

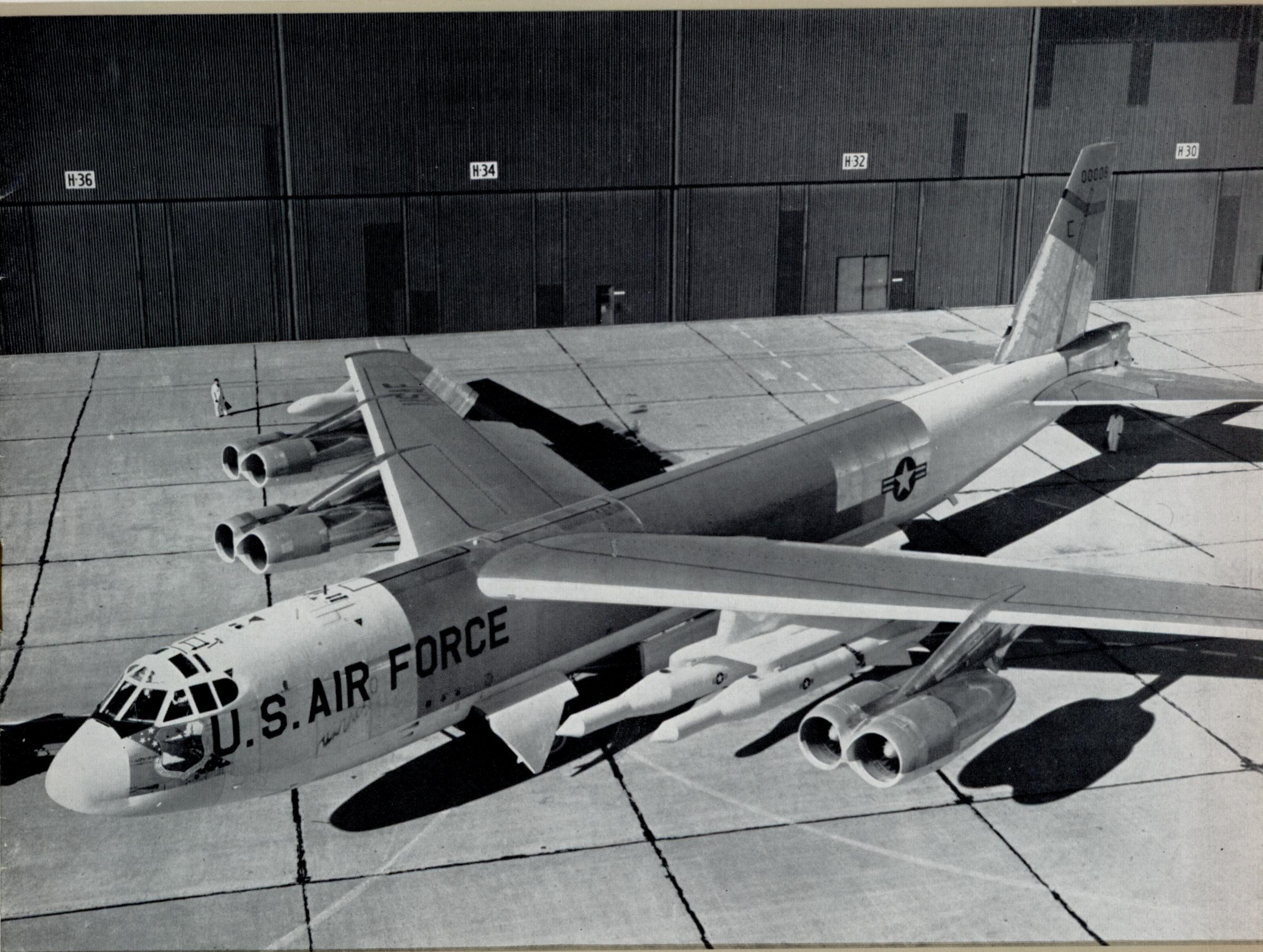
THE ROYAL



OBSERVER CORPS

# RECOGNITION

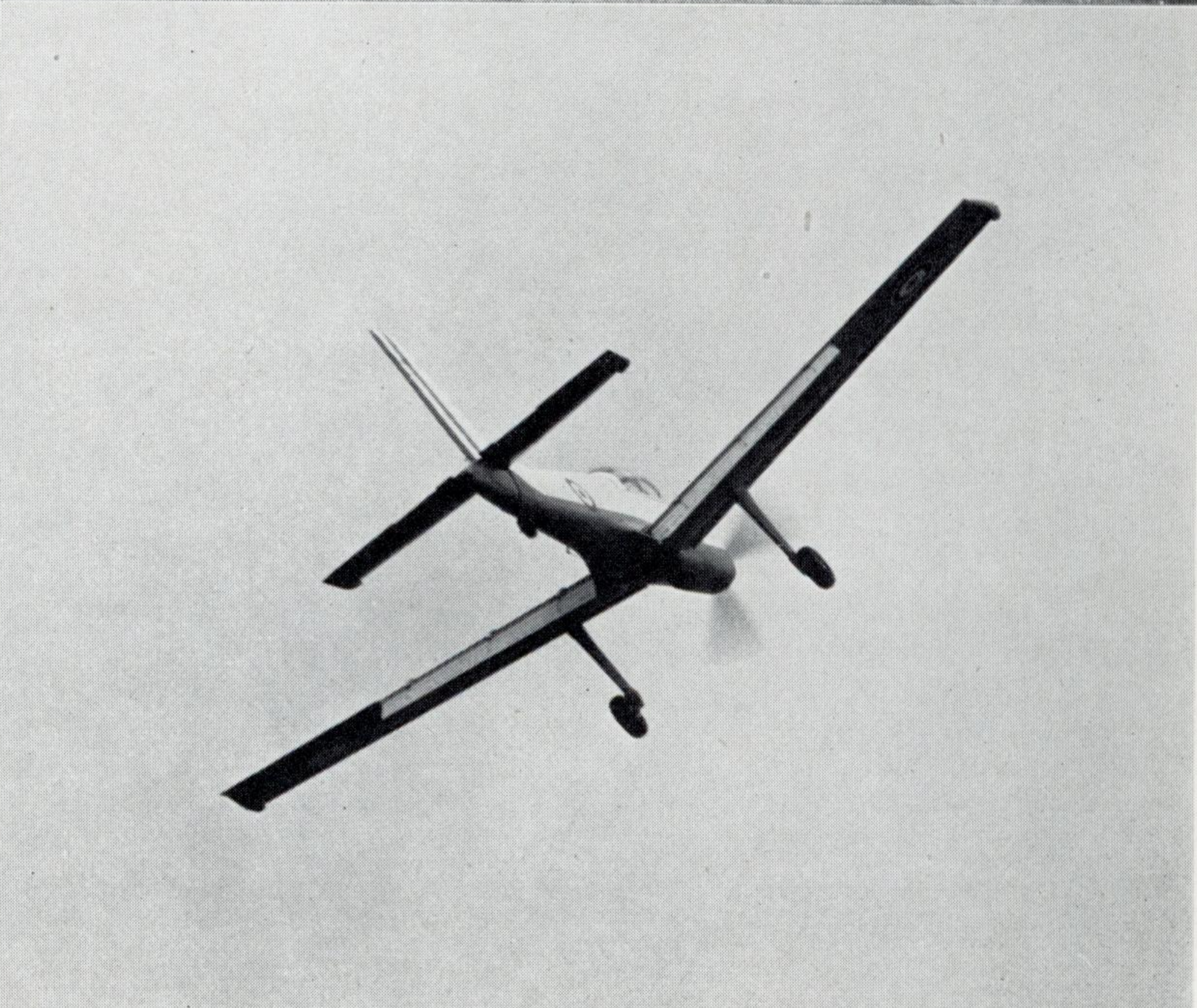
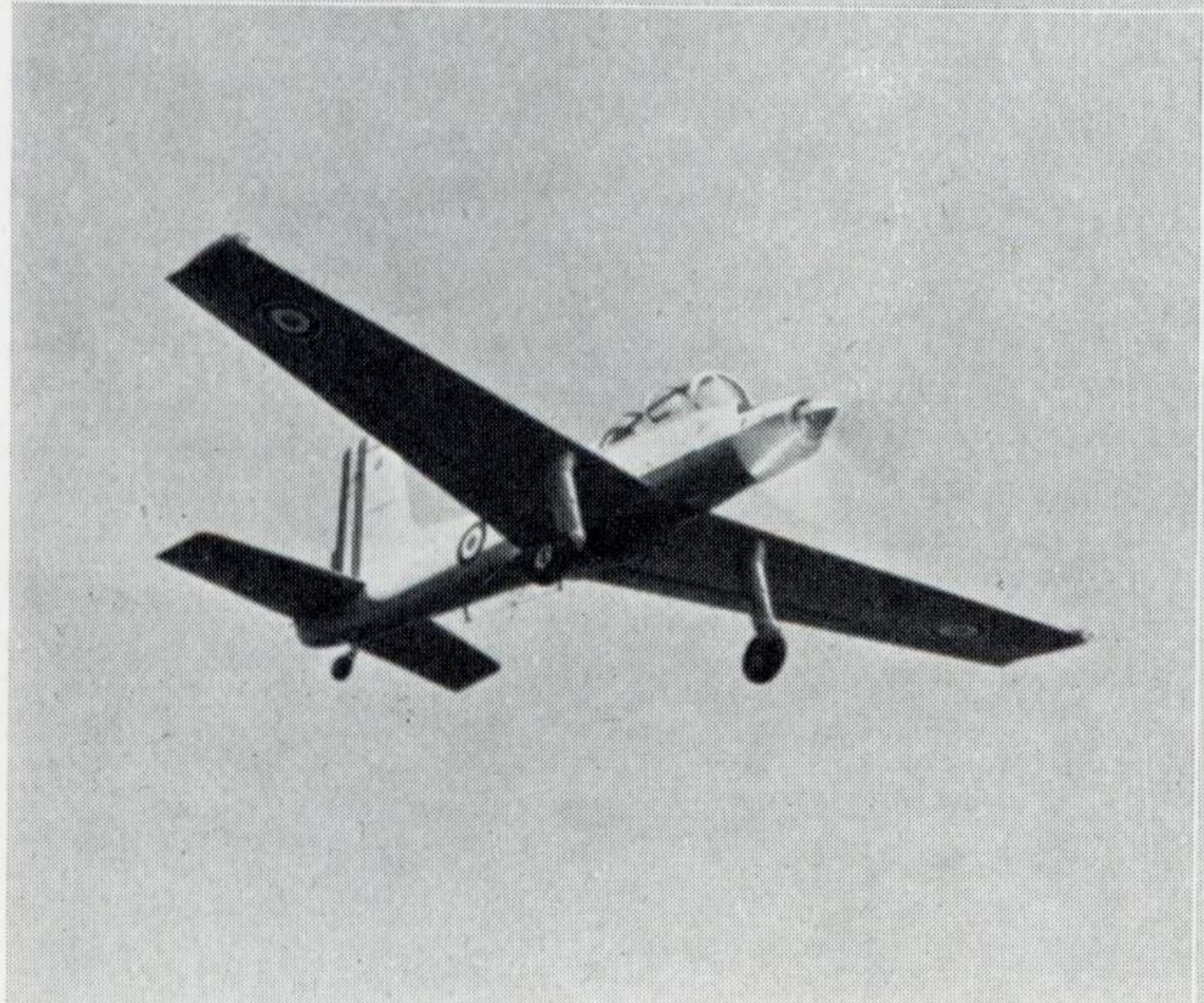
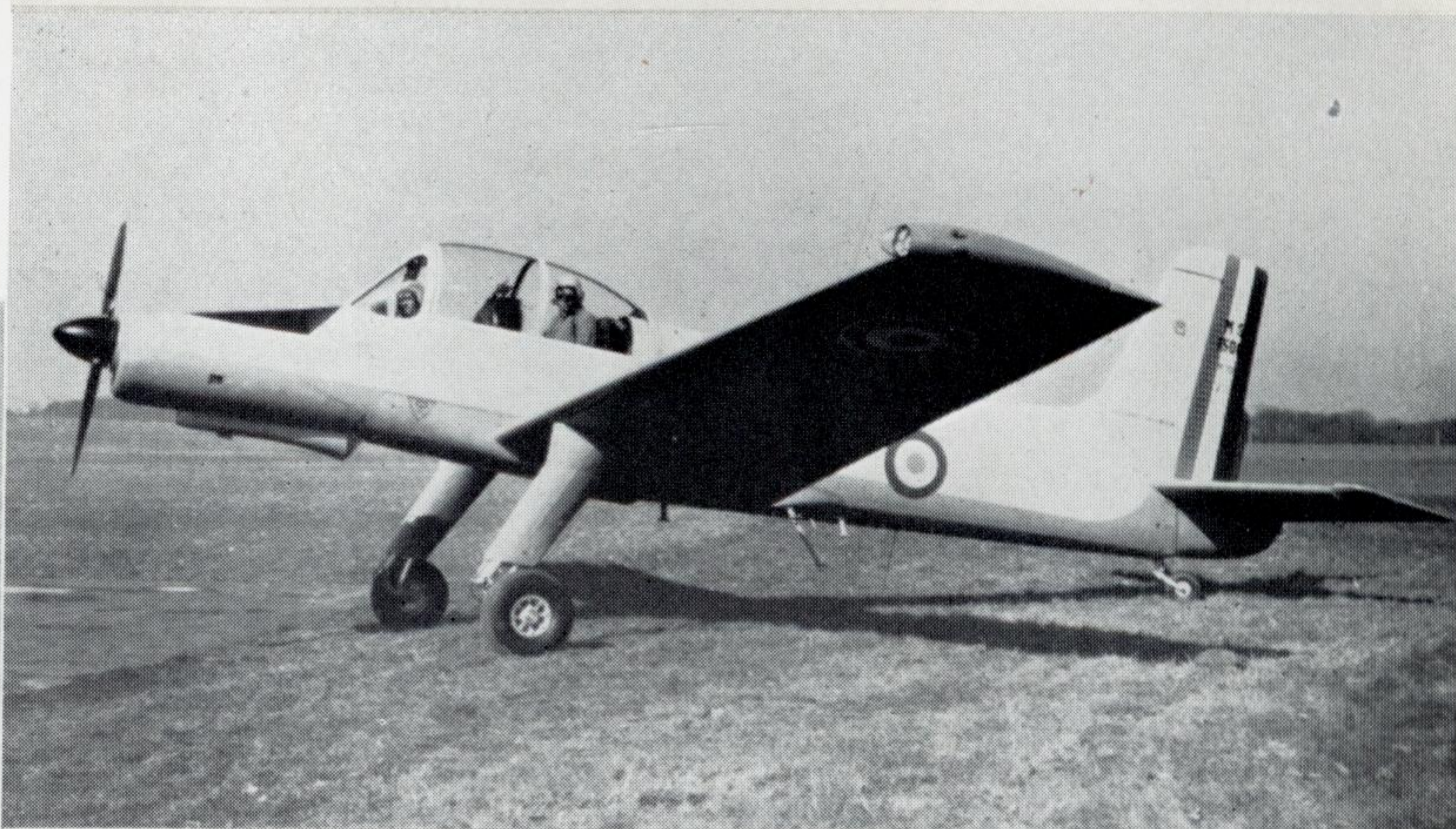
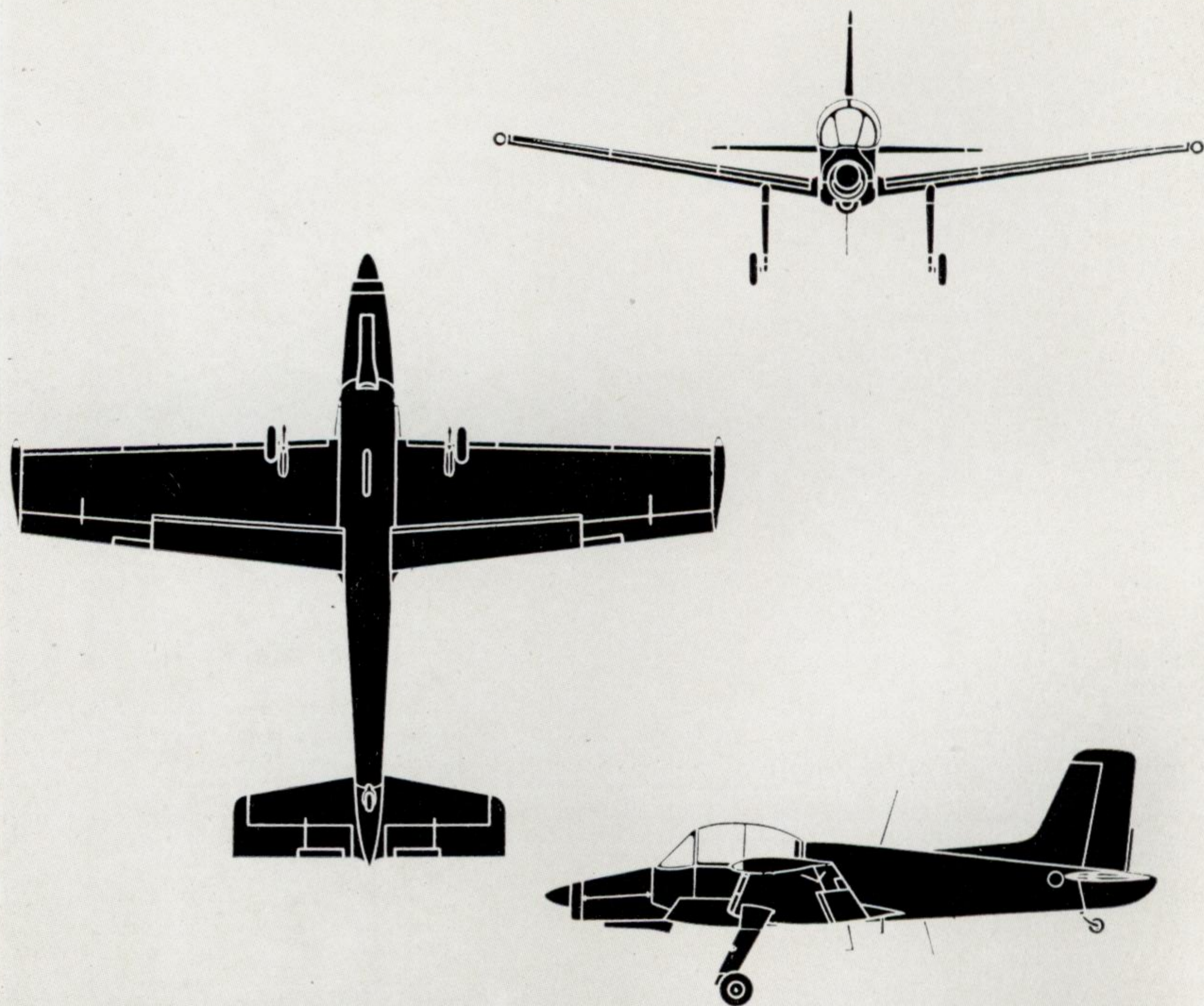
*Journal*  
and R.O.C. GAZETTE



Vol. 3 MARCH 1961 No. 3

# EPERVIER

This small-looking, two-seat, multi-purpose military monoplane, designed and built by Morane-Saulnier for the French Air Force (and incidentally for the Argentine and Brazilian Governments) is a very distinctive creature with her sharp angle of dihedral in the wing, excessively tall canopy (housing two—pilot and observer) and a low “questing” nose. She packs a surprising punch, carrying under the wings a varied assortment of machine guns, cannons, bombs, rockets and missiles. The power plant is a Turbomeca Bastan turboprop; there is armour-plated protection against small arms fire from the ground and dual controls which enable the observer to take over control in an emergency. Additional fuel tanks may be carried on the wings outboard of the undercarriage. This is a preview of a rather ugly but nevertheless efficient aircraft of the French Air Force on which identification lessons will appear in due course.





