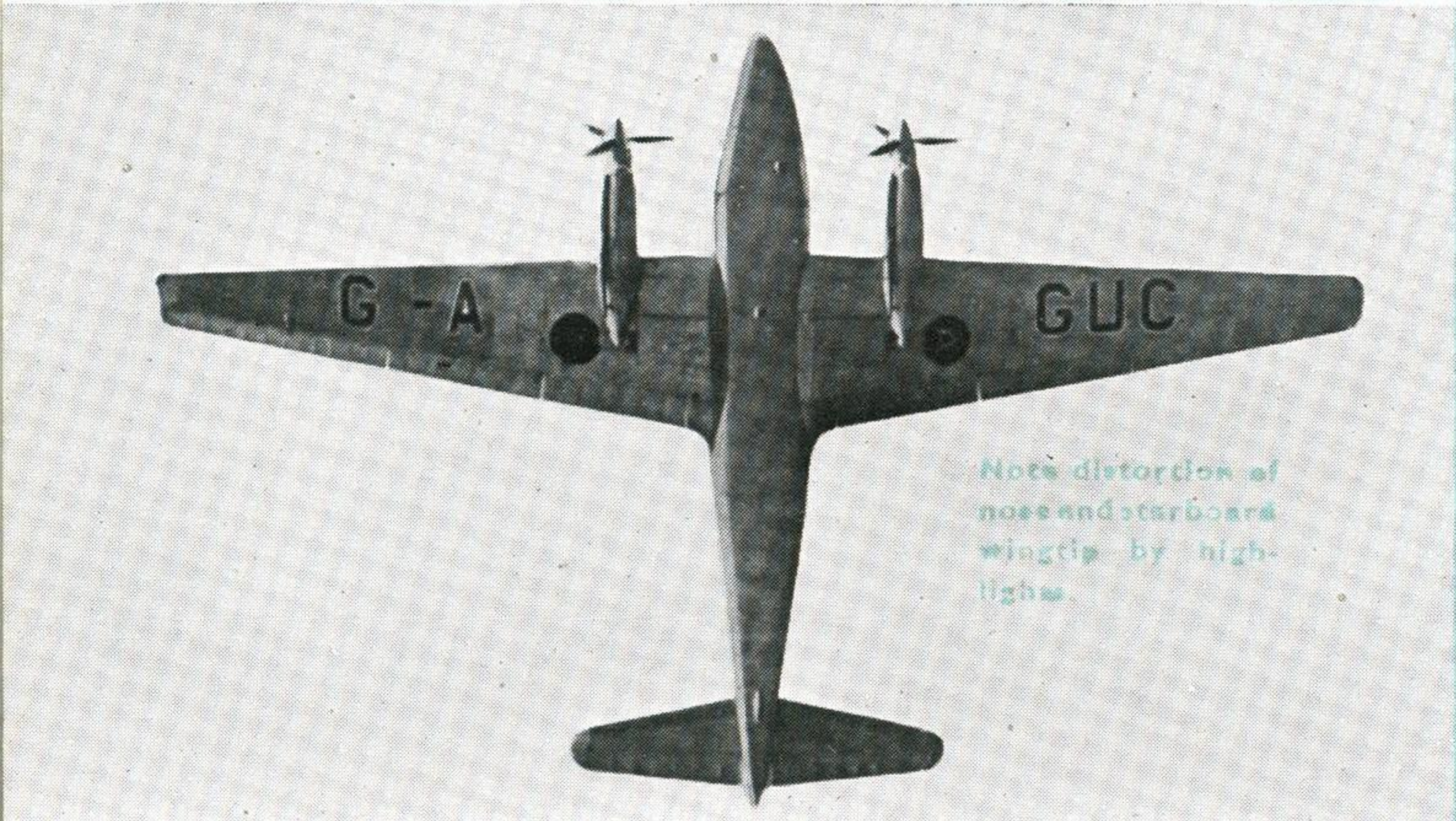
An aeroplane of this nature has to appeal to many people with different points of view and ideas as to what is required. Pilot and crew, passengers, ground engineer and ground crews, air line operators and many other interested parties, all have their own particular angles. In these difficult days, the poor designer has no sinecure, and the production of large numbers of beautiful aeroplanes seems little short of a miracle. For the Dove, in spite of its being designed for ease of production, undoubtedly has great beauty of line and form.

Performance

The load of the De Havilland Dove varies from 8 to 11 passengers, depending upon the local operator's requirements. Maximum range is 1000 miles at an economical cruising speed of 155 m.p.h., with full tanks. Normally it will operate at distances between 300 and 400 miles, on half tanks. Its maximum cruising speed is 200 m.p.h., whilst maximum level speed is 222 m.p.h. The two motors are Gipsy Queen 71's geared and supercharged, each of 330 h.p., They drive De Havilland Hydromatic constant-speed, fully feathering and braking propellers. Incidentally, the propellers are not used as brakes normally but only in landing in restricted areas or in emergency.

Oh! for the Wings

A single spar wing, of almost equal taper and a good dihedral angle, has a very narrow chord in relation to span (57 ft.) and consequently appears rather sharp, perhaps spiky. In general, we can say it has a diamond plan form of which the tips are small and blunt. The low wing position minimizes spar intrusion



in the passenger cabin and, incidentally, cuts down the chassis (undercarriage) weight, since the undercarriage legs can be quite short. The wings attach directly to the fuselage; that is to say, there is no visible centre section, but there *is* a fillet at the root. Fuel tanks are situated in the wings, between the engines and wing root, and this is one reason why you are allowed to smoke in the Dove.

