

THE ROYAL



OBSERVER CORPS

# RECOGNITION

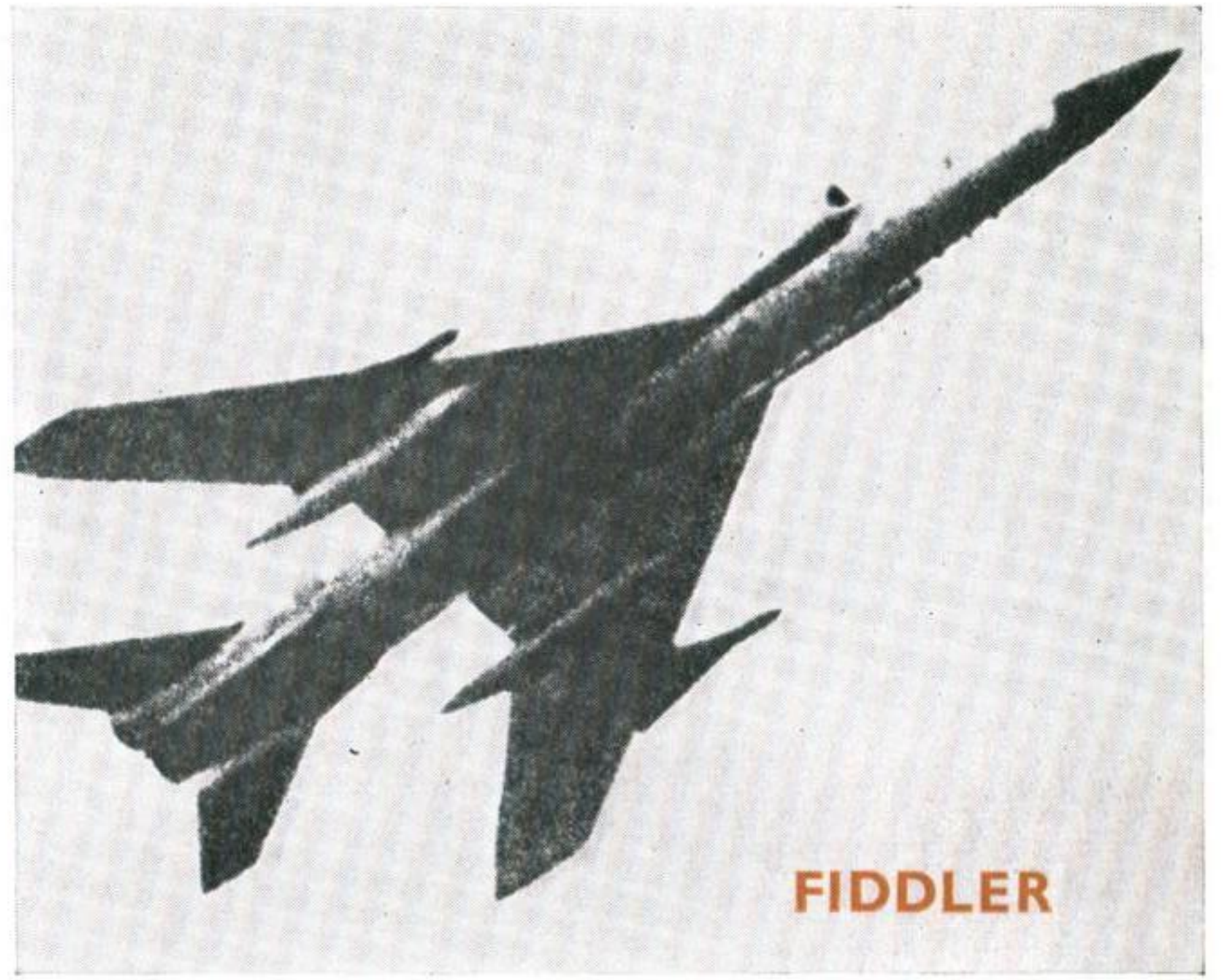
*Journal*  
and R.O.C. GAZETTE



Vol. 4 MARCH 1962 No. 3



**HARKE**

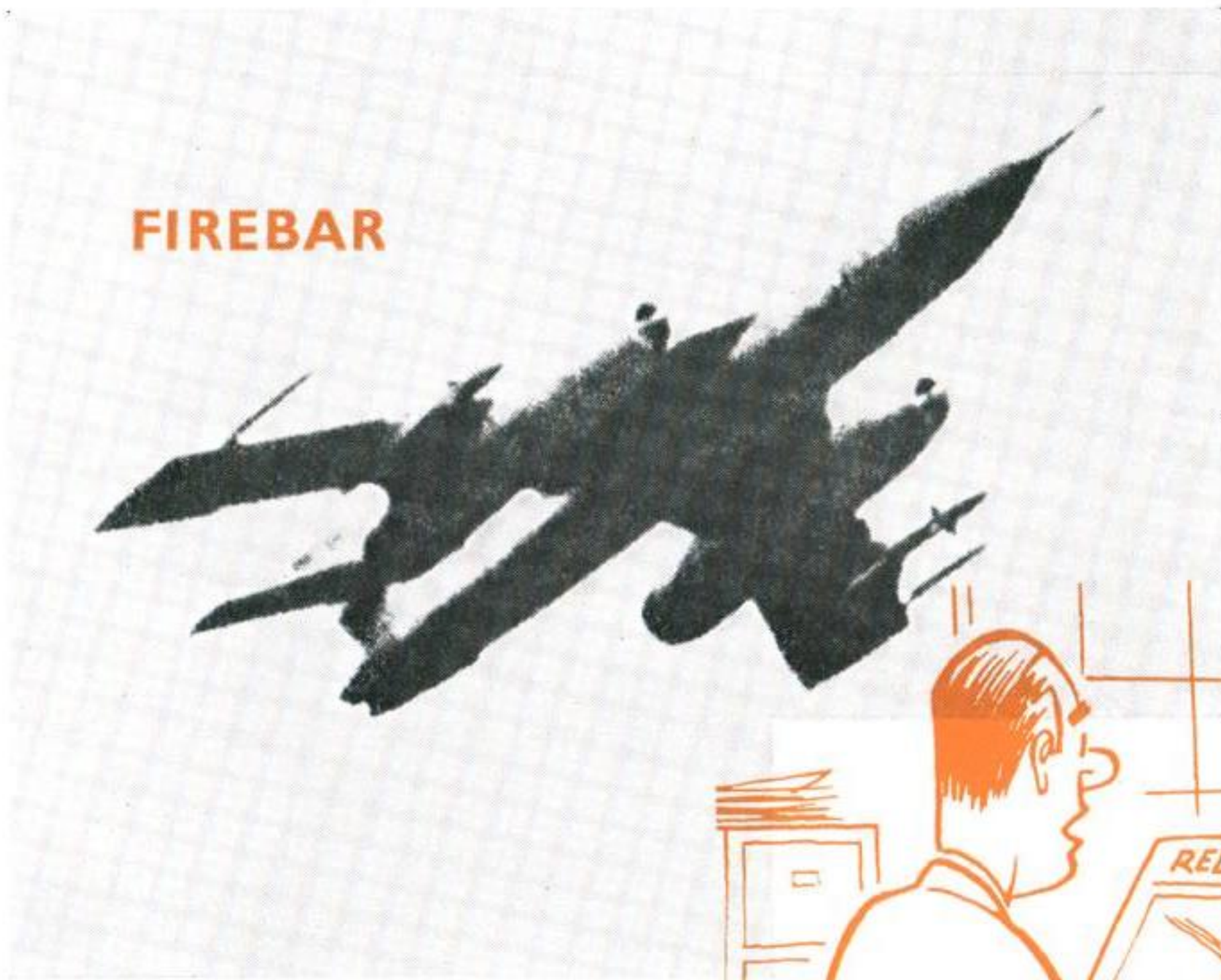


**FIDDLER**

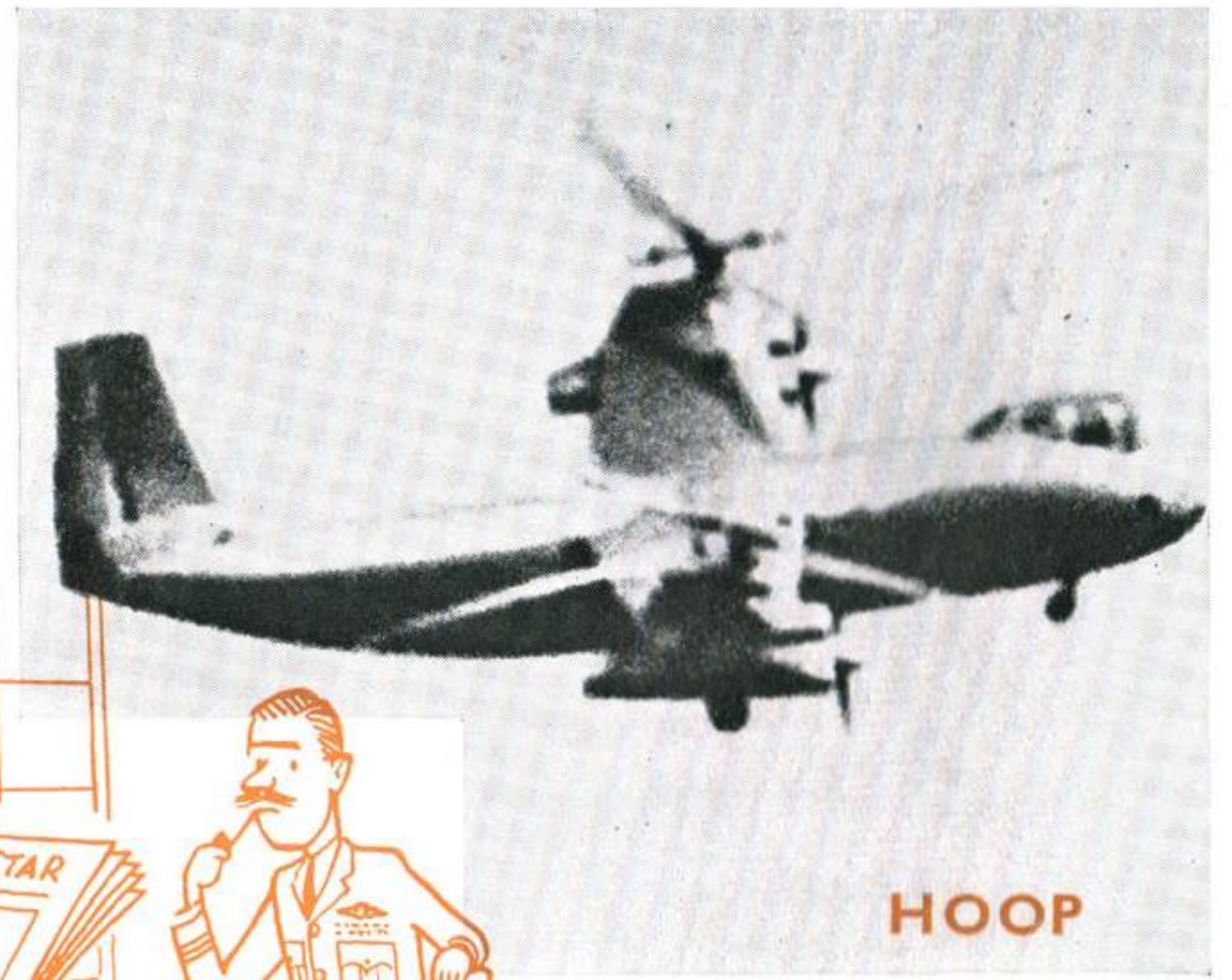
# Soviet Circus

## Act III

## Flypast



**FIREBAR**

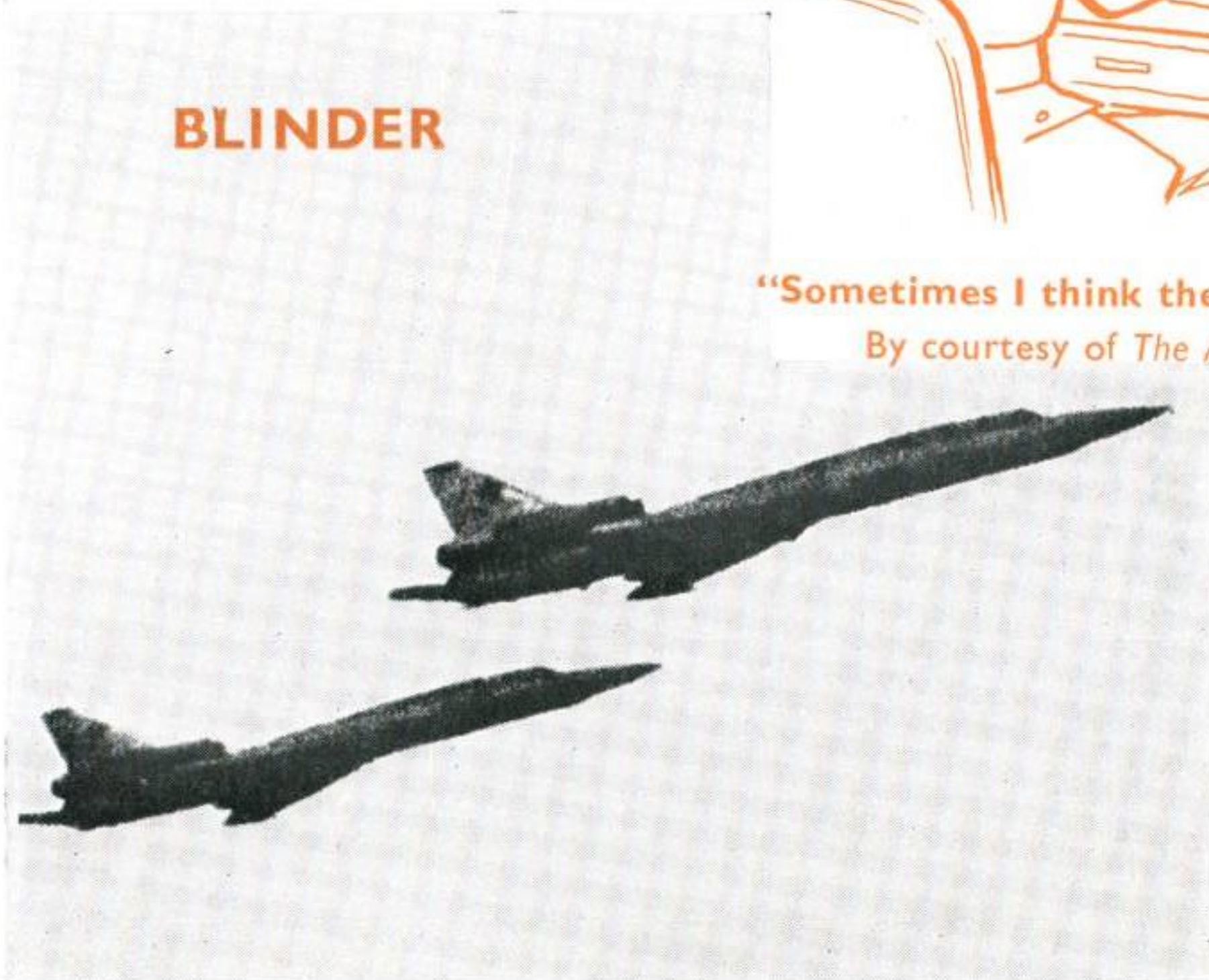


**HOOP**



**BLINDER**

*"Sometimes I think they build the things blurred."  
By courtesy of The Aeroplane and Astronautics*



**FISHBED B**



THE ROYAL OBSERVER CORPS

RECOGNITION JOURNAL  
AND R.O.C. GAZETTE

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\*Identification Lessons

|            |                         |            |
|------------|-------------------------|------------|
| A.D. 7314A | NATO                    | (1 Sheet)  |
| A.D. 7314B | Soviet Bloc             | (2 Sheets) |
| A.D. 7314C | Middle East             | (1 Sheet)  |
| A.D. 7314D | Commonwealth and U.S.A. | (1 Sheet)  |
| A.D. 7314E | Europe                  | (1 Sheet)  |
| A.D. 7314F | Far East                | (1 Sheet)  |
| A.D. 7314G | South America           | (2 Sheets) |

## Flying Colours

THE nationality of a ship can be ascertained in a straightforward way if you have the leisure and opportunity to approach and examine her flag. War seldom presents such opportunities and there is always the possibility that false colours are being flown. However, since it is by international convention that a ship is bound to give an indication of her nationality by displaying a flag, it is a matter of general knowledge as well as operational expediency, to know the flags of the nations of the world.

Aircraft cannot display a flag as a practical proposition, and so carry evidence, also by international convention, painted on the aircraft wings and fuselage. On military aircraft this takes the form of national emblems, or at least an insignia in national colours. On civil aircraft the initial part of their registration (e.g. G—for United Kingdom, F—for France, 00—for Belgium and 9U—for Ruanda-Urundi) reveals the country of their origin; the allocation is now arranged by the International Civil Aviation Organisation of the United Nations.