THE ROYAL OBSERVER CORPS

RECOGNITION JOURNAL  
AND R.O.C. GAZETTE

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# The Army Air Corps

THE ARMY AIR CORPS came into being on September 1st, 1957 as a result of the amalgamation of the Air OP (Air Observation Post) units of the Royal Artillery and the Glider Pilot Regiment, both of which had been formed during World War II.

Prior to 1941 the ancestry of the Army Air Corps can be traced back through the Army Co-operation Squadrons and the Royal Flying Corps to the air battalion of the Royal Engineers.

Up to 1957, although the Army had its own pilots in the Air OP and Glider Pilot Units, the aircraft were owned and serviced and the pilots were mostly trained by the Royal Air Force. The Army Air Corps itself now undertakes these tasks.

The present-day roles of the Army Air Corps are to carry out intimate aerial reconnaissance and to provide liaison support for the Army. To fulfil these roles the Army Air Corps is organised into Flights, Squadrons and Wings.

The basic unit is the Flight, of which there are two kinds—reconnaissance and liaison. Each Flight has, at present, six aircraft: three fixed wing and three rotary wing types. It seems possible that eventually all six aircraft in a Reconnaissance Flight will be rotary wing. Above the Flight is, of course, the Squadron Headquarters, which is affiliated to and located with the Formation Headquarters it supports.

The number of Reconnaissance Flights in a Squadron varies according to the location, requirements and composition of the Formations it supports. Similarly the Wing Headquarters is located at the Theatre/Corps Headquarters, and the number of Squadrons in the Wing will vary depending on the requirements of the Theatre.

It is also possible for Flights and Squadrons to operate on their own and in these cases they are known as independent Squadrons or Flights.

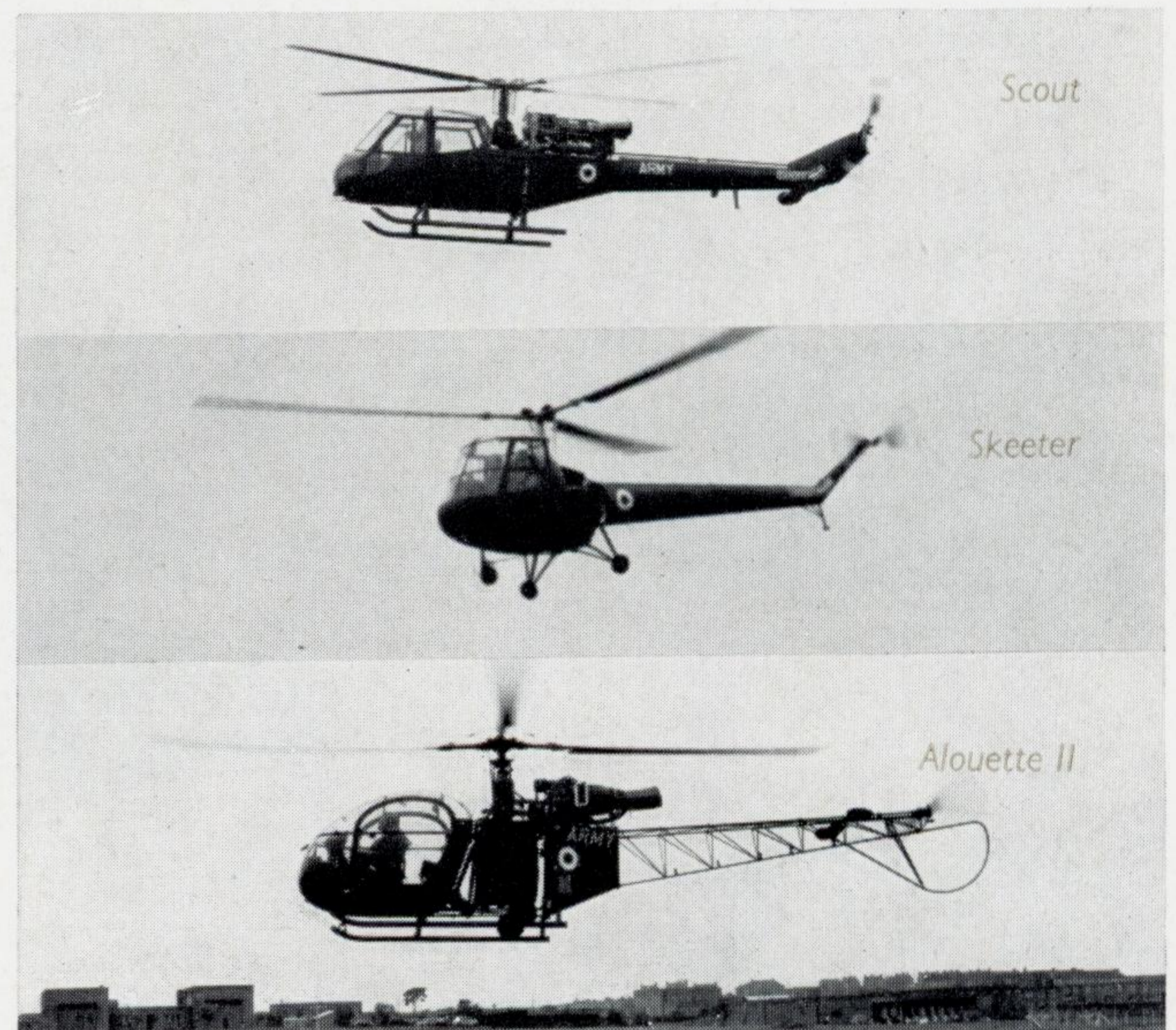
## Aircraft

The types of aircraft in current service in the Reconnaissance Flights are the Auster Mk. 6 and 7, which are being replaced by the Auster Mk. 9 and the Saunders Roe Skeeter 12. The Liaison Flights are at present equipped with the Auster Mk. 9 and Skeeter 12, but these are being replaced by the de Havilland Beaver and Saunders Roe Scout (P.531) during 1961/62.

A limited number of Sud Aviation Alouette II are being

introduced as an interim liaison aircraft in the United Kingdom and B.A.O.R. and as an interim reconnaissance helicopter in the Middle East. It is hoped to introduce a reconnaissance helicopter into all Reconnaissance Flights in 1962, which will replace the Skeeter 12 and allow all Reconnaissance Flights to have a 50 per cent helicopter strength worldwide. The replacements will of course be gradual and the older types such as the Austers Mk. 7 and Skeeters will continue to be seen in service for some time yet, particularly in B.A.O.R. and in the training establishments.

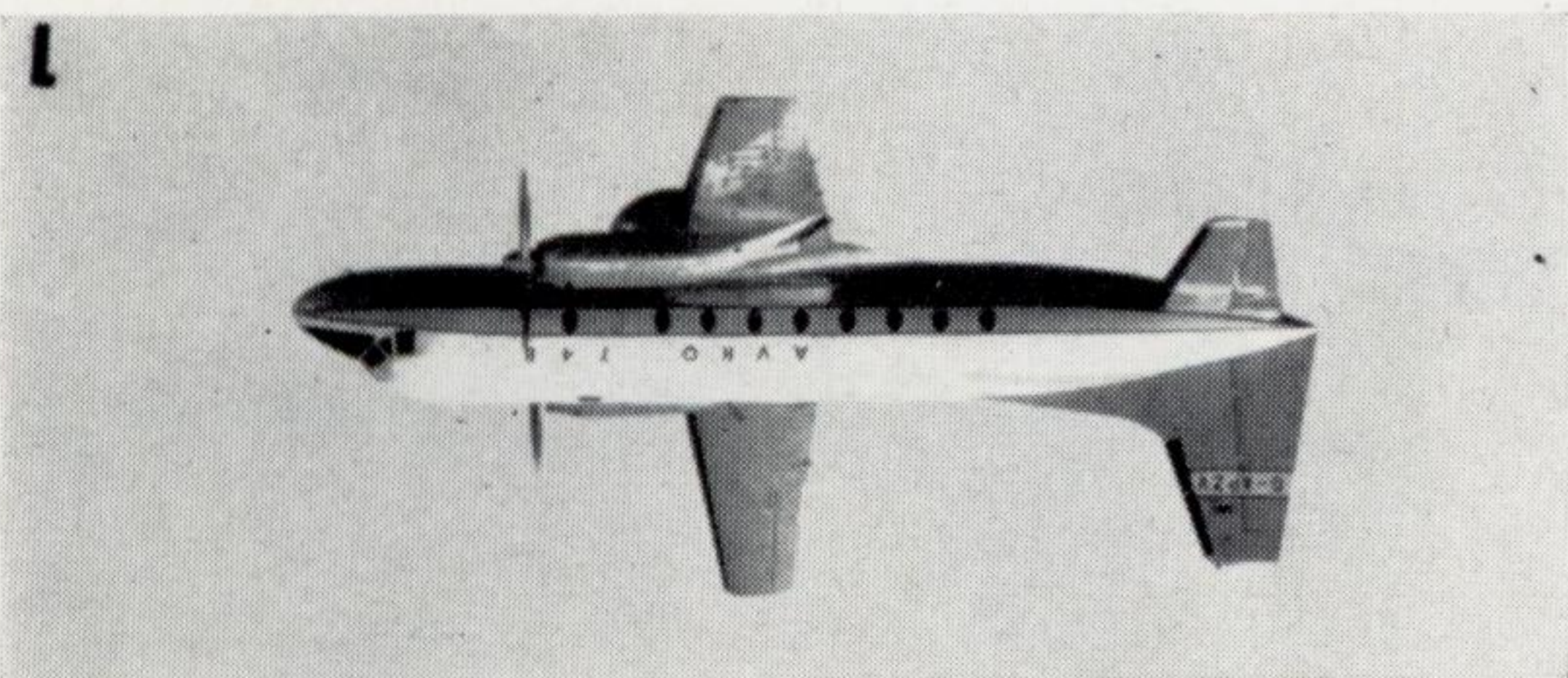
Recognition lessons on the Auster 9 appeared in the September 1955, November 1955, November 1956, September 1958 and October 1959 *Journals*; on the Beaver in the November 1956, February 1960 and July 1960 *Journals*; on the Skeeter in April 1958, and on the Alouette II in August 1958.



Apart from the helicopter types illustrated, the Army Air Corps operate several aeroplanes, viz:—the Canadian-built D.H.C. Beaver for light transport communications, liaison or ambulance duties; the Auster A.O.P.9 for reconnaissance duty; the Auster A.O.P.6—soon to be replaced by helicopters—in a light liaison role, and the Chipmunk T.10 and the Auster T.7 for training.

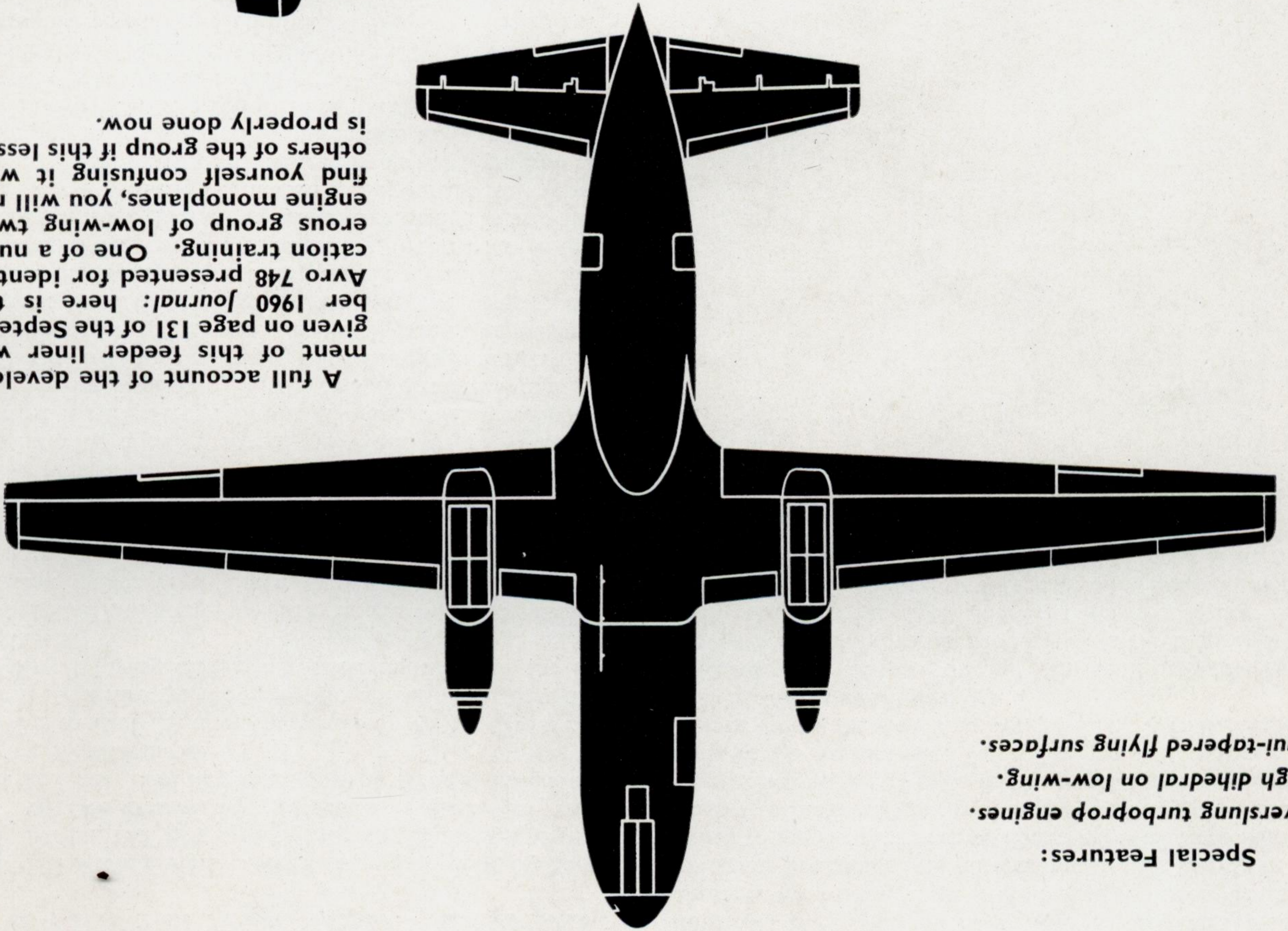
# Seven Four Eight (Turboprop Transport)

Span 95 feet



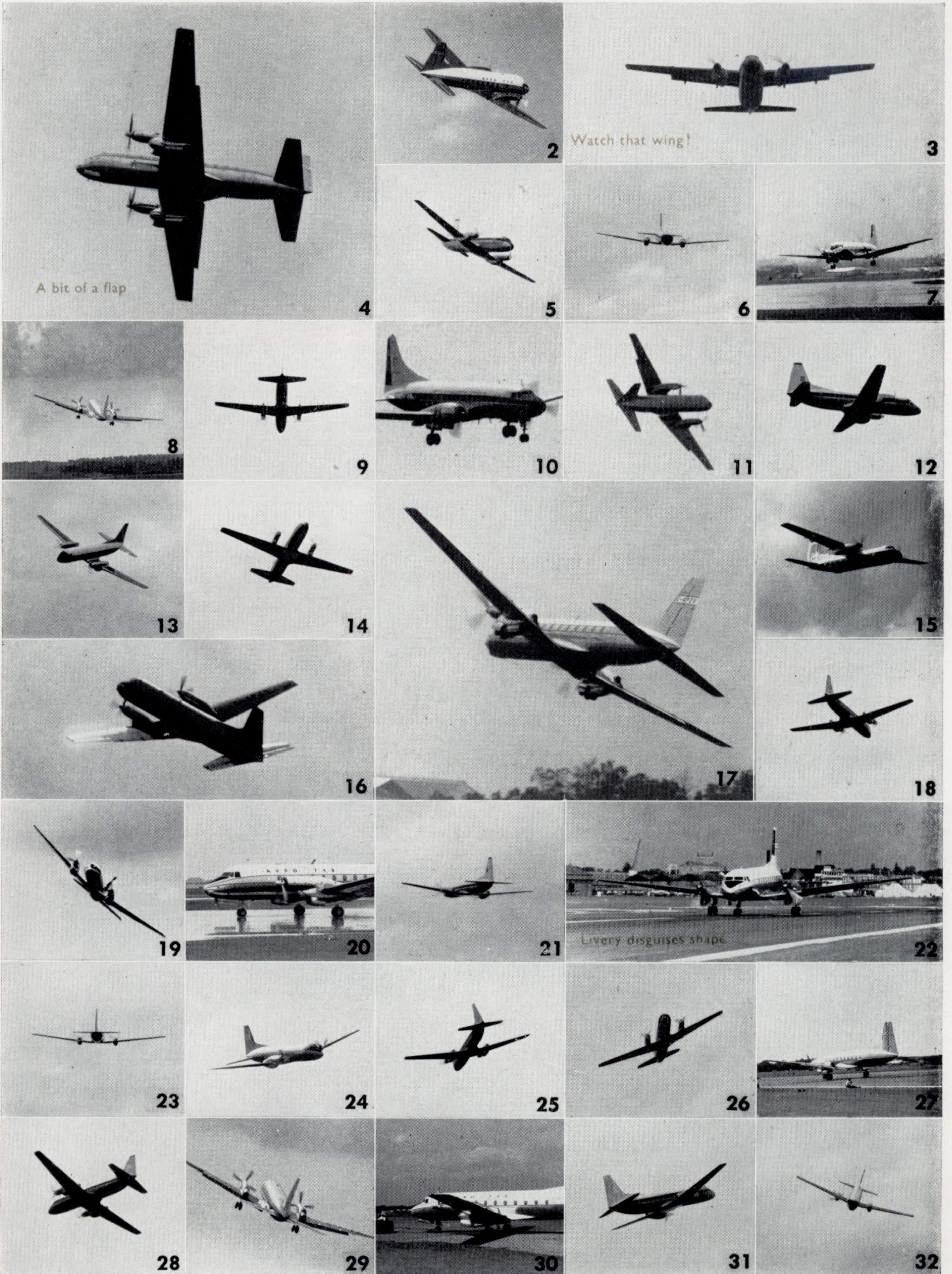
▲ First Target

- Special Features:
1. Overslung turboprop engines.
  2. High dihedral on low-wing.
  3. Equi-tapered flying surfaces.