Engines

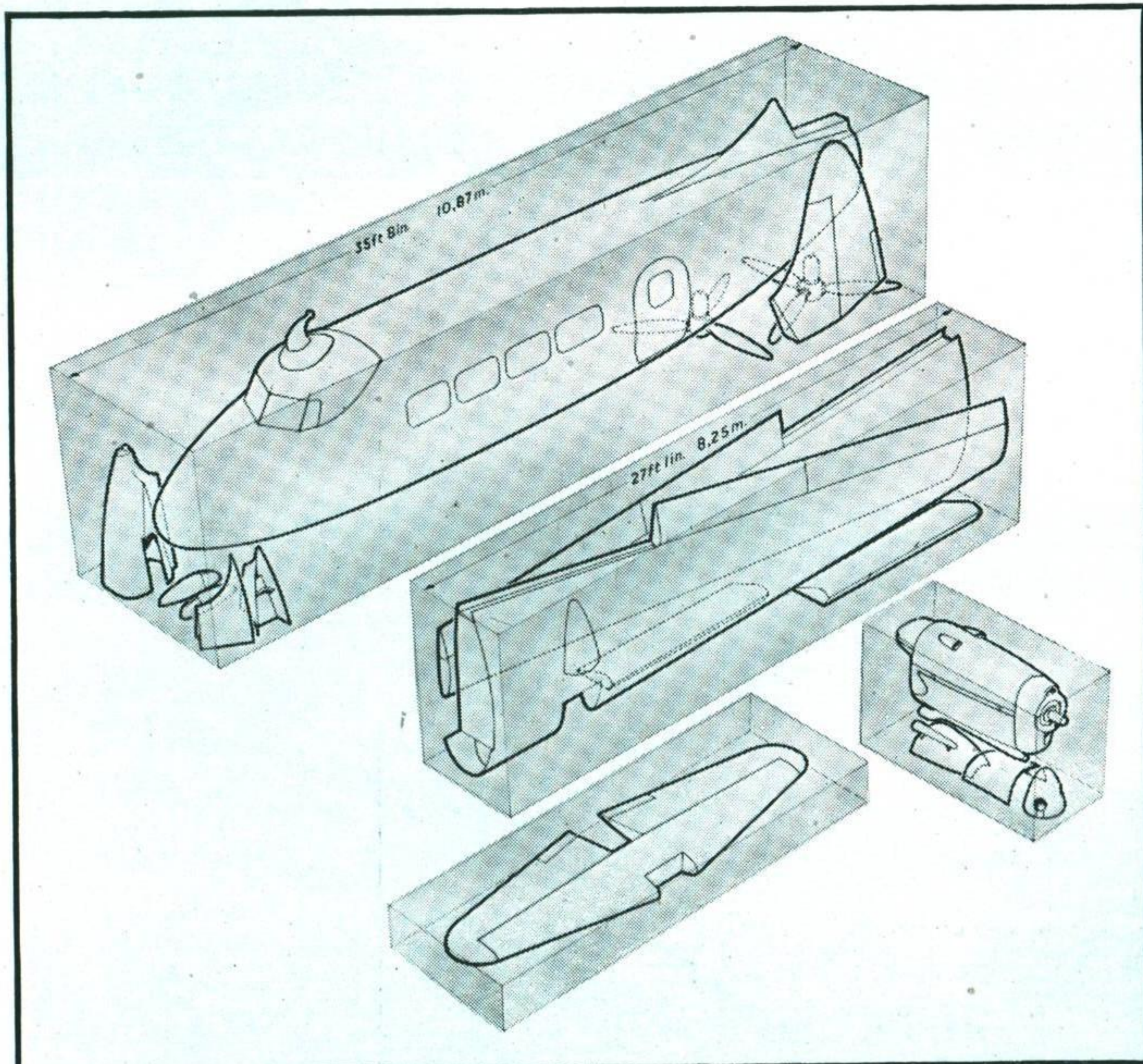
If only all housing problems were as simple as those of the Dove's Gipsy Queens! De Havillands say that aeroplane and engines are an "integral design conception", in other words, the engines were made for the job. They certainly look that way. They are fairly high set up, close in, and extend well out from the wing though not interfering unduly with the view from the cockpit. They have typical De Havilland form, which needs no further description. Smaller engine detail includes underslung exhaust tail pipes which emerge, clear of the nacelle about half way back underneath, on the right hand side. There are intakes above and below the spinner. The main undercarriage wheels retract, rather unusually, into the wing behind the nacelle and lie flat.

The Fuselage

The Dove's fuselage is built in three main parts and this is possibly the easiest way to visualize it. The centre piece, which is the passenger cabin, is an oval section tube and the nose and tail cones simply streamline it. One can see Mosquito characteristics about the cockpit canopy. It is "blown" in one neat frameless bubble surmounted by a Perspex "cock's-comb" containing the D/F loop. The horn of this dome carries one end of the fixed aerial. Four large windows are let in on each side of the fuselage whilst there is a further small square one in the door further aft, and one opposite to it. In considering fuselage form, the fin fairing, which is partly built with it, should be disregarded.

Dove Tail

If you consider the fin and rudder without the long fairing, you will be confronted with the familiar half ellipse of earlier De Havilland types. The extensive fairing is, incidentally, to aid single engine performance, at which the Dove excels. It can climb with full load. The tail plane position also calls to mind Mosquitoes and Hornets. The tailplane shape is very much like the wing—a diamond with small tips—which appear blunt, although they are in fact rounded. The slight difference in tapers is in the opposite sense to that of the wing.



