

*Waddell*

THE ROYAL



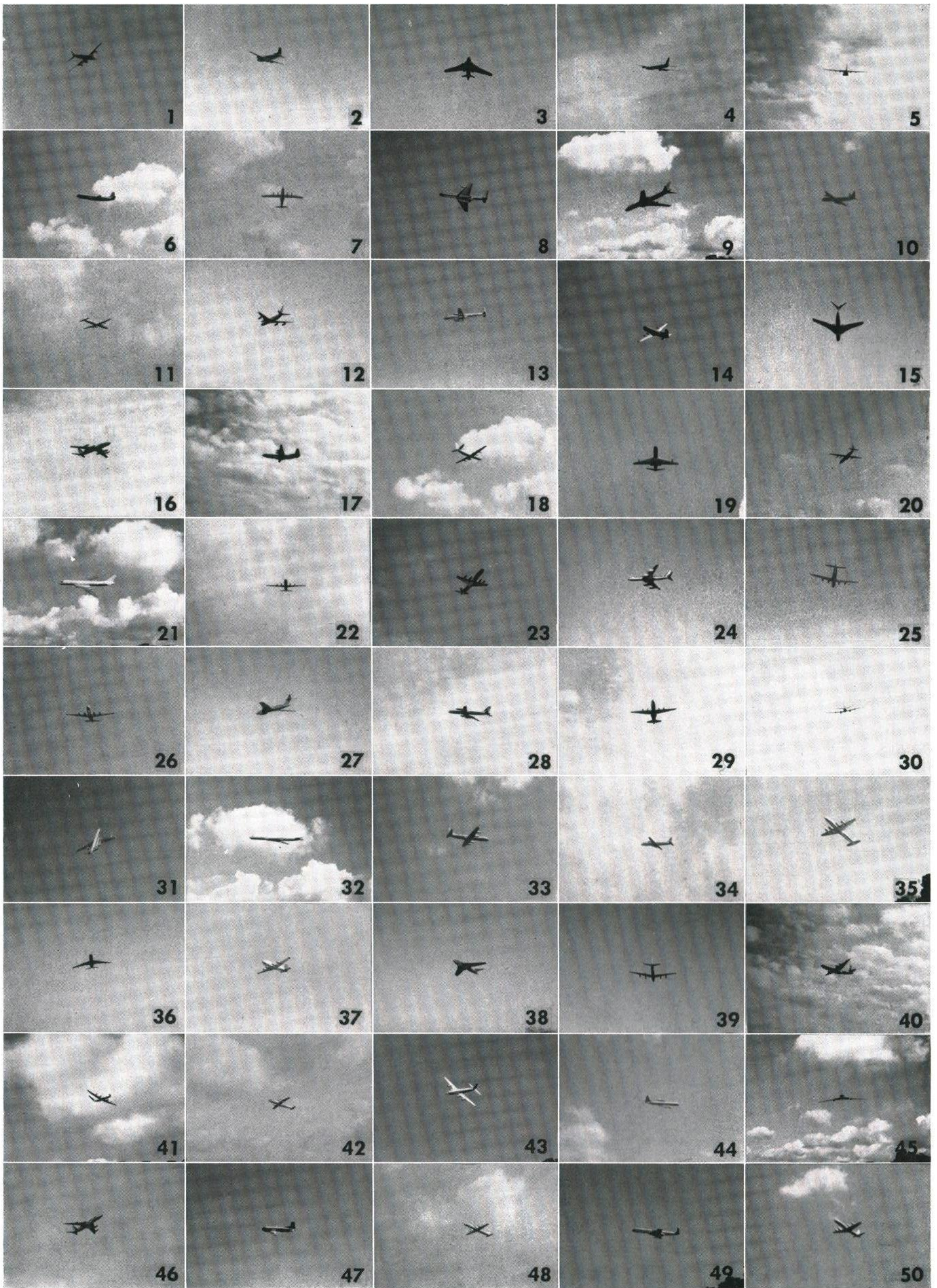
OBSERVER CORPS

# RECOGNITION

*Journal*  
and R.O.C. GAZETTE



Vol. 2 MARCH 1960 No. 3



**Big Stuff . . .** An advanced test of multi-engine aircraft

Solutions on the cover



RECOGNITION JOURNAL  
AND R.O.C. GAZETTE

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\*Identification Lessons

# A FOREWORD

by

Air Vice-Marshal J. Worrall, D.F.C.

*Assistant Chief of the Air Staff (Training)*

THREE years ago my predecessor wrote in a Foreword "Many of you . . . may be wondering if aircraft recognition training—or, indeed, recognition training of any kind—is going to matter very much to anybody for very much longer. I can assure you most emphatically that it is." These words are just as true today.

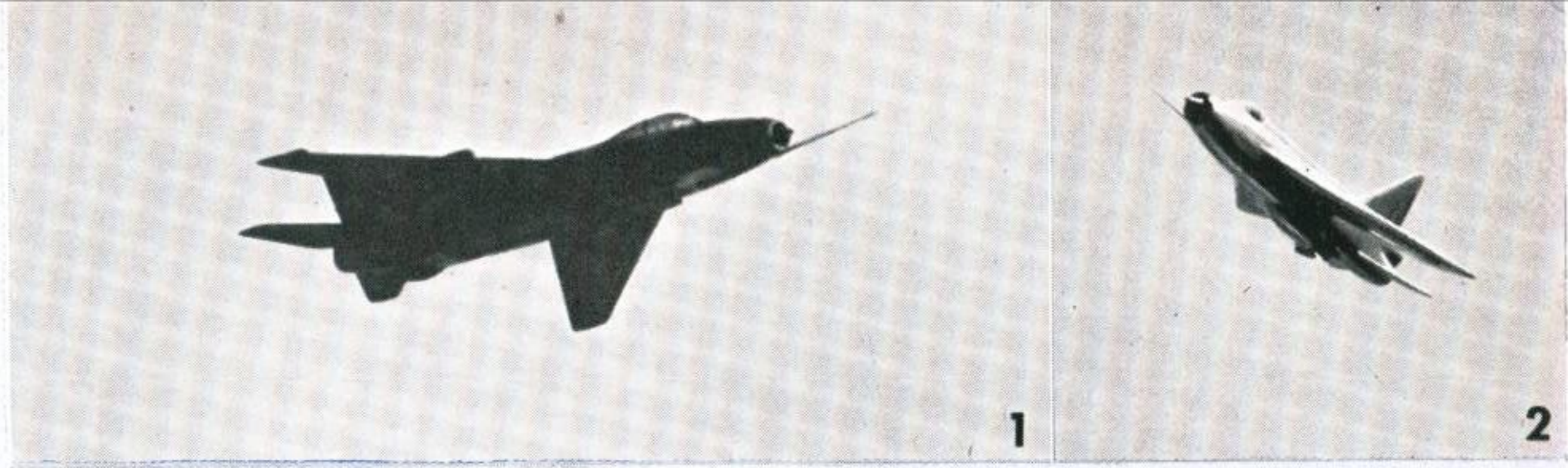
Skill at recognising—and in training people to recognise—be it ships, tanks or aircraft—has hitherto called for highly knowledgeable and highly trained instructors on the one hand and, on the other, a great deal of time for study by trainees—far more than has sometimes been available. The Sargeant System of Recognition Training is based on different principles, and considerably simplifies the task for instructors and trainees alike, enabling a higher standard of efficiency to be reached by more people for less effort and at less cost.

Scientific developments and new techniques in other spheres of activity also continue to change the conduct of war-like operations, but we must be able to distinguish friend from foe on many occasions. Moreover, because of the closer co-operation between the Services, and between countries of the British Commonwealth, the North Atlantic Treaty Organisation and their friends and allies, the ability to recognise is of equal importance in peace time as it is in war.

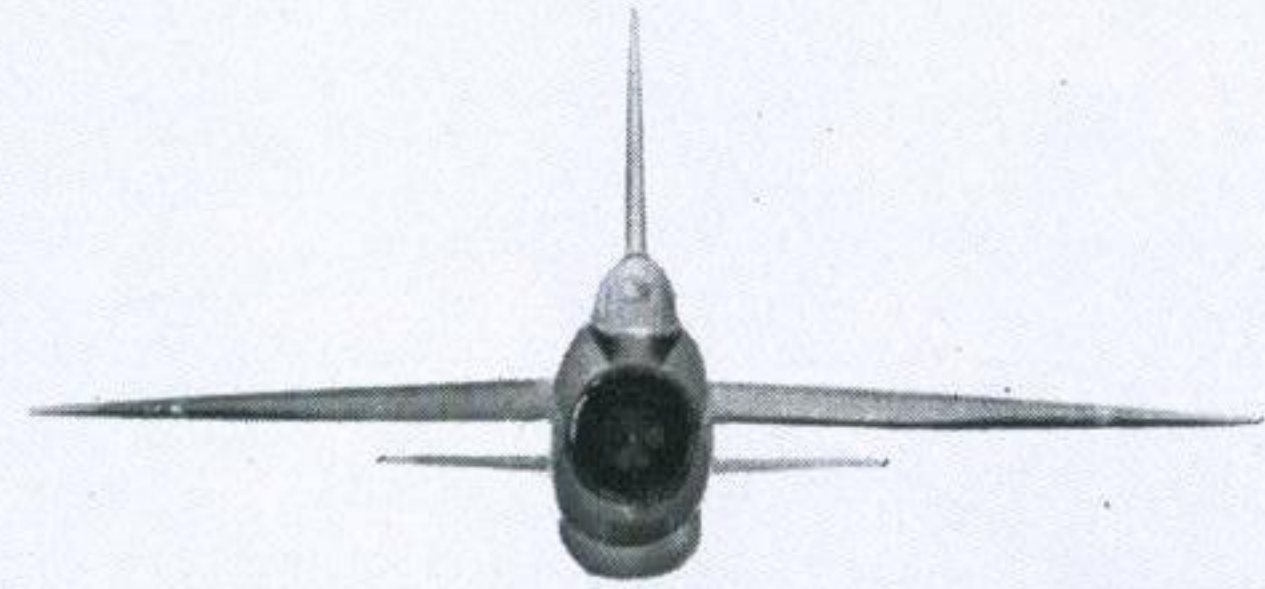
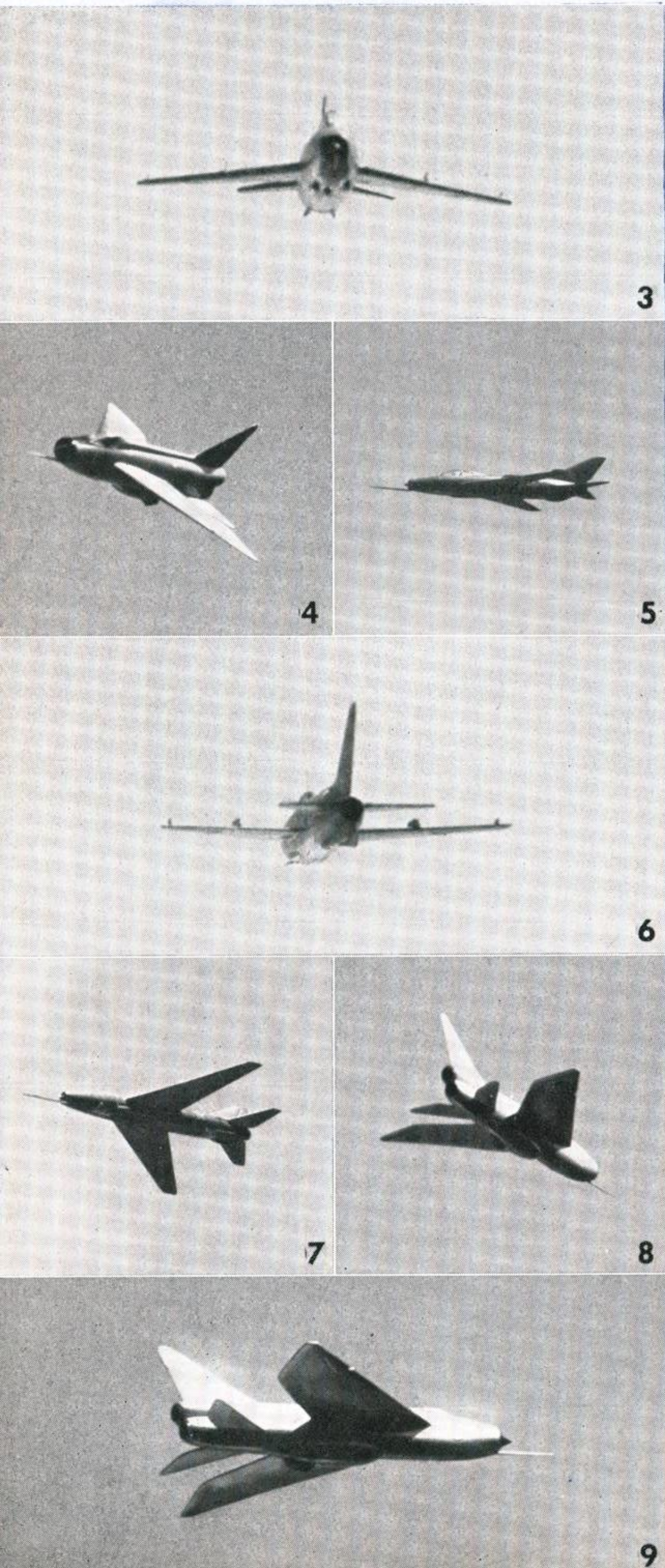
There is therefore a continuing need for the highest possible standard of visual recognition training. This can, and must, be achieved now that improved and simplified training methods are becoming available to you all.

# FIGHTER FORM

Below each three-view drawing are some clues which draw attention to various features of each fighter in this lesson. These clues should not be memorised: they serve only as starting points, drawing attention to shape differences between the two aircraft. When the lesson has been done they will have merged into and become part of your experience of each. To learn to identify these two fighters list the target numbers and identify each target in turn with the aid of the key three-view drawing and clues, writing out your answer each time. There is a list of solutions on the cover.

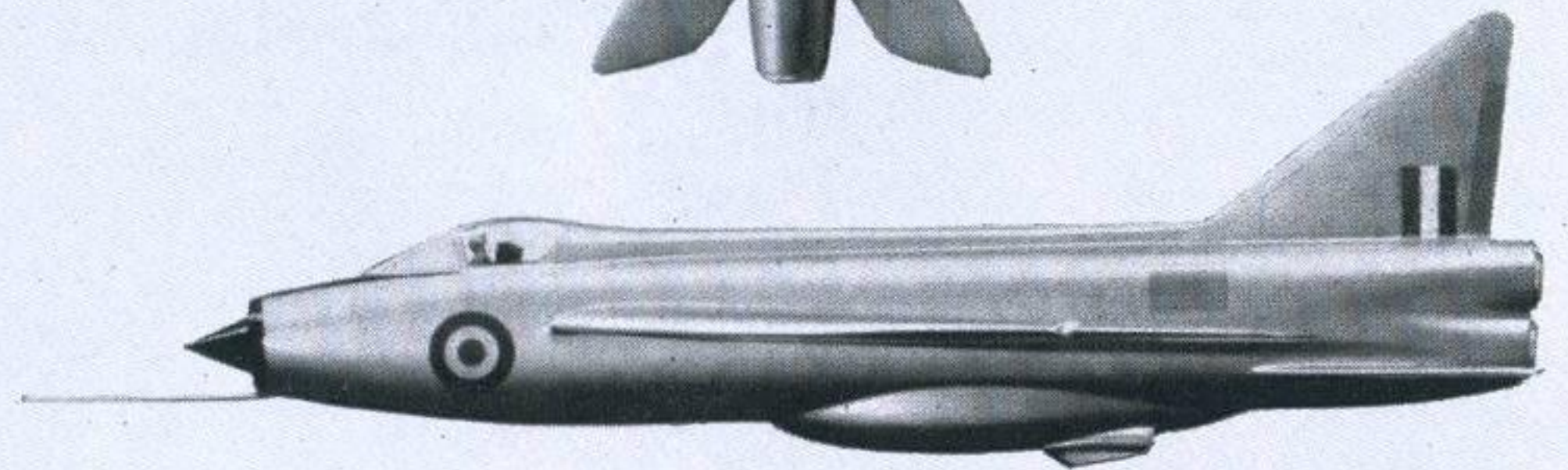
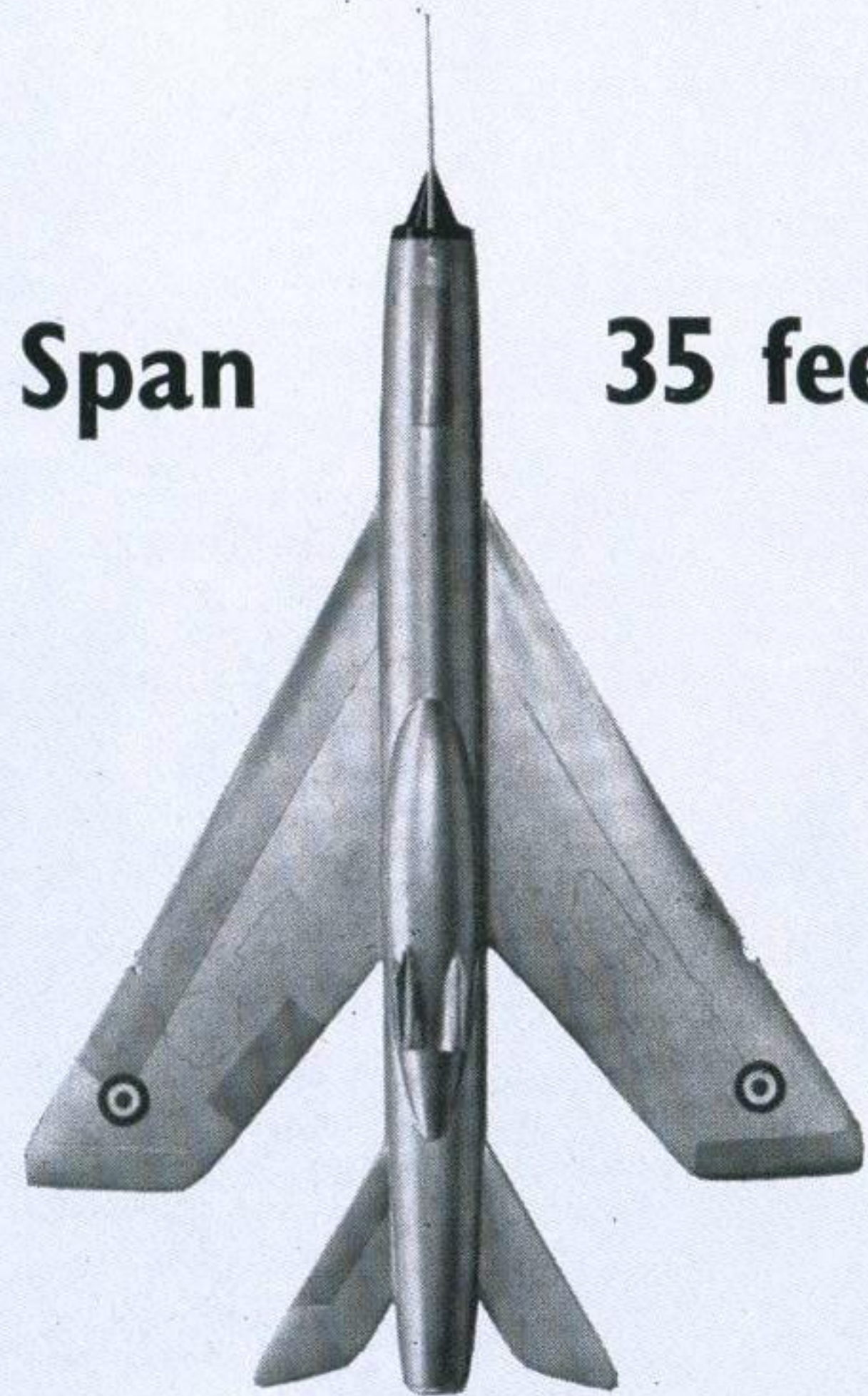


## LIGHTNING (F. MK. 1) R.A.F. Fighter



Wing Span

35 feet



Clues: 1. Less tapered wing (almost Delta).  
2. Thick-set fuselage (considerable belly bulge).  
3. Right-angled triangular fin.





16



17



18



19



20

# FACEPLATE (MIG-21)

## Russian Fighter



Wing Span 27 feet



- Clues:
1. Tapered swept wing.
  2. Slender fuselage with minor bulges.
  3. Sharply swept fin.