A full account of the development of this feeder liner was given on page 131 of the September 1960 *Journal*: here is the Avro 748 presented for identification training. One of a numerous group of low-wing twin-engine monoplanes, you will not find yourself confusing it with others of the group if this lesson is properly done now.



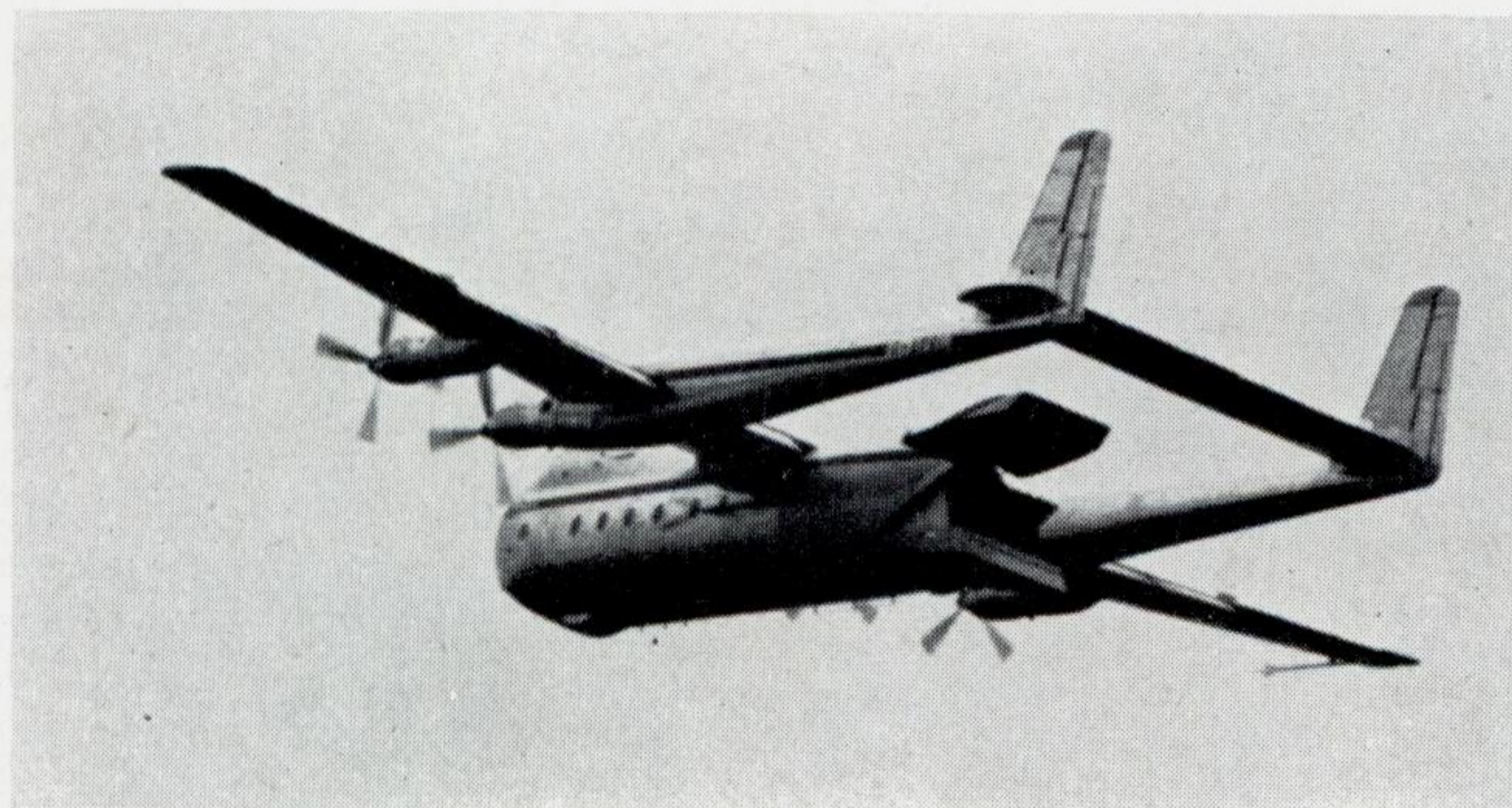


# Briefs

A collection of items  
of news and interest.

## Argosy Riddle

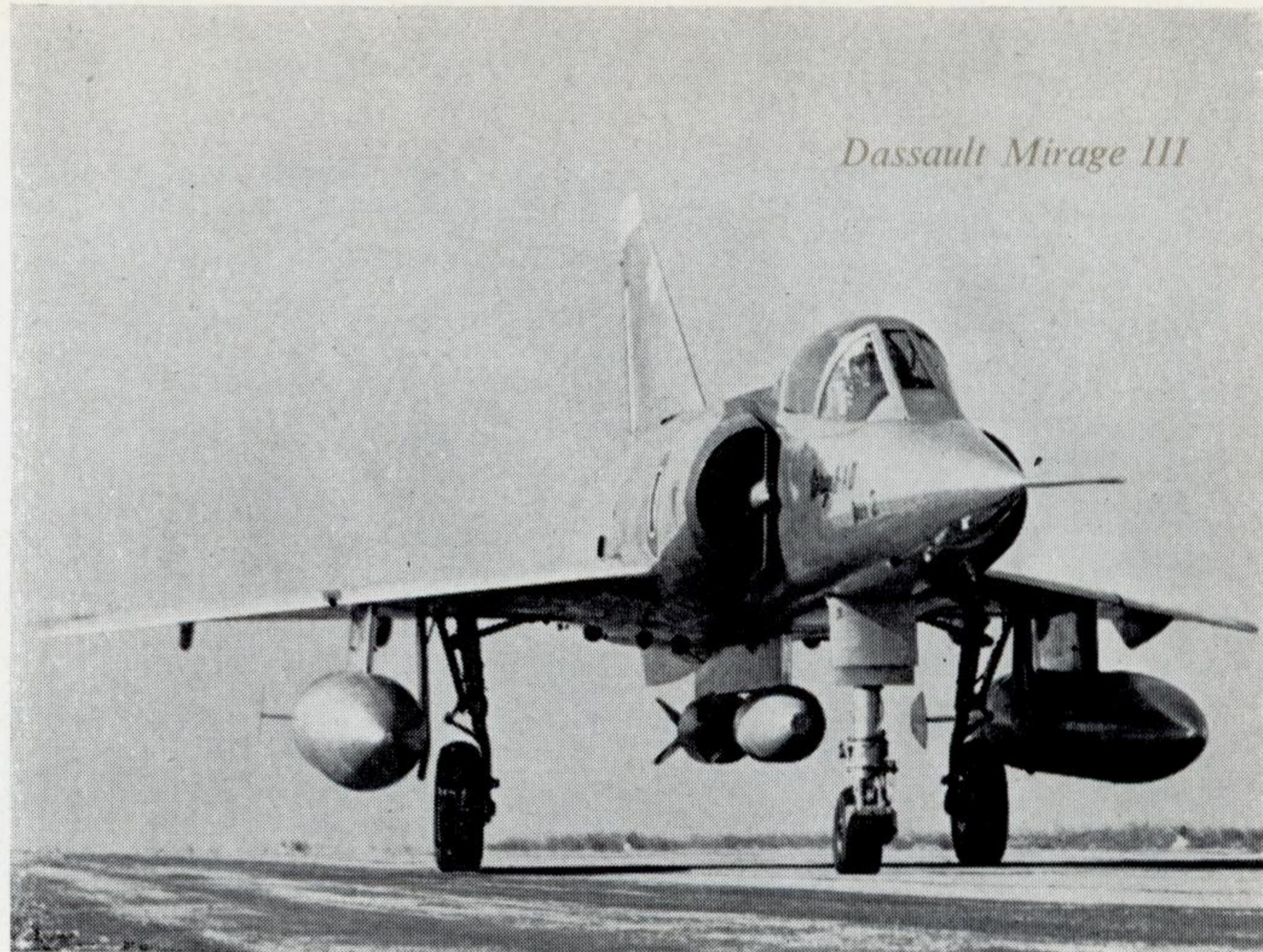
A contract has been signed between Riddle Airlines of Miami and Armstrong-Whitworth for seven Argosy freighters. With spares, the order is worth some \$12,000,000. Riddle have also asked for an option on a further eight aircraft. The Argosies will be used on Riddle's Logair contract for flying outsize military cargo, and will become the first uncompromised civil prop-jet freighter to go into service in the western world.



Armstrong-Whitworth, Argosy, with "beaver tail" (sometimes called "crocodile jaws") type rear loading doors.

## "Decel" eration

The Northrop Corporation has come up with an idea for a new runway system designed to preclude any possibility of the big commercial jets running out of concrete during take-off or landing. Known as Decel, the system comprises a shallow, water-filled basin with a strong, flexible cover. Installed at the windward end of a runway, jet aircraft that might otherwise overshoot the concrete during landing or take-off simply roll into the Decel basin. The continual process of depressing the flexible cover and displacing a large volume of water slows the aircraft to a safe stop. Northrop's engineers claim that tests with a scale model 707 proved the superiority of the Decel idea over the open water system by stopping the model in shorter distances.



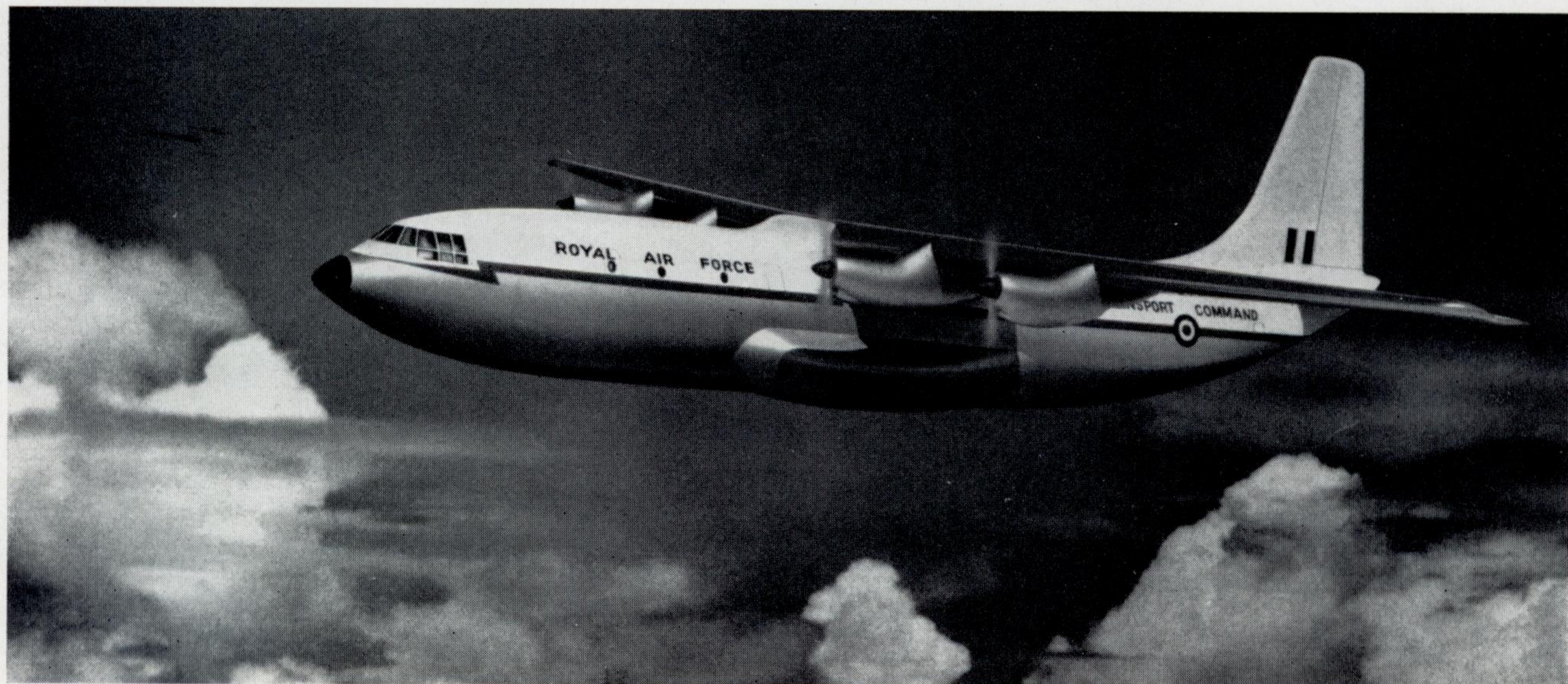
## Mirage III "down-under"

It has been announced that Australia is to equip the R.A.A.F. with the Dassault Mirage III and has placed a contract for an initial order of thirty aircraft. Ultimately Australia is to build her own Mirage III's under licence. Although the agreement does not specify the powerplant to be used with the Australian version, the evaluation tests were conducted on a standard aircraft fitted with a SNECMA "Atar 9." Despite this, many authorities consider that in view of their experience with the Avon Sabre the Australians may prefer a Rolls-Royce engine.

Soon after the news concerning the Australian Mirage III's became public, the Swiss Federal Council indicated that a decision to purchase Mirage III's with French powerplants will shortly be submitted to the Swiss Parliament.

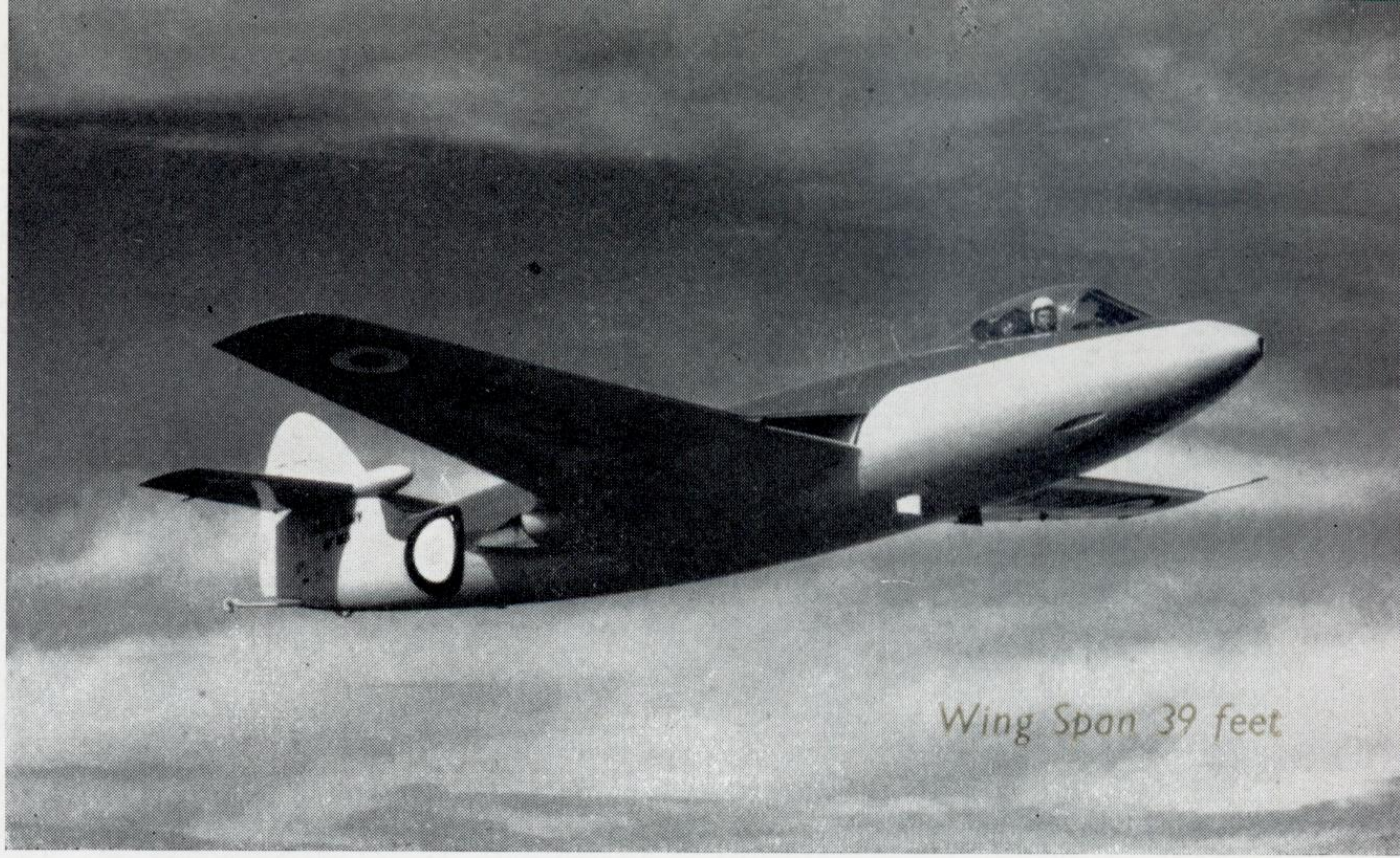
## Enter the BELFAST

The Minister of Aviation has announced in the House of Commons that a contract has been placed with Short Brothers and Harland for the production of ten strategic SC.5/10 freighters for Transport Command. He also said that in R.A.F. Service the Short Freighter, known as the Britannic, will be named the Belfast. Short's intend to use the new name for the civil version, which is also well advanced. The company also proposes to offer a tactical version of the Belfast, to be known as the SC.5/20, structurally similar to the SC.5/10, but fitted with an advanced military version of the Tyne turboprop and incorporating a modified landing gear with additional tyres in order to cope adequately with rough airstrips.