The D.H. Dove packed for export. An instructive drawing of its component parts, of help to model makers.

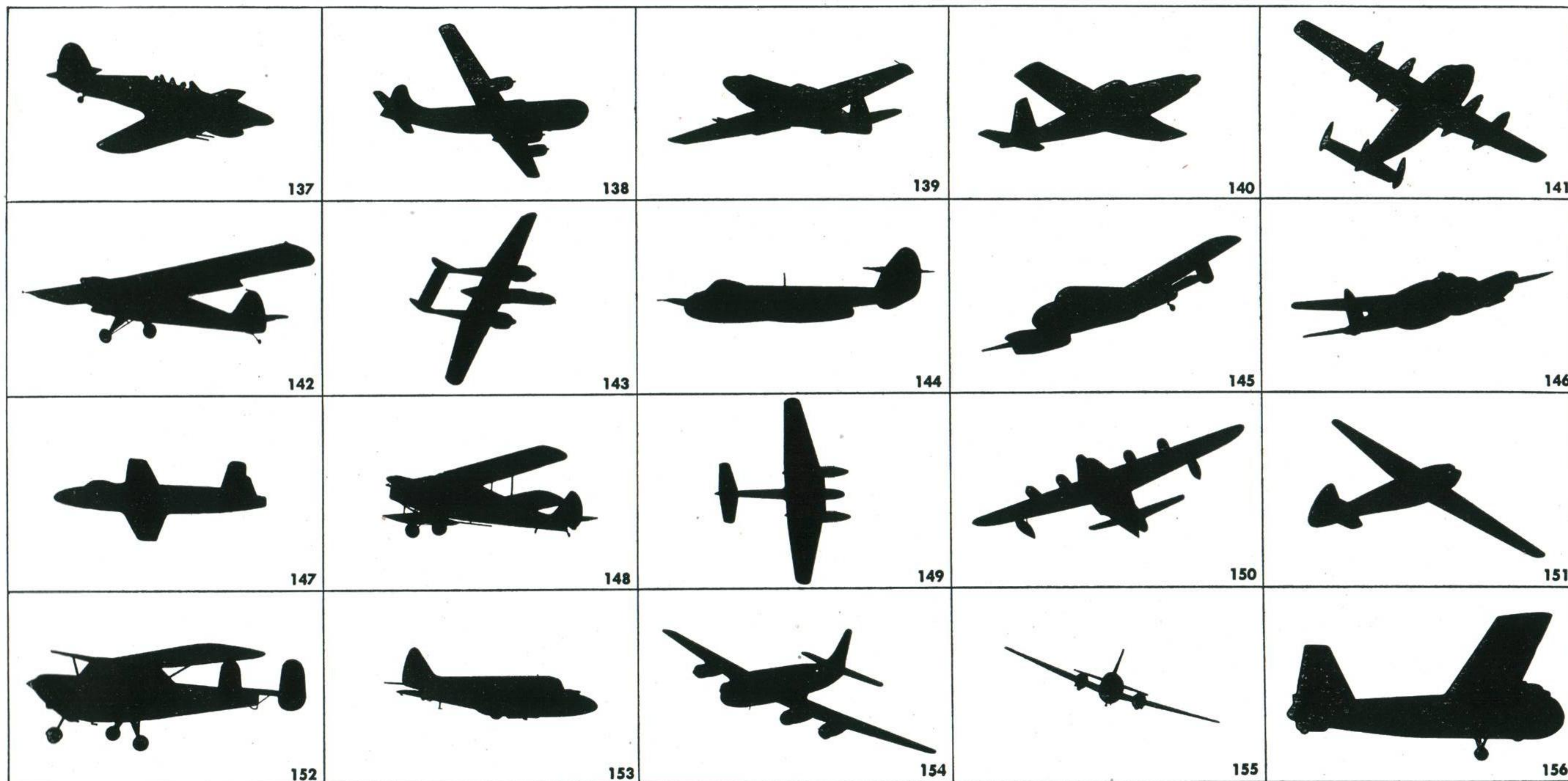
In General

There are no extraordinary or outstanding recognition features in the Dove's make-up and yet it is a distinctive aeroplane. It always has its tail well up whether on the ground or in the air. Most Doves will be finished in a high polish of the natural metal and will, therefore, reflect light strongly. This can be deceptive recognitionally, but not to the spotter who studies his Doves carefully.