21



22



23



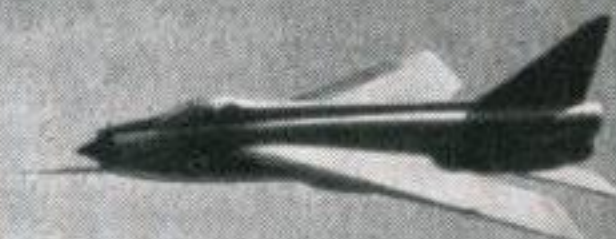
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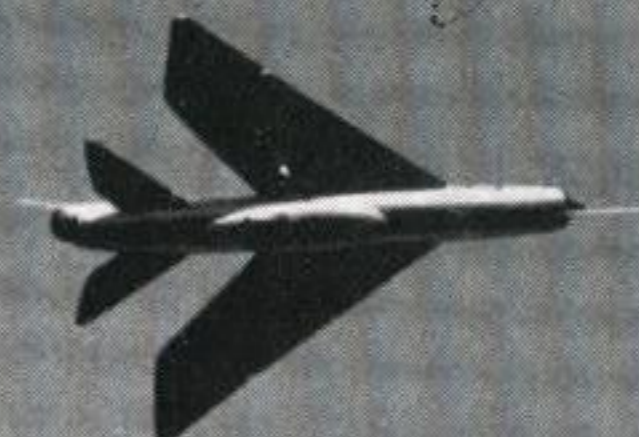
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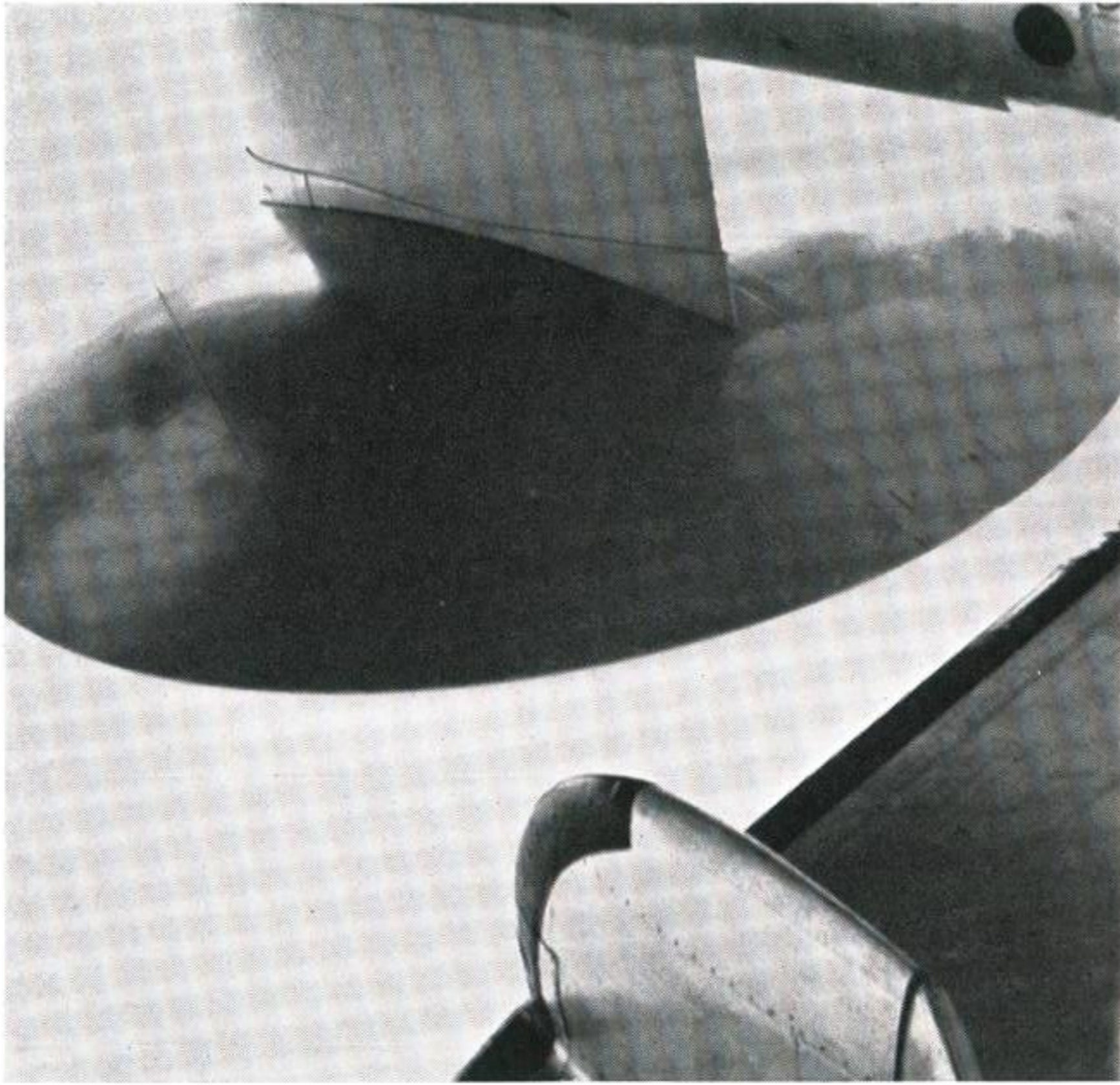
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42



43



### Whatzitz

Give you three guesses! Captive saucer. No! Martian pancake. No! Celestial oyster? Well, sort of! It's the radome of the radar reconnaissance aircraft Lockheed WV-2E (out of uniform: Super Constellation) for the U.S. Navy. The WV-2 series patrol the more distant approaches to the United States.

\* \* \*

### Books

**"Famous Bombers of the Second World War,"** by WILLIAM GREEN. 134 pp. (Illus.). Published by Macdonald & Co. (Publishers) Ltd. at 21s.

The title of this book should include "Volume I", as Mr. Green here makes a personal selection of 12 wartime bombers and describes these (and these only) in great detail; he forestalls argument in explaining by way of introduction that a further volume will follow.

Breakdown of his 12 are: American 4, German 4, British 3, Italian 1. The excellent drawings are by Gert W. Heumann.

"Famous Bombers" deserves to repeat the success of Mr. Green's earlier work "Famous Fighters of the Second World War." It will be of outstanding value to the historian and to the scale model-maker, and appreciated by all who look for high standards of accuracy, completeness and presentation.

G. D. H. L.

**"Aircraft and Missiles,"** by D. M. DESOUTTER. 213 pp. (Illus.). Published by Faber & Faber Ltd. at 36s.

This ranks as the aeronautical gift book of the year—beautifully produced and yet thoroughly practical in every way.

"Aircraft and Missiles" derives from Mr. Desoutter's earlier "All About Aircraft," which suffered in presentation from its "dumpy" format. The new page size forsakes any pretensions to pocket use, but makes a much more handsome volume.

There are remarkably few general adult books on aircraft which can be recommended as both accurate and comprehensive; this is one of them. Missiles are covered in a particularly succinct chapter.

The abiding snag to any aviation reference book is the speed with which facts become out of date. One example here is that Armstrong Siddeley and Bristol are listed throughout as separate engine manufacturers.

G. D. H. L.

## In Passing . . .



### Other Books of Interest and Use to Aircraft Spotters

**"ABC U.S. Military Aircraft,"** by J. W. R. Taylor. 32 pp. (Illus.). Published by Ian Allan Ltd. at 2s. 6d.

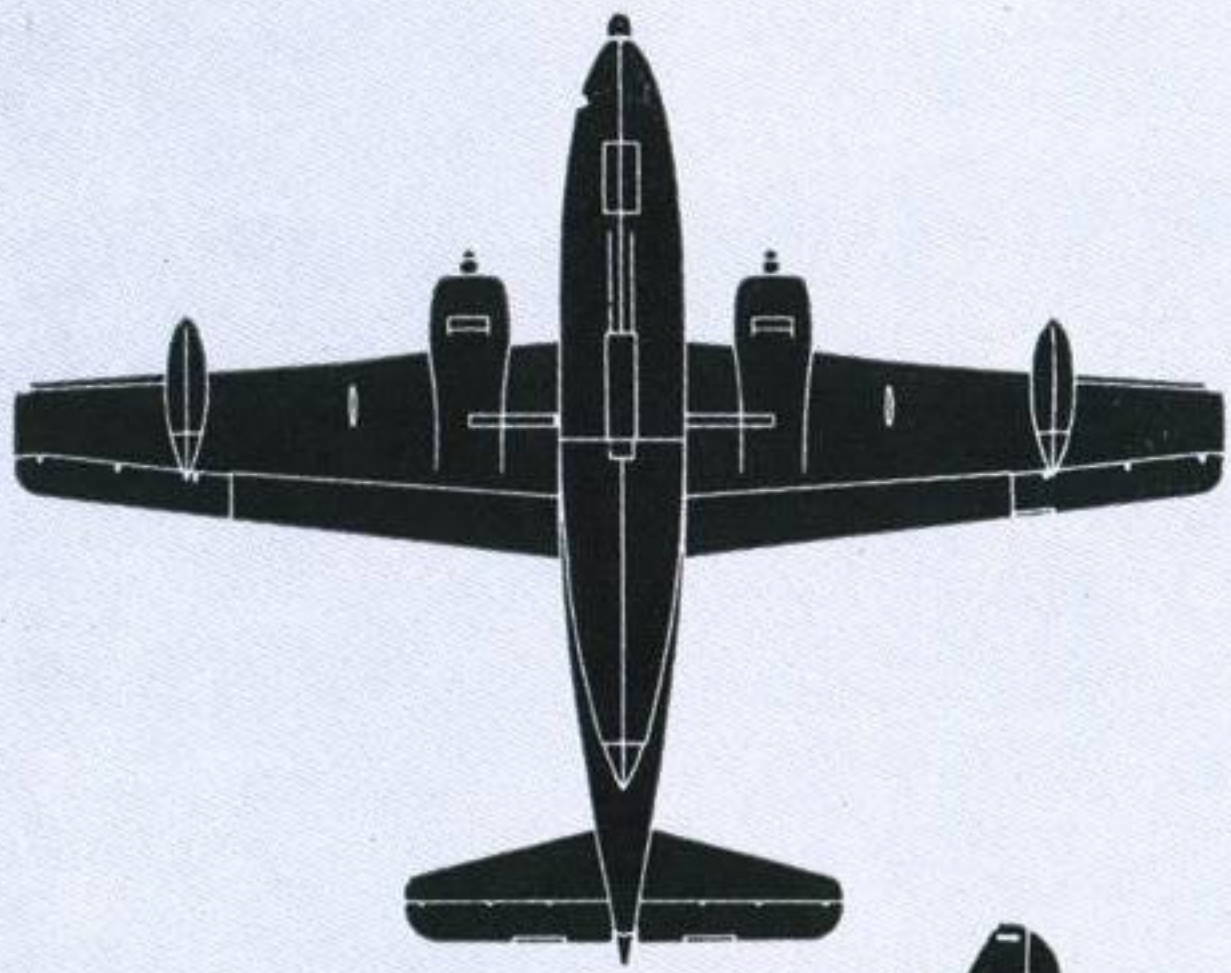
**"ABC British Airports,"** by J. W. R. Taylor. 40 pp. (Illus.). Published by Ian Allan Ltd. at 2s. 6d.

**"ABC Fleet Air Arm,"** by J. W. R. Taylor. 40 pp. (Illus.). Published by Ian Allan Ltd. at 2s. 6d.

**"Aircraft Annual 1960,"** edited by J. W. R. Taylor. 96 pp. (Illus.). Published by Ian Allan Ltd. at 10s. 6d.



Albatross Span 97 feet



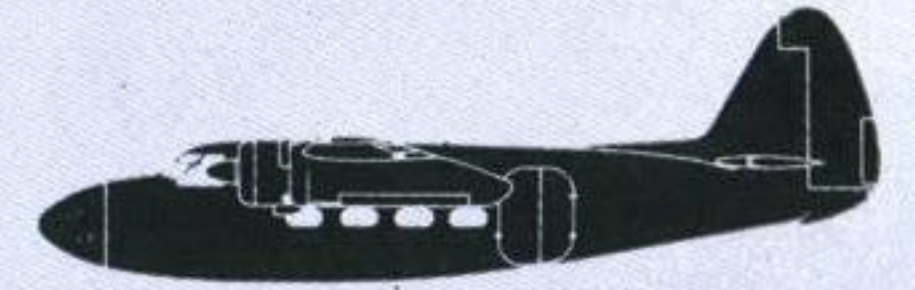
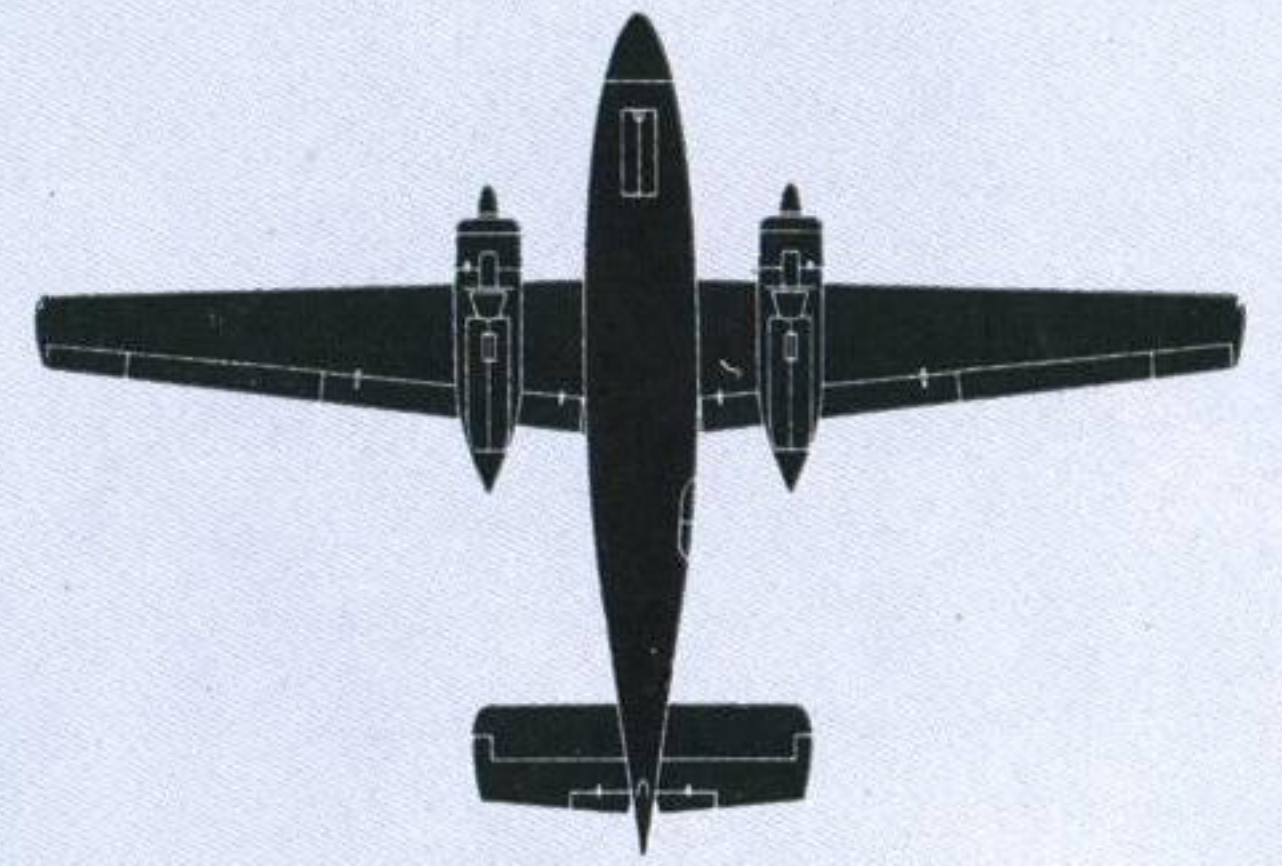
### Who's Who?

*a refresher course*

Both of these aircraft are operating in various roles with the air forces of a number of different countries. They will be confusable from some angles, but not when you really know them, which this lesson will enable you to do if you carry out the normal lesson procedure. Don't turn to the rear cover for our answers until you have listed your own.