# Sea Hawk

The Seahawk, a Naval fighter, is in service with the Royal Navy, the Royal Netherlands Navy and the West German Federal Navy. It is also being acquired by the Indian Navy. Several marks have been produced but the differences between them are mainly internal. Twin intakes (View 9) and twin tail pipes (View 18) and a load of bombs and rockets do not destroy the lines of one of the most graceful of jet fighters—indeed of aeroplanes of all time of which the key view is typical. Watch for jokers in this group of targets.



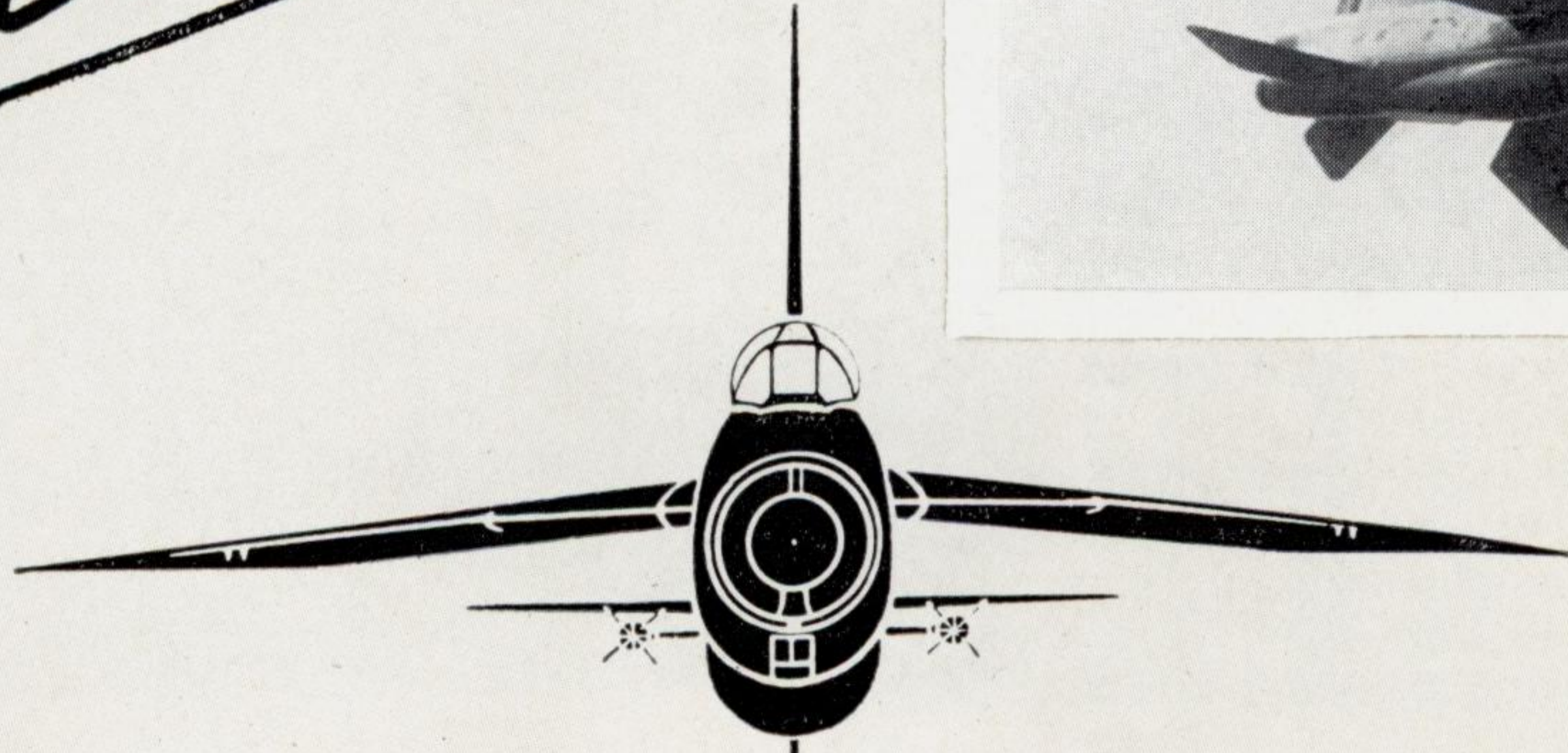
*Lightning*



# F.1

Span 35 feet

Length 50 feet



PRESSURE SENSING BOOM

The English Electric Lightning F Mk. 1 is the latest addition to the R.A.F.'s armoury and a very lethal one it is. Flying at Mach 2 plus, this interceptor is armed with Firestreak missiles, 30-mm. Aden guns and 2-inch rockets. It may also be equipped with a gun pack or cameras instead of the missiles. This lesson also covers the trainer version, the Lightning T Mk. 4, which you will find over the page.

(The annotated features are for information: they are not necessarily significant identifying features.)