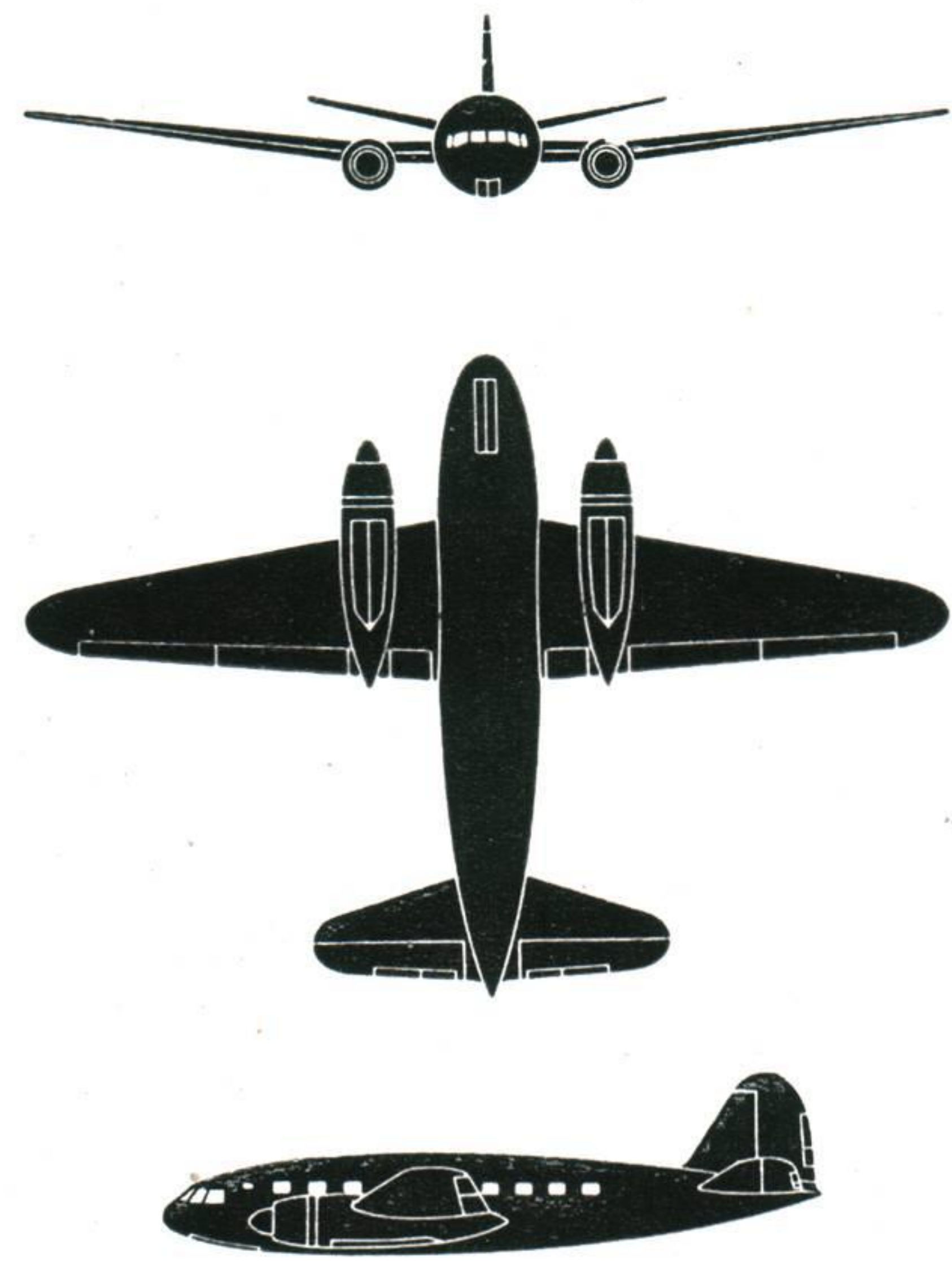
There will be a large number of them flying in all parts of the world for, apart from those required for service in Great Britain, the following countries have ordered them:—Sweden, Belgium, Greece, Iran, Iraq, Sudan, Ethiopia, Kenya, Rhodesia, South Africa, Belgian Congo, India, Australia, Canada, Brazil, Venezuela, Ecuador, Argentine, New Zealand.