Pembroke Span 65 feet



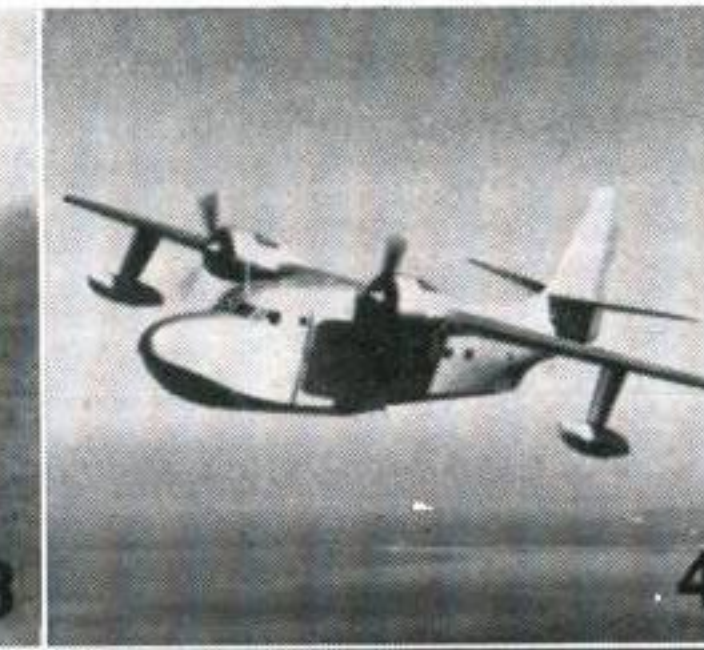
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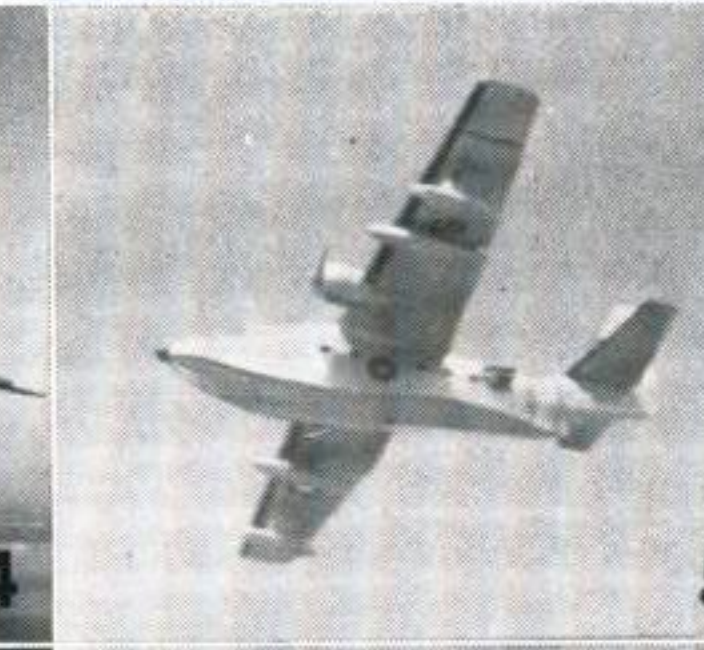
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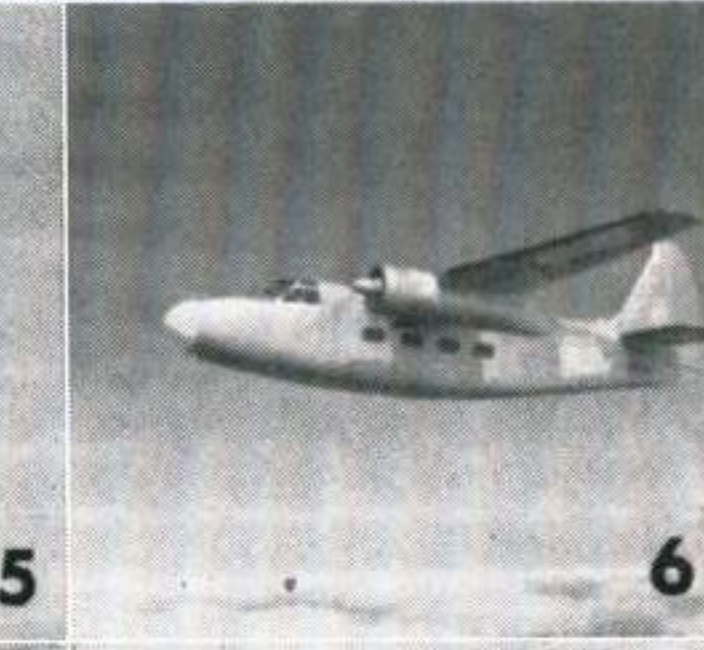
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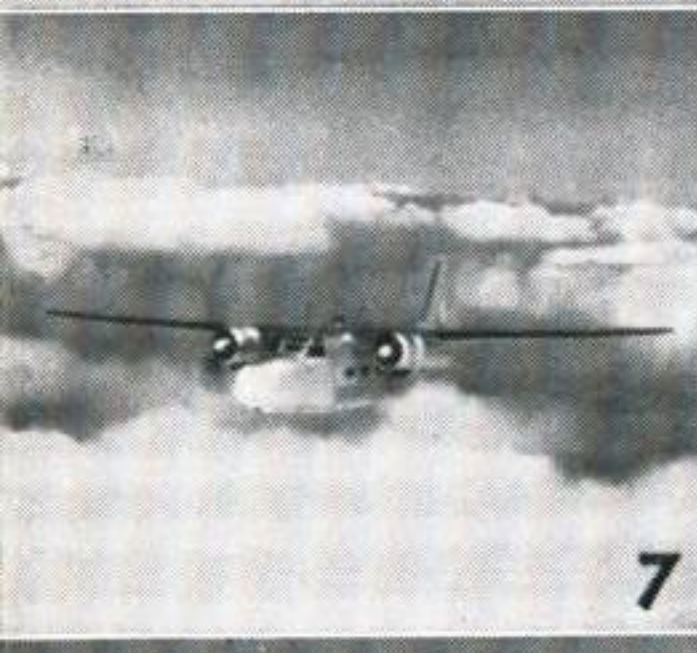
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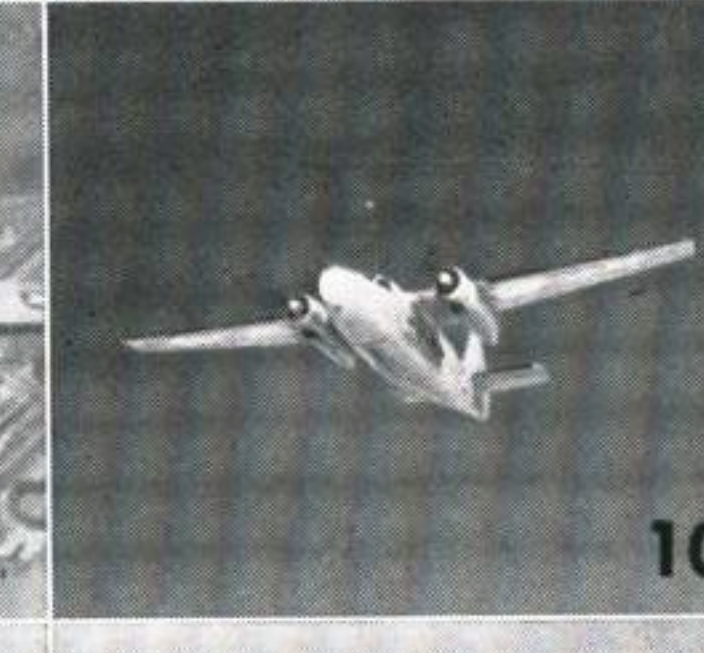
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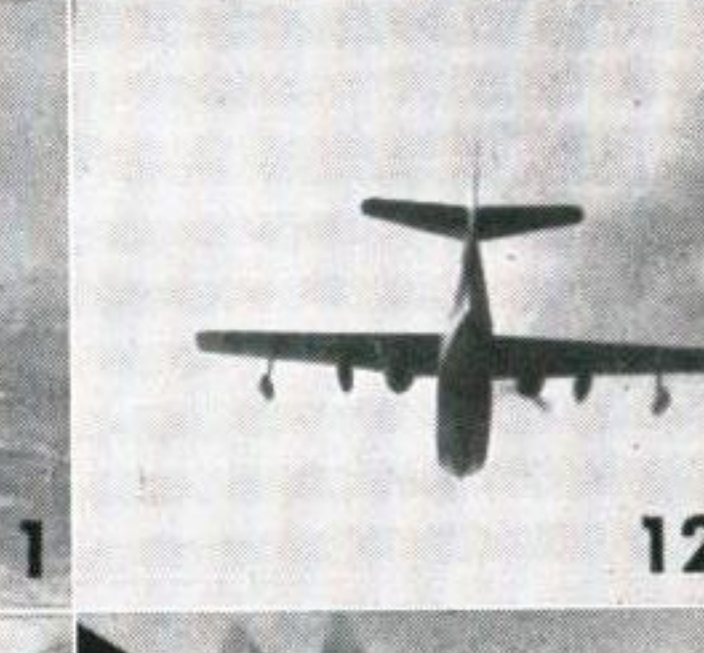
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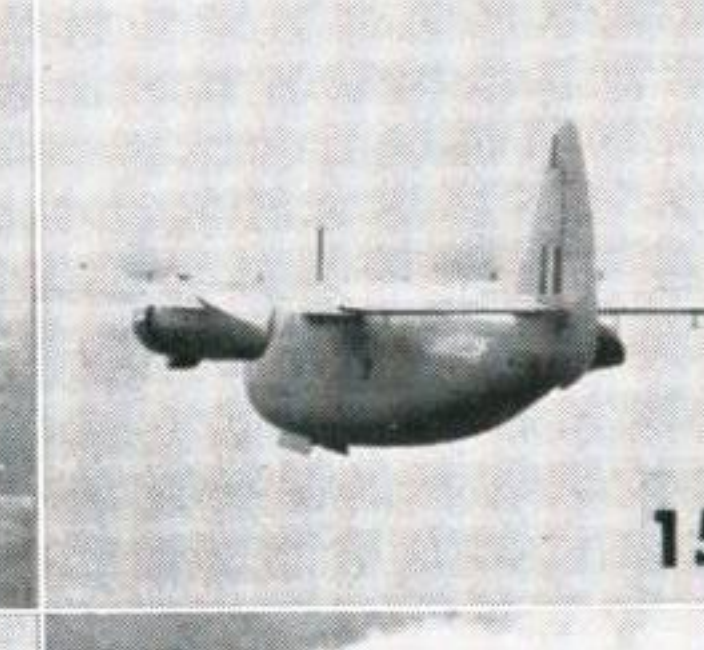
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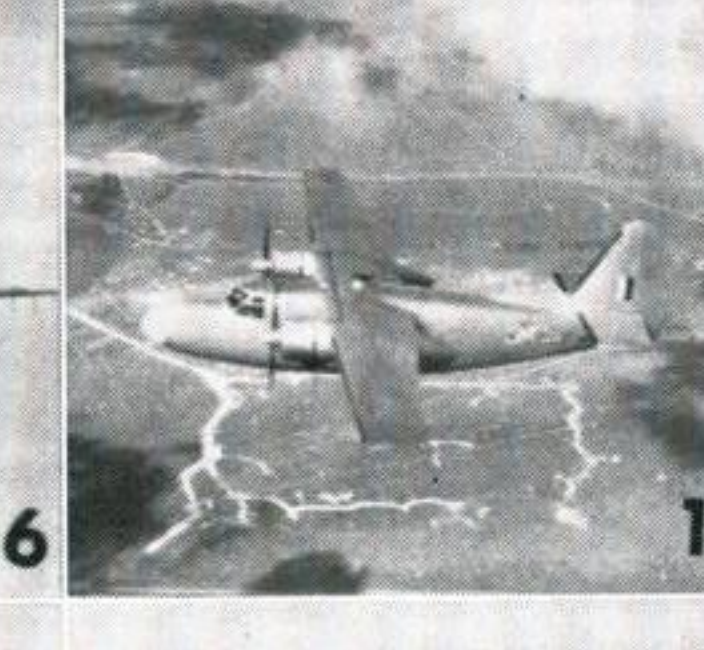
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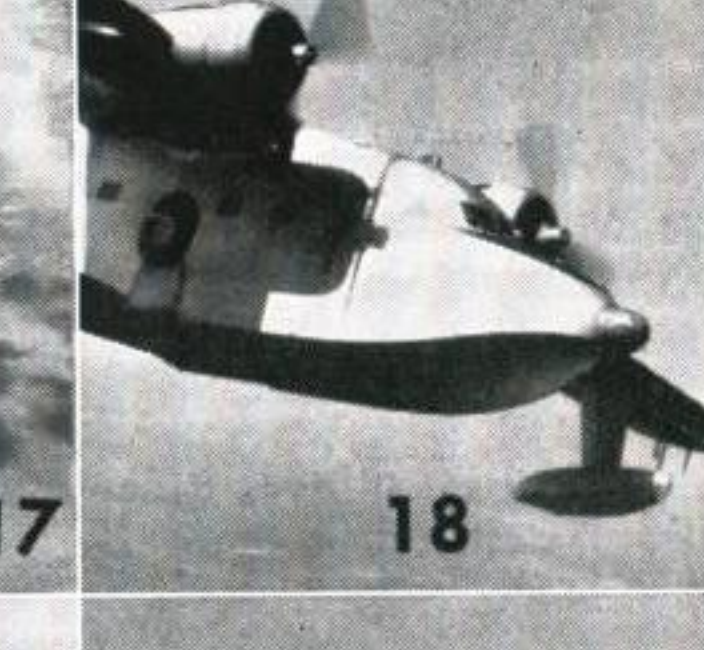
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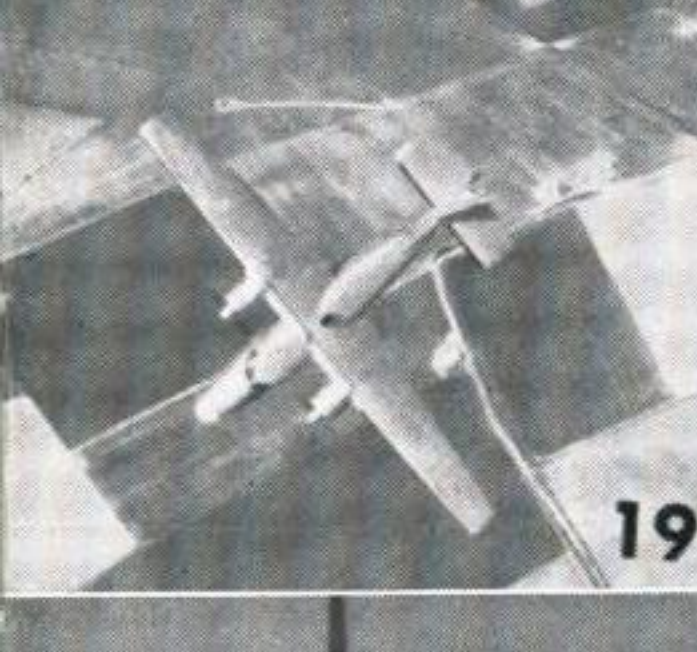
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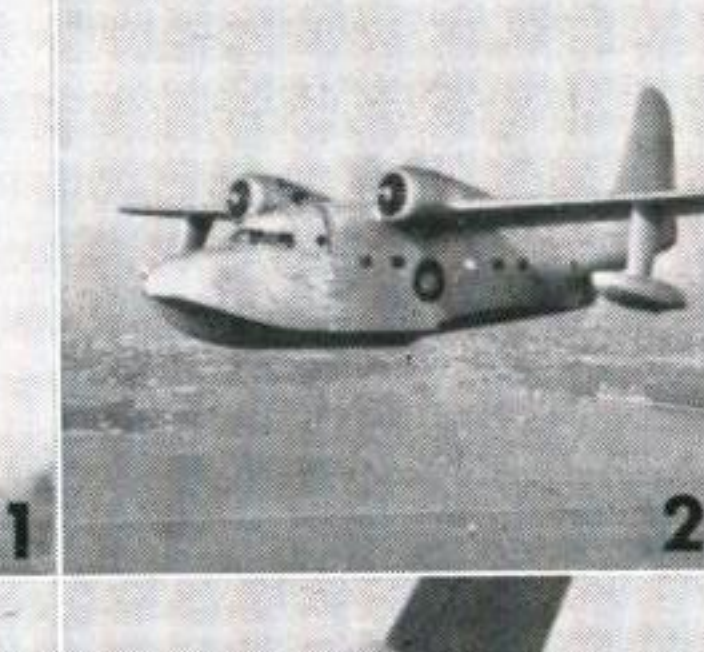
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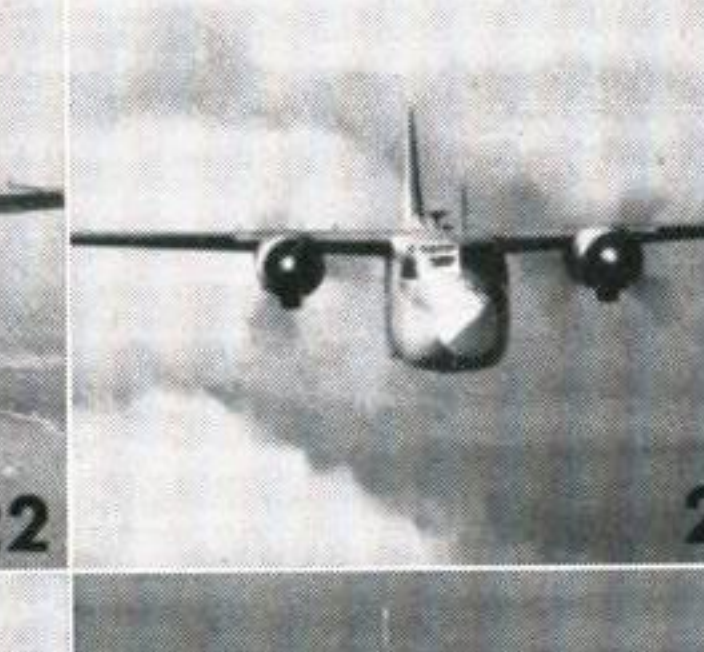
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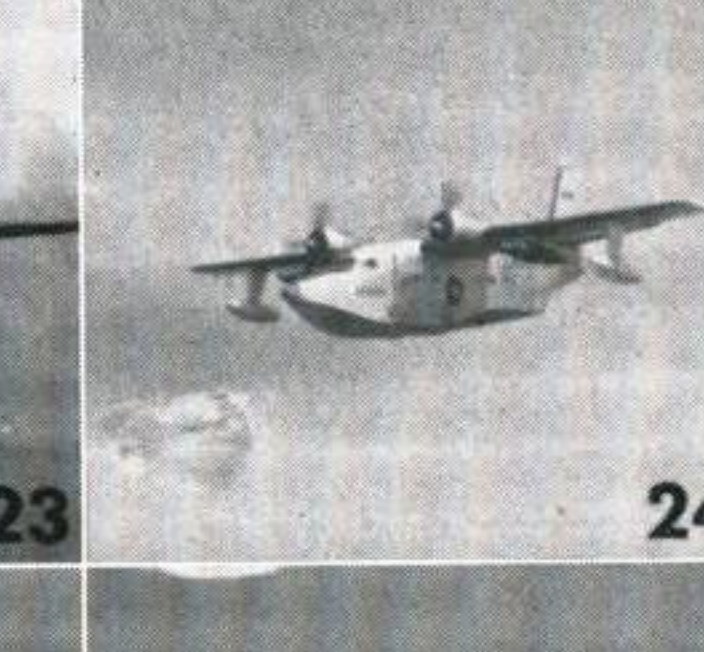
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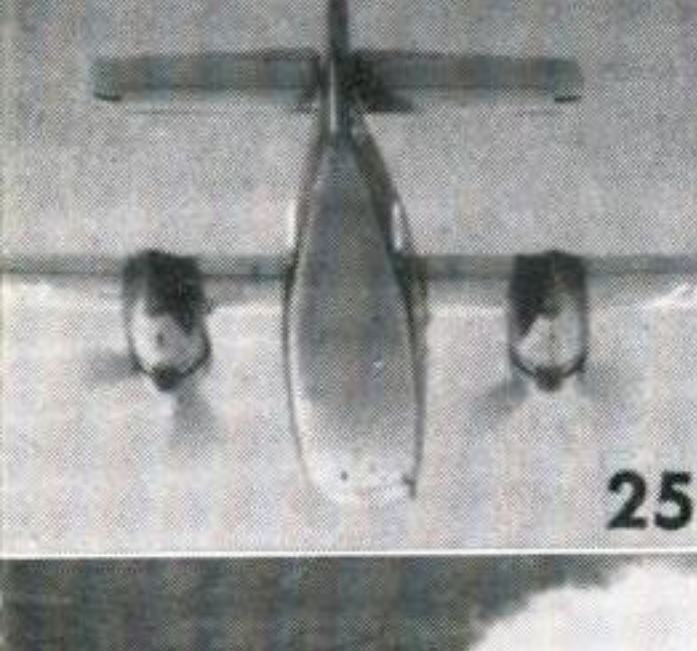
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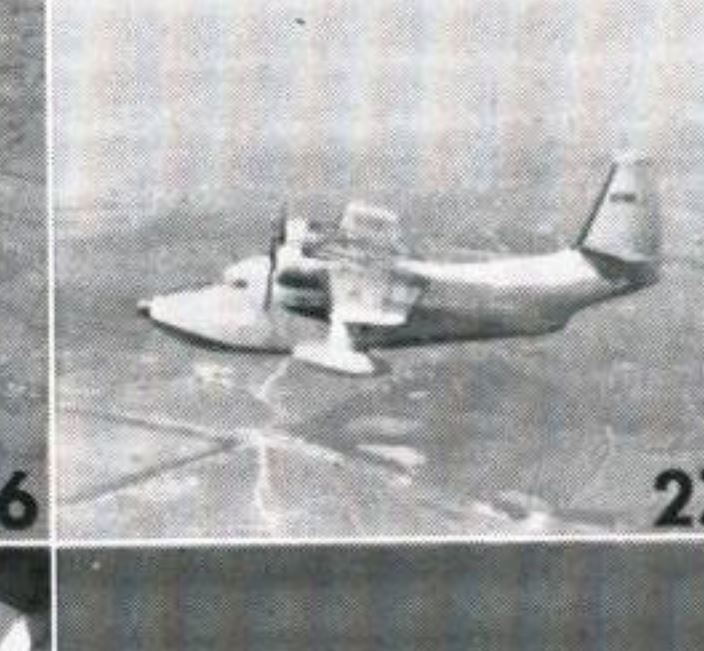
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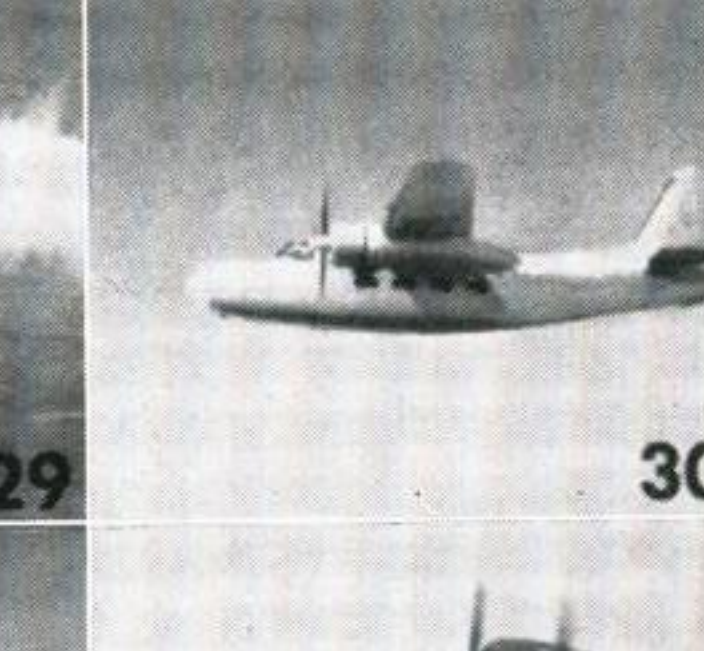
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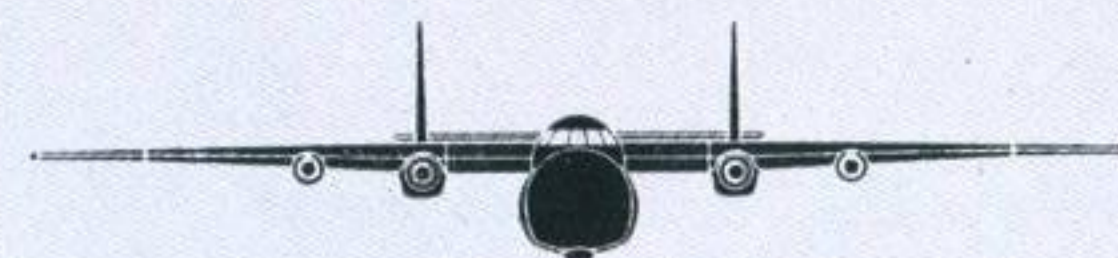
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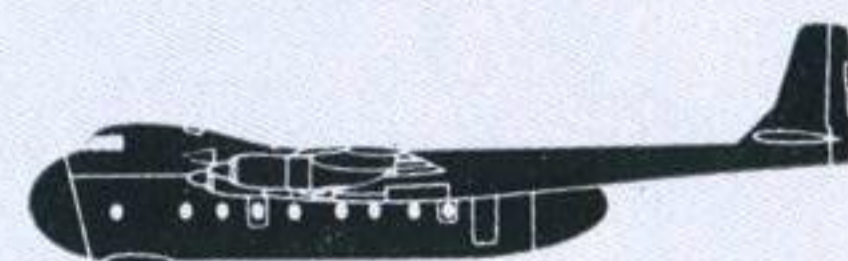
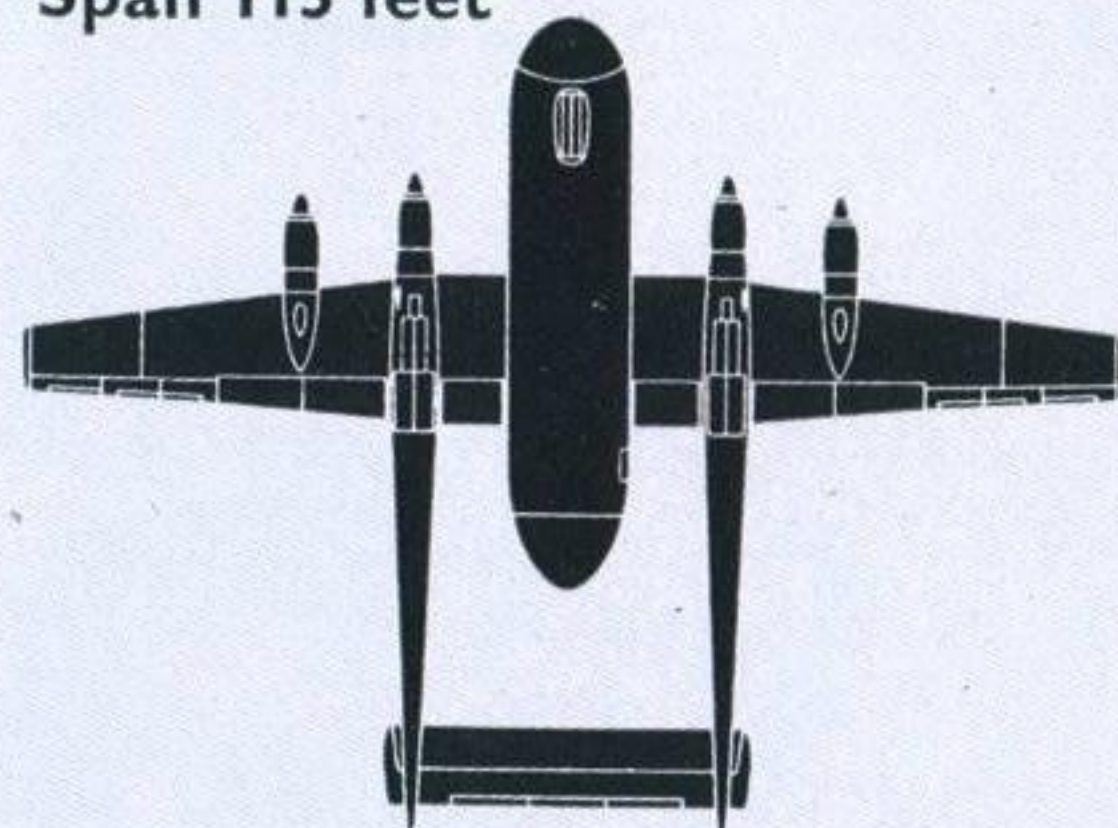
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# Argosy,