FIRESTREAKS

VENTRAL FUEL TANK

AERODYNAMIC FENCE SLOT

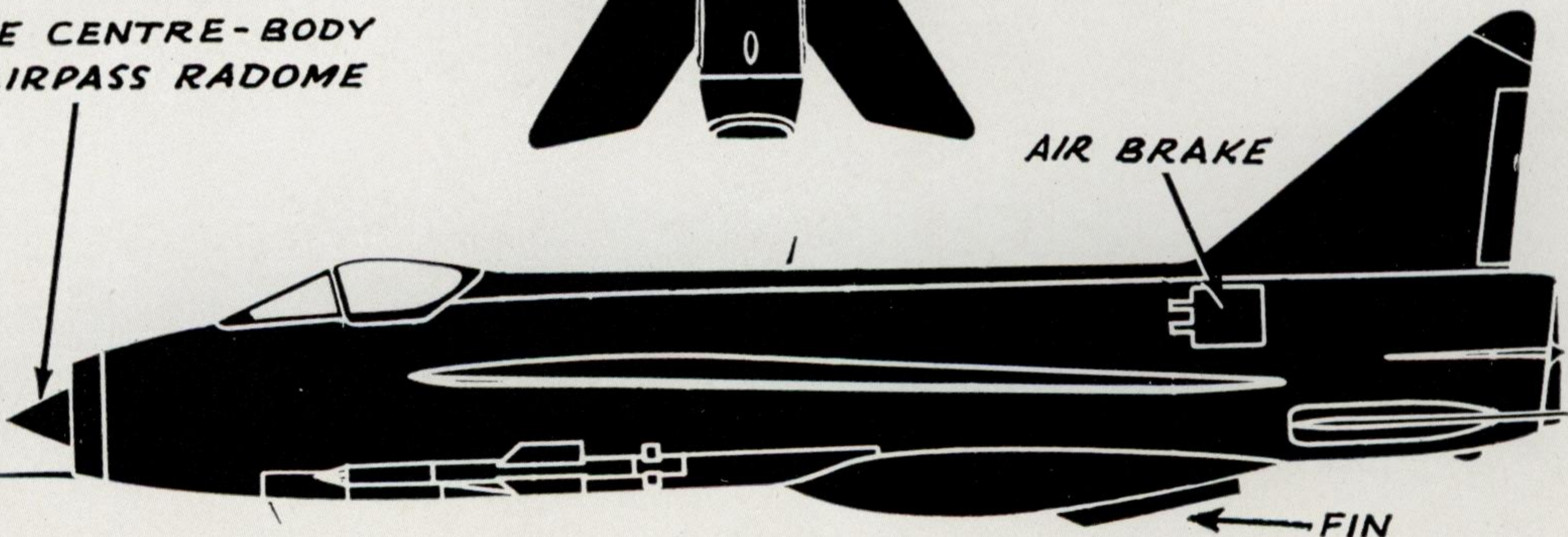
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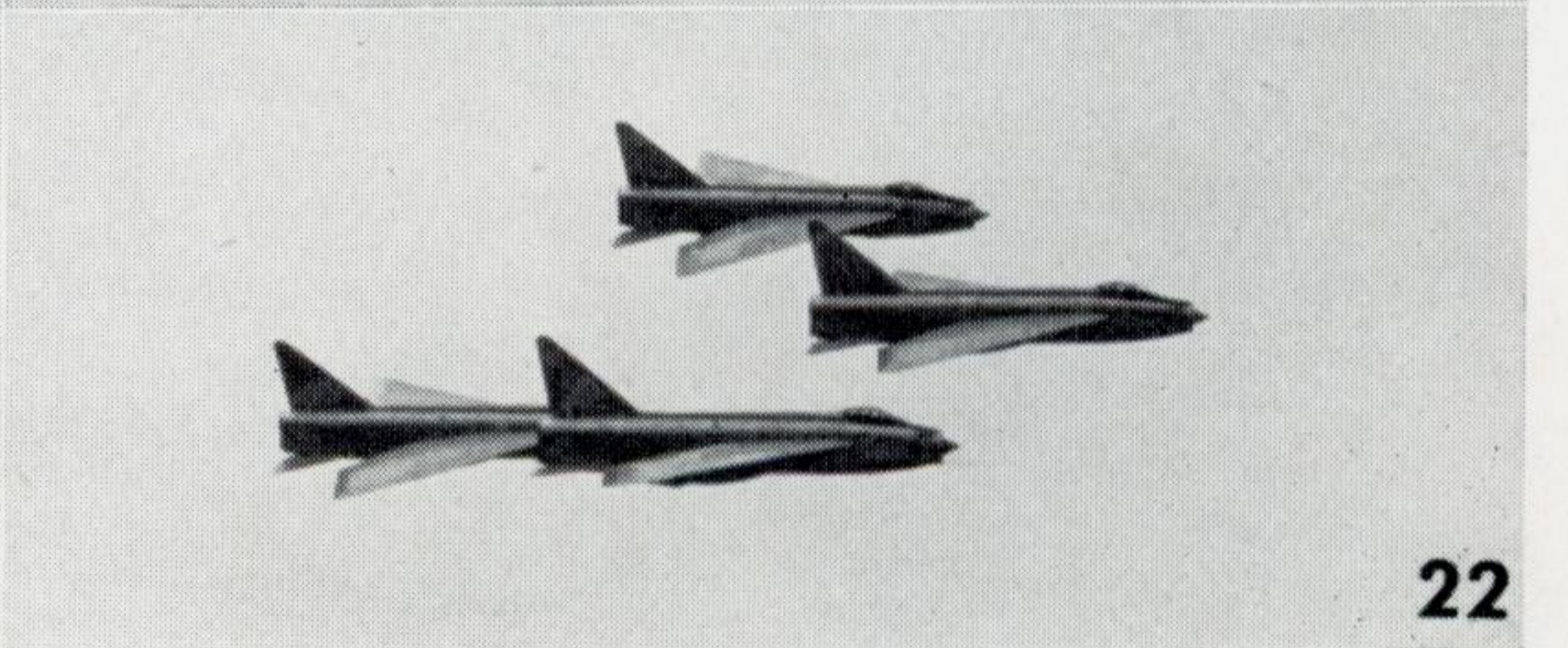
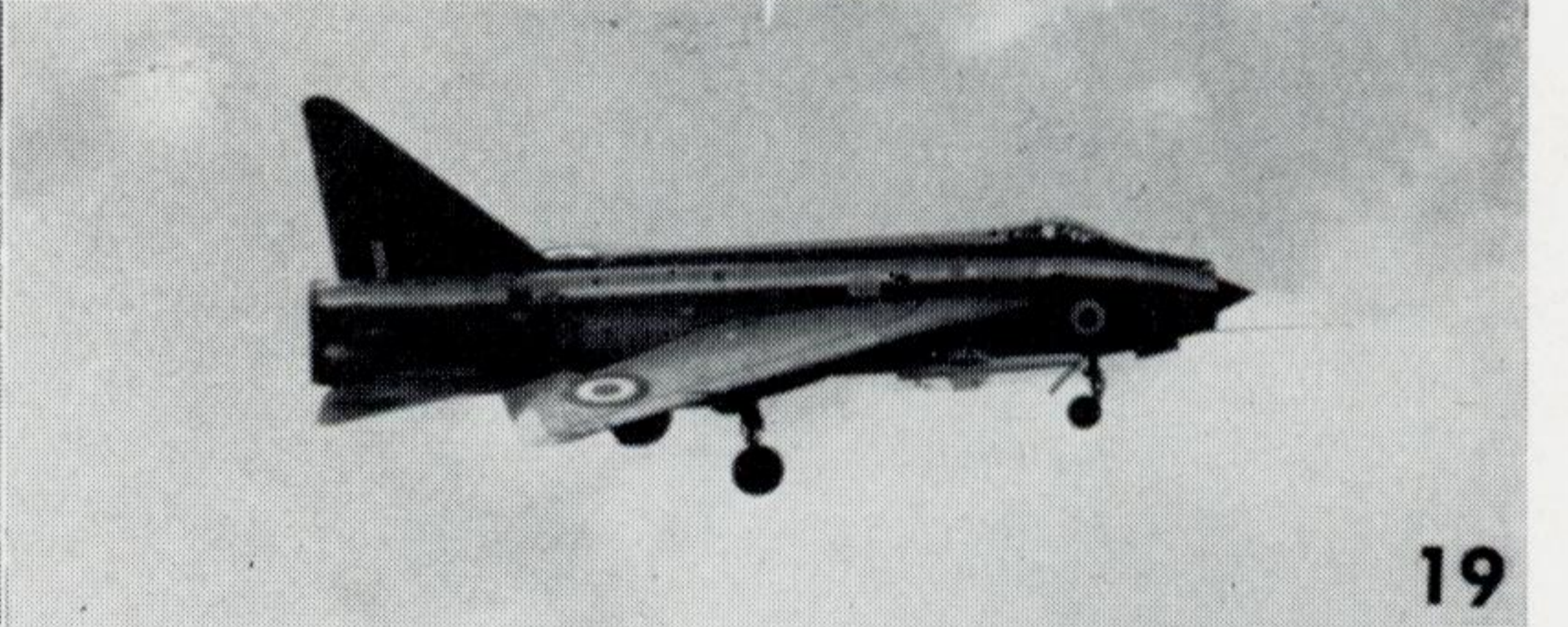
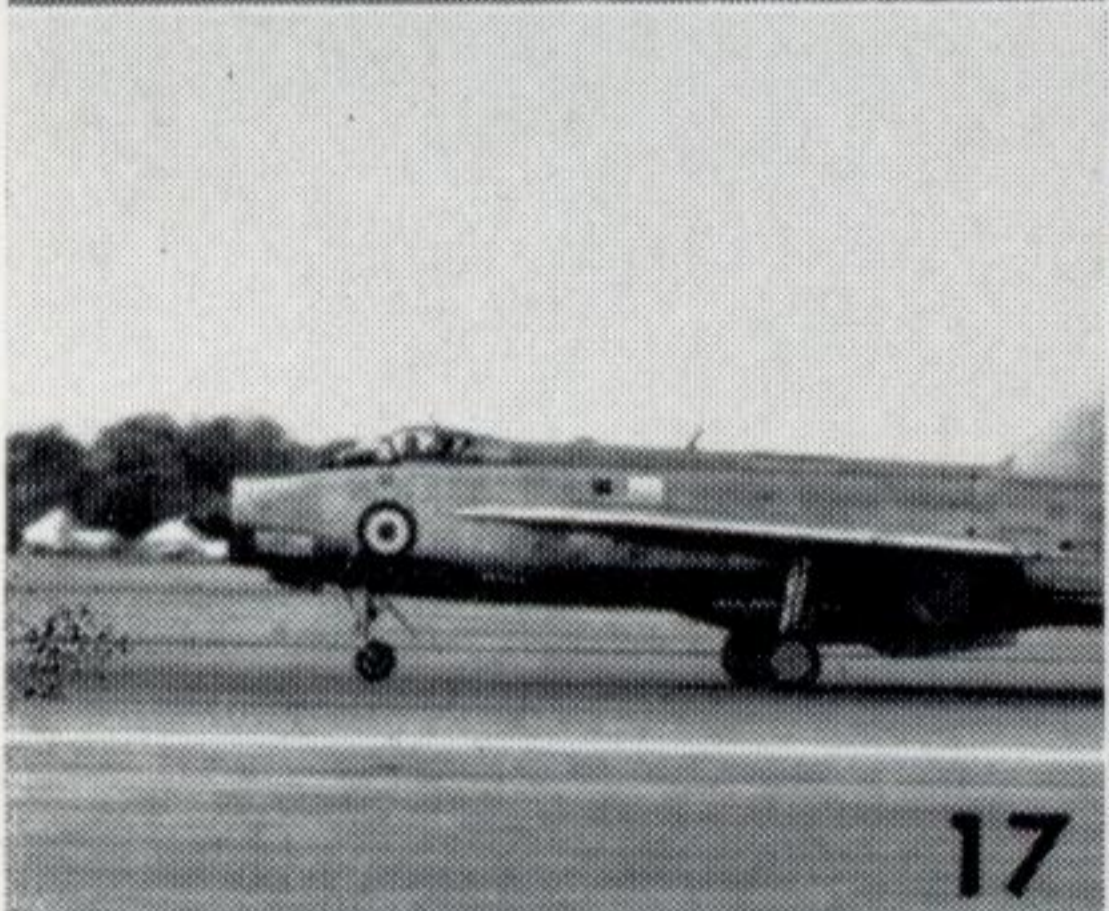
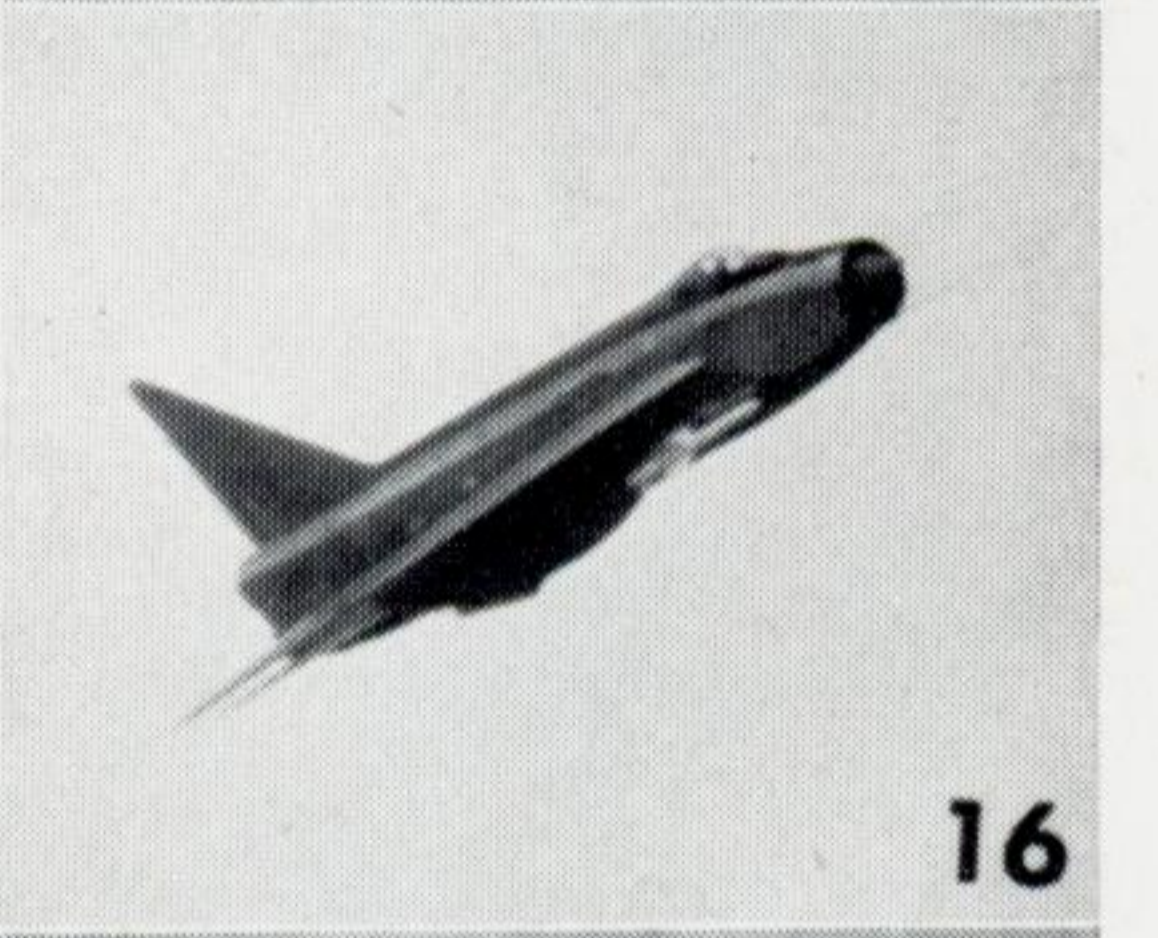
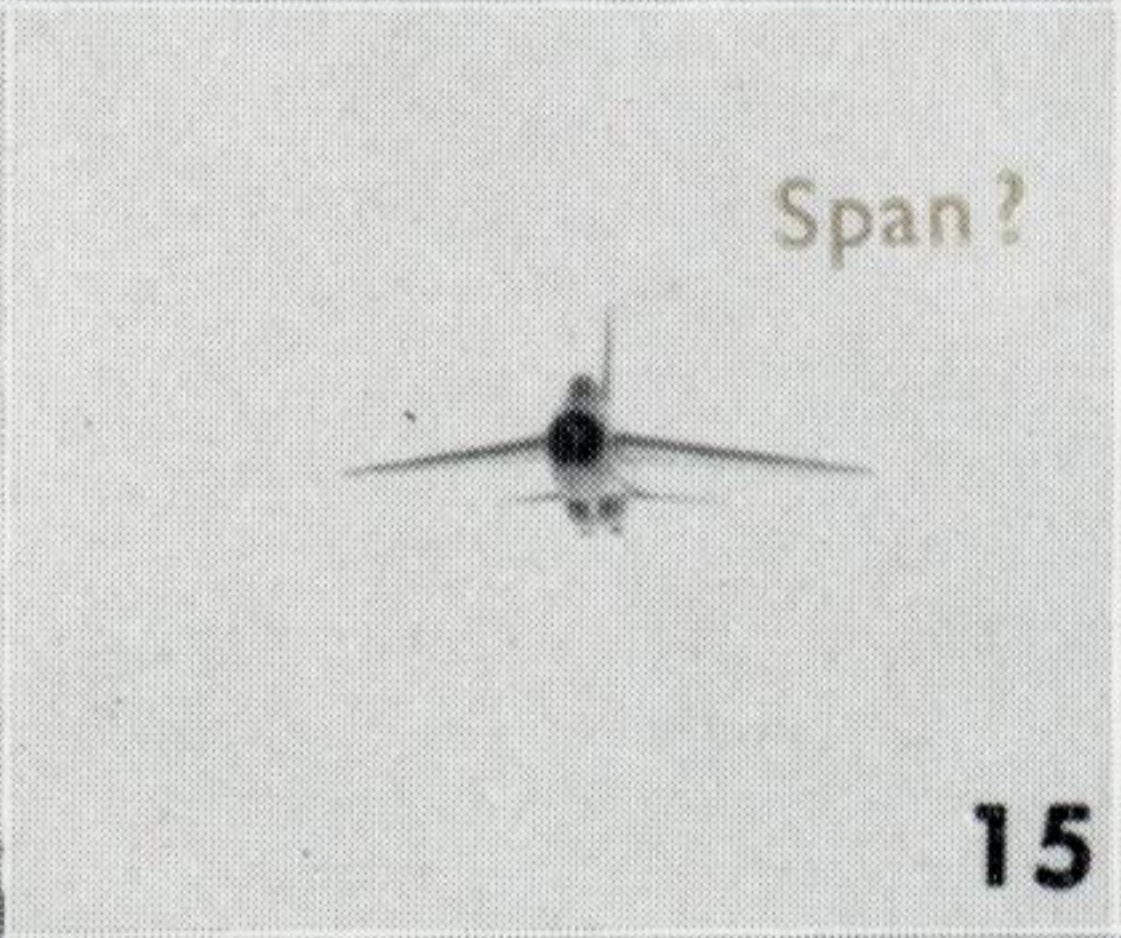