In general the national insignia of military aircraft are displayed on the wings, on the fuselage sides and on the vertical tail surfaces. Some years ago it was almost universal practice to stripe the rudders in national colours, but now overpainting on any control surface tends to be frowned upon—although such striping still appears on aircraft of the French Forces. Now it is usual for a flash to appear on the fin. On Soviet aircraft, the same red star outlined in yellow that is displayed on wings and fuselage, usually appears in miniature on the fin. In this respect the British are not consistent, for while aircraft of the Royal Air Force have a red, white and blue flash on the fin, Fleet Air Arm aircraft have not.

Pictorial charts of world aircraft insignia are the subject of Air Diagrams which can be obtained through normal publication channels. These are:—

While insignia are of value in ascertaining the identity of light aeroplanes or helicopters working at low altitudes on support work, their usefulness to aircraft identification ends there. Even in the 1914–1918 War, when fighter speeds rarely exceeded 120 m.p.h., insignia were difficult to discern and colour was found to be of little value. It was a case of identifying a type first, and when insignia were observed, it was more a case of discerning between noughts and crosses, than roundels of red, white and blue and black crosses.

The fact that shape was more important than colour led to the Americans in the 1939–1945 War to adopt their present practice of using white bands each side of their white star and using an odd presentation, in that the insignia appears only on the port side in the upper surfaces of the wings and on the starboard side only, underneath. This helps, but only under certain conditions.

An attacking aircraft presents its frontal area, on which no insignia is displayed, and even in a side view outline is far more important than markings which may well be indistinguishable at a distance. Also there are exceptions to the general rule where insignia might compromise camouflage; a typical example is the British "V" bombers which do not display roundels beneath the wings. Therefore, while we should know something about insignia as an adjunct to recognition it in no way affects our aircraft identification training which will continue on the lines set out in this *Journal*.

A.F.V.'s have not borne an indication of their national identity as a general rule, with the chief exception of German tanks 1918 and 1939–1945 which displayed black crosses. They may display formation flashes such as the red and yellow of the Royal Armoured Corps, but there is no convention demanding that they should show their national colours.

There is only one sure way of distinguishing friendly ships, tanks and aircraft from hostile ones, that is by identifying them by type from their configuration.