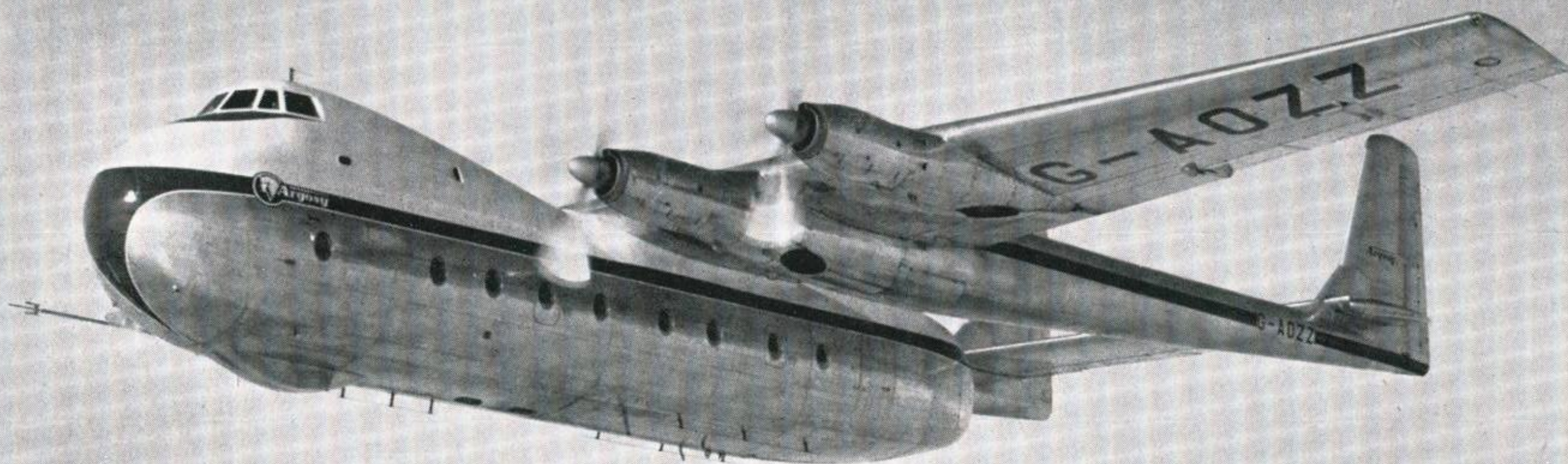
seen flying here, is the A.W.650 freightercoach, soon coming into service. Another variant, very similar in shape and which will be flying within a year, is the A.W.660 military transport version being built for the Royal Air Force. Armstrong Whitworth are, in fact, considering a series of twin-boom transport variants on this configuration of which the Argosy is the first to fly. All will be powered by Rolls-Royce turboprops, some will also be pressurised, have low-loading facilities and are, it is claimed by the makers, to be of fast and economical performance over medium ranges. The twin-boom Argosy may appear easy to recognise here, but may be difficult to distinguish from other twin-boom transports despite its four engines, and it may also be difficult to identify, unless you get in some experience on this lesson.



Span 115 feet



ARGOSY



- Clues: 1. Pod and Boom.  
2. Bulbous nose to nacelle.  
3. Four motors.

Bear these in mind when identifying the targets.

ARGOSY

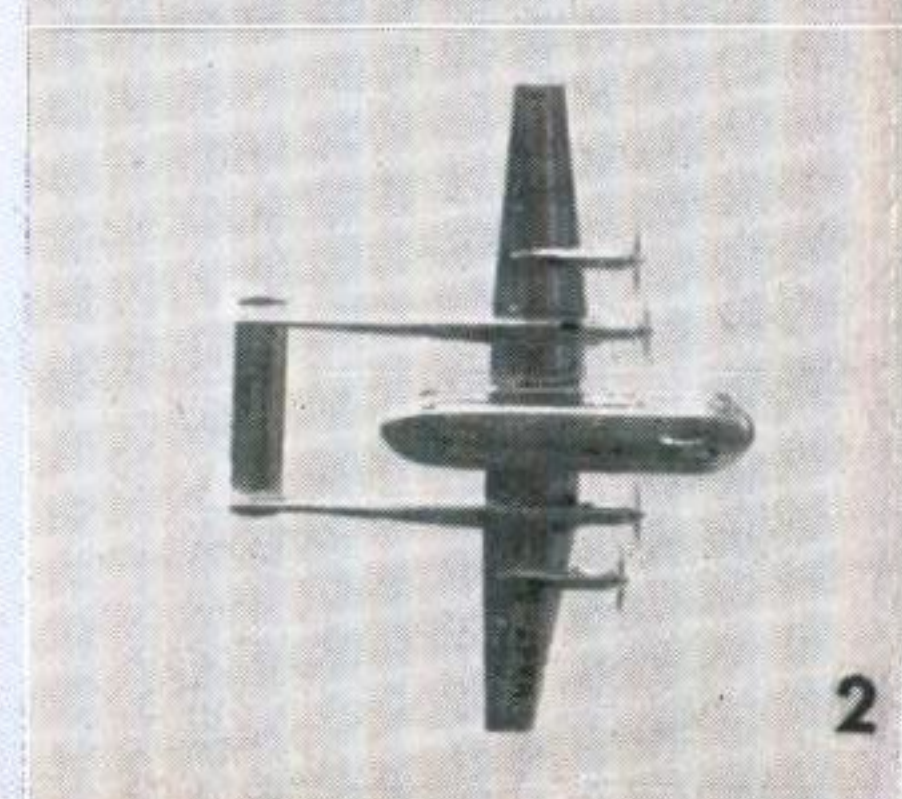


## Spot the Argosy

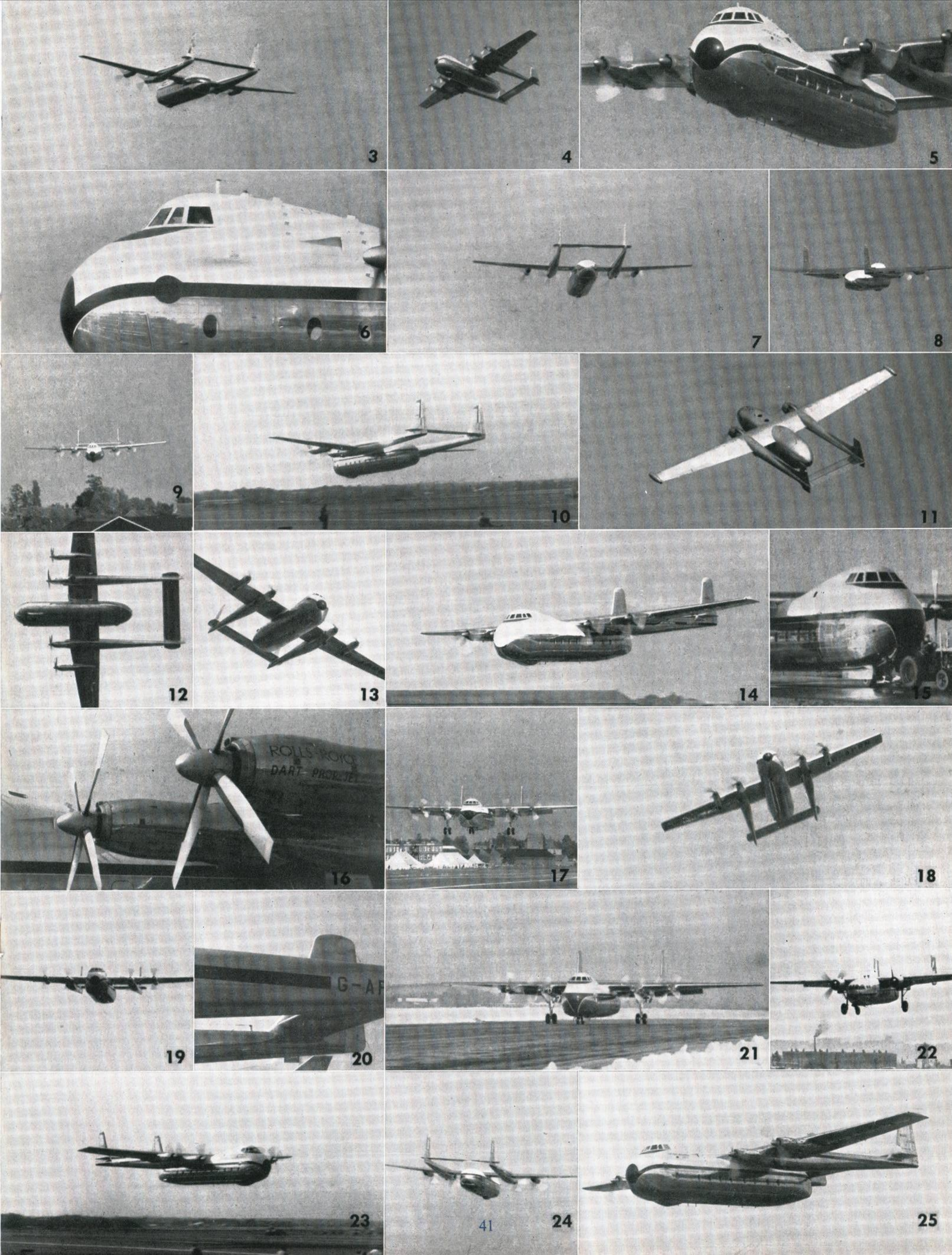
The named views are the keys, the numbered views are targets; the one will provide the answers to the other. If you want to be able to say ARGOSY with confidence every time you see one flying, first write down numbers 1 to 25 on a piece of paper and then tackle the targets that are easiest to identify. In this way you will build up experience of the Argosy which will help to identify the more difficult targets. Some jokers are included and if you hurry the lesson they may catch you out.

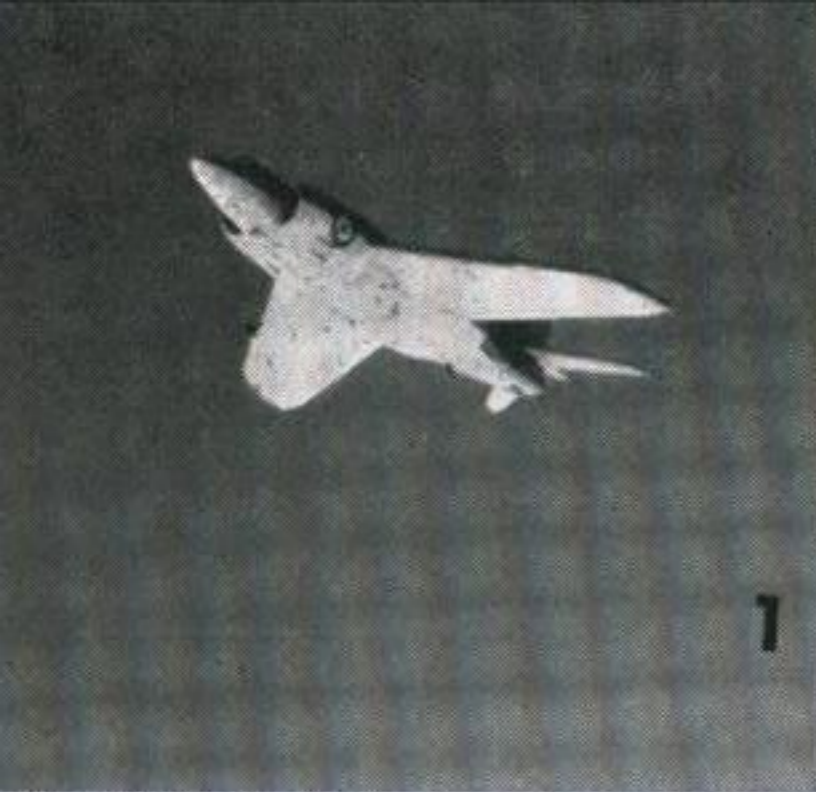


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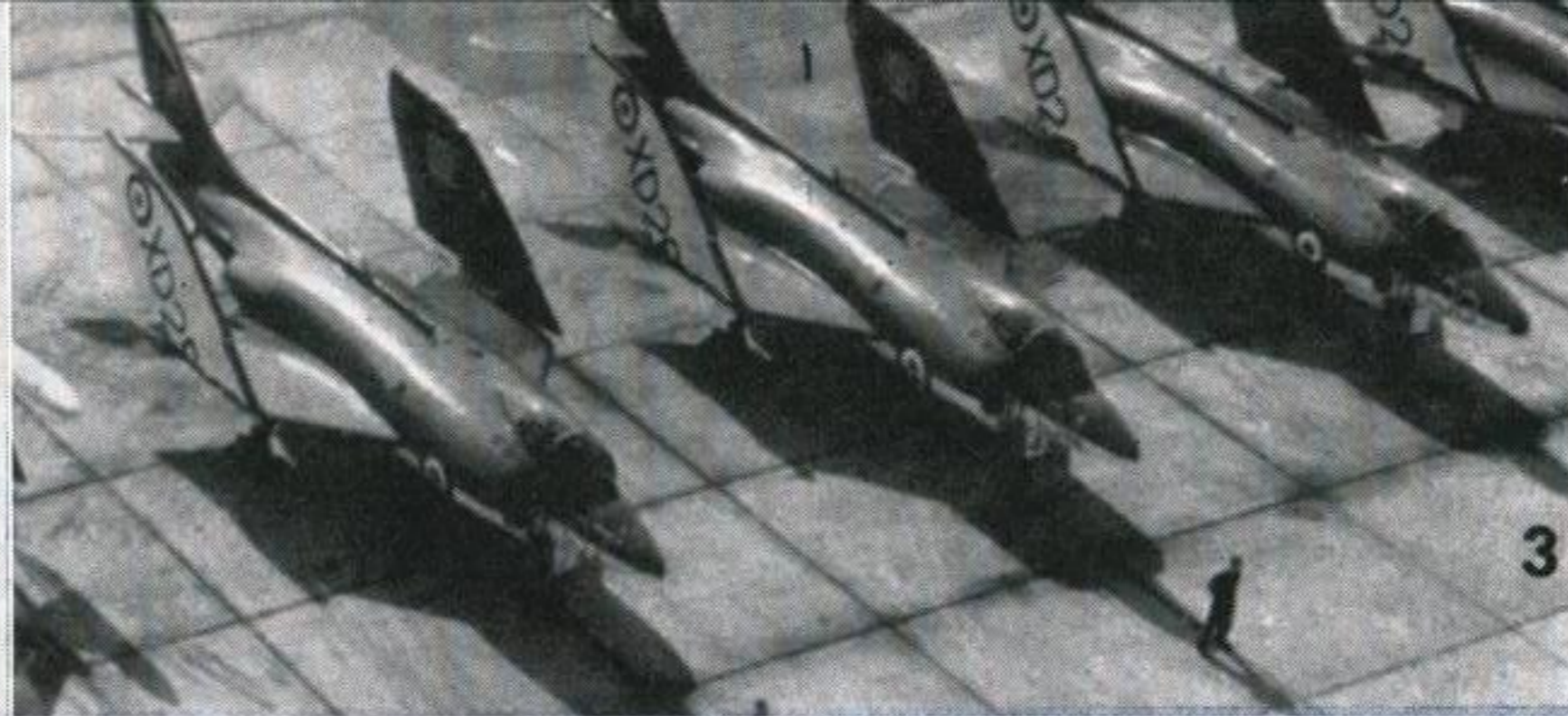




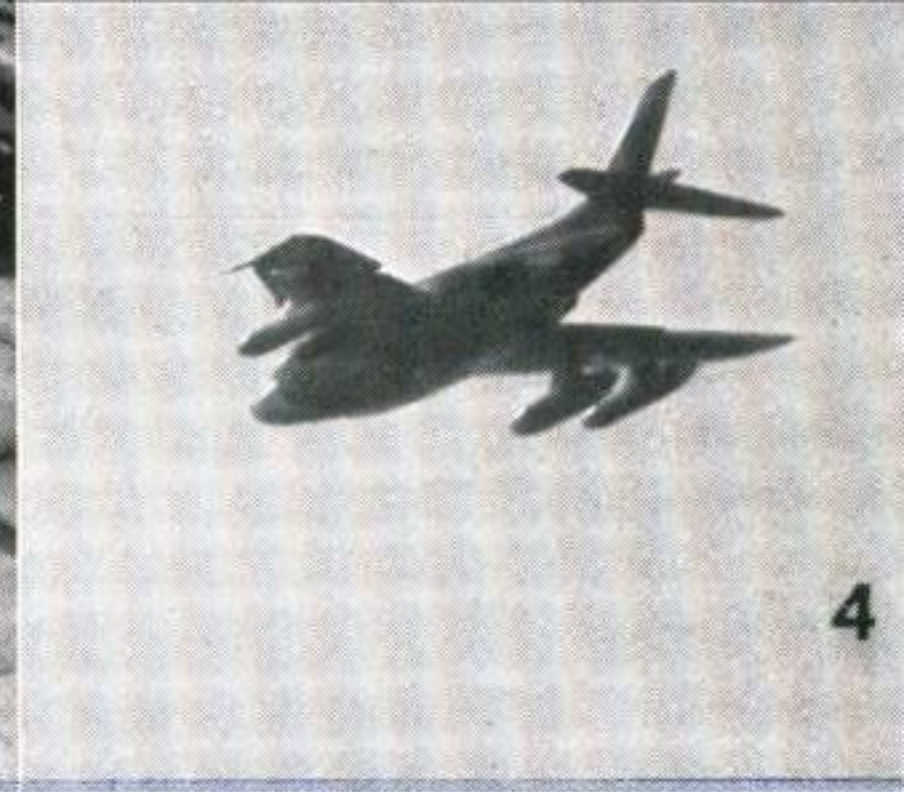
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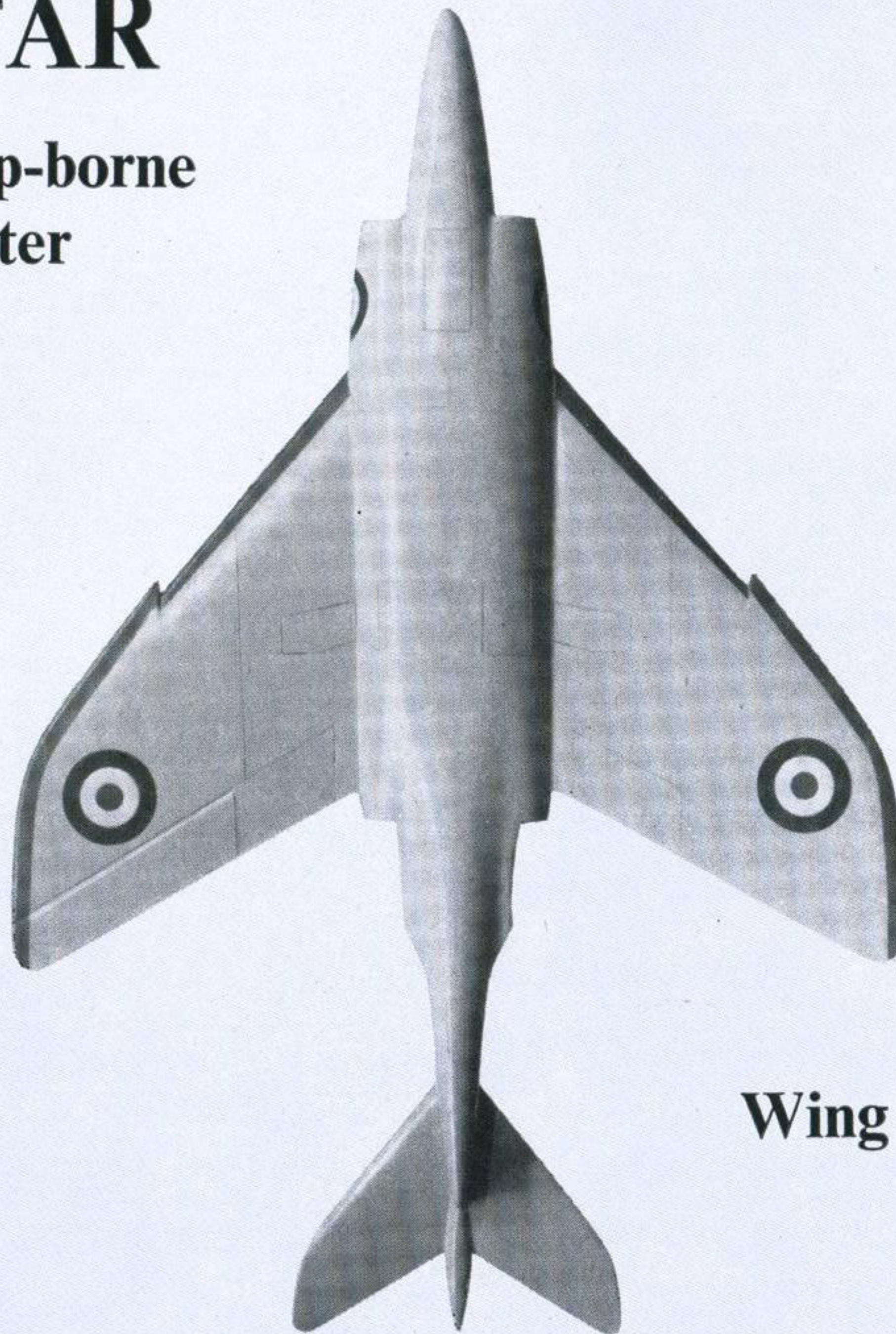
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THE SCIMITAR is replacing the Seahawk in the service of the Royal Navy. We present it here in a wide variety of aspects and activities from which you can learn to identify it. This you can do by comparing each target with the three-view and writing down your answers on a list. You'll find that some small details such as boundary layer fences, and the fin-fairing extension do not appear on the key nevertheless they remain very much in character. Other things which can affect a Scimitar's outline are a "photographic" nose and various external loads such as rockets, and extra fuel tanks. The target list appears on the cover.