SILLOGRAPHS

Recognition Test No. 24

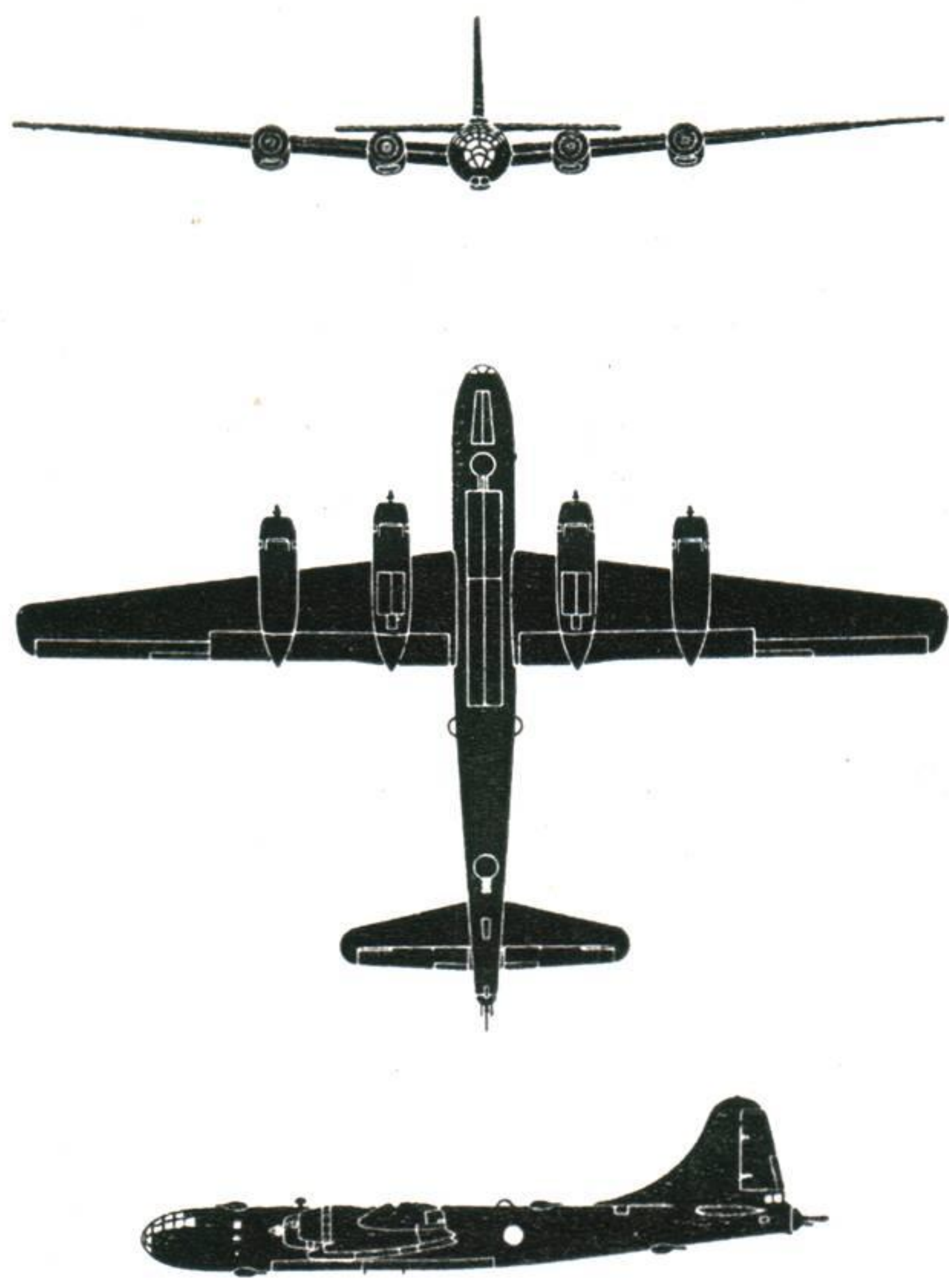


SO 30R BELLATRIX



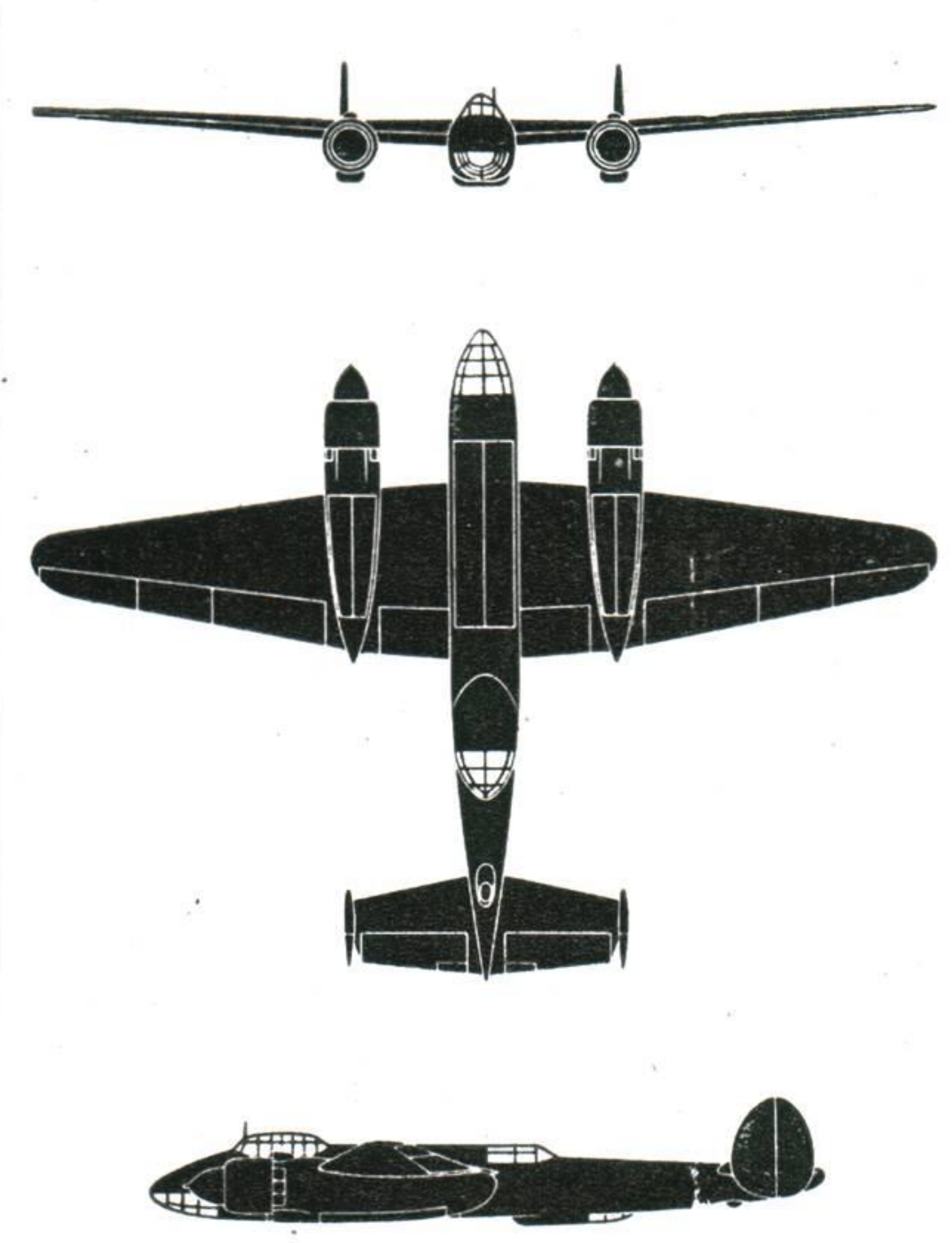
French Civil Transport
2 Gnome-Rhone Span 84 ft. 0 ins
New Silhouette