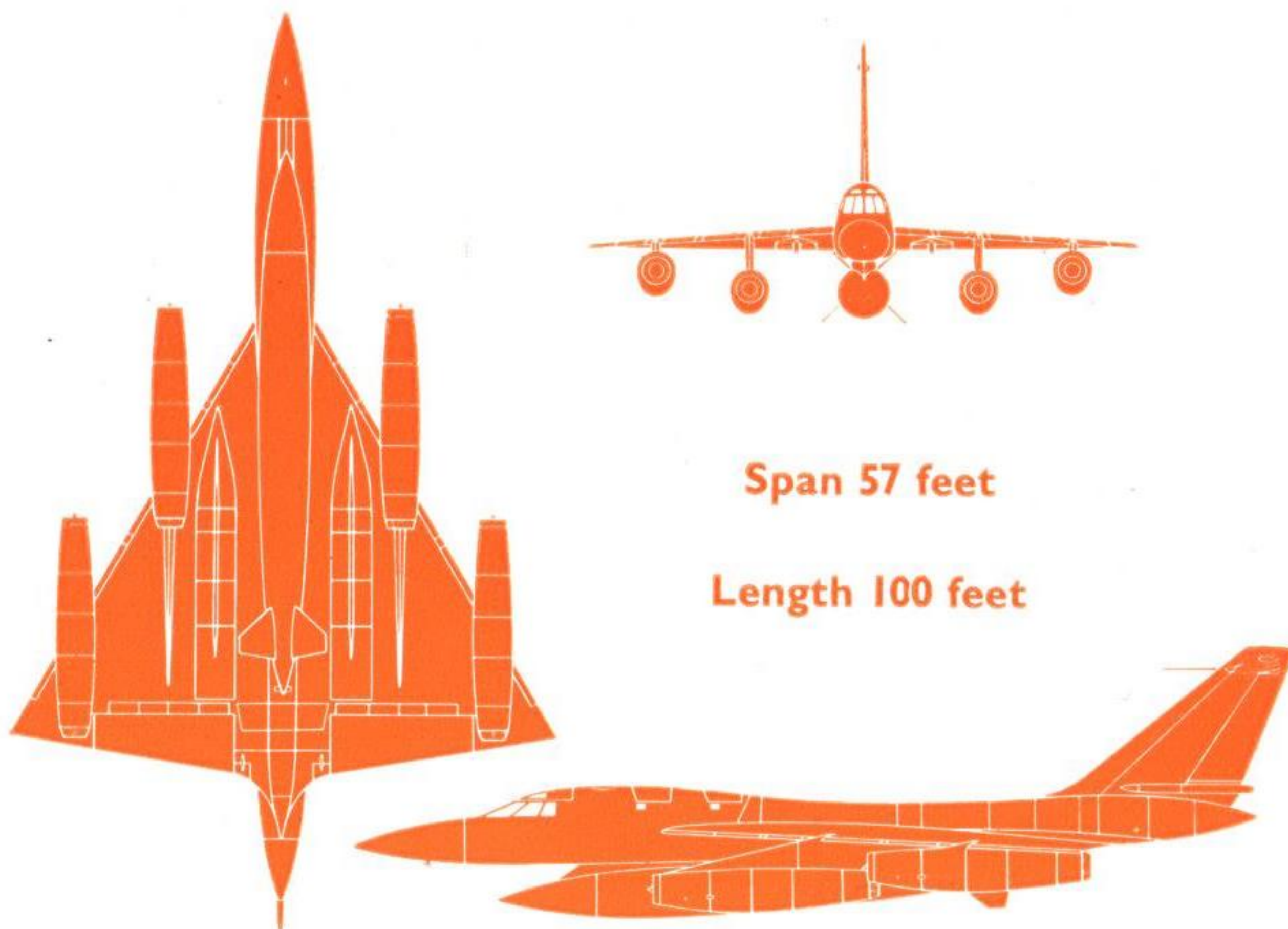
## *B-58 Hustler*

America's four-jet supersonic delta-wing bomber, the B-58 Hustler, is in service with Strategic Air Command of the United States Air Force. It carries a crew of three, seated in tandem as Target No. 8 shows.

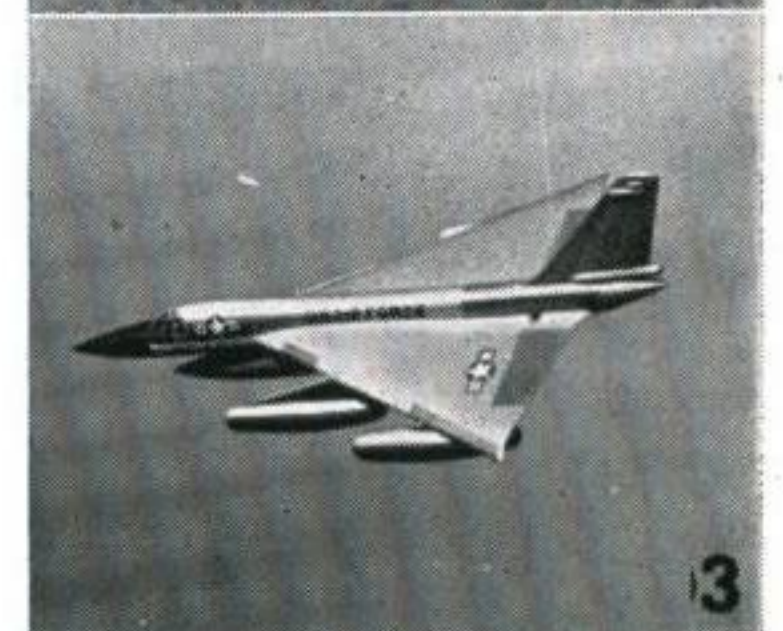
The standard production version is designated the B-58A and a dual-control trainer version of the same external appearance is the TB-58A.

With four turbojet engines, all conspicuously underslung from a delta form wing, the Hustler stands out in a class apart. Its one variable feature is its weapon load which is carried in a large pod under the fuselage as the key view above shows.

The Hustler may seem to be a relatively easy aircraft to spot by reason of its shape. But being able to identify it is not a matter of looking at pictures and trying to remember its features. You must go through the drill of identifying all these target views in the way explained on page 47 so that when you do sight it, the answer, "Hustler", comes pat.



Targets start here







## *Alouette!—Gentille Alouette!—Mk. III*

The Sud Aviation S.E.3160 Alouette III is, as its designation would suggest, a development of the S.E.3130

Alouette II featured in the December 1961 edition. The Alouette III has increased cabin capacity, improved equipment and a better performance. Normally it seats six passengers in addition to the pilot, but provision can be made to convey eight fully armed troops.

Unlike the bare skeleton framework of the Alouette II, this model has a fully encased tail. Also, it has a tricycle undercarriage, unusual for French helicopters, but a feature shared with the Russian HEN and HARE.

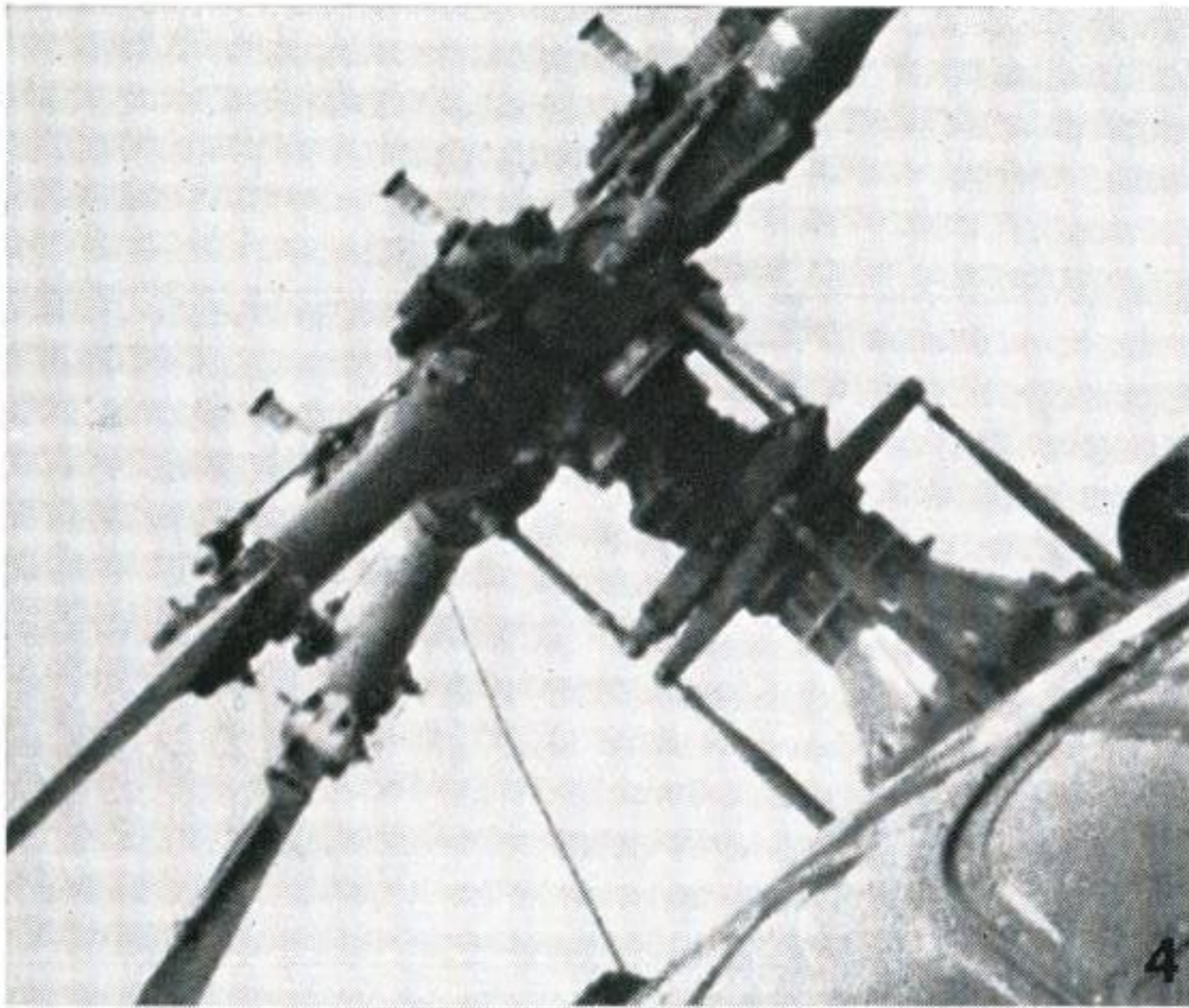
Early models of the Alouette III did have small fins and a partially enclosed tail grid, differing from late models; compare Targets Nos. 3 and 5 which are both Alouette III.