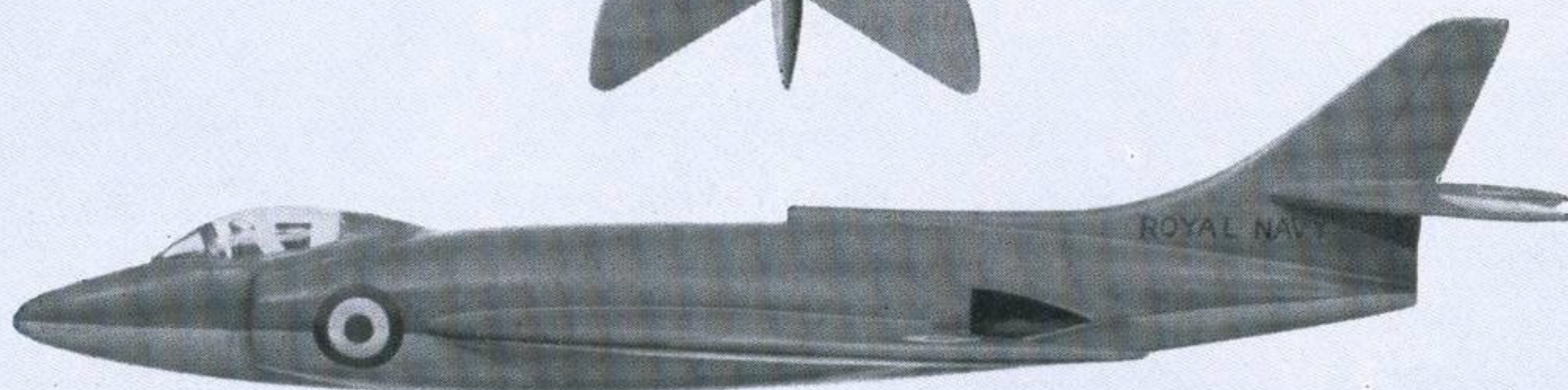


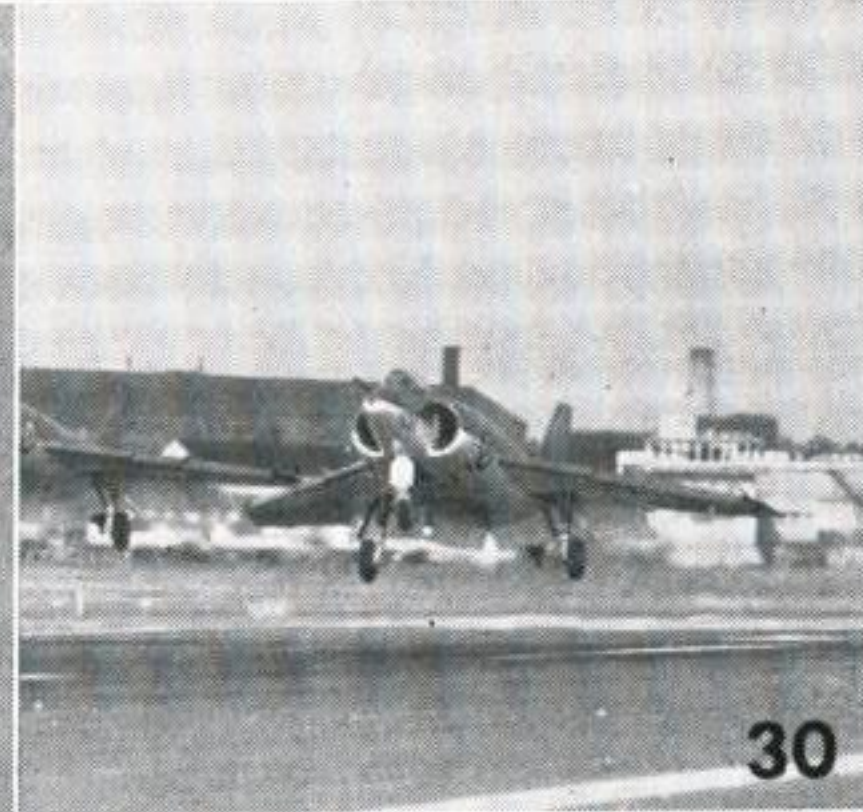
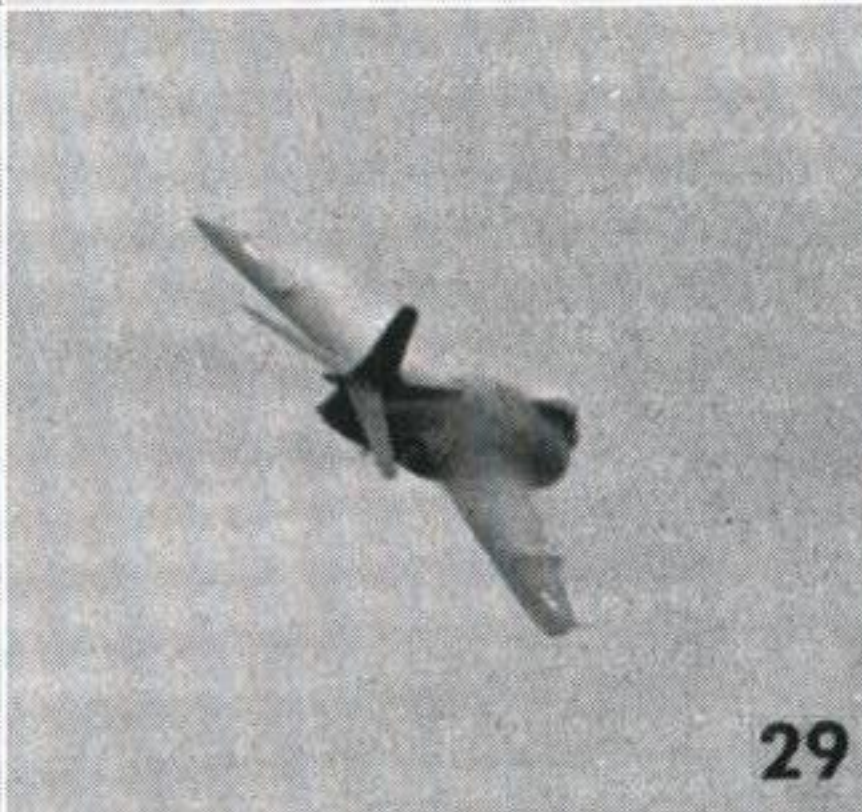
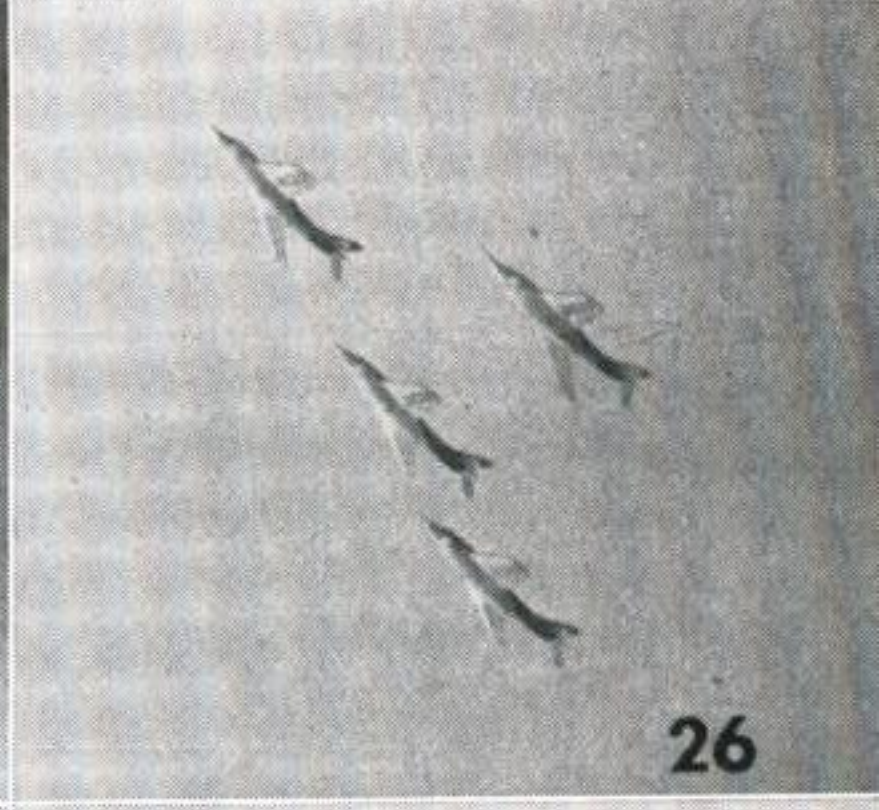
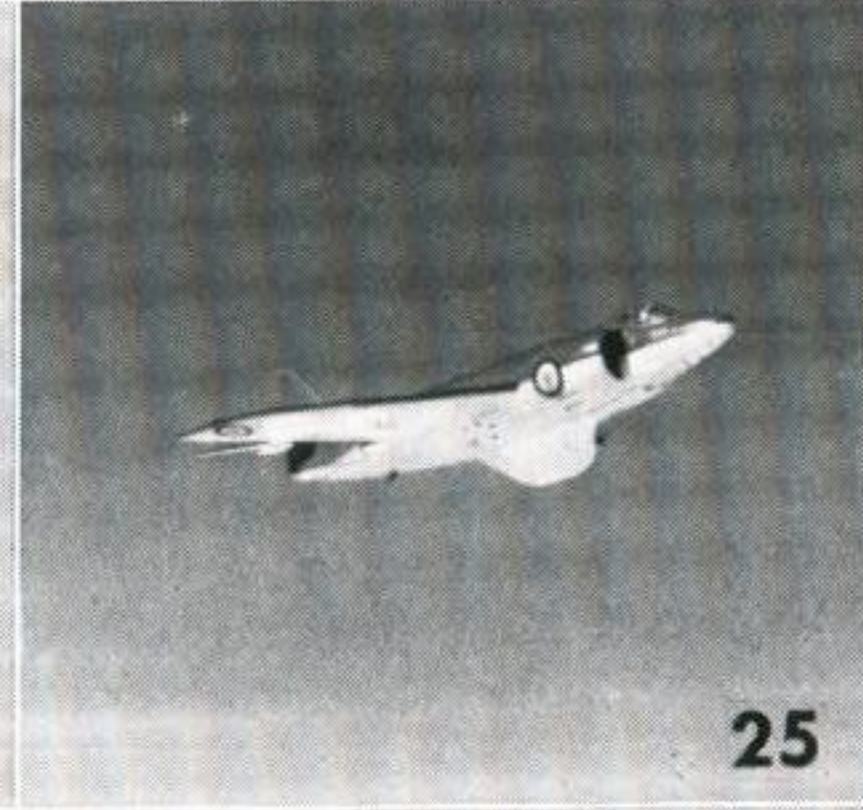
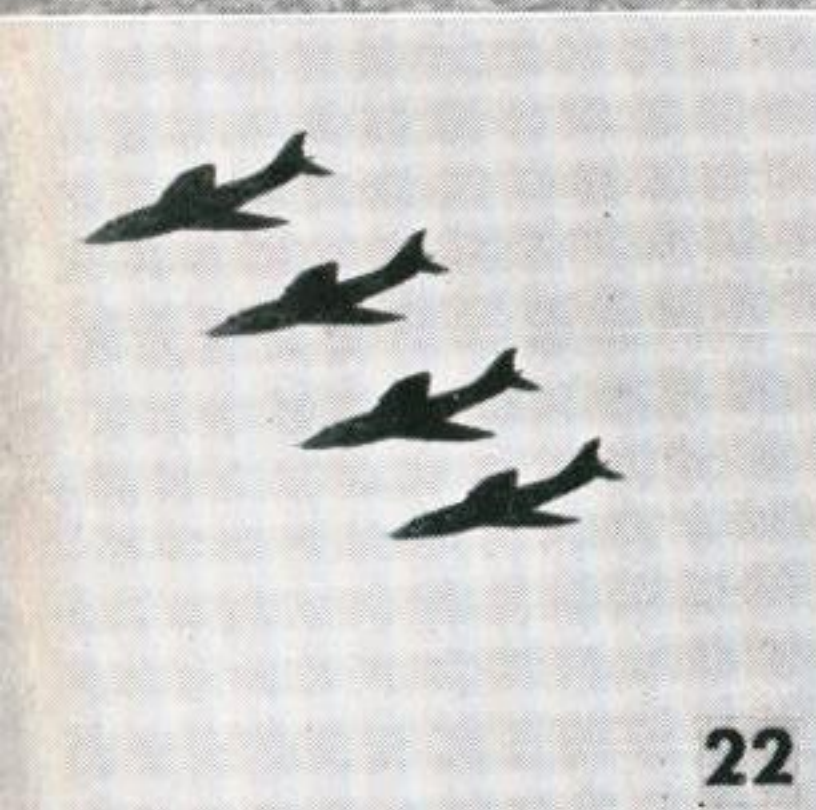
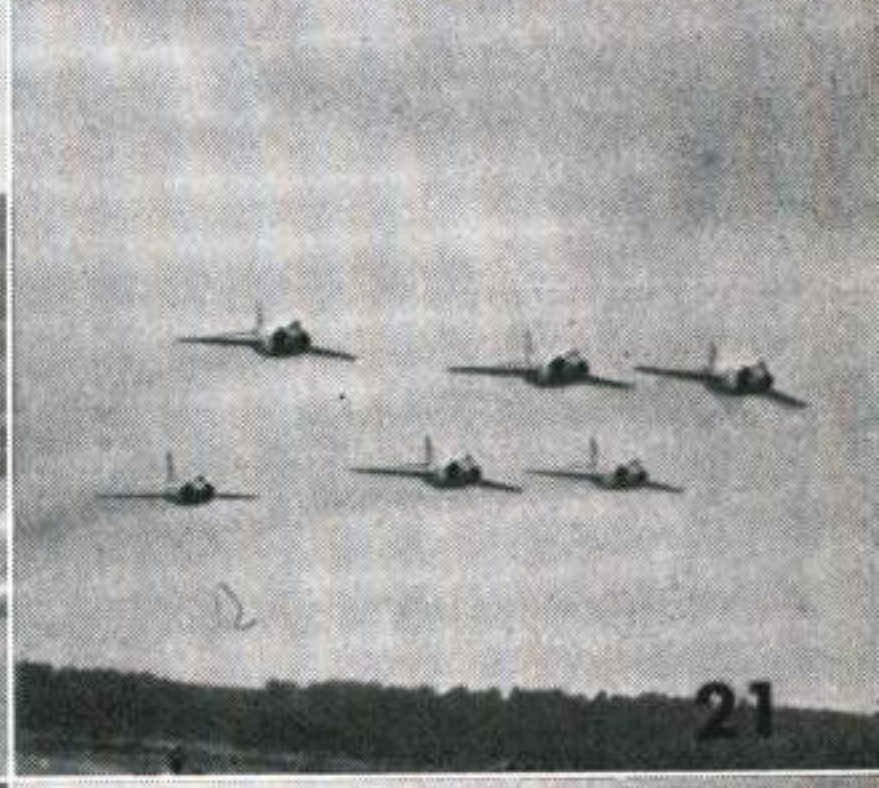
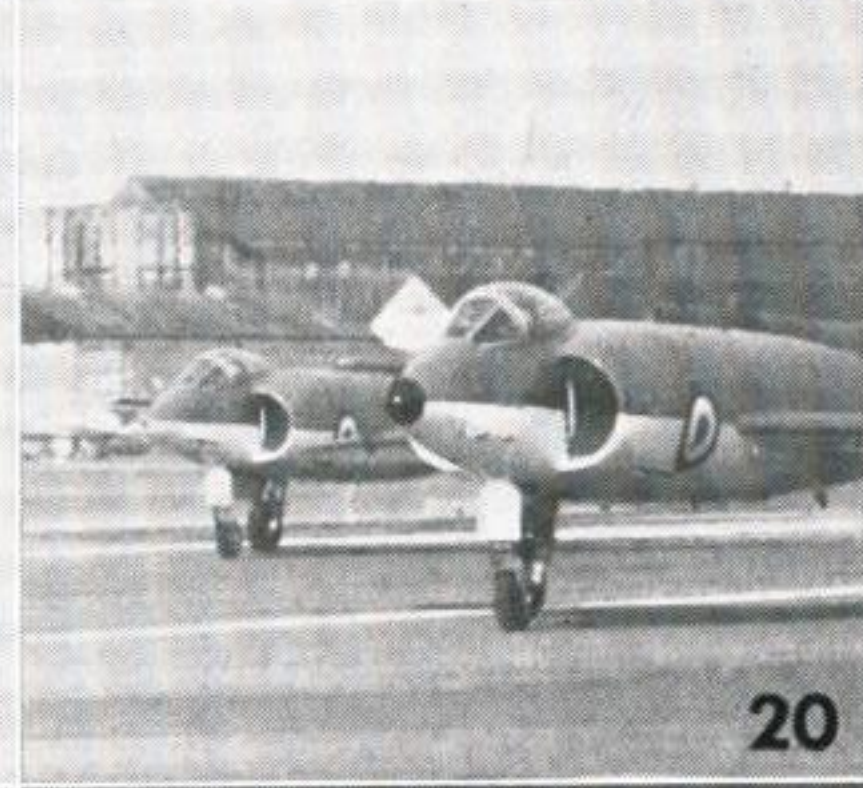
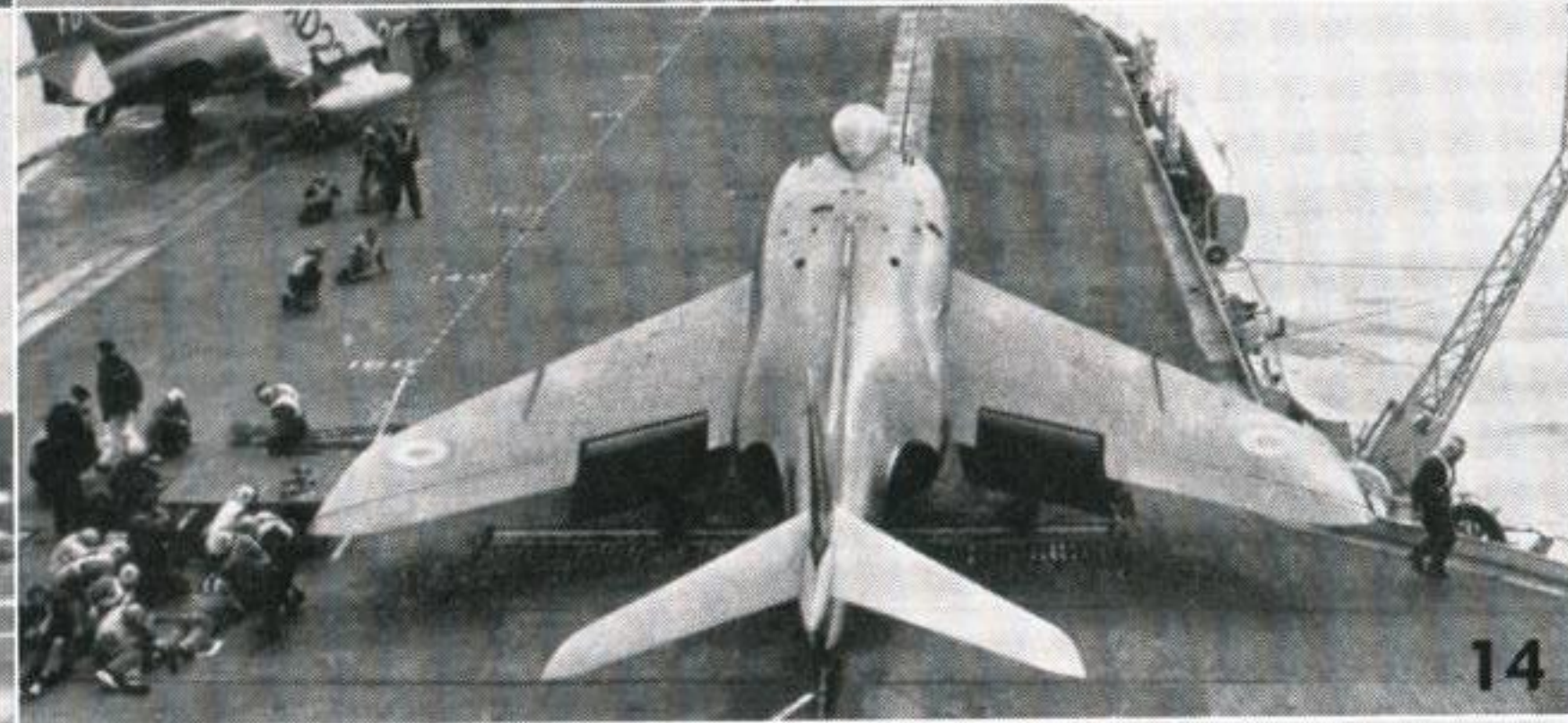
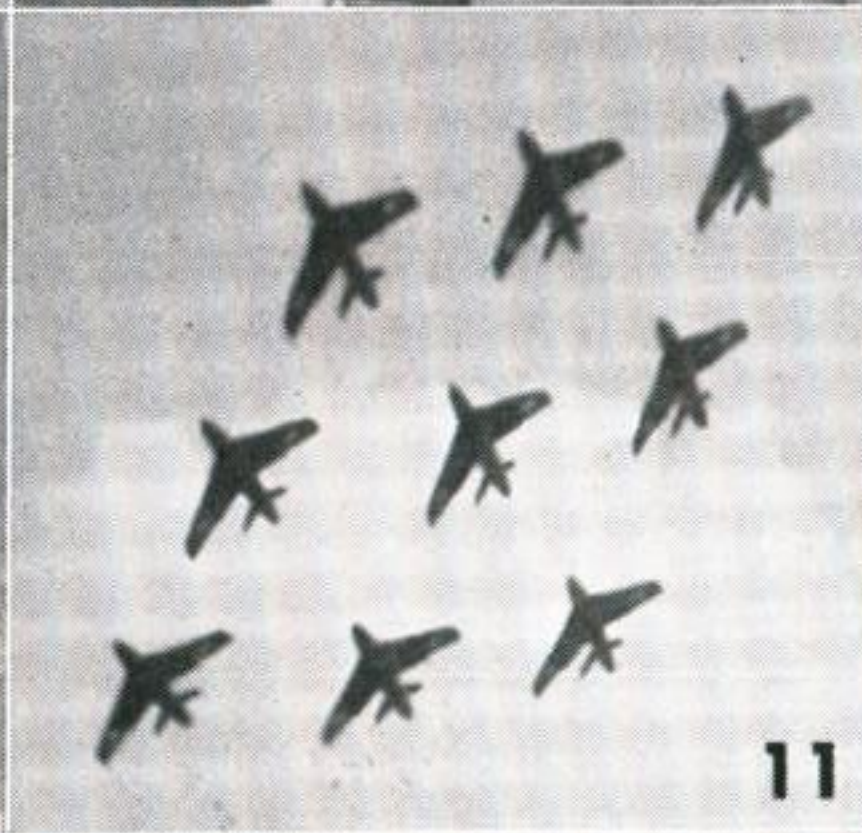
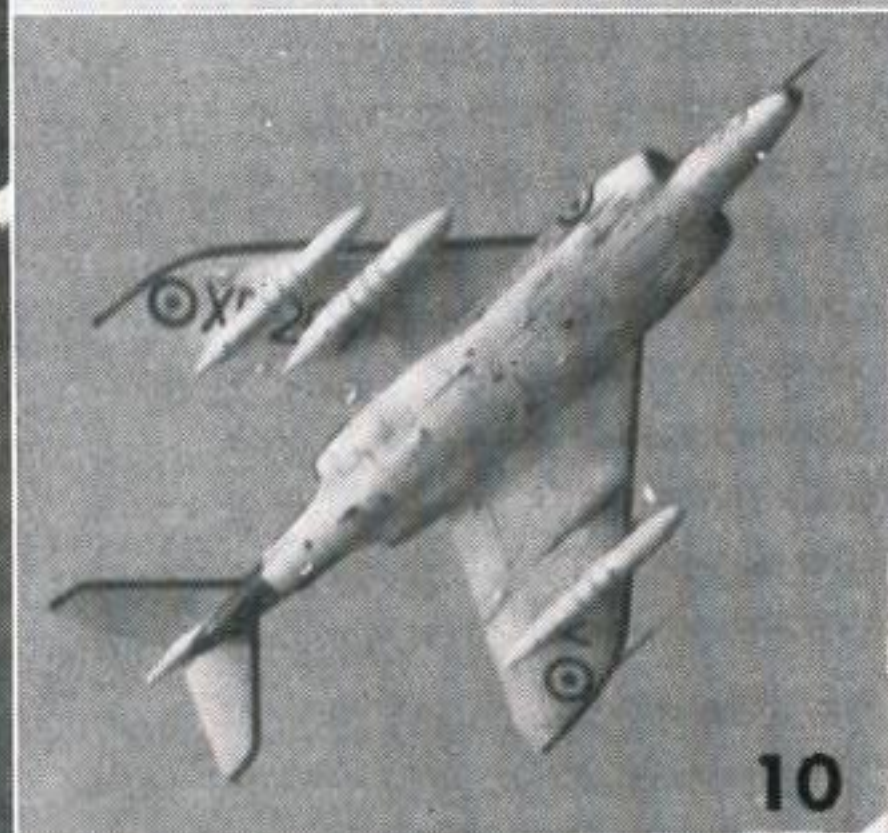
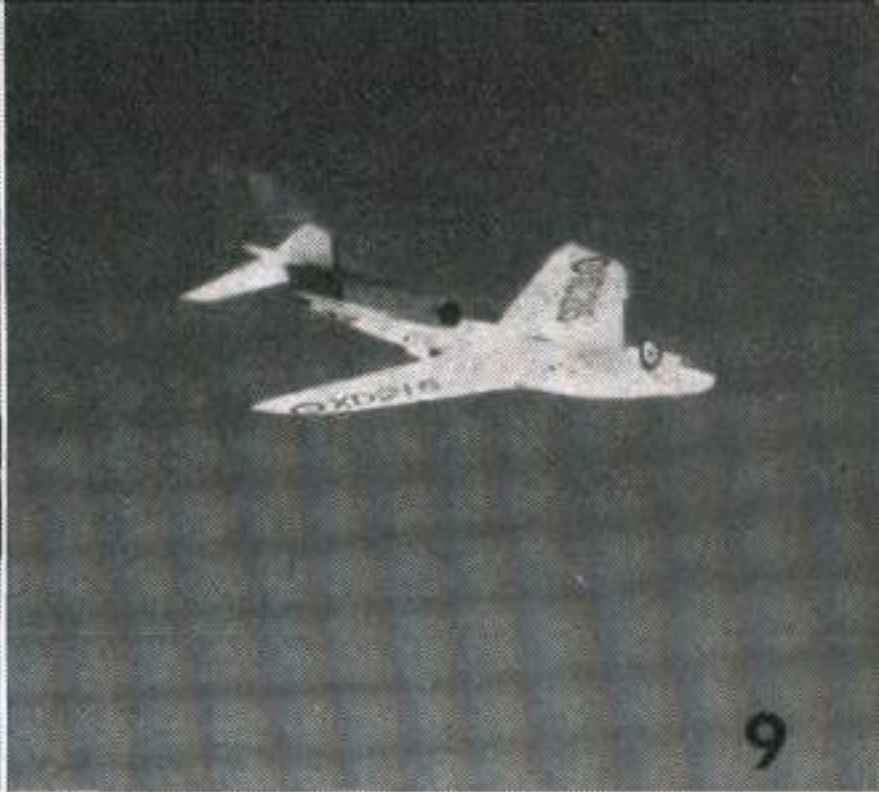
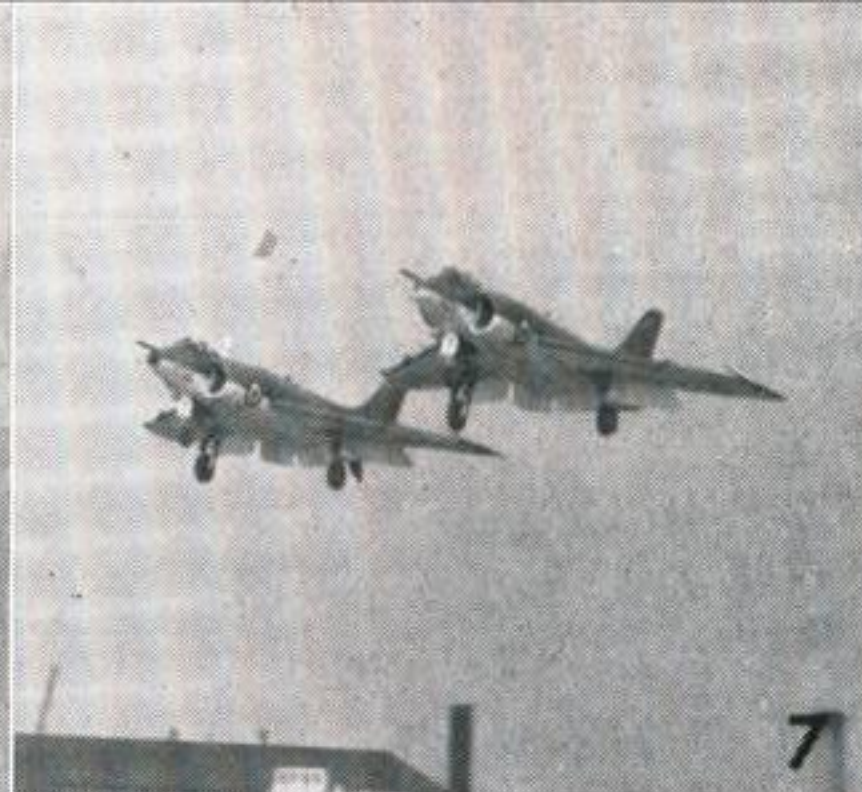
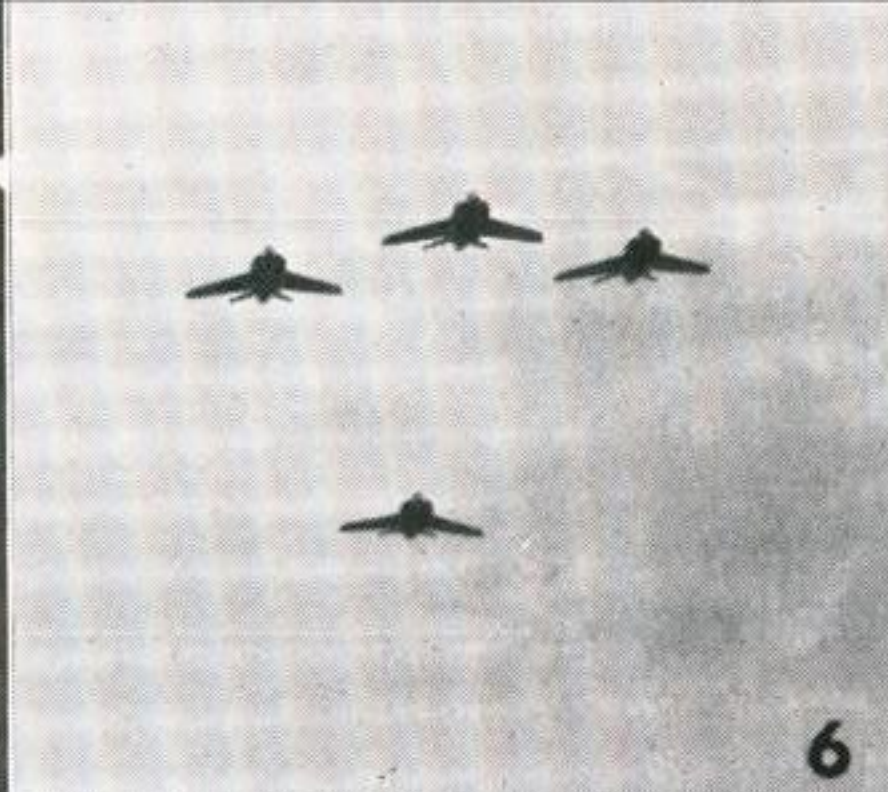
# SCIMITAR