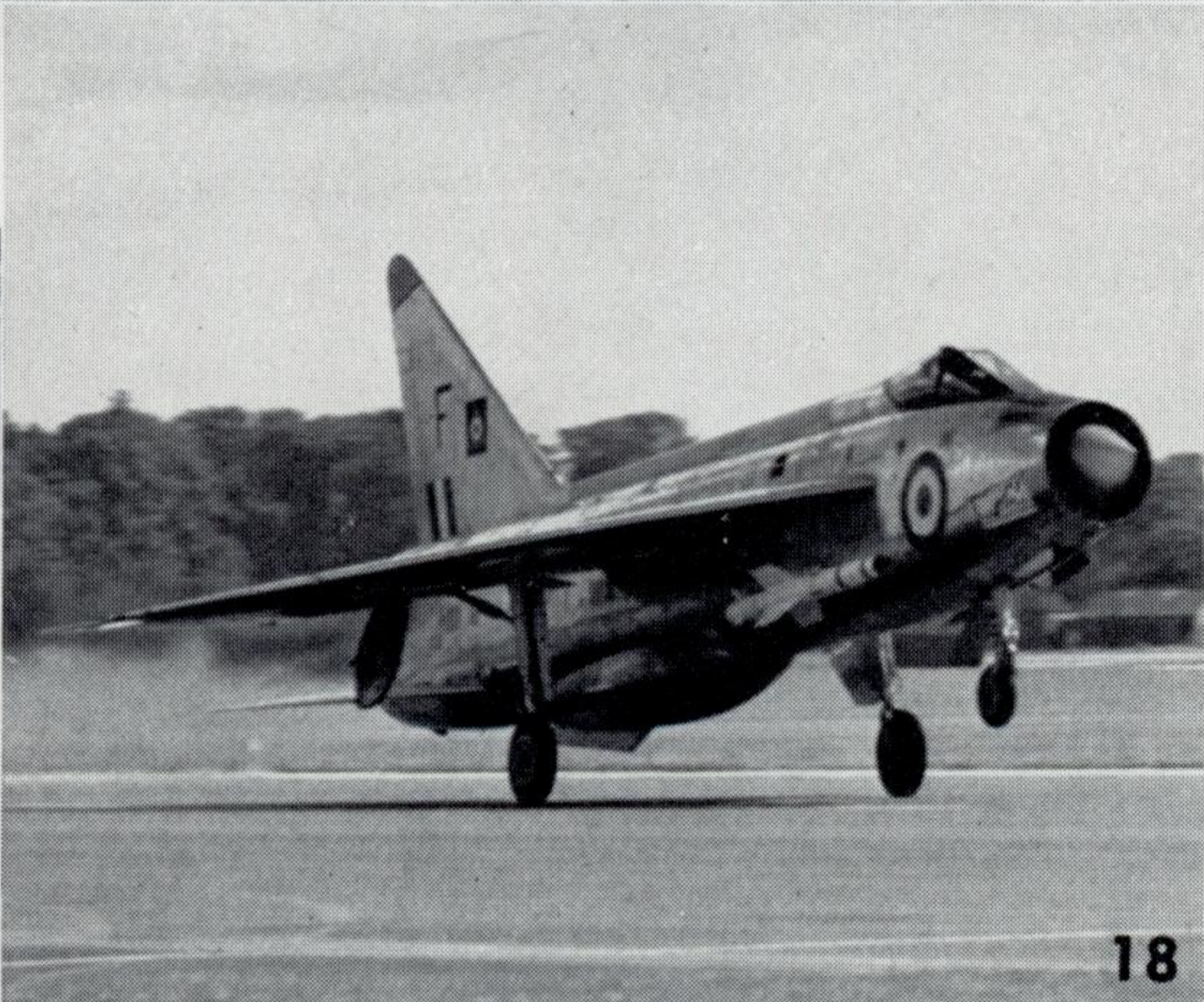
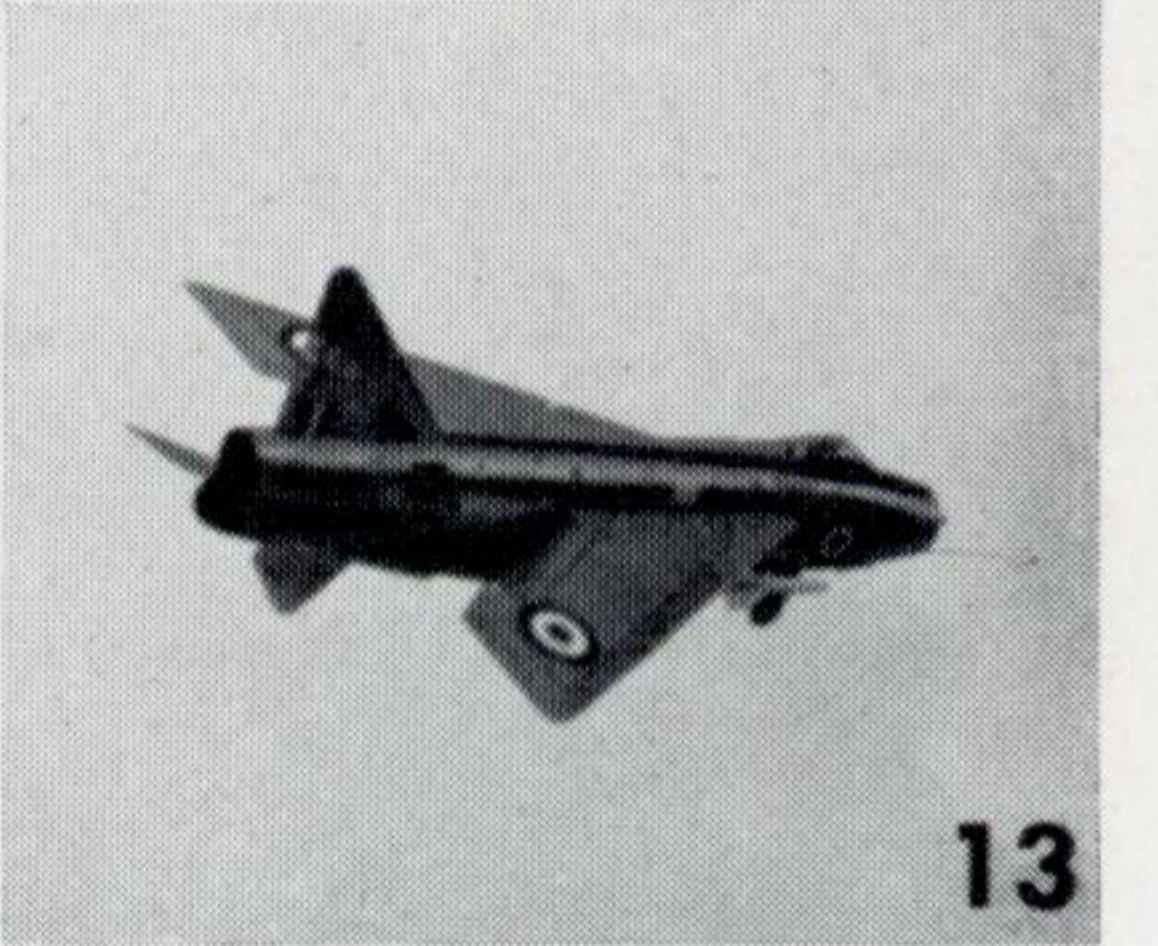
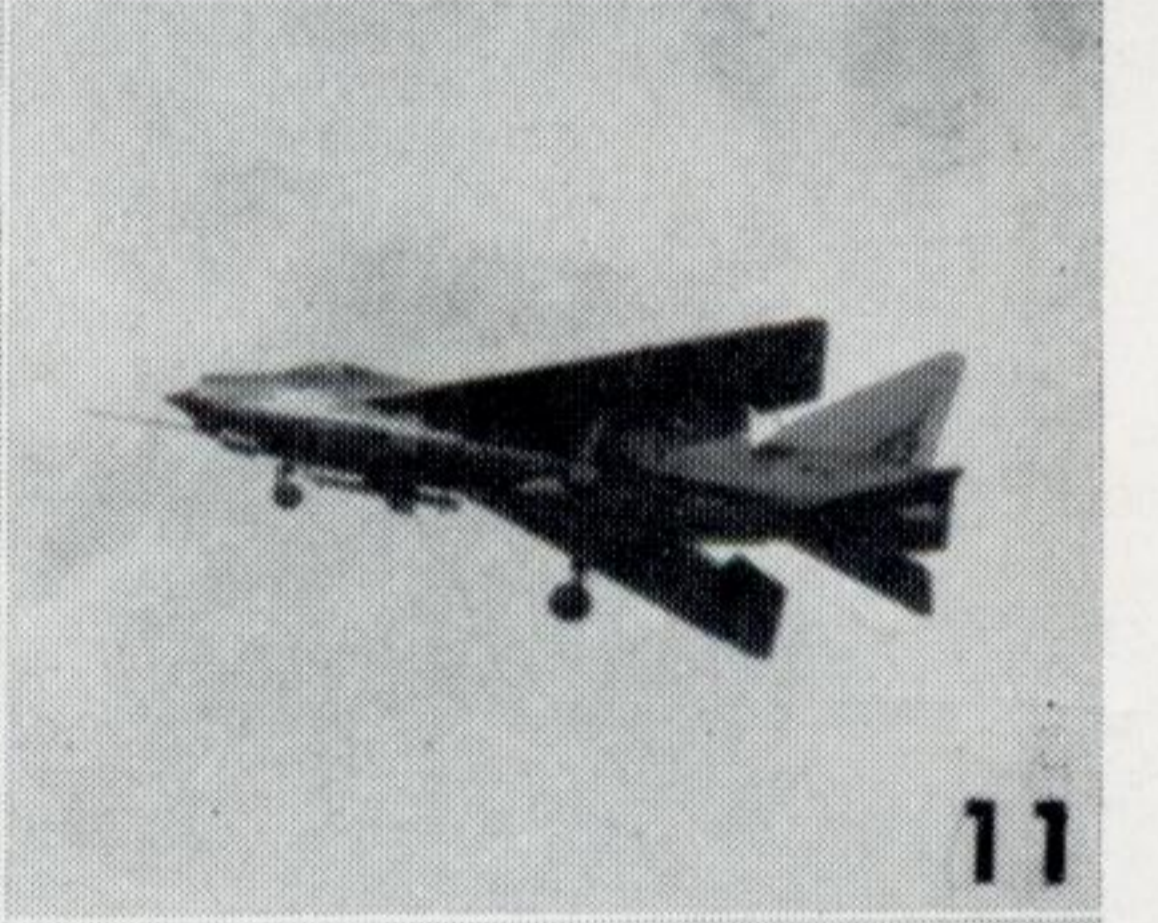
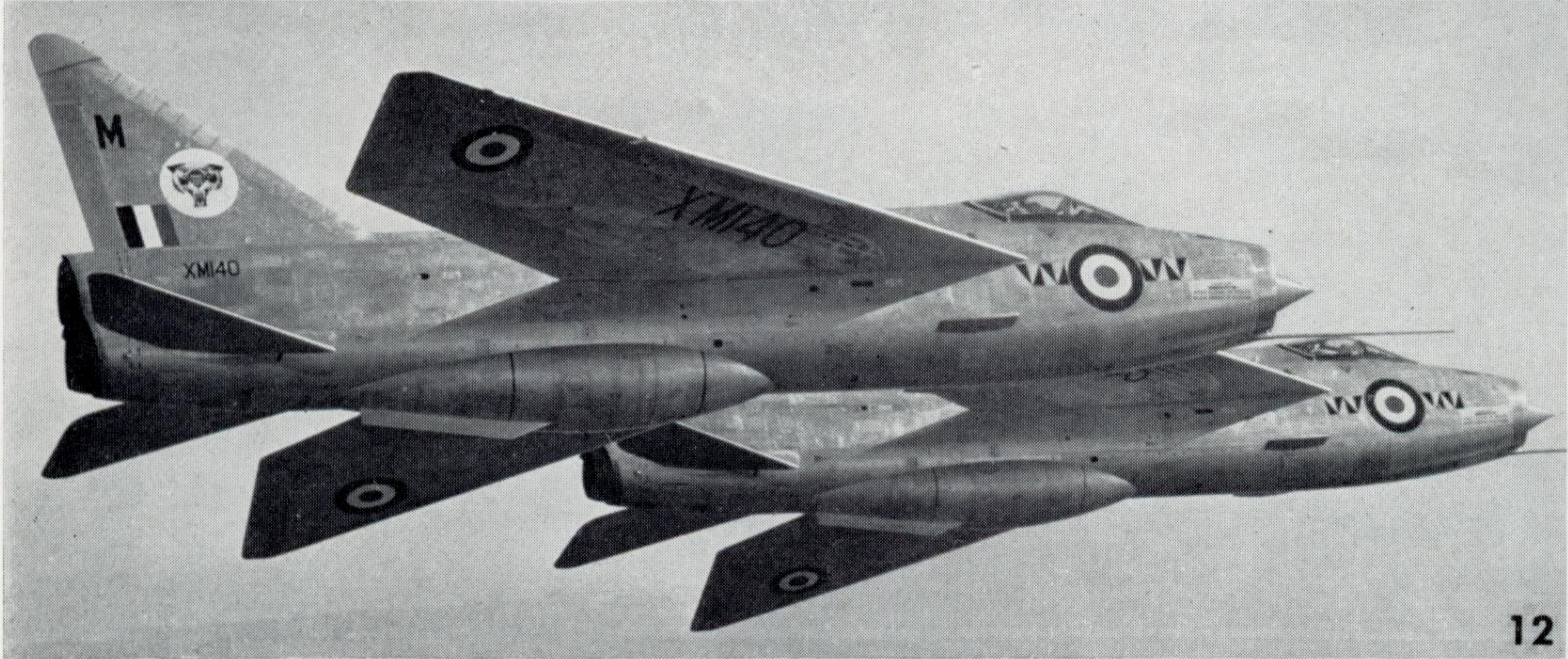
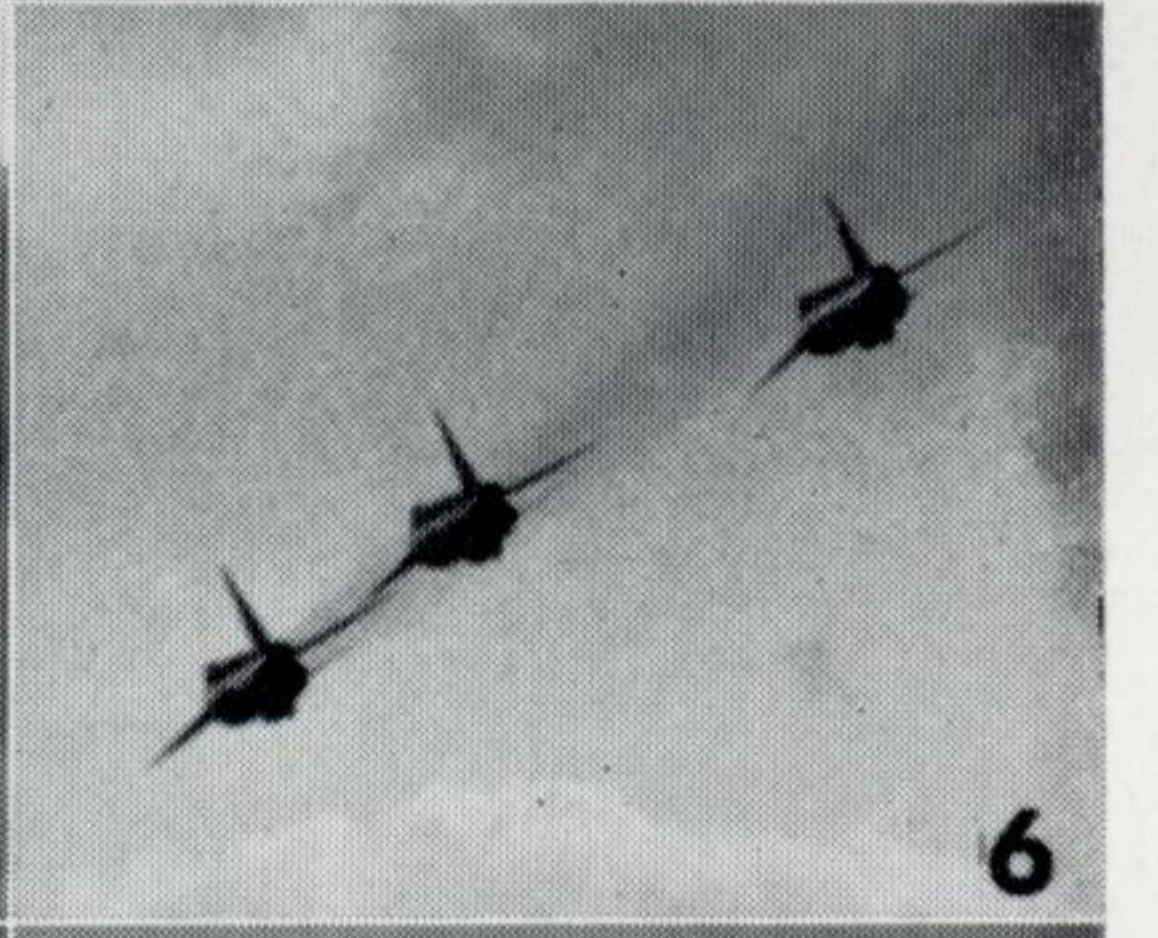
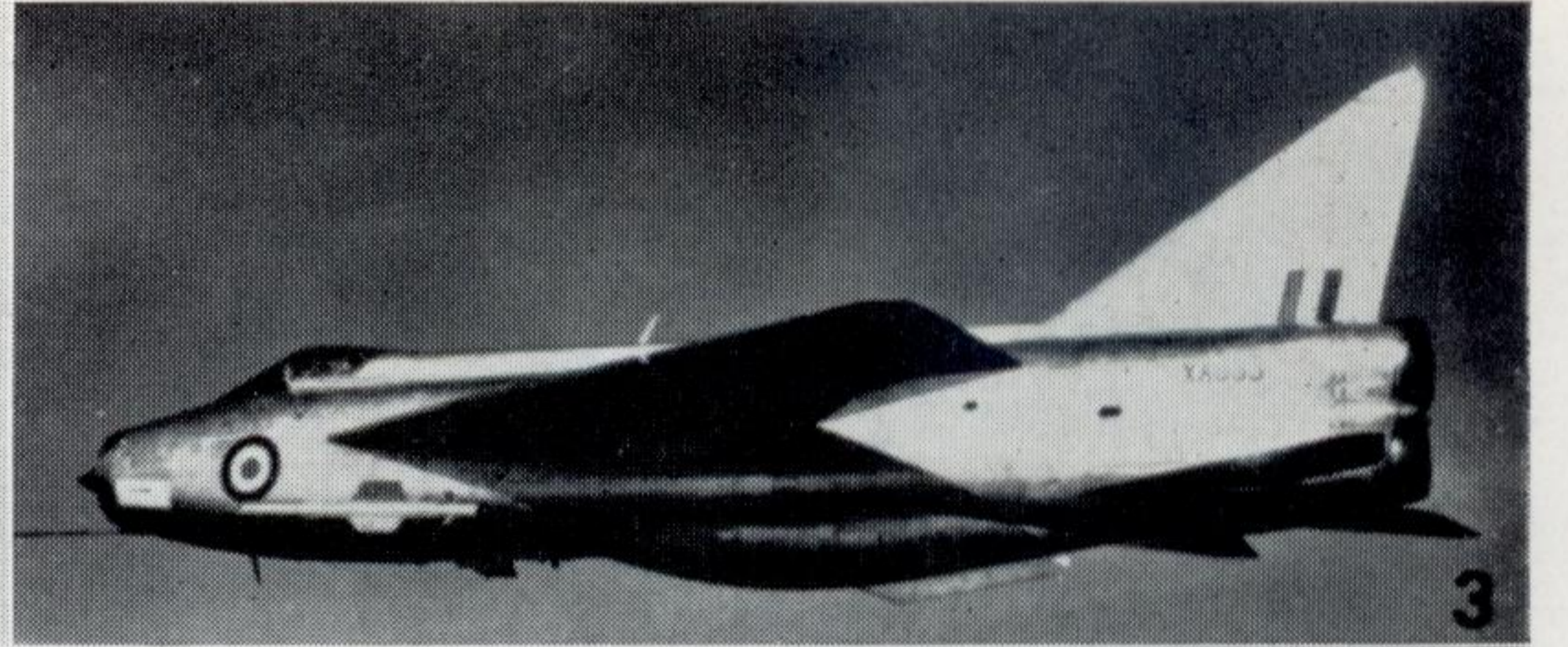
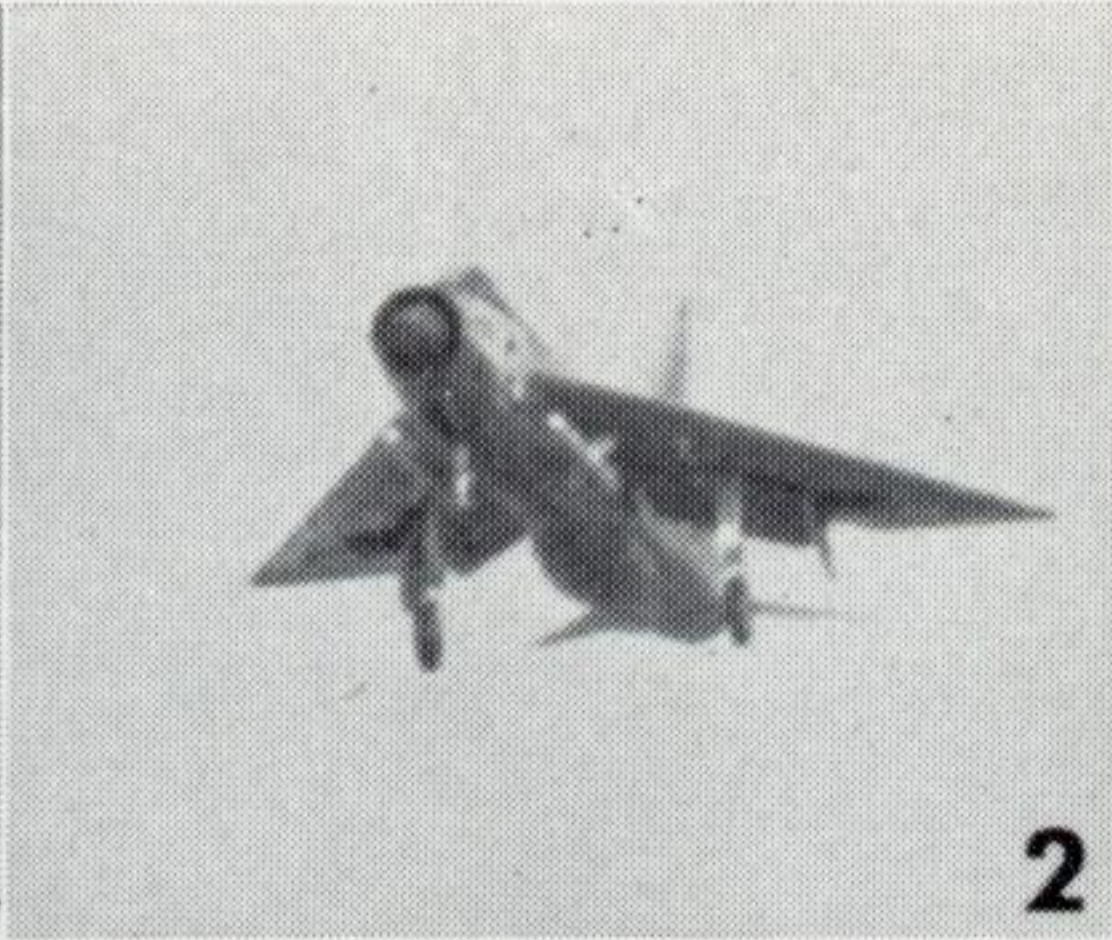
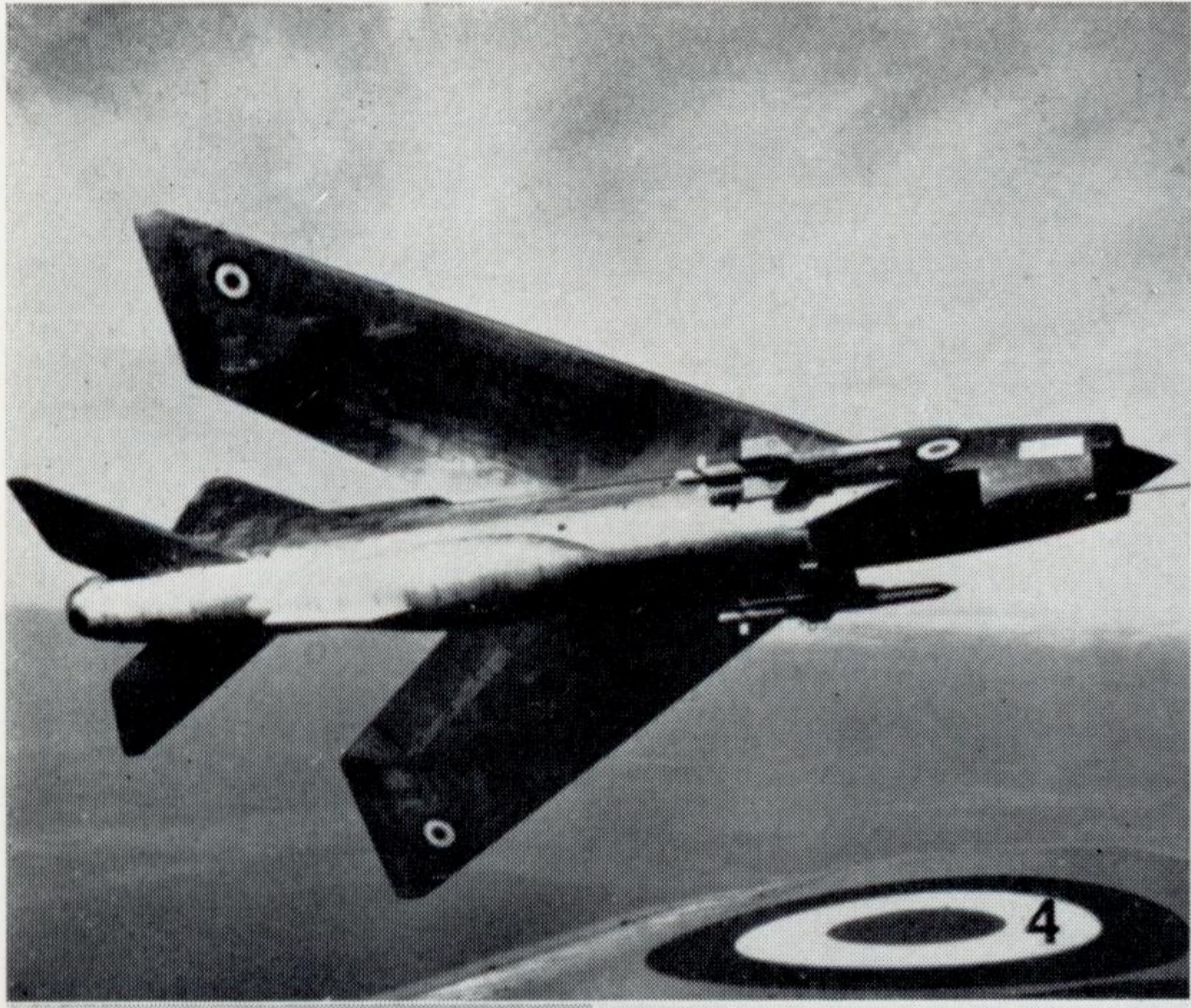
SPLIT FLAPS