There is no need to try to remember those facts, if you carry out the instructions on page 47 and then confirm these targets using the key pictures above and below as a guide, you will learn to identify your Alouette whatever she wears. Just for an Alouette (lark) we've put in an Alouette II here and there as a joker. Then to make sure you have it word perfect, say each time—al-oo-et—AND write it down—Alouette.

**Rotor Diameter 36 feet**

**Length 33 feet**





4



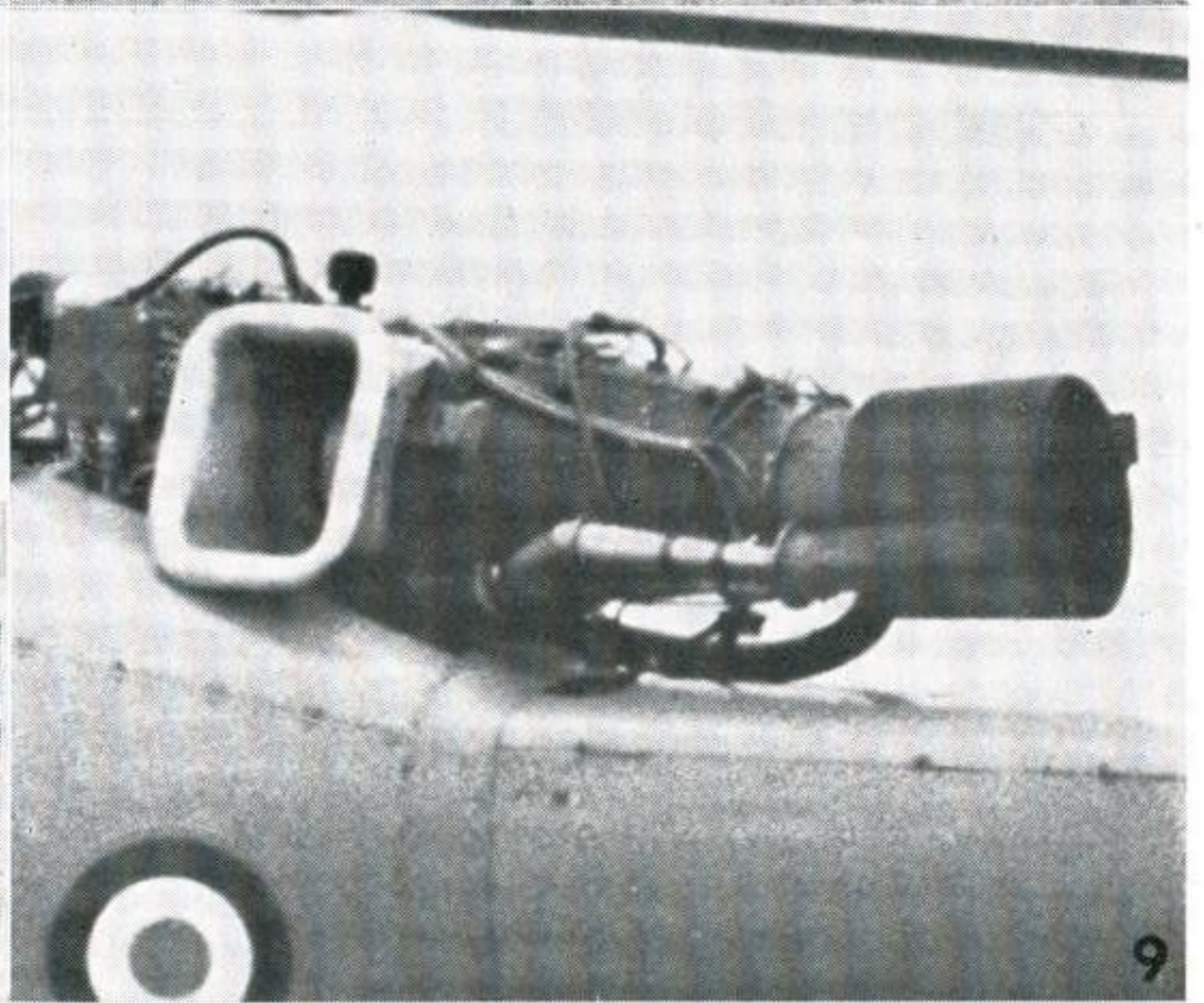
5



6



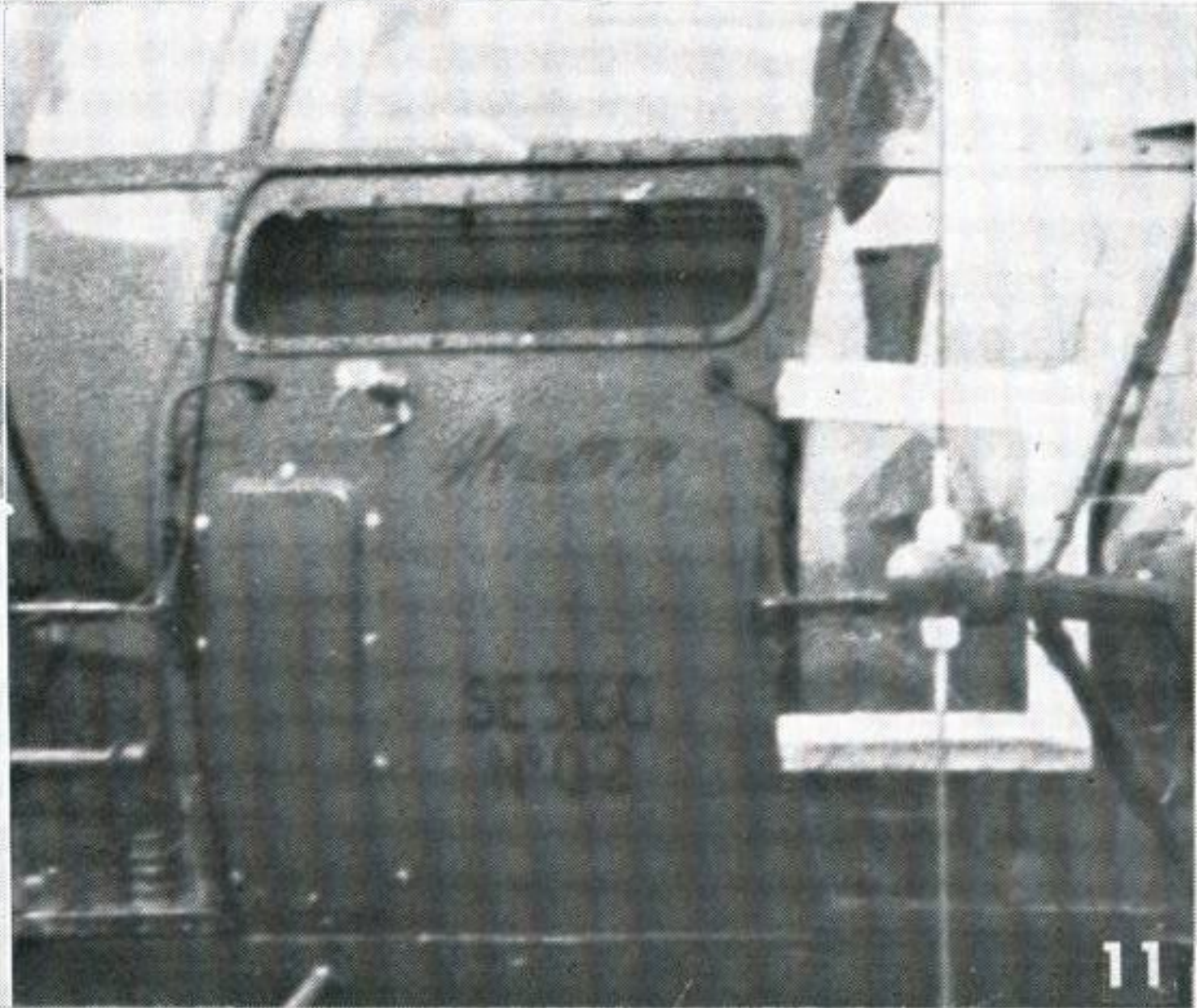
7



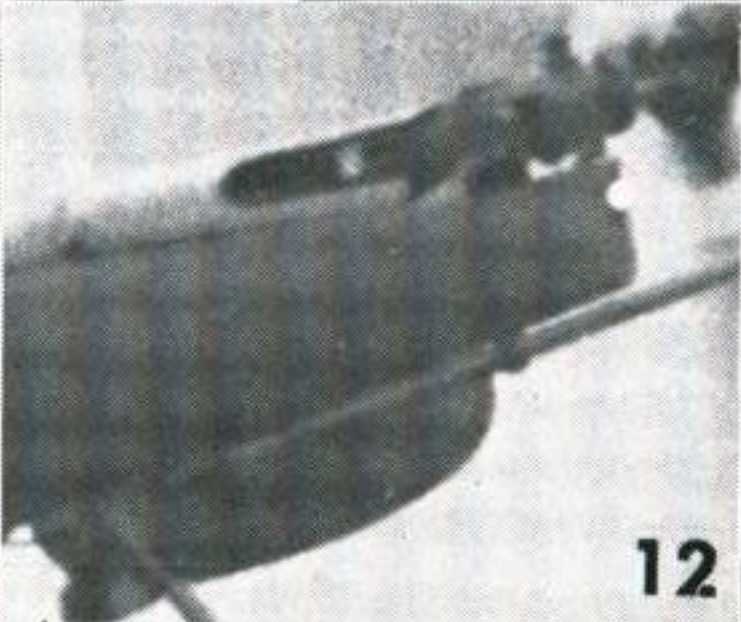
9



8



11



12



13



10



16



14



15



17



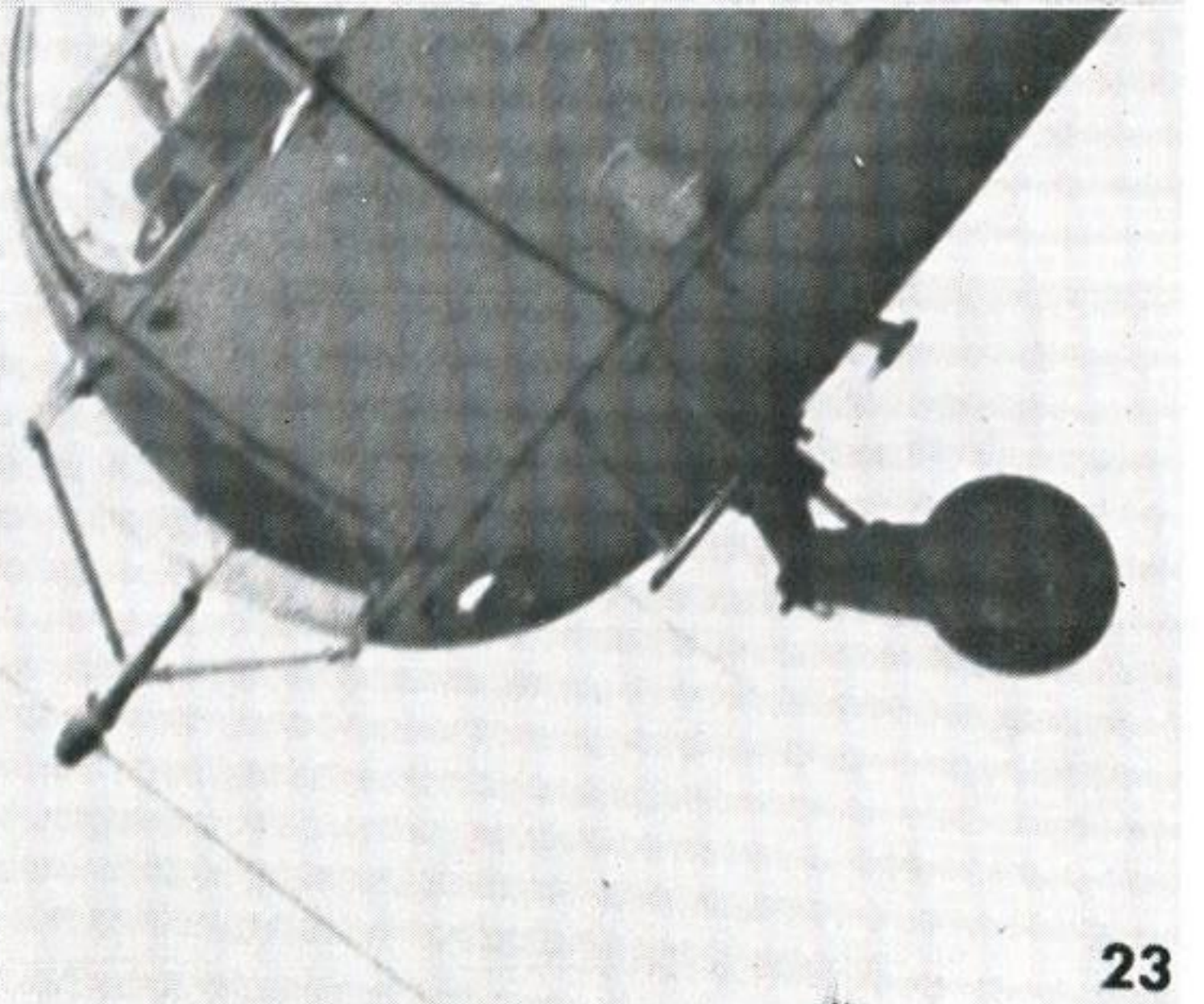
18



19



20



23



21



22



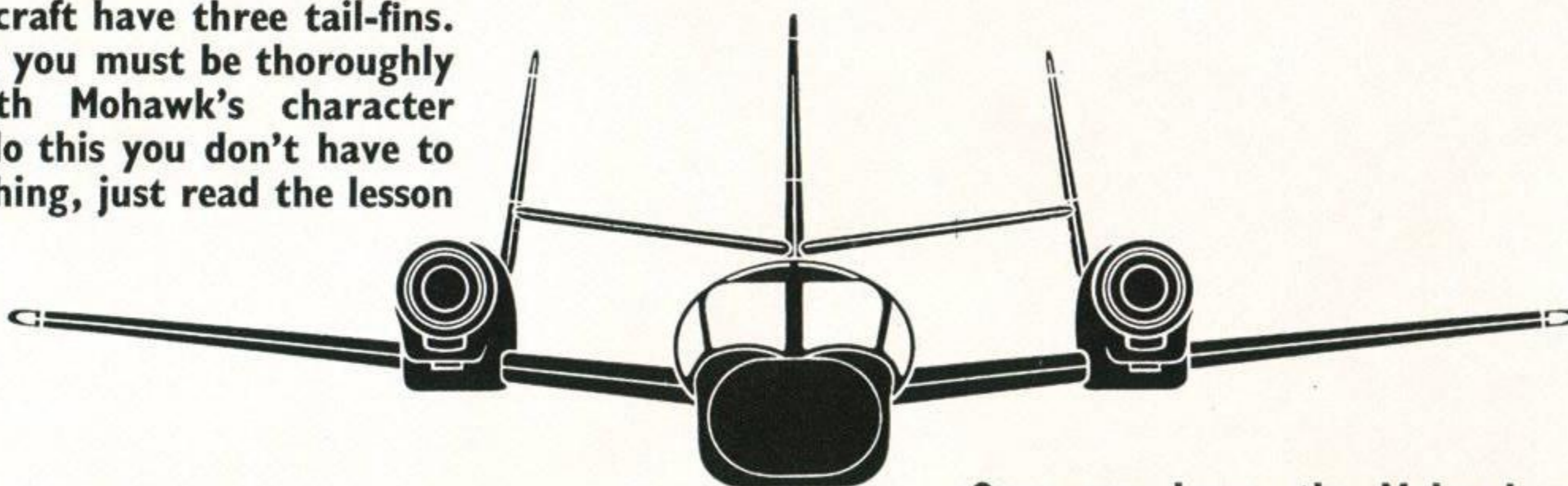
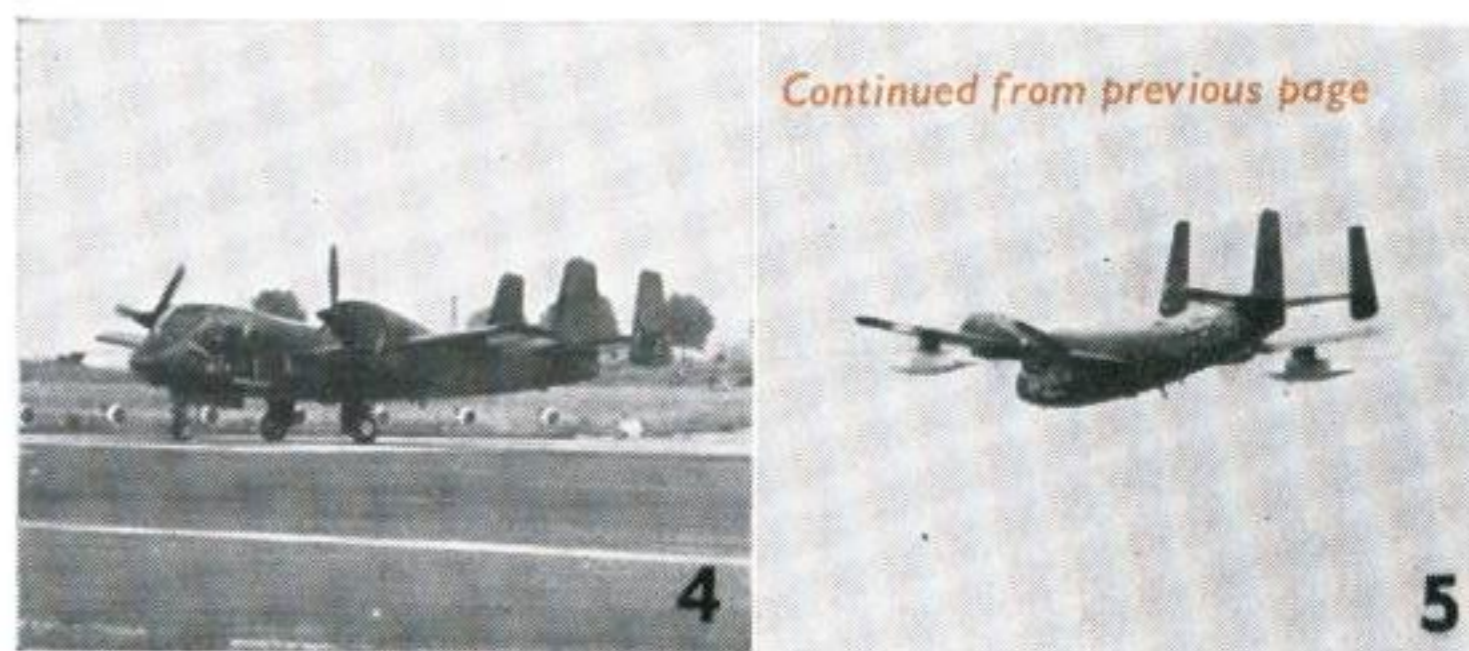
# MOHAWK AO-1