**Single-Seat Ship-borne  
Strike/Fighter**



**Wing Span 37 feet**





# The R.O.C. Fixed Survey Meter

THE ROYAL OBSERVER CORPS has been using the Radiac Survey Meter No. 2 for training since shortly after the introduction of its fall-out reporting role, and all exercises and operational procedures have been based on the use of this instrument. Its use was, however, always considered to be an interim arrangement pending the design and manufacture of a suitable remote-reading instrument.

The design work is now complete and production of the new instrument, the Fixed Survey Meter, has started.

## General Description

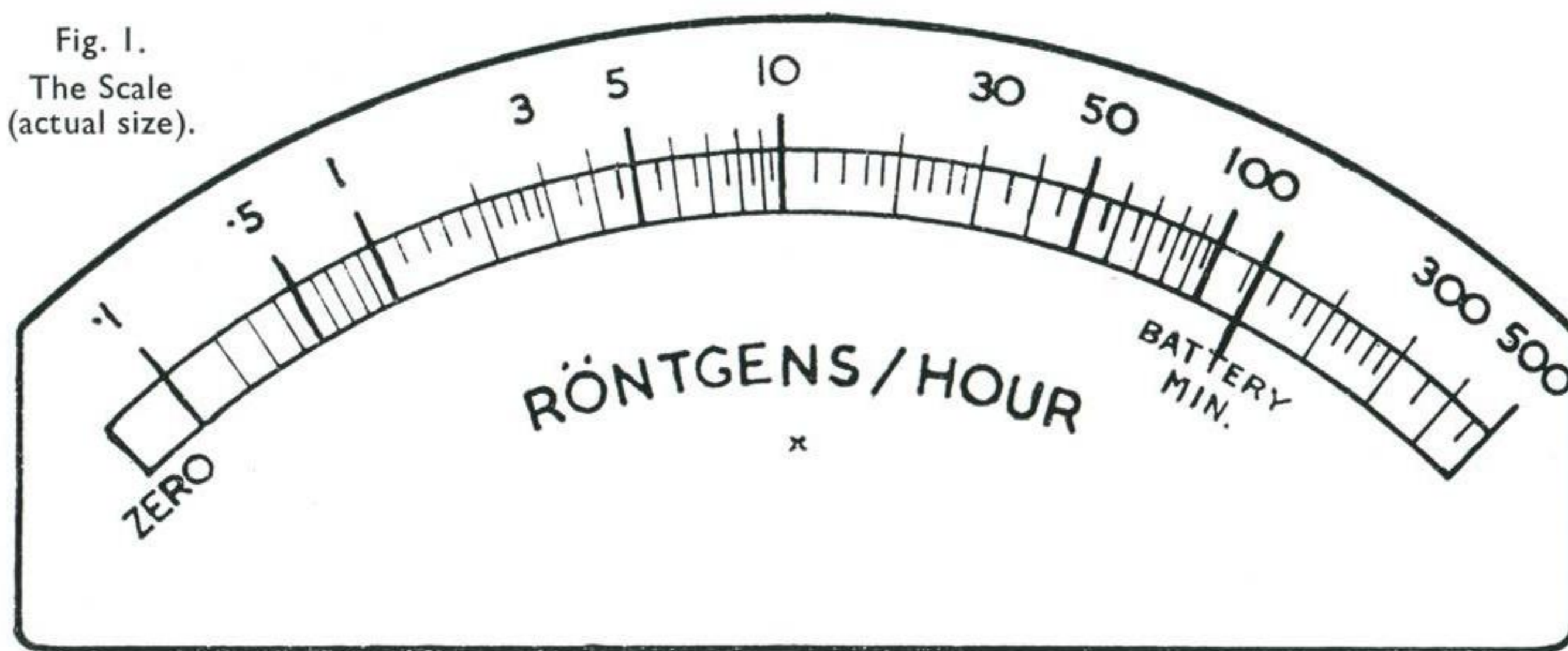
The Fixed Survey Meter is a battery-operated instrument used within the underground post to measure the radiation dose-rate outside the post. The normal range of the instrument is from 0.1 röntgens per hour to 500 röntgens per hour and, unlike the Radiac Survey Meter No. 2, the whole range is shown on a single scale. In order that this can be done without the scale becoming too large, the markings are on a logarithmic basis, that is, the space between the readings "collapses" progressively from the lower to the upper end of the scale. (Fig. 1 shows the scale full-size.)

The upper limit can be raised to 5,000 röntgens per hour by shielding the probe unit. This will be discussed in a later article.

As on earlier meters issued to the R.O.C., there is a facility for checking the zero setting of the instrument but, unlike the others, the full-scale setting can also be checked. Both these checks can be made whether or not radioactivity is present.

Provision is also made for checking the state of each of the batteries in the battery pack.

Fig. 1.  
The Scale  
(actual size).



## Construction

The instrument consists of three main items:

- the probe unit, comprising the ionisation chamber, telescopic rod and interconnecting cable;
- the indicator unit, with its battery pack;
- the plastic dome cover.

### The Ionisation Chamber

This consists of an ionisation chamber, completely enclosed and sealed, which is bolted to the top section of the telescopic rod. This chamber is connected by means of an electric cable to the indicator unit (figs. 2 and 3).

### The Telescopic Rod

This consists of an aluminium rod which slides within an aluminium tube. When extended to its fullest extent it can be pinned in the position by means of a split pin chained to the top of the tube. At the top of the rod is a special "U" shaped fitting which can be screwed to the bottom of

Fig. 2.  
The Ionisation Chamber.