B-50 SUPERFORTRESS

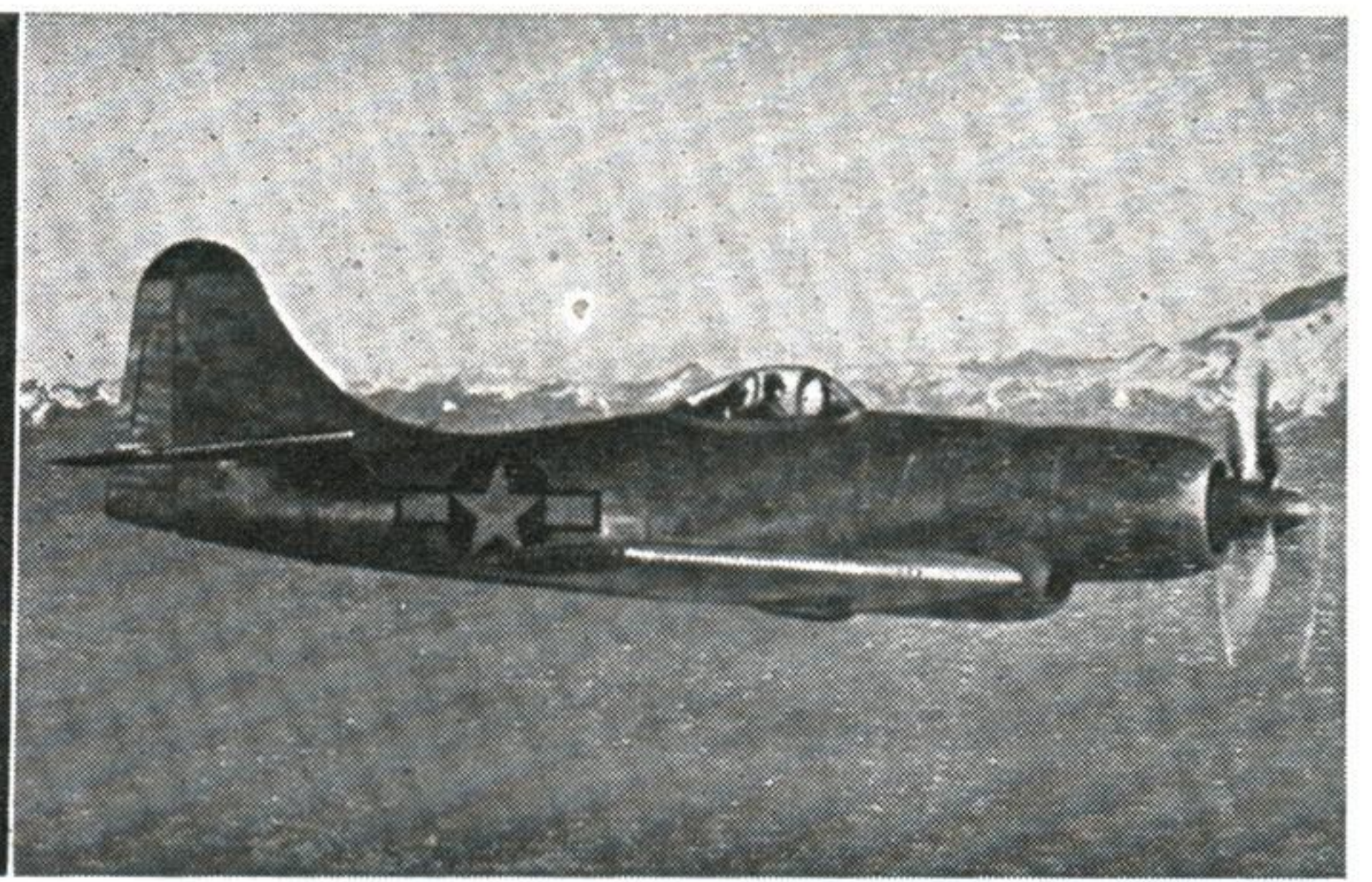