INTAKE CENTRE-BODY AND AIRPASS RADOME

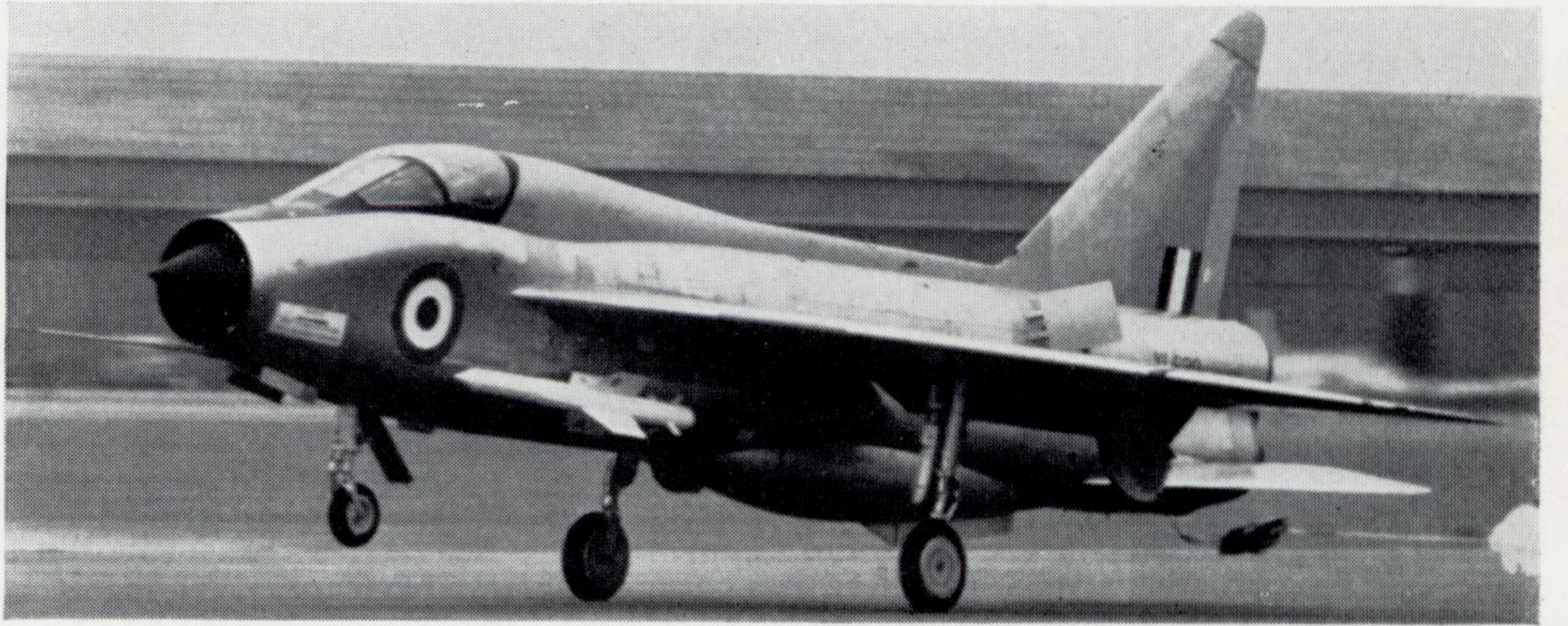
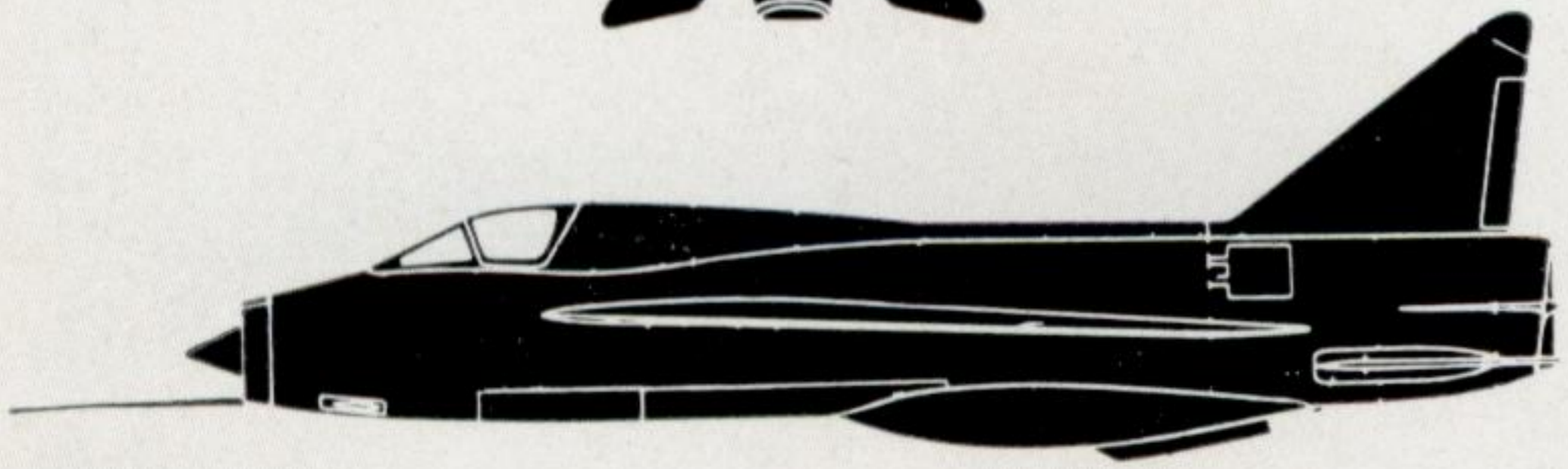
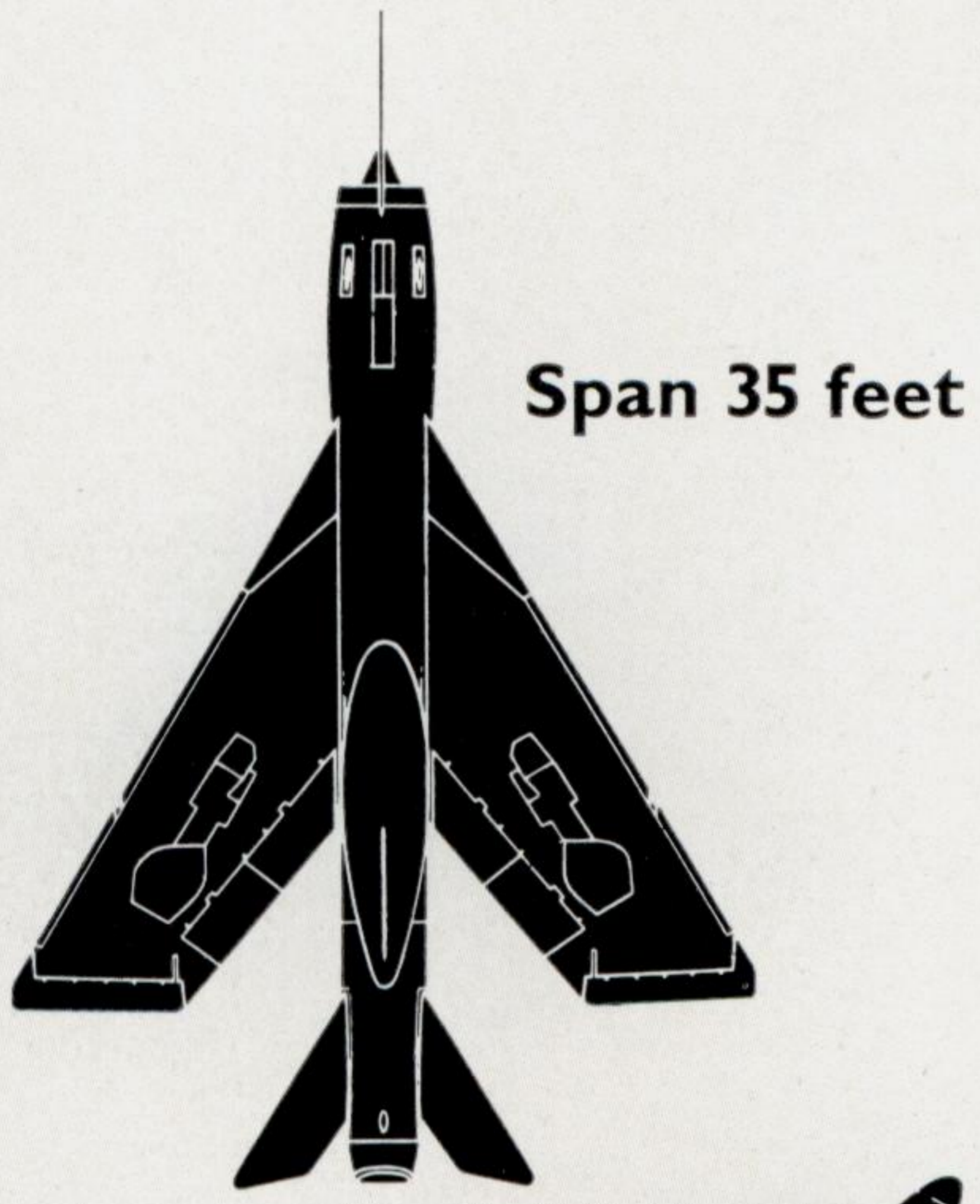
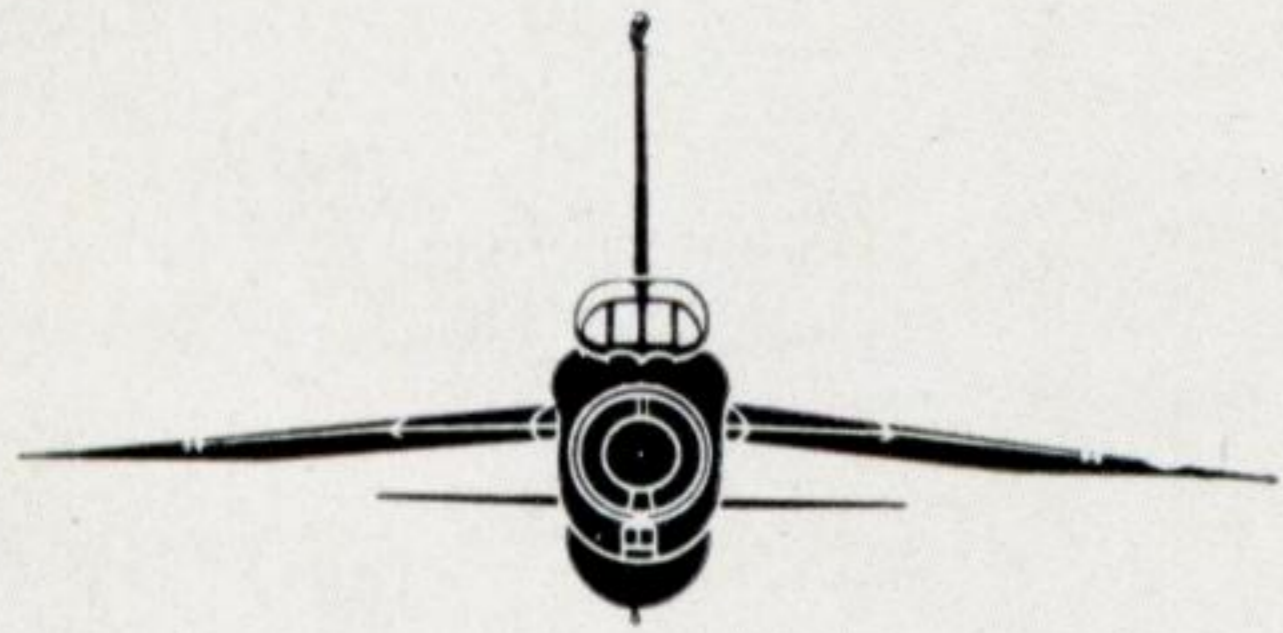
AIR BRAKE