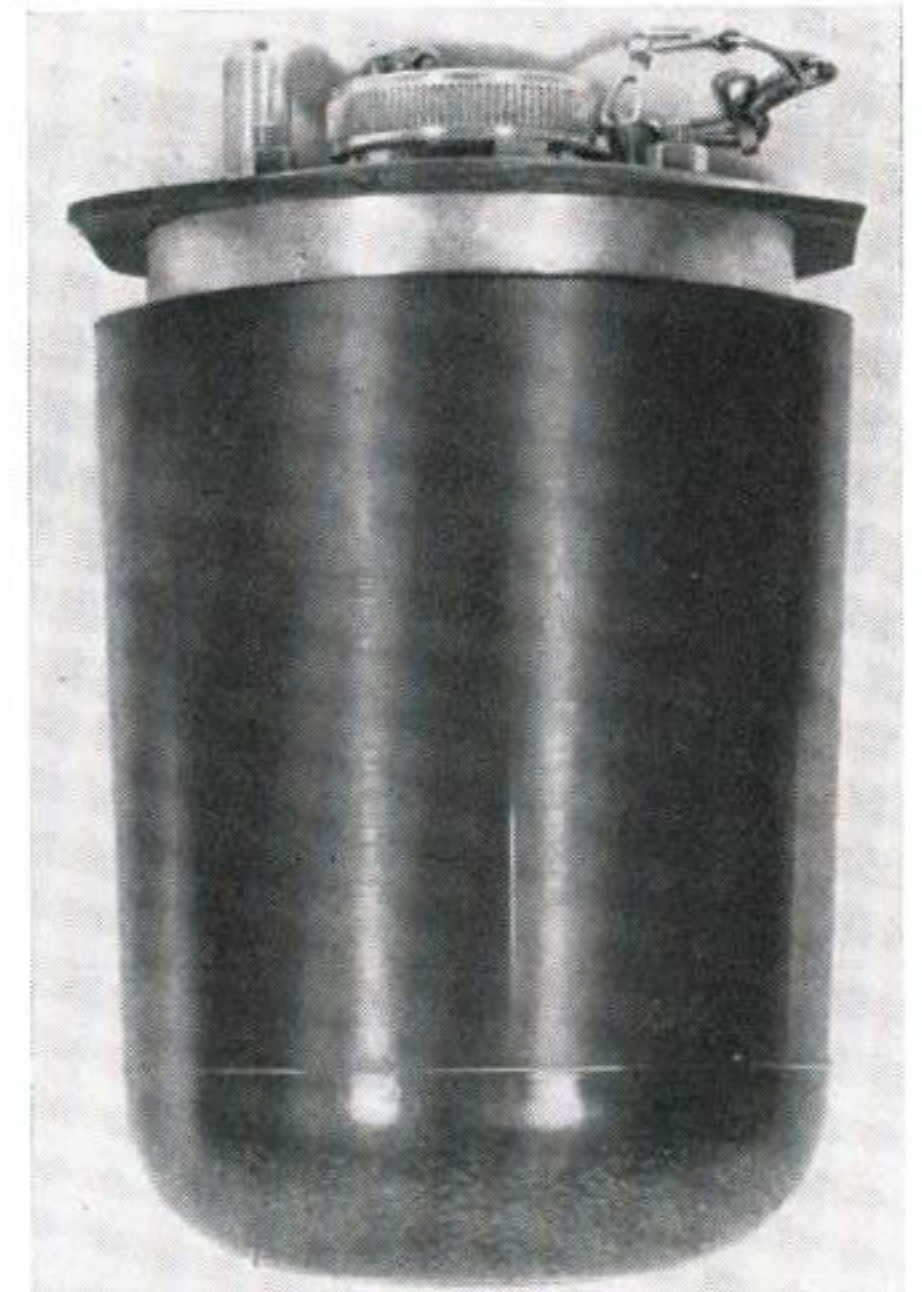
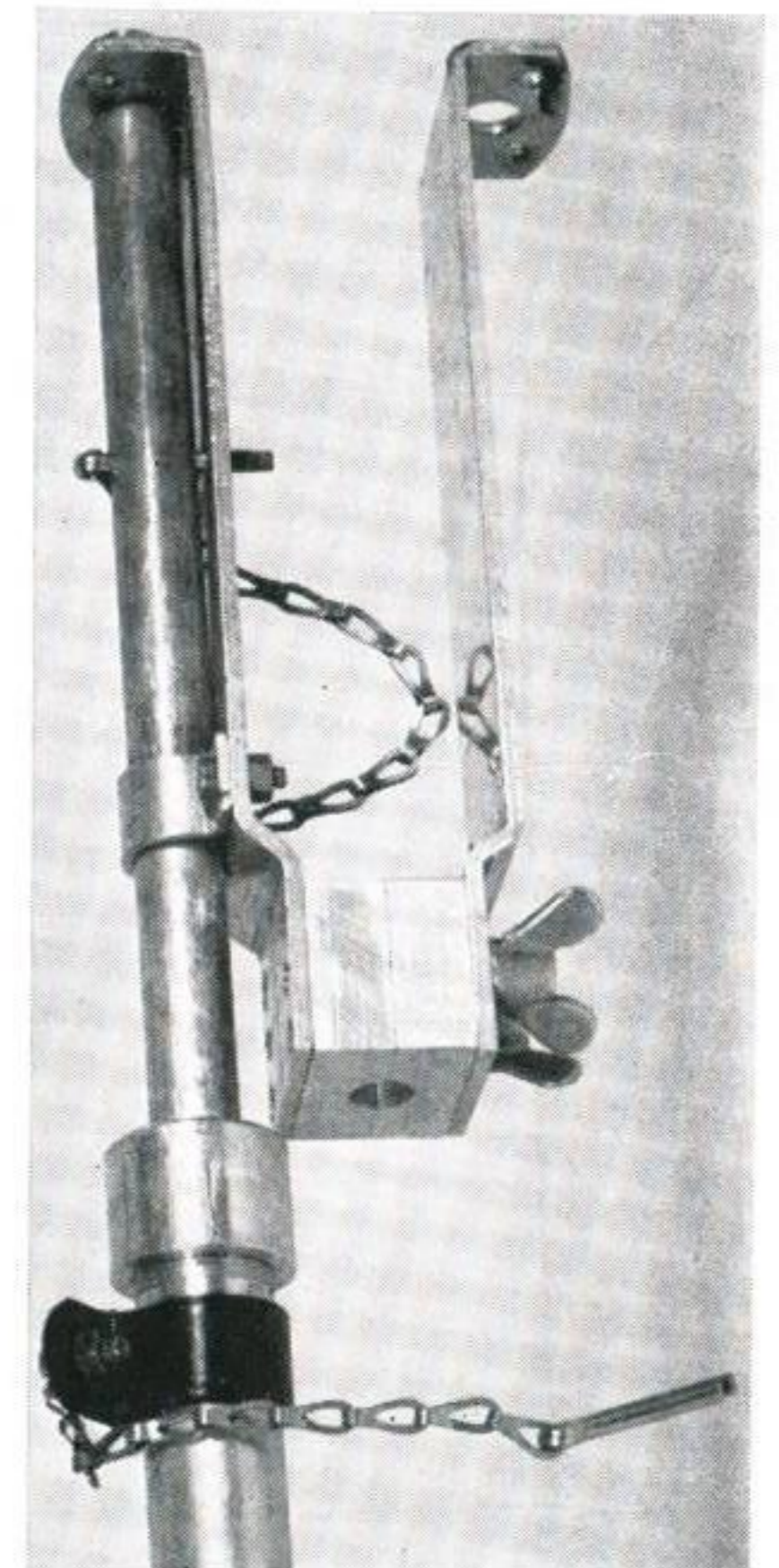


Fig. 3.  
The Ionisation Chamber. The cap has been removed from the connector socket.



Fig. 4.

The Top of the Telescopic Rod, showing the U-shaped fitting. Noteworthy are the flanges at the top which are used for bolting the fitting to the ionisation chamber, the split pin which secures it to the rod and the hole in the block through which the cable is passed. The lower split pin is used to secure the rod in the extended position.



the ionisation chamber and also pinned by a split pin to the top of the rod (fig. 4). Wing nuts at the bottom of the "U," allow the cable to be clamped in position. At the bottom of the tube is a specially shaped handle which can be latched over the flange at the bottom of the probe pipe and locked in position by means of an eccentric cam (fig 5).

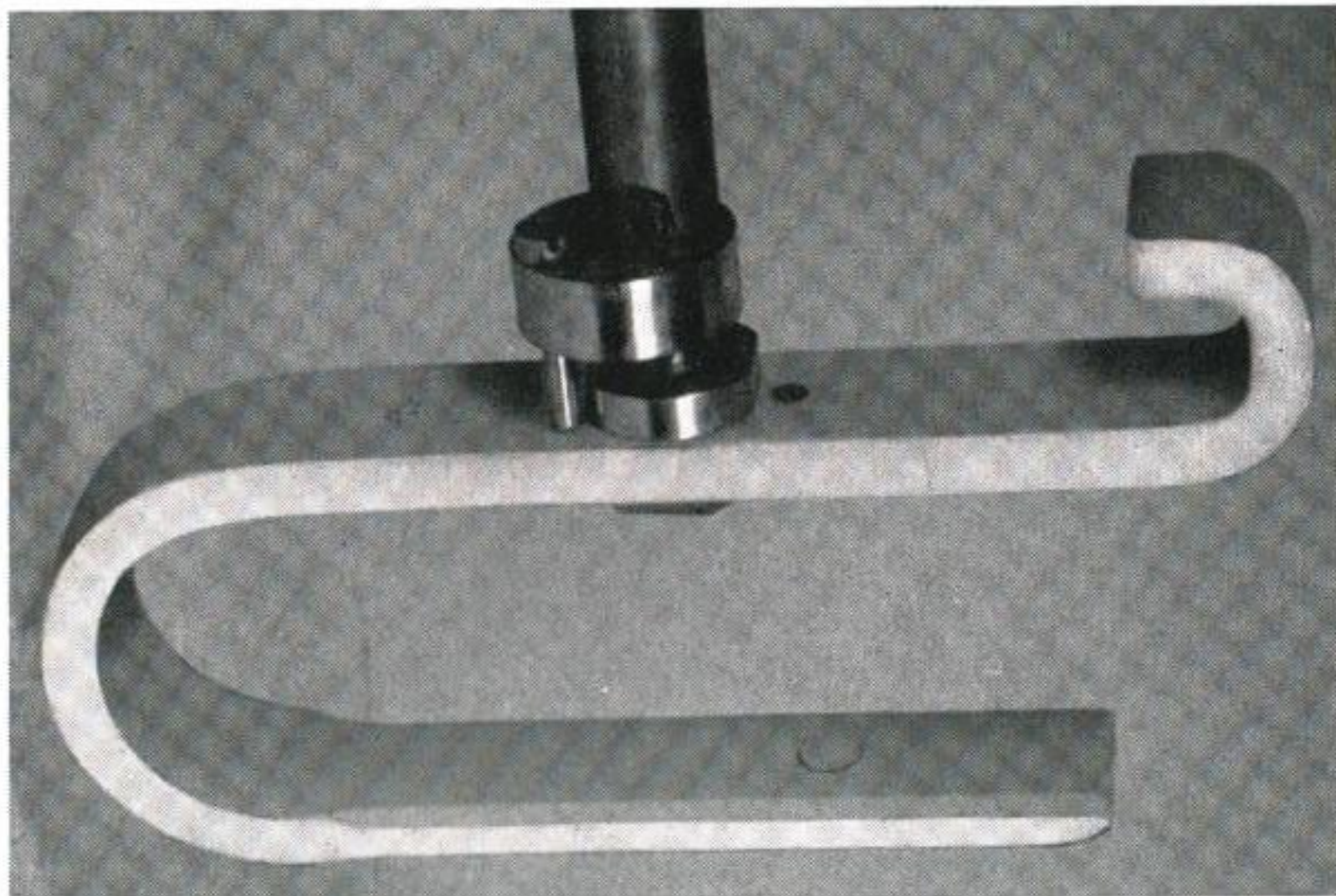


Fig. 5. The Handle of the Telescopic Rod. Note the eccentric cam with its pin and the corresponding hole to the right of the rod.



Fig. 6. The Inter-Connecting Cable. One of the connector caps is shown removed.

*The Inter-Connecting Cable*

The inter-connecting cable which links the ionisation chamber to the indicator unit, is a double concentric type with a con-

necter at each end. The connectors are identical so that either end can be connected to either of the units concerned (fig. 6).



Fig. 7. The Indicator Unit. The cable socket at the top and the lugs which are used for screwing the unit to the instrument shelf can be seen; there are two similar lugs at the bottom of the unit. The scale shown on this prototype instrument is not standard, nor is the small fitting on top to the left of the cable socket.

*The Indicator Unit*

This unit, which is in a metal case, is designed for installation on the instrument shelf in the monitoring room. Two rotary switches provide the means for carrying out the normal function of the instrument. These switches are fitted with a mechanical inter-lock to prevent one being used while the other is in an operational position (fig. 7).

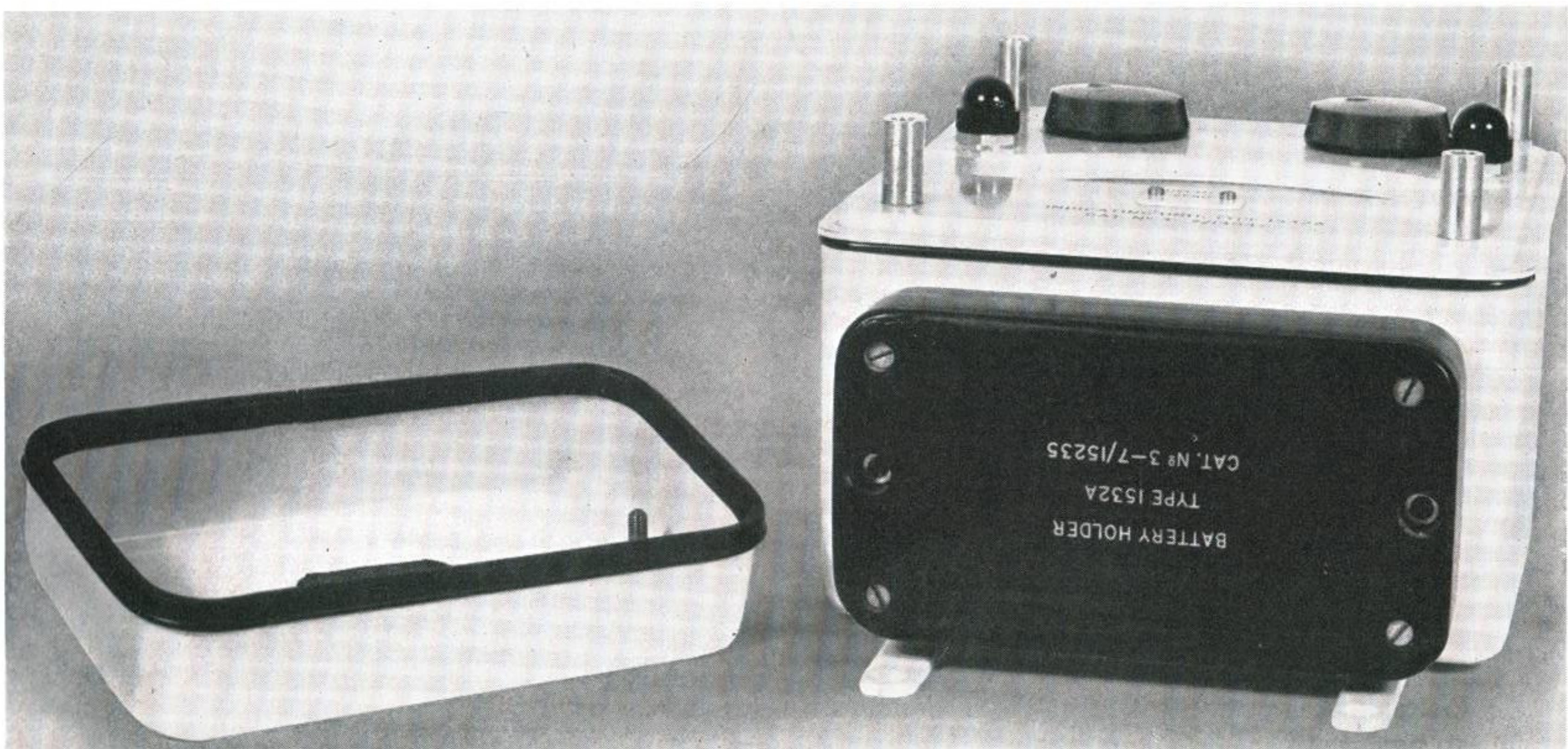


Fig. 8. The Battery Pack in position on the underside of the indicator unit. The lower fixing lugs can also be seen.

### The Battery Pack

The batteries are contained in a moulded detachable pack which is plugged into the indicator unit (fig. 8). There are three batteries in the pack:

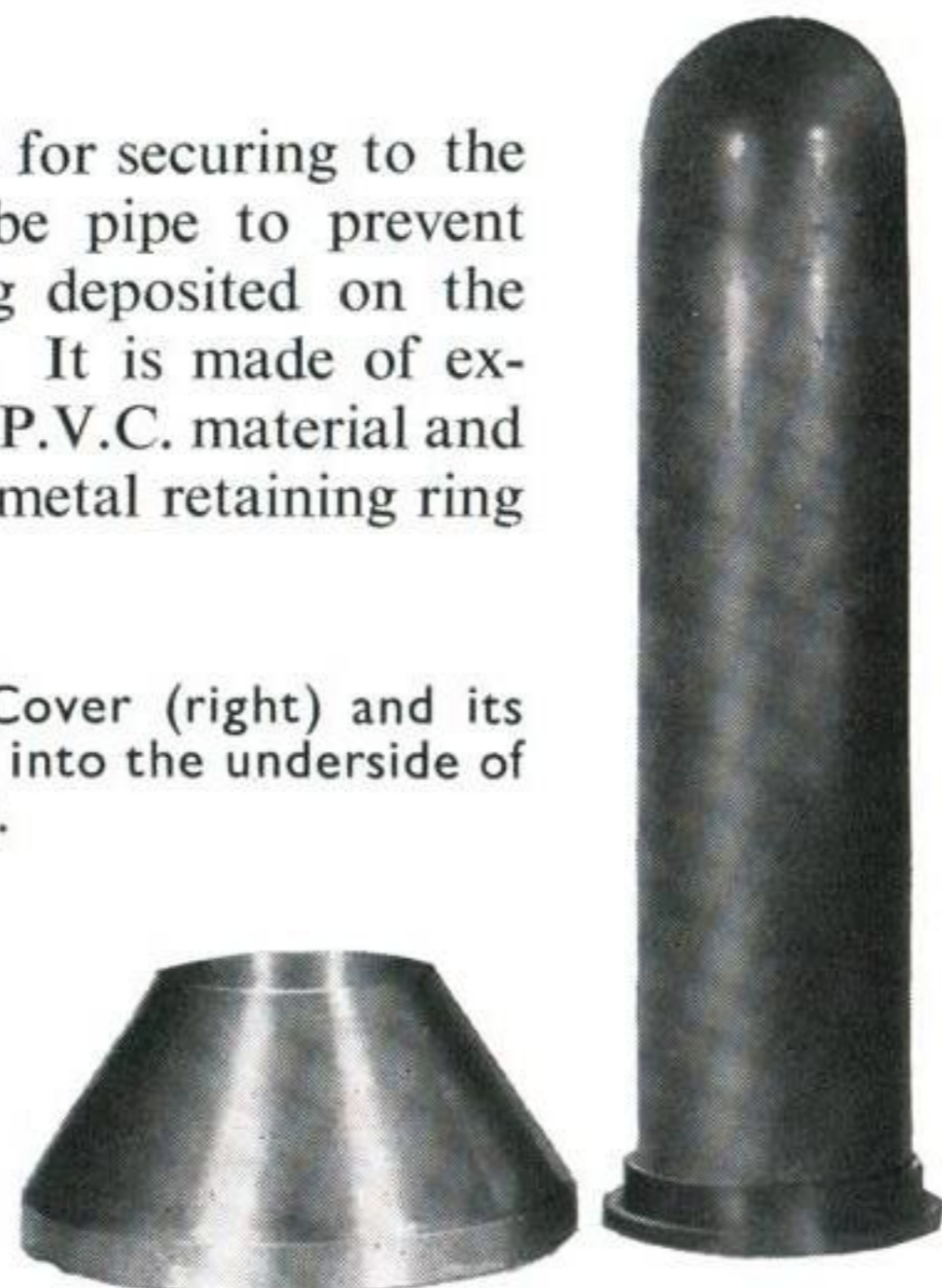
Purpose	Type of Battery	Operational Life
Low tension (LT)	1.35 volt Mallory cell	200 hours
High tension (HT1)	10.5 volt Mallory cell	600 hours
High tension (HT2)	10.5 volt Mallory cell	2 years

Each of the batteries has a shelf life of two years.

### The Plastic Dome Cover

This is a cover designed for securing to the upper flange of the probe pipe to prevent radioactive material being deposited on the ionisation chamber itself. It is made of extremely robust rubberised P.V.C. material and is attached by means of a metal retaining ring and bolts (fig. 9).

Fig. 9. The Plastic Dome Cover (right) and its retaining ring. The bolts fit into the underside of the ring.



### Storage

The instrument will normally be stored at the group headquarters in a portable wooden box (fig. 10) containing:

- |                           |                      |
|---------------------------|----------------------|
| 1 indicator unit          | 1 screwdriver        |
| 2 battery packs           | 1 set of screws      |
| 2 inter-connecting cables | 1 ionisation chamber |

The telescopic rod and the plastic dome cover with its securing ring and bolts will be stored in the underground post. The telescopic rod will be kept in the probe pipe.

### Installation

To instal the instrument ready for use:

- remove the protective cover-plate from the top of the probe pipe and secure the plastic dome cover to the pipe flange by means of the securing ring and retaining bolts. Special spanners will be provided for this purpose;
- remove the mounting rod from the probe pipe and fit the ionisation chamber on the top section of the mounting rod using the screws provided. The mounting rod must be telescoped;
- remove the protective cap from *one* end of the inter-connecting cable and fit this end of the cable to the ionisation chamber. Do not remove the *other* protective cap at this stage. It is important that no dust or other foreign matter is permitted to accumulate on either of the connectors or else the instrument will be rendered unserviceable. Similarly, it is important that the cable is not allowed to become so twisted as to damage the cable by kinking;
- insert the ionisation chamber into the probe pipe and feed the inner section of the mounting rod up the pipe to the full extent of its travel;
- pin the two sections of the rod in this full-extended position by means of the split pin chained to the top part of the outer section;
- feed the extended rod up the pipe as far as the pipe flange and latch the curved part of the handle over the flange;
- hold the rod in this position and turn the eccentric cam fitted to the bottom of the rod (just above the handle) until it is possible to drop the fixing pin below the cam

into the hole drilled in the handle. Ensure that the rod is secure;

- fit the indicator unit to the instrument shelf using the fixing screws stored in the wooden box;
- remove the battery pack protective cover and ensure that the pack has been fitted;
- re-fit the protective cover;
- remove the protective cap from the free end of the inter-connecting cable and plug this cable into the indicator unit.

### Check Procedures

Remove the protective cover from the front face of the indicator unit. Ensure that there are no signs of damage to the instrument, and check that both switches are in the "off" position.

### Battery Check

Check each of the batteries in turn by rotating the "battery test" switch to each of the three positions, i.e., LT, HT1 and HT2. Observe the meter reading at each position. The readings must not be lower than the red line marked "Battery Min" on the dial.

Should any of the meter readings be below "Battery Min" it will be necessary to change either the battery pack or the batteries in the manner described later in this article.

After the battery check the "battery test" switch must be returned to the "off" position.

### Zero and Full-Scale Check

Turn the "operation" switch to the "zero" position. If the meter needle does not lie on the "zero" position on the scale, unscrew the bakelite cap over the "set zero" control and, using the screwdriver provided, make any necessary adjustment. Replace the bakelite cap.

Turn the "operation" switch to the "500" position. If the meter needle does not lie on the "500" mark on the meter scale, unscrew the bakelite cap over the "set 500" control, and, using the screwdriver provided, make any necessary adjustment. Replace the bakelite cap.

Turn the "operation" switch to the "on" position. The meter needle should then fall to the "zero" position. If it does not fall to "zero," repeat the check sequence given above.