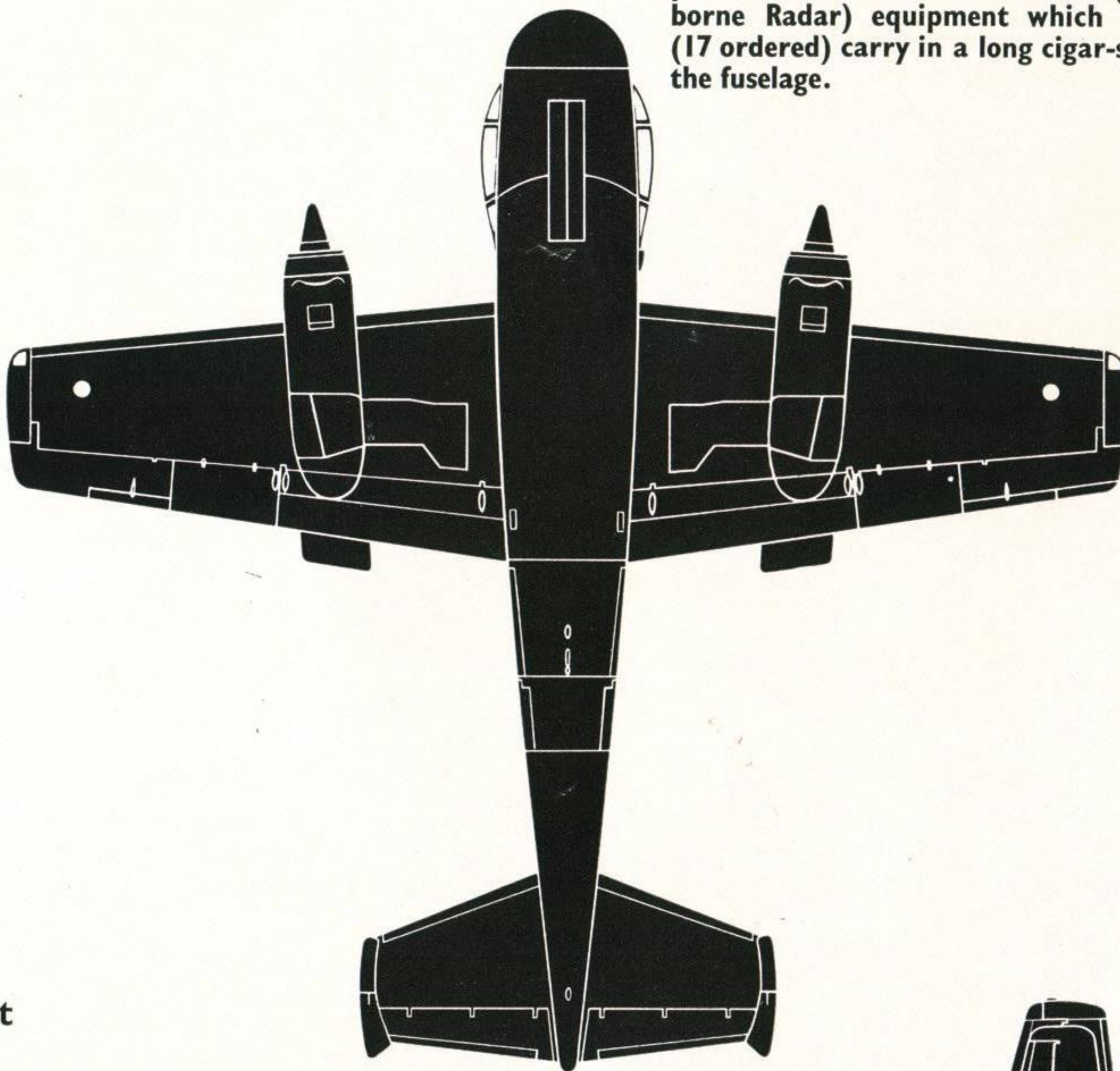
# AO-1 MOHAWK

**T**HE United States Army's AO-1 Mohawk is a two-seat high performance observation and multi-purpose aircraft powered by two Lycoming turboprop engines.

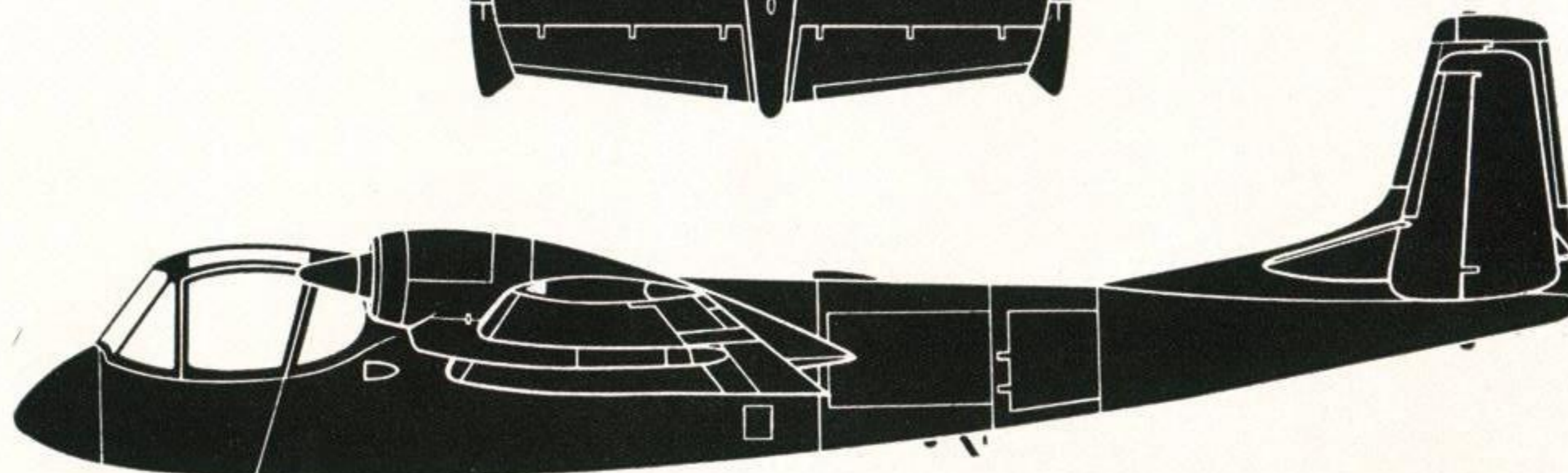
While its three tail-fins look something of a give-away they may not be, for as will be seen from the targets they are not apparent from all angles. In any case such a feature is by no means exclusive to twin-engined aircraft, as the R.A.F.'s Twin Pioneer and three other different British civil aircraft have three tail-fins. For this reason you must be thoroughly acquainted with Mohawk's character and to try to do this you don't have to memorise anything, just read the lesson instructions on page 47 and work through the targets which start overleaf.



Once you know the Mohawk, you will not be confused by its appendages such as auxiliary fuel tanks slung under the wings as shown in the key pictures overleaf, or with SLAR (Side-Looking Airborne Radar) equipment which AO-1BF Mohawks (17 ordered) carry in a long cigar-shaped pod under the fuselage.



Span 42 feet





Solutions to the target pictures appear on the rear cover.