FIN

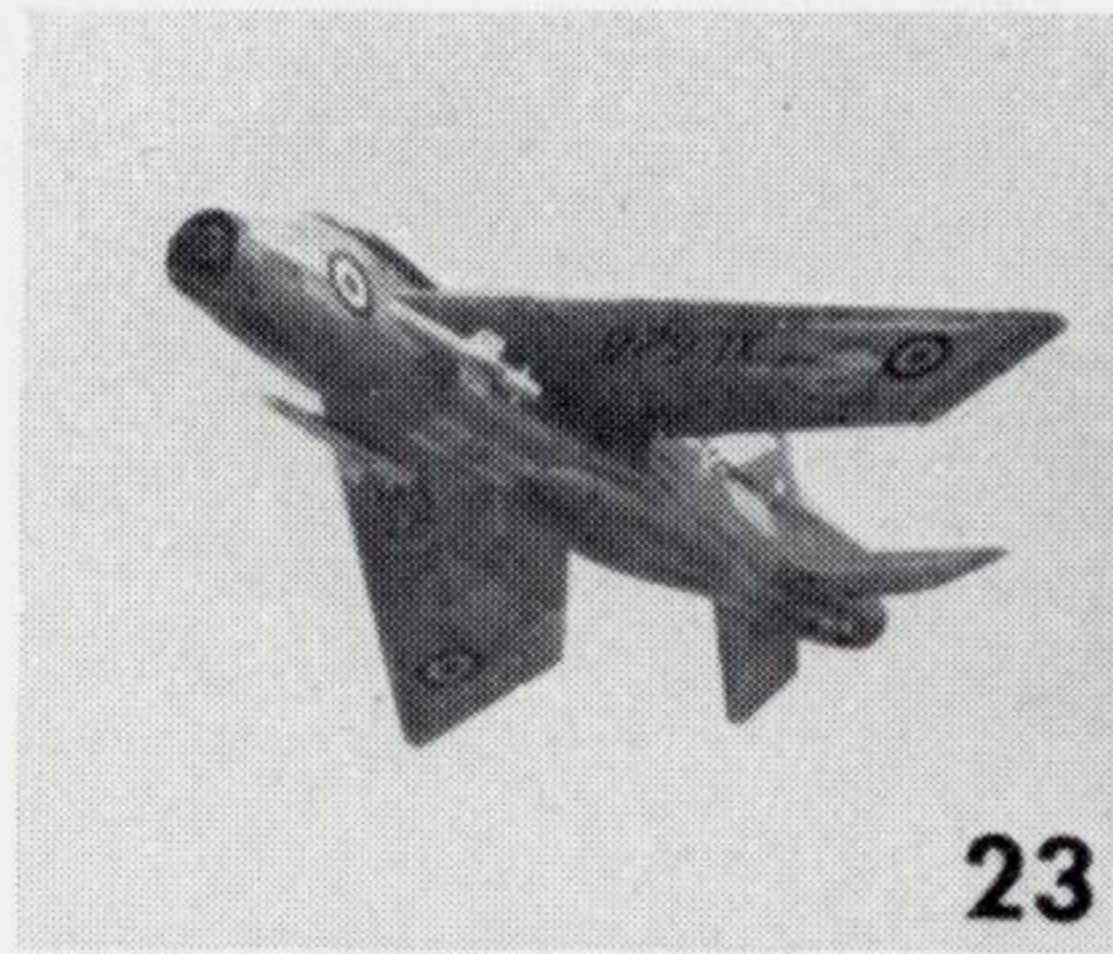




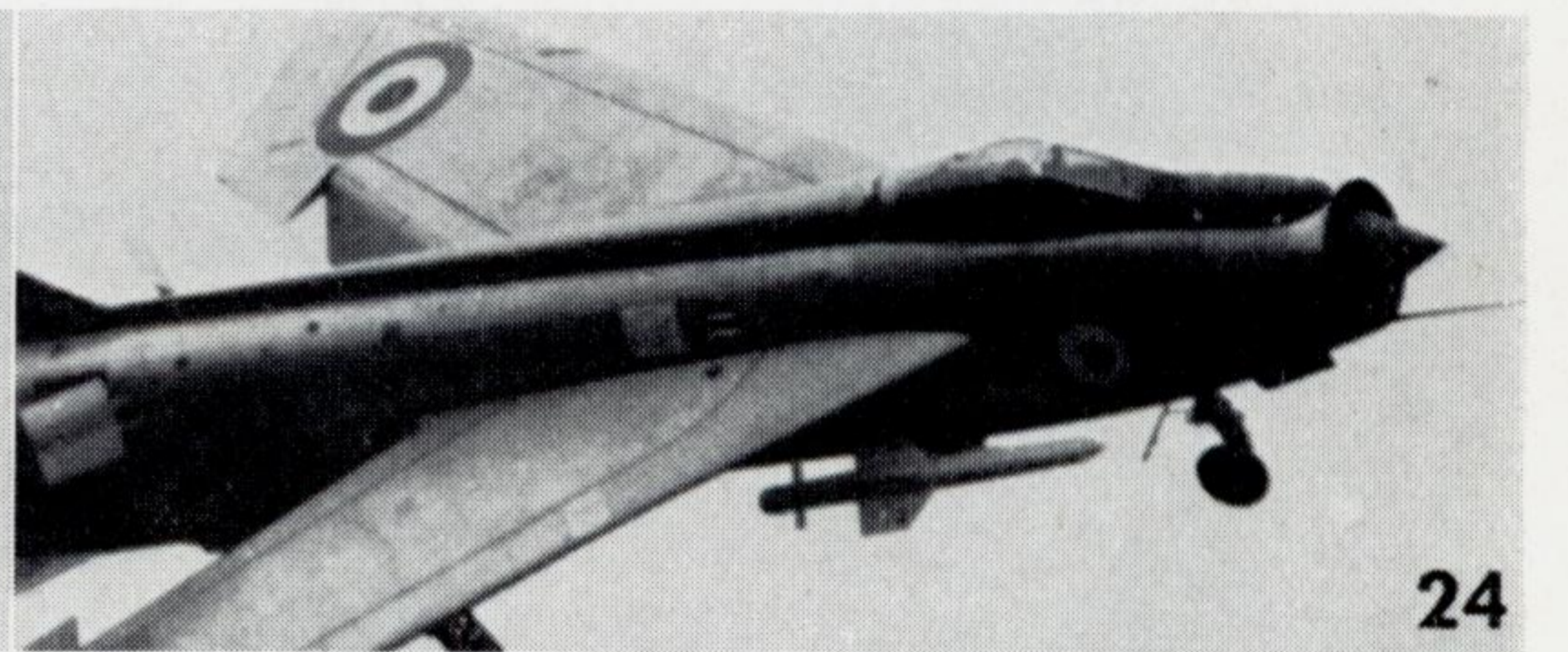
Lightning T Mk. 4



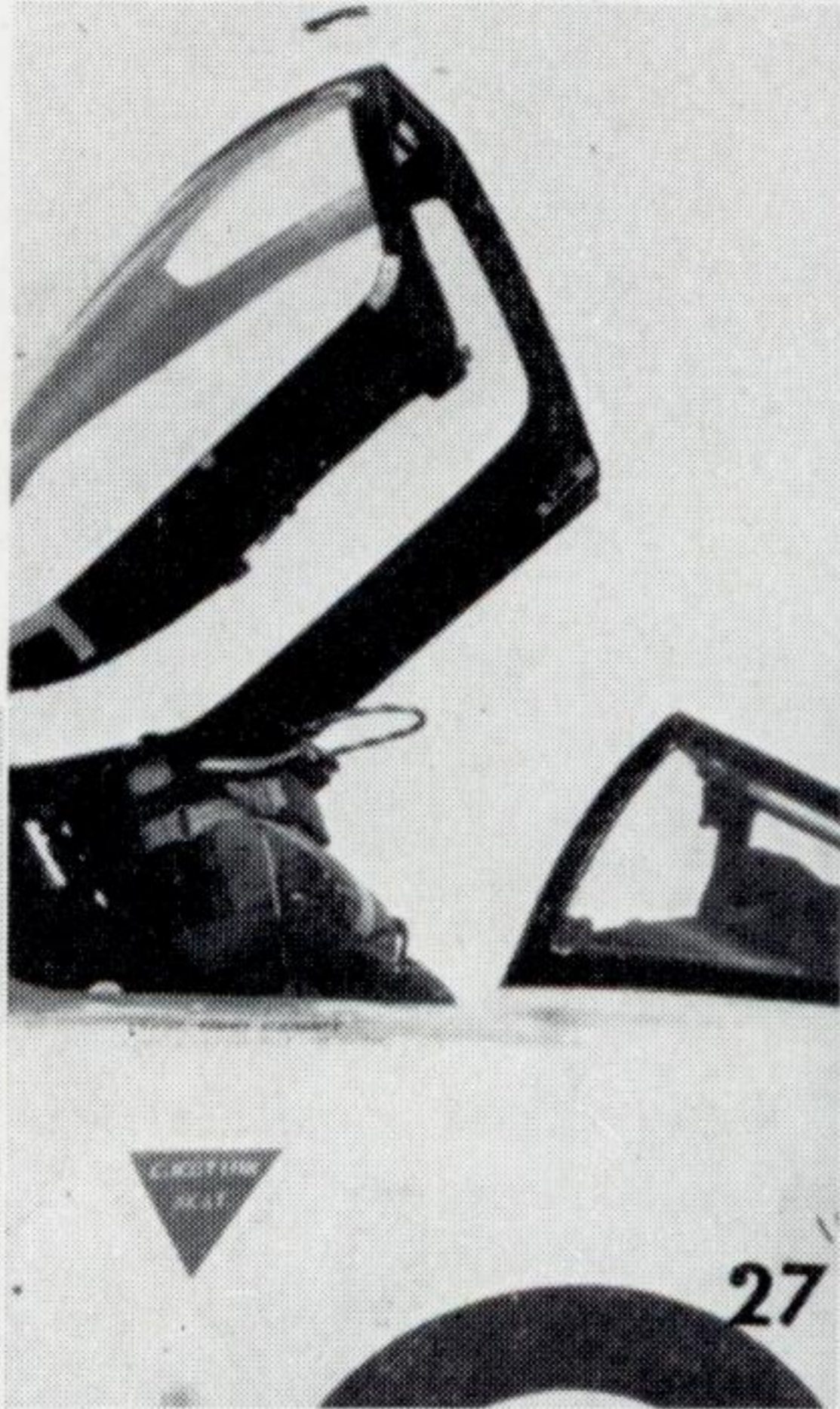
This is a Lightning T Mk. 4, two-seat trainer version. The obvious difference is the bloated canopy and slightly swollen fuselage. Distinguish the different Lightnings from now on where possible.



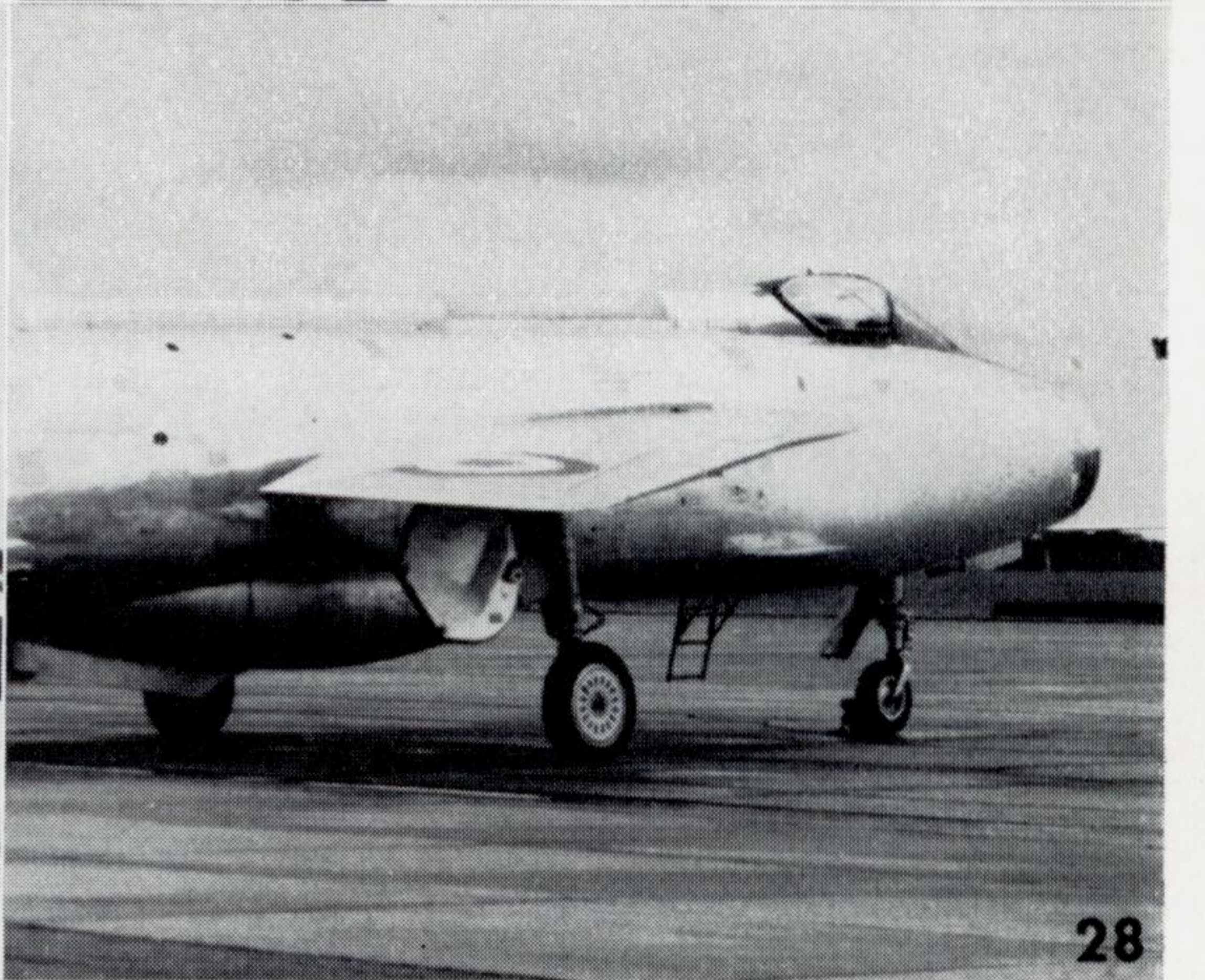
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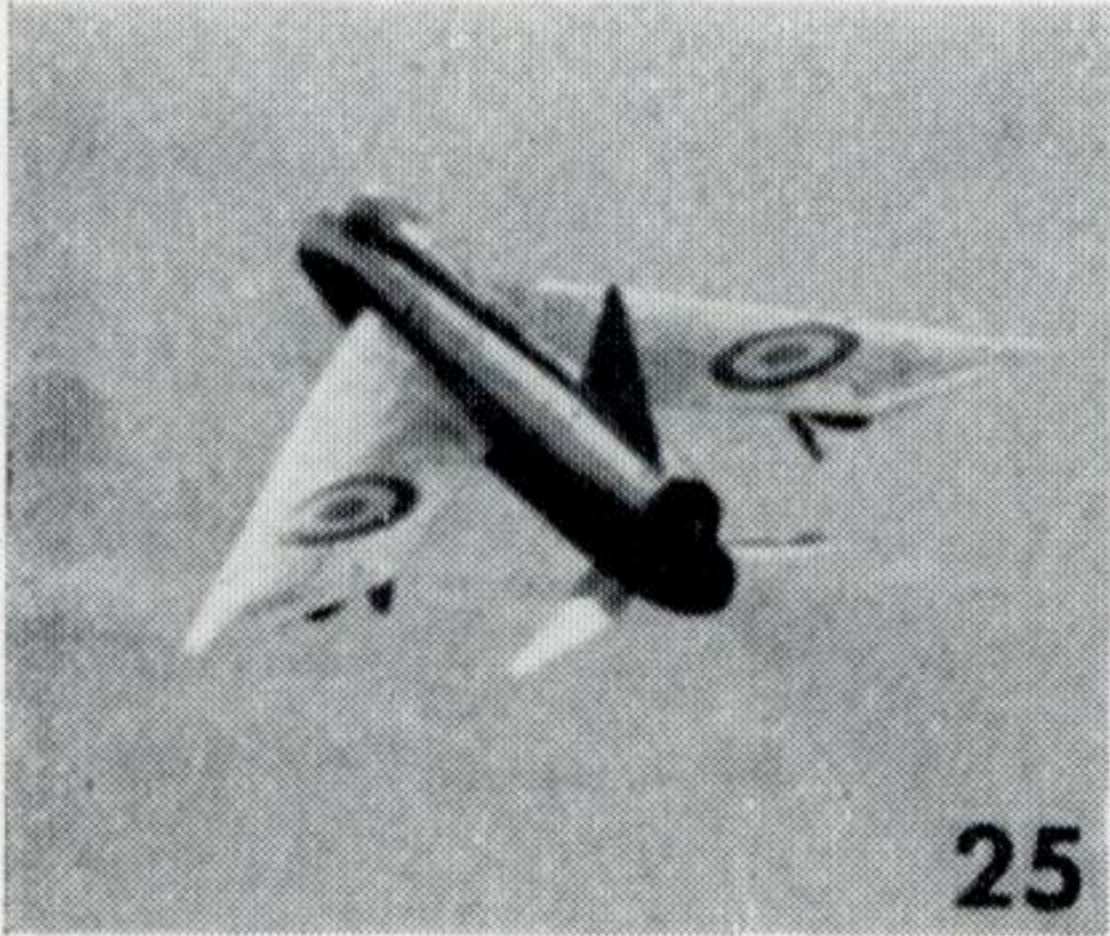
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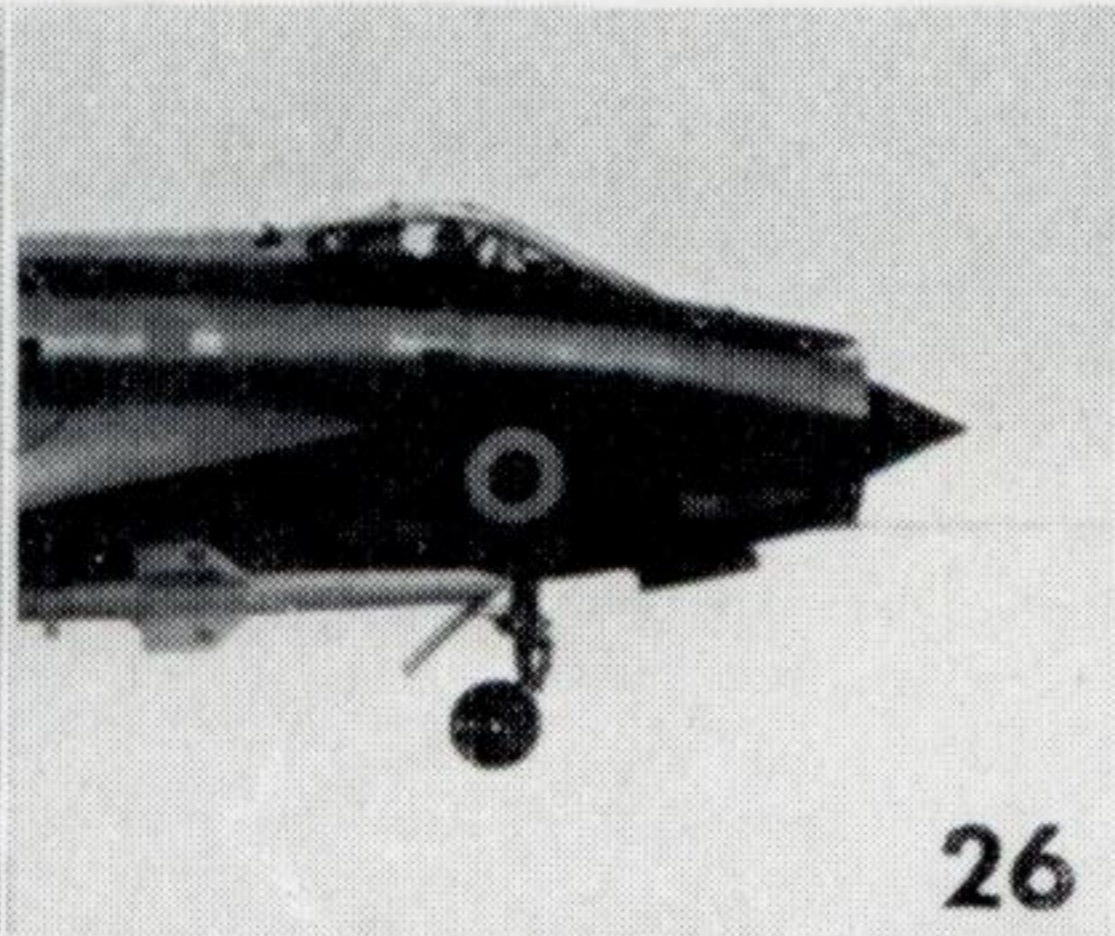
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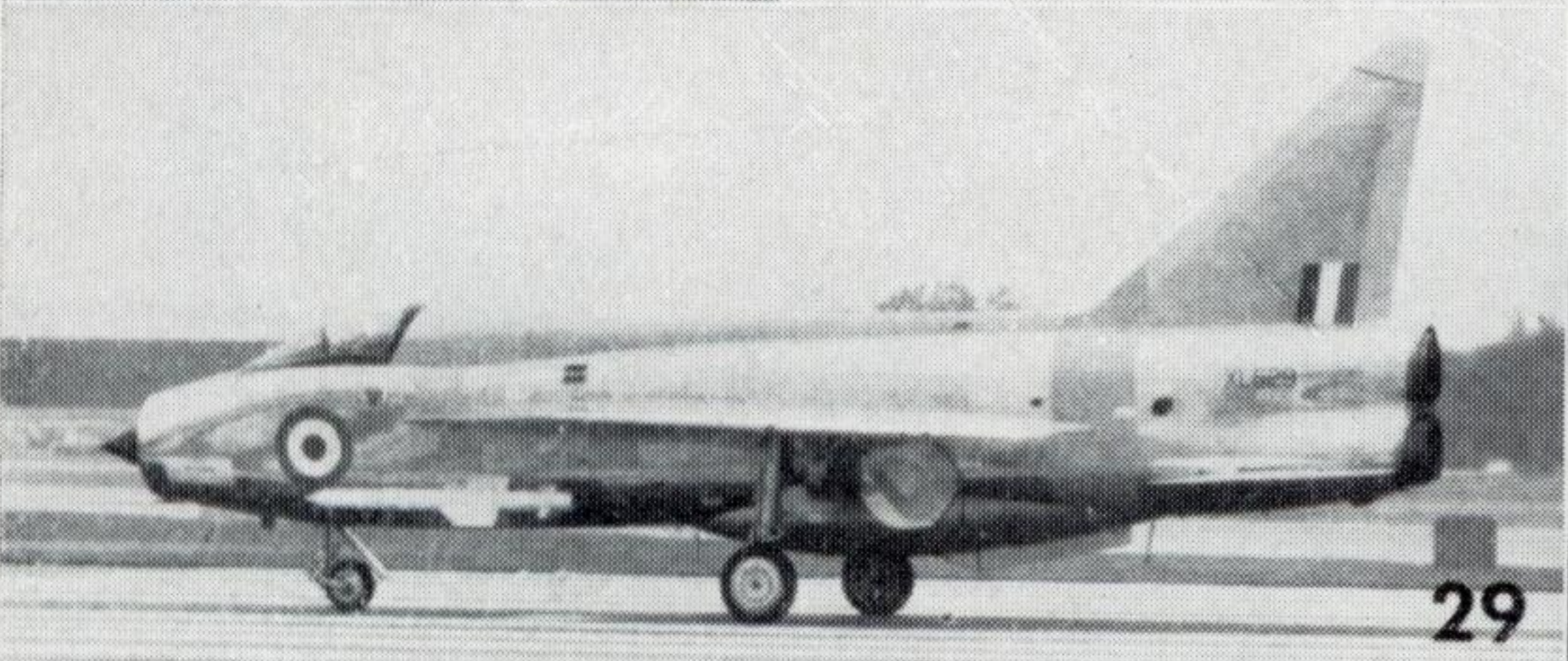
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