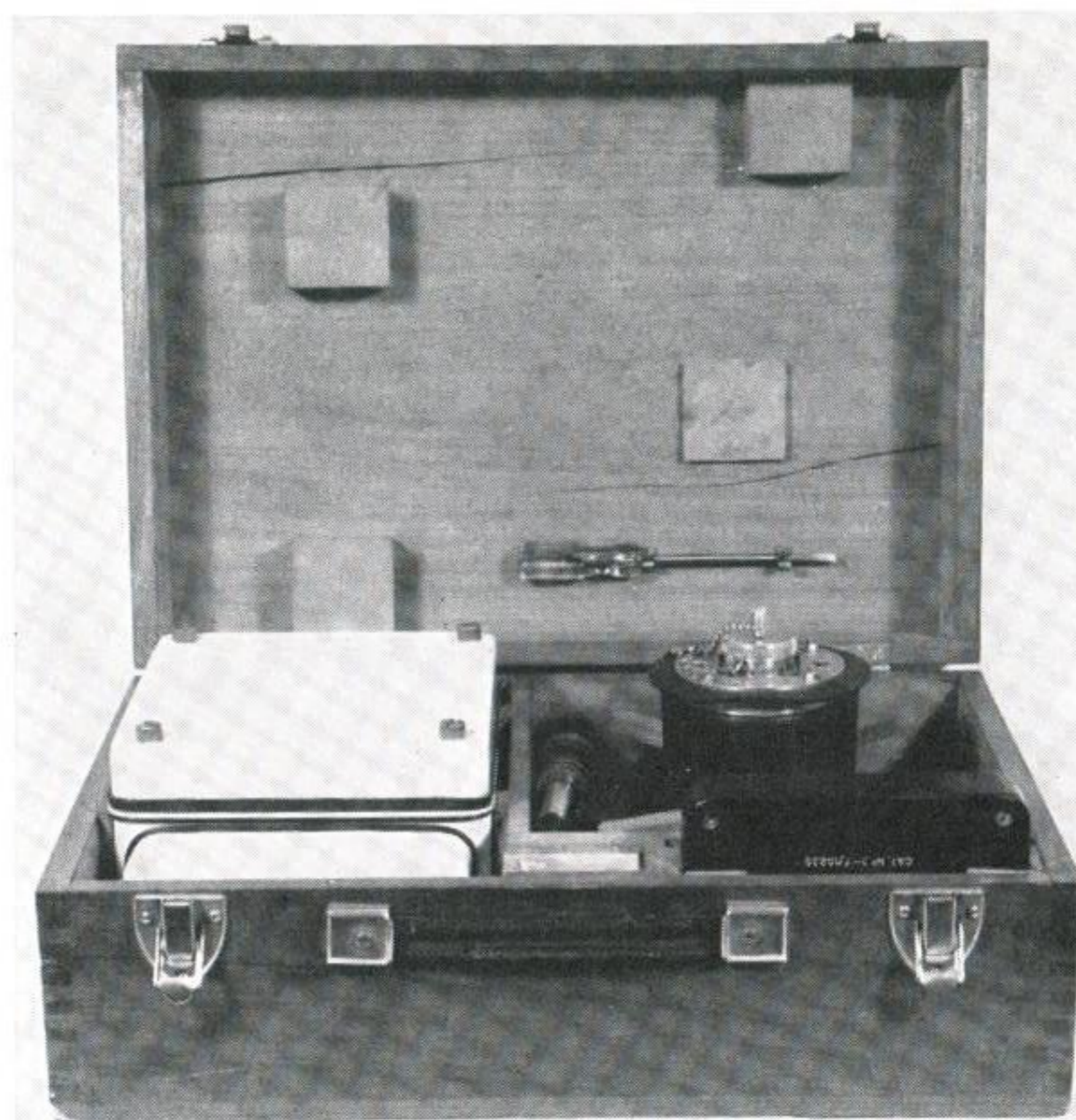


Fig. 10. The Instrument in its Storage Box. At the front, between the indicator unit and the battery pack, the container for the set of screws can be seen.

If, after this double check has been carried out, the reading has not fallen to zero but lies somewhere above zero and it is positively known that no radioactivity is present outside the post, then there is a fault in the instrument.

After completing the checks, turn the switch to the "off" position.

During operations this check procedure would be carried out once every eight hours, whether or not the post had been affected by fall-out.

### Operational Use

To measure the dose-rate, turn the "operation" switch to the "on" position. The gamma dose-rate can then be read direct on the instrument scale.

During operations it is likely that the instrument will be switched on as soon as an attack warning is received and will thereafter remain on until readings decay to insignificance or are no longer required. Further instructions will be given about this later.

In any other circumstances, such as a demonstration of the instrument during training, care should be taken to ensure that it is switched off after use.

### Warming-up Time

When carrying out the check procedures and when the instrument is being used operationally to measure the dose-rate, it must be remembered that it takes about three minutes to warm up. Due allowance must be made for this.

### Maintenance

#### Warning

Maintenance by R.O.C. personnel is limited to:

- (a) replacement of the battery pack;
- (b) changing the batteries in the pack;
- (c) replacement of the inter-connecting cable.

#### Replacement of the Battery Pack

Should a battery test show meter readings lower than the "Battery Min" mark on the dial for any of the batteries, the pack should be replaced.

This is done by:

- (a) Unscrewing the two screws retaining the cover over the battery pack. This cover is located on the under face of the indicator unit on the opposite side to the cable connection. Care must be taken not to allow the pack to fall away from the indicator unit as the cover actually retains the pack (fig. 8).
- (b) Withdraw the pack by pulling down on either side by means of the recesses in the moulding (fig. 11).
- (c) Fit the fresh pack by lining up the holes in the moulding with the metal rods projecting from the underside of the indicator unit, and pressing it into position.
- (d) Refit the cover over the battery pack and tighten the two retaining screws.

#### Changing the Batteries in the Pack

To change a battery, open the pack by removing the four fixing screws from the corners. The batteries can then be seen as shown in fig. 12. The batteries are held in position by screws and can easily be removed and replaced.

#### Changing the Inter-Connecting Cable

A faulty cable may be suspected if any one of the following symptoms is observed:

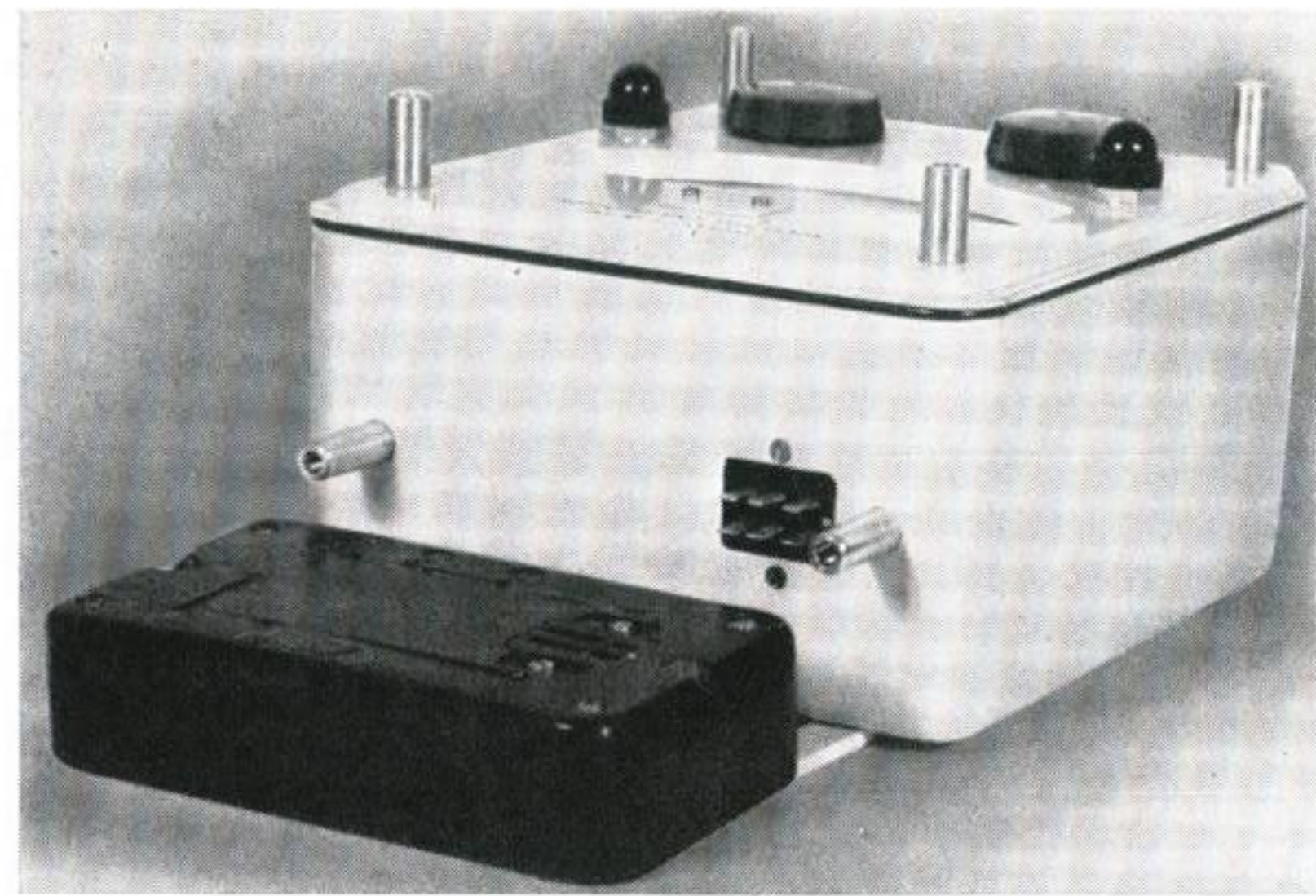


Fig. 11. The Battery Pack removed from the indicator unit. Note the six contacts projecting from the indicator unit and corresponding slots in the pack.

- (a) if radioactivity is known to exist outside the post but no significant deflection of the meter needle is observed although the instrument has been switched on, allowed to warm up and the check procedures have been satisfactorily carried out;
- (b) if a forward deflection of the meter needle is observed when it is positively known that no radioactivity exists outside the post, although the instrument has been switched on, allowed to warm up and the check procedures have been satisfactorily carried out.

#### Use of Instrument with Partly-Used Batteries

In an emergency, when replacement batteries may not be available, the following points are noteworthy:

- (a) if a check of the individual batteries shows meter readings of about the "Battery Min" or even lower, it may be possible to continue using the batteries, although more frequent adjustment of the "zero" and "500" set-

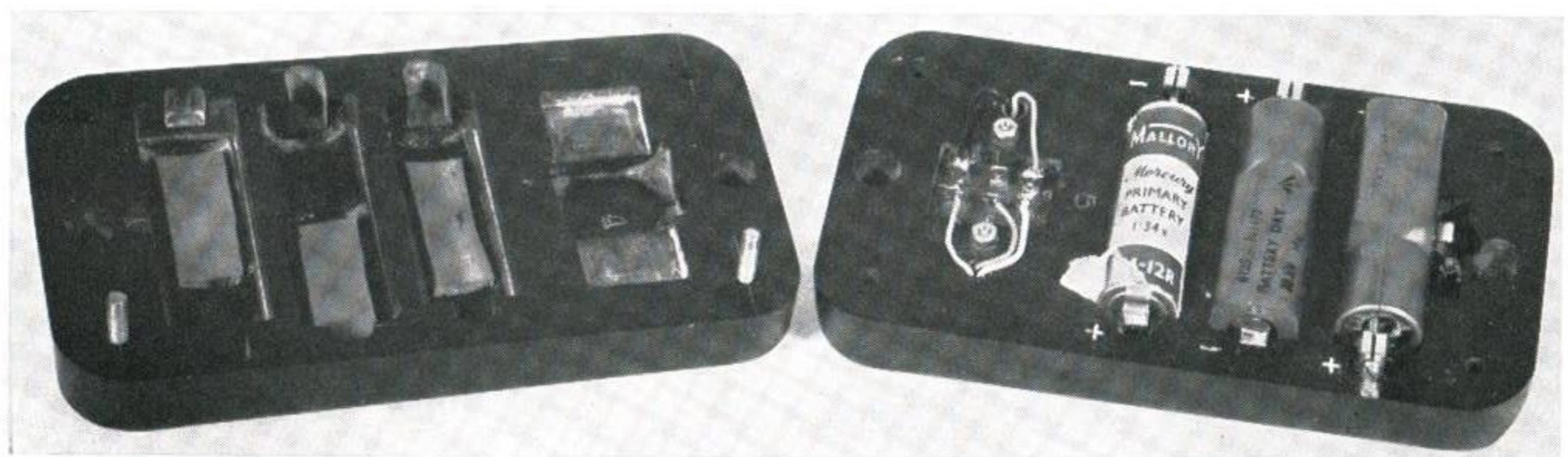


Fig. 12. The Battery Pack open. Note that the right-hand battery has a contact at the side as well as at the top and the bottom.

ting may be necessary. Eventually the battery voltage will drop to a point outside the range of adjustment of these controls;

- (b) if two battery packs are available, each containing one or more defective batteries, it may be possible to make up a usable pack by selection of the batteries;
- (c) if it is necessary to choose between two partly-used high tension batteries when making up a usable pack in the way mentioned in (b) above, it is preferable for the better battery to be fitted in the HT1 position. The better battery will, of course, be the one which gives the higher reading on the scale when a battery test is being carried out.

#### Other Faults

In any circumstances other than those quoted above where the instrument fails to operate or is in need of repair, it is to be returned to group headquarters. It is emphasised that any unskilled attempt to make local repairs is almost certain to cause irreparable damage.



Cover picture: A production Vickers Vanguard, in B.E.A. livery, doing a slow run at Farnborough during the S.B.A.C. flying display in 1959.

## SOLUTIONS TO TESTS AND EXERCISES IN THIS EDITION

### SCIMITAR

All targets are **SCIMITAR** except No. 11 which is of **Mark 6 Hunters**.

### LIGHTNING/FACEPLATE

- |               |               |               |               |
|---------------|---------------|---------------|---------------|
| 1. Faceplate  | 12. Lightning | 23. Lightning | 34. Faceplat  |
| 2. Lightning  | 13. Faceplate | 24. Faceplate | 35. Lightning |
| 3. Faceplate  | 14. Lightning | 25. Lightning | 36. Lightning |
| 4. Lightning  | 15. Lightning | 26. Faceplate | 37. Faceplate |
| 5. Faceplate  | 16. Faceplate | 27. Lightning | 38. Lightning |
| 6. Faceplate  | 17. Lightning | 28. Lightning | 39. Faceplate |
| 7. Faceplate  | 18. Faceplate | 29. Faceplate | 40. Faceplate |
| 8. Lightning  | 19. Lightning | 30. Faceplate | 41. Lightning |
| 9. Lightning  | 20. Faceplate | 31. Lightning | 42. Faceplate |
| 10. Lightning | 21. Faceplate | 32. Faceplate | 43. Lightning |
| 11. Faceplate | 22. Faceplate | 33. Lightning |               |

### ARGOSY

All the targets are **ARGOSY** except Nos. 11 and 22, which are both **NORATLAS 2502**.

### WHO'S WHO?

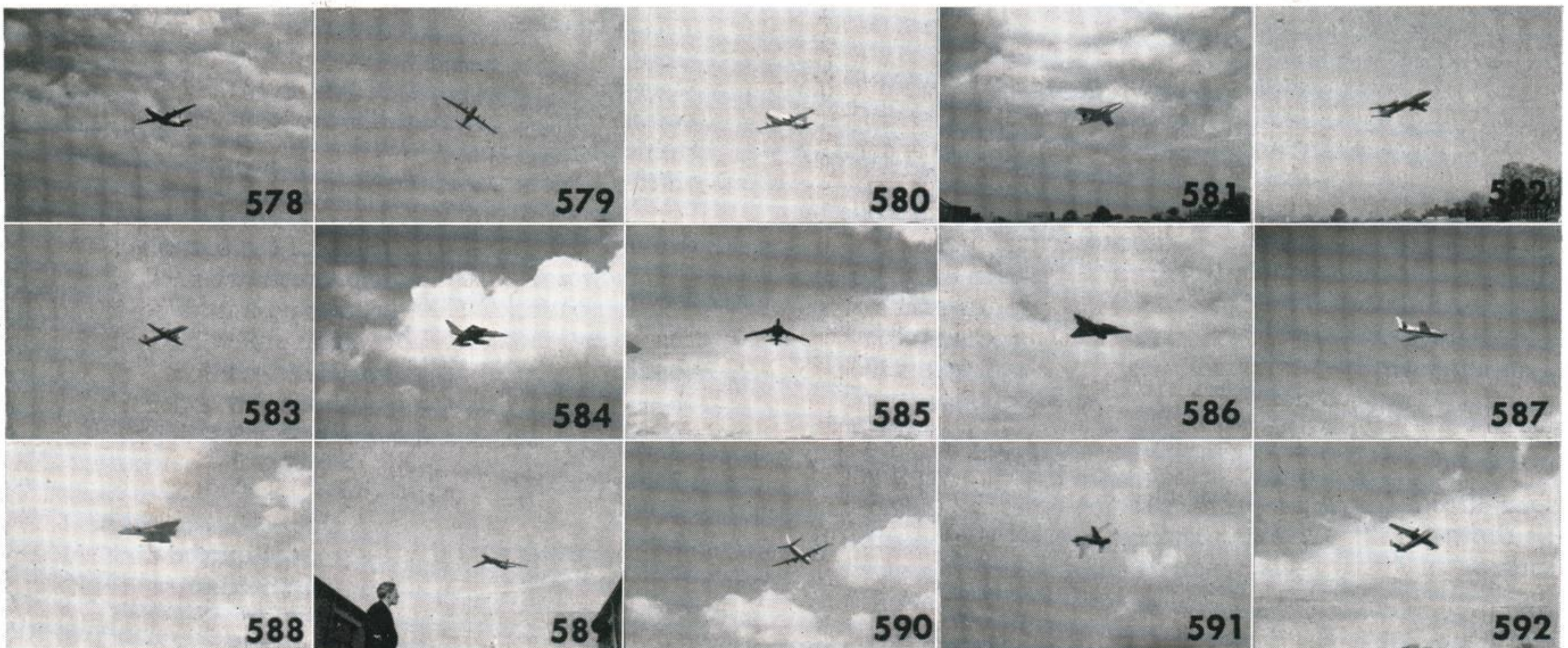
- |               |               |               |                 |
|---------------|---------------|---------------|-----------------|
| 1. Albatross  | 13. Pembroke  | 25. Pembroke  | 37. Victor I    |
| 2. Pembroke   | 14. Albatross | 26. Pembroke  | 38. Coopter     |
| 3. Pembroke   | 15. Pembroke  | 27. Albatross | 39. Cleat       |
| 4. Albatross  | 16. Albatross | 28. Pembroke  | 40. Cargomaster |
| 5. Albatross  | 17. Pembroke  | 29. Pembroke  | 41. Vanguard    |
| 6. Pembroke   | 18. Albatross | 30. Pembroke  | 42. Cat         |
| 7. Pembroke   | 19. Pembroke  | 31. Pembroke  | 43. DC-6        |
| 8. Albatross  | 20. Albatross | 32. Albatross | 44. Electra     |
| 9. Albatross  | 21. Pembroke  | 33. Pembroke  | 45. Cooker      |
| 10. Pembroke  | 22. Albatross | 34. Albatross | 46. Convair 880 |
| 11. Albatross | 23. Pembroke  | 35. Pembroke  | 47. Globemaster |
| 12. Albatross | 24. Albatross | 36. Albatross | 48. Coot        |
|               |               |               | 49. Comet 4     |
|               |               |               | 50. Electra     |

### BIG STUFF

- |                    | Span<br>(feet) |                 | Span<br>(feet) |                 | Span<br>(feet) |
|--------------------|----------------|-----------------|----------------|-----------------|----------------|
| 1. DC-6            | 118            | 18. Vanguard    | 118            | 35. DC-6        | 118            |
| 2. Globemaster     | 174            | 19. Comet 4     | 115            | 36. Convair 880 | 120            |
| 3. Victor I        | 110            | 20. Cat         | 125            | 37. Globemaster | 174            |
| 4. Cleat (Rossiya) | 177            | 21. Cooker      | 123            | 38. Victor I    | 110            |
| 5. Cargomaster     | 180            | 22. Coot        | 123            | 39. Cleat       | 177            |
| 6. Vanguard        | 118            | 23. Electra     | 99             | 40. Cargomaster | 180            |
| 7. Cat (Ukraine)   | 125            | 24. Convair 880 | 120            | 41. Vanguard    | 118            |
| 8. Comet 4         | 115            | 25. DC-6        | 118            | 42. Cat         | 125            |
| 9. Cooker          | 123            | 26. Globemaster | 174            | 43. DC-6        | 118            |
| 10. Electra        | 99             | 27. Victor I    | 110            | 44. Electra     | 99             |
| 11. Coot (Moscow)  | 123            | 28. Cleat       | 177            | 45. Cooker      | 123            |
| 12. Convair 880    | 120            | 29. Cargomaster | 180            | 46. Convair 880 | 120            |
| 13. DC-6           | 118            | 30. Vanguard    | 118            | 47. Globemaster | 174            |
| 14. Globemaster    | 174            | 31. Comet 4     | 115            | 48. Coot        | 123            |
| 15. Victor I       | 110            | 32. Cooker      | 123            | 49. Comet 4     | 115            |
| 16. Cleat          | 177            | 33. Electra     | 99             | 50. Electra     | 99             |
| 17. Cargomaster    | 180            | 34. Coot        | 123            |                 |                |

### AIRBORNE HEADACHES

No. 68



Submission dates for answers to Airborne Headaches No. 68 will be notified at Group Headquarters.