# CLEAT

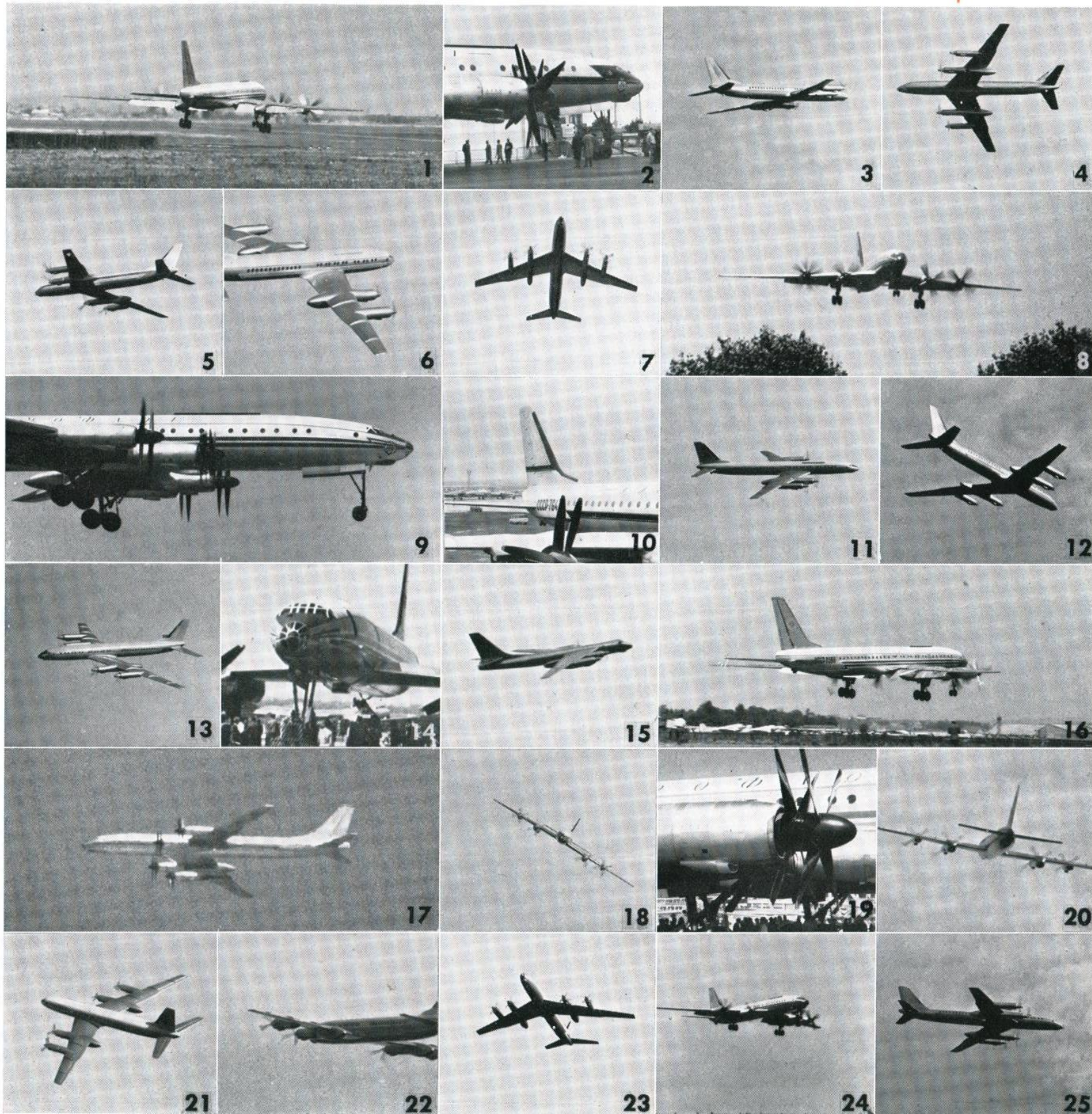
The world's largest airliner, with accommodation for up to 220 passengers, is the Tu-114 CLEAT which is known in Aeroflot service as the Rossiya (Russia).

Based on the BEAR bomber, it uses the same type of wing, tail unit, landing gear and engines of its military counterpart.

This is a refresher to lessons on the CLEAT which appeared in our July 1959 and August 1960 editions. Read the lesson instructions on page 47, follow them out, and if your answer does not agree with the solution on the back cover, refer back to the earlier lessons.



Span 170 feet



# DHC-3 OTTER

A sturdily-built aircraft in military and civil service throughout the world is the Canadian-built DHC-3 Otter. To refresh your memory on this aircraft, read the lesson instructions on page 47. The only variations on the Otter theme concern its "flippers"—wheels, floats or skis. After jotting down your answers refer to the back cover to see if the Otter has led you up the creek.

Span 58 feet



# In The Air



Two more old-timers in French service. The S.E.161 Languedoc (which originated before the war as the Bloch 161) was put into production just after the war as an airliner for Air France and a few are still used by Aviaco, a Spanish airline. The example shown is a special search and rescue version used by the French. Still in service, but earmarked for replacement by Broussards is the M.S.500, a version of the German Fieseler Storch built in France during, and just after, the war.

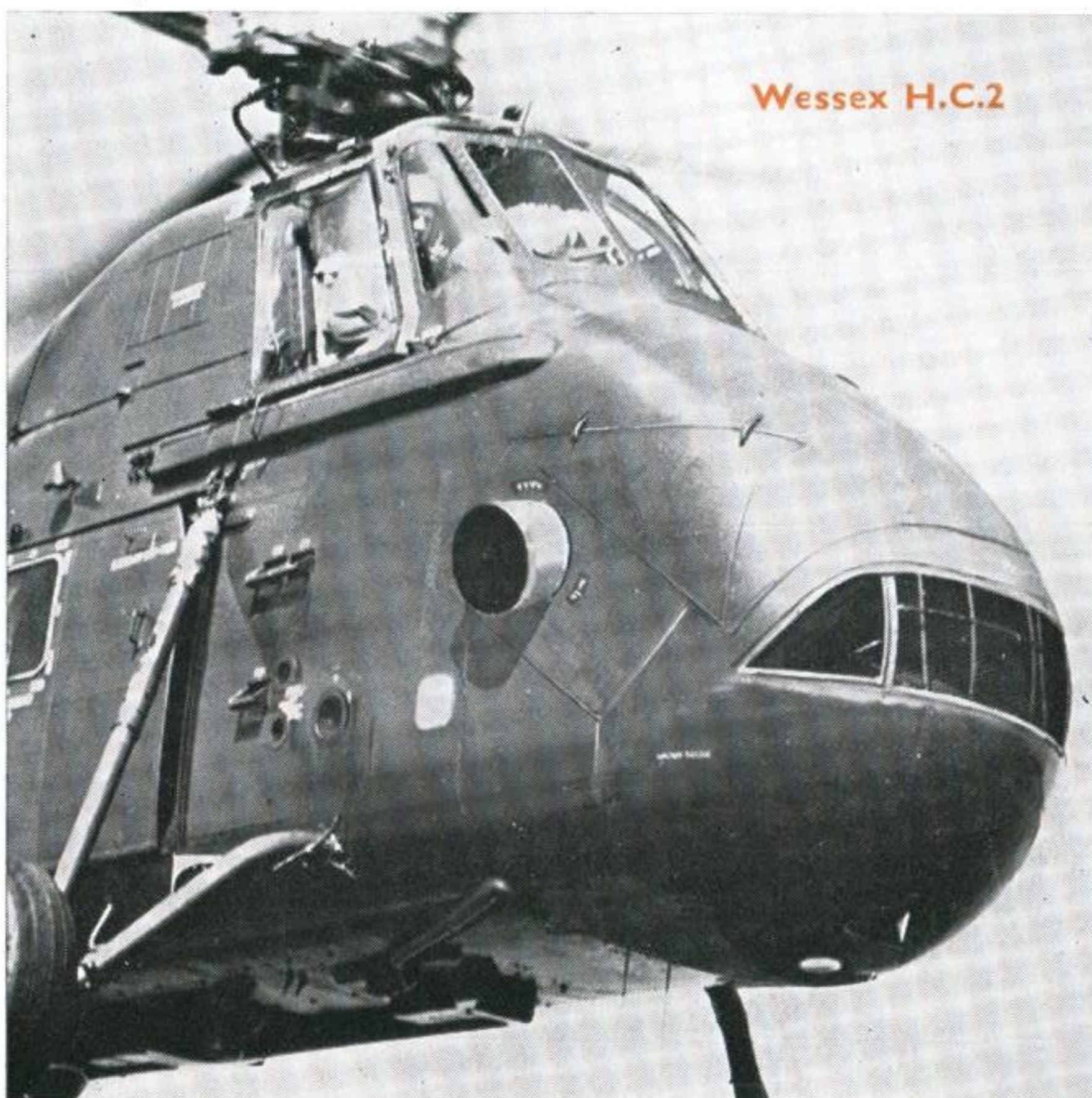
## briefs

*a collection of items of news and interest.*

*"Saw the heavens filled with commerce,  
argosies of magic sails,  
Pilots of the purple twilight,  
dropping down with costly bales"*

Tennyson's vision of the future is epitomised by this Argosy freighter which is being operated by Riddle Airlines Inc. of Miami, Florida, and British European Airways. The first of three freighters for B.E.A. is depicted over the manufacturer's airfield at Bitteswell, and the manufacturer—by another merger in the industry—is now Whitworth Gloster Aircraft Ltd.

Below the new D.H. Gnome-engined Wessex H.C.2 for the Royal Air Force shown in comparison with the earlier H.A.S.1 for the Royal Navy. The only apparent external differences, apart from markings, are in the nose.



# In Passing . . .

## Do you know this aircraft?

It is the Auster A.O.P. Mk. 9 which should be known to all. Earlier marks served during the last war in the same roles of observation, gun-ranging and liaison. Unfortunately it was often confused with the Fieseler Fi156 Storch (of which the M.S.500 on page 46 is a radial-engined version). Because of lack of identity training, the result was sometimes tragic. Auster

A.O.P. Mk. 3 MT412 of No. 655 Squadron in the Middle East flew low over a British battery which opened up and blew its tail off; some three months later, on May 19th 1944, A.O.P. Mk. 3 NJ915 of the same squadron was hit by a shell believed fired from an Allied A.A. gun. On June 26th 1944, in France, our guns opened up on A.O.P. Mk. 4 MT274 and although they missed it, blast from the guns caused it to hit trees and crash. NK112 an A.O.P. Mk. III of No. 43 O.T.U. was shot down by so-called "friendly gunfire" on January 17th 1945. Don't mistake your friends, learn to know them.



## De Havilland Canada

Since we recently featured a lesson on the DHC-4 Caribou and refresh you now on the DHC-3 Otter, we feel that, in passing, we should complete the picture and remind you again of the DHC-1 Chipmunk and DHC-2 Beaver. All four types are flying in considerable numbers in various parts of the world.