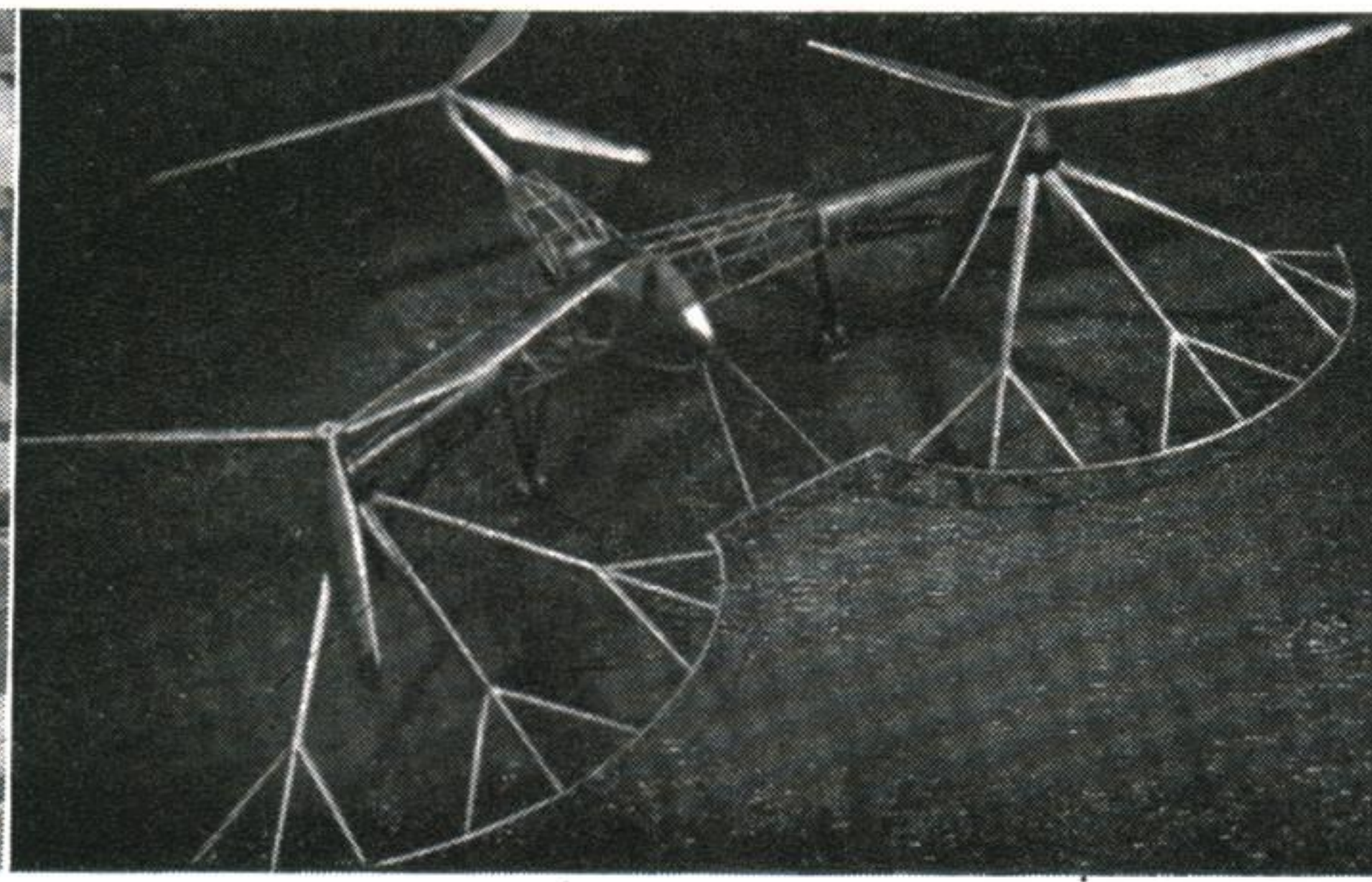
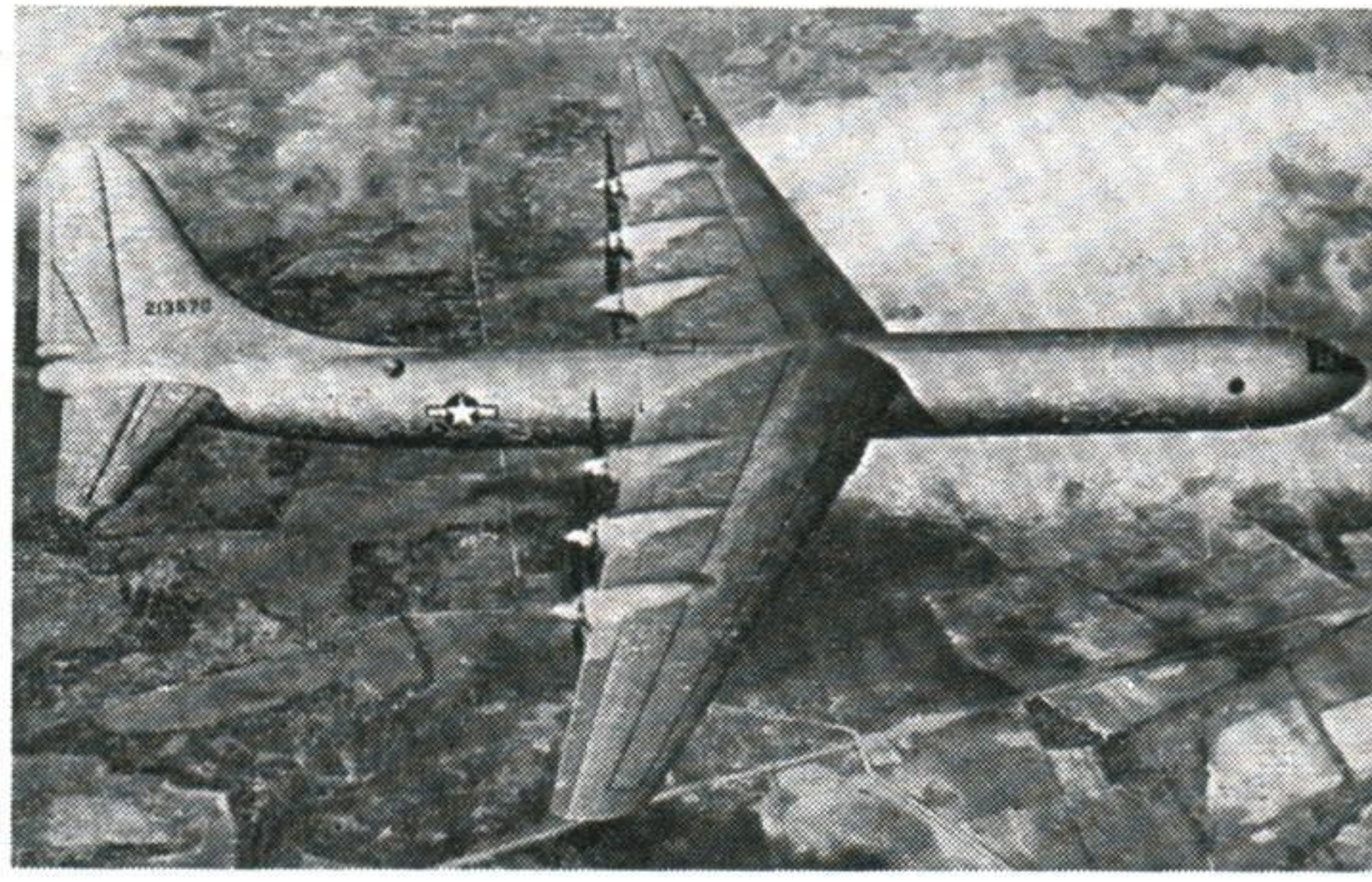