An interesting point is the increase in size (and thereby weight) of each successive design:—



| Type  | Gross weight | Year First Flown |
|-------|--------------|------------------|
| DHC-1 | 2,000 lb.    | 1946             |
| DHC-2 | 5,000 lb.    | 1946             |
| DHC-3 | 8,000 lb.    | 1951             |
| DHC-4 | 26,000 lb.   | 1958             |

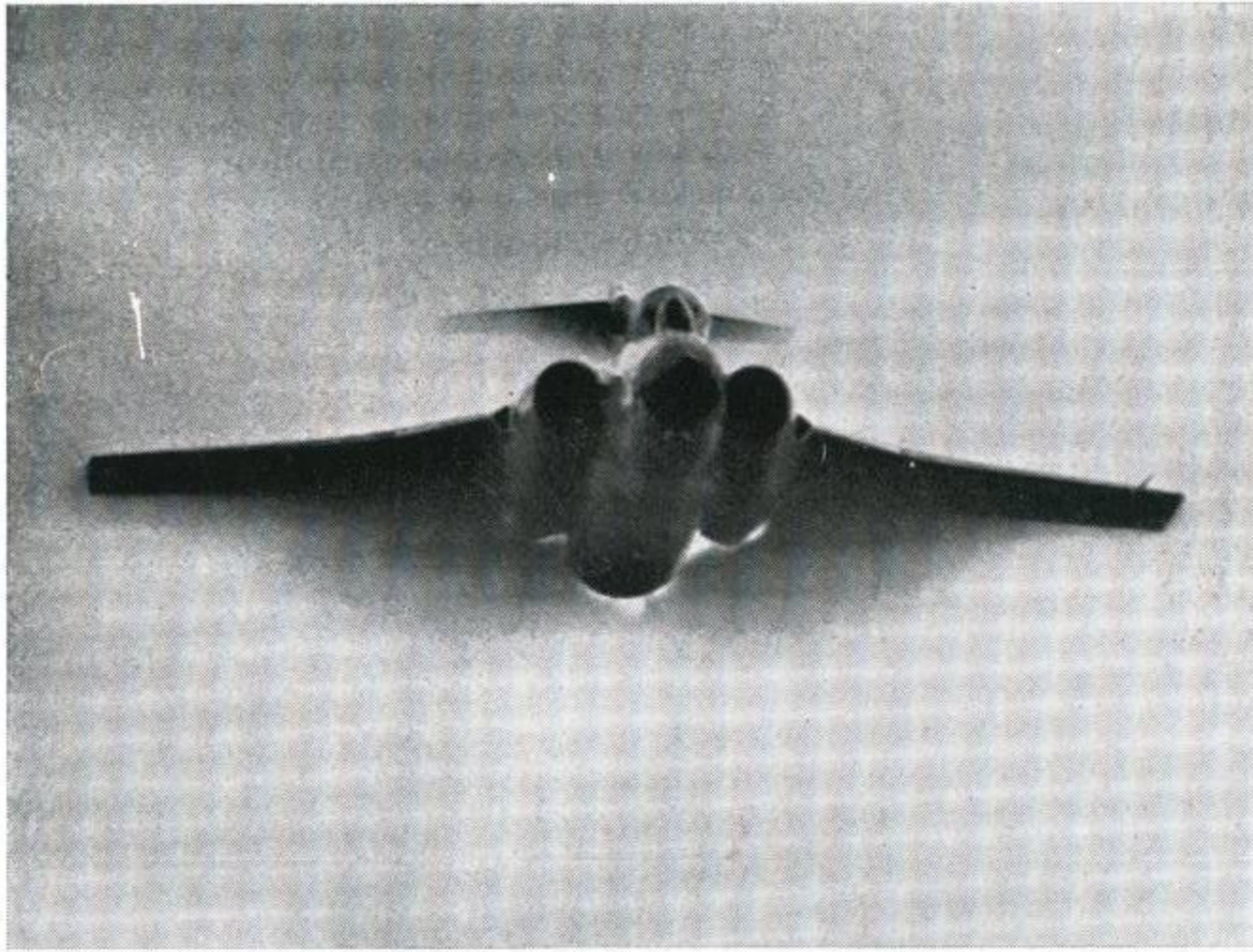
## Lesson Instructions

To obtain the maximum benefit from the training devices published in this *Journal*, the following procedure should be adopted:

1. Read the text associated with the lesson.
2. Prepare a list of targets numbers so as to be able to tackle the targets in any order.
3. Identify the target pictures by comparing them with the key views: start with the easy ones so as to gain experience: also use targets already identified to solve others.
4. When certain of the identity of a target write down its name **IMMEDIATELY** against the appropriate number on your list. **THIS IS IMPORTANT.**
5. Lessons should not be hurried or given a time limit. So far as beginners are concerned, it is more important to identify accurately rather than quickly.
6. Don't try consciously to memorise details, shapes, or names.



"Nose-down change of trim, Sir?"



**Cover Photo:** Described as the "teeth of the Navy," the Buccaneer is the only Fleet Air Arm type in service specifically designed as a bomber, capable of delivering low-level strikes with conventional or nuclear bombs. Two squadrons, Nos. 801 and 809, are forming up with Buccaneers at Lossiemouth; one is expected to go aboard H.M.S. *Ark Royal*, while the other remains land-based. This photo shows a Buccaneer generating vapour at high speed near the ground—at Farnborough to be precise.

## SOLUTIONS TO TESTS AND EXERCISES IN THIS EDITION

### B-58 HUSTLER

Page 36

All targets are of **Hustler** except Target No. 29 which is a **DC-8**.



### ALOUETTE III

Page 38

All targets are of **Alouette III** except Nos. 2 and 18 which are **Alouette II**. (N.B. Alouette IIs are visible in the background of Target No. 6, the tail of a Scimitar appears in No. 16 and in Target No. 18, in case it confused you, one Alouette II has the cabin door open and swung back.)



### AO-1 MOHAWK

Page 40

All targets are of **Mohawks** except No. 30 which is a **Caribou**.



### CLEAT

Page 44

All targets are of the **Cleat** except No. 15 which is a **Bear**.



### DHC-3 OTTER

Page 45

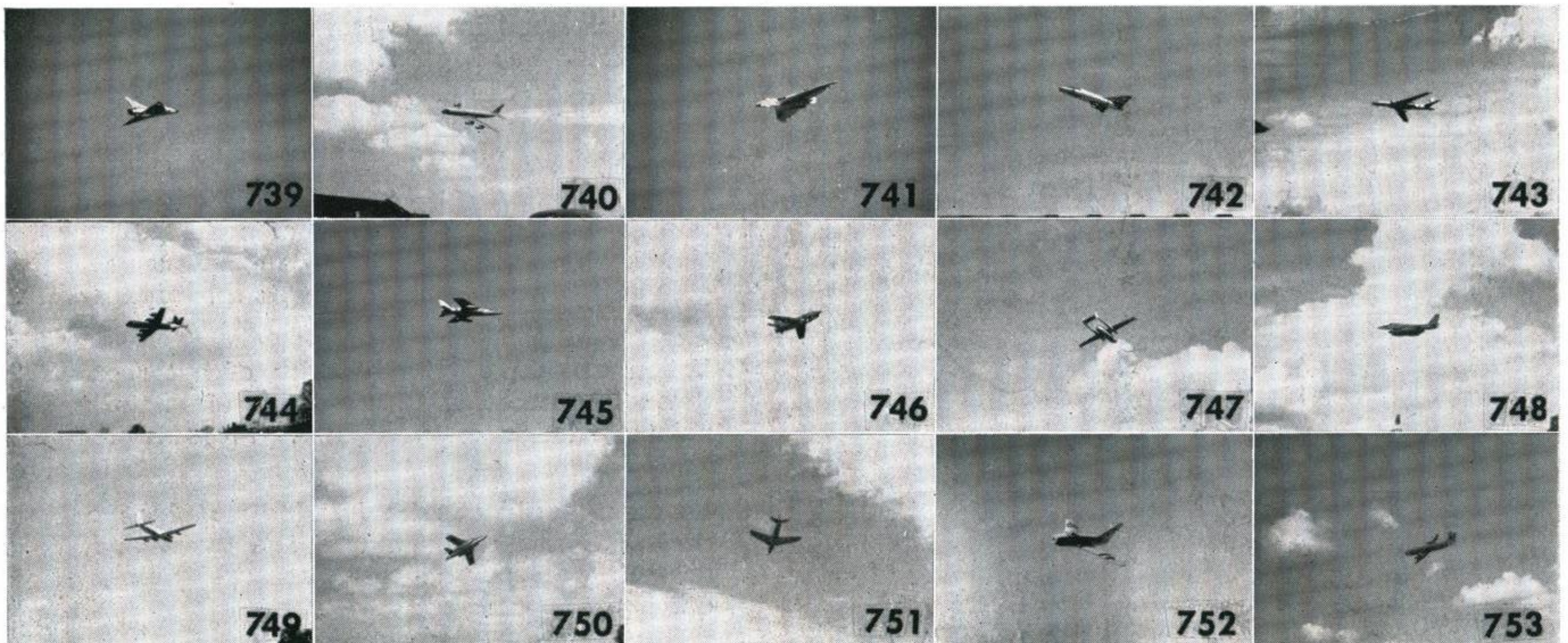
All targets are of **Otters** except No. 16 which is a **Creek**.

#### Solutions to Airborne Headaches No. 79 in the January, 1962, issue:—

- |                    |                  |
|--------------------|------------------|
| 723. Sea Vixen     | 731. Jet Provost |
| 724. Scimitar      | 732. Hare        |
| 725. Camel         | 733. Gannet      |
| 726. Vautour       | 734. Friendship  |
| 727. Whirlwind     | 735. Cargomaster |
| 728. Alouette II   | 736. Shackleton  |
| 729. Neptune P2V-7 | 737. Voodoo      |
| 730. Javelin       | 738. Globemaster |

## AIRBORNE HEADACHES

No. 80



Submission dates for answers to Airborne Headaches No. 80 will be notified by Group Headquarters.