American Bomber
4 Wasp Majors Span 141 ft. 3 ins.
New Silhouette

TU-2



Russian Bomber
2 M-82 Span 60 ft. 11 ins.
Revised Silhouette showing ventral gun position



ROYAL OBSERVER CORPS GAZETTE.

Solution to Post Views Recognition Test No. 3 in the December issue :

32. UC-78 Crane (Bobcat)	40. Hamilcar C.Mk.22
33. Sea Fury X	41. Spitfire F.Mk.22
34. TU-2	42. Lancastrian (Nenes)
35. Brigand T.F.Mk.I	43. Marathon
36. Monitor T.T.Mk.II	44. Consul
37. Seafang 32	45. Welkin
38. Tempest F.Mk.V	46. Halifax C.Mk.VIII
39. Firefly Mk.I Trainer	47. Proctor

(Left) **The Size of It**—230 ft. span. The Consolidated Vultee **Convair XB-36**, the World's largest bomber 10,000 lbs of bombs for 10,000 miles is extreme military range; 72,000 lbs for shorter distances. Six Pratt and Whitney Wasp Majors R.4360 4-bank radials of 3500 h.p. each, drive six 19 ft. reversible pitch props. The USAAF announce that it will carry an atomic bomb to any part of the inhabited Globe and come back without refuelling. Top speed over 300 m.p.h.

(Centre) **The Shape of It** is beyond definition. The **Cierva W.10 Airhorse**, specially designed crop-dusting helicopter makes its outlandish contribution to recognition history, and the spotter's repertoire. Somewhere in the middle of the structure is a Merlin engine. If the great field of helicopter development is so far, hardly touched, we feel inclined to ask "what in helicopters will they do next?"

(Right) **The Speed of It** is not publishable, but since the **Boeing XF8B-1** is equipped with the Pratt and Whitney Wasp Major R. 4360 4-bank radial of 3500 h.p., plus contra-props, it should be fast. Though built for the U.S. Navy, the USAAF are interested. Designed for high altitude work, it carries six 20 mm. cannon buried in the wings. It is really a single seat fighter, but in this picture, is carrying a passenger, crammed in behind the pilot.

ACKNOWLEDGEMENTS : The large "Lincoln" photo in the centre-spread is by kind permission of Barretts Photo Press Ltd. On page 77, the photograph of the Vickers E.10/44 is by Mr. E. C. Curtis; the cartoon is by Mr. H. W. Sessions. Both are members of the R.O.C

SOLUTIONS TO RECOGNITION TESTS IN THIS ISSUE :

FRONT COVER : Brigand T.F. Mk. I

- No. 22 (ADVANCED SPOTTING, R.O.C. BRAND) :**
- | | | |
|--------------------|--------------------|----------------------|
| 147. Cierva W-9 | 156. Vampire F.I | 165. Sea Fury X |
| 148. Liberator | 157. B-29 | 166. Tempest F.V |
| 149. JRM-I Mars | 158. Prentice | 167. Hornet F.I |
| 150. Catalina | 159. Dominie | 168. Oxford I |
| 151. Harvard II | 160. Desford | 169. Spearfish T.D.I |
| 152. Meteor F.III | 161. Marathon | 170. B-17G Fortress |
| 153. Brigand T.F.I | 162. Autocrat | 171. Viking I |
| 154. York C.I | 163. Mosquito F.VI | |
| 155. Lancaster B.I | 164. Tiger Moth | |

No. 23 (ELEMENTARY SPOTTING) :

- | | |
|-------------------------|---------------------------|
| 137. Hurricane Trainer | 147. Vickers E. 10/44 |
| 138. C-97 Stratocruiser | 148. D.H.87 Hornet Moth |
| 139. Spitfire | 142. Sturgeon |
| 140. Boulton Paul P.108 | 150. Seaford |
| 141. Marathon | 151. A-7 (Russian Glider) |
| 142. Auster V | 152. Chrislea Ace |
| 143. F-15 Reporter | 153. Consul |
| 144. Meteor F. IV | 154. Hastings C.I |
| 145. Gemini | 155. Viking |
| 146. Mosquito 34 | 156. Wayfarer |

No. 24 (SILLOGRAPHS):

- | | |
|----------------------|----------------------|
| 109. Hastings C.I | 118. Vengeance |
| 110. Wayfarer | 119. Proctor |
| 111. Constellation | 120. Meteor F.IV |
| 112. Brigand T.F.I. | 121. Walrus |
| 113. UC-43 Traveller | 122. Lancaster B.III |
| 114. Oxford | 123. Messenger |
| 115. Auster IV | 124. Sea Fury X |
| 116. Martinet | 125. PE-2 |
| 117. Lincoln B.II | 126. Tempest F.VI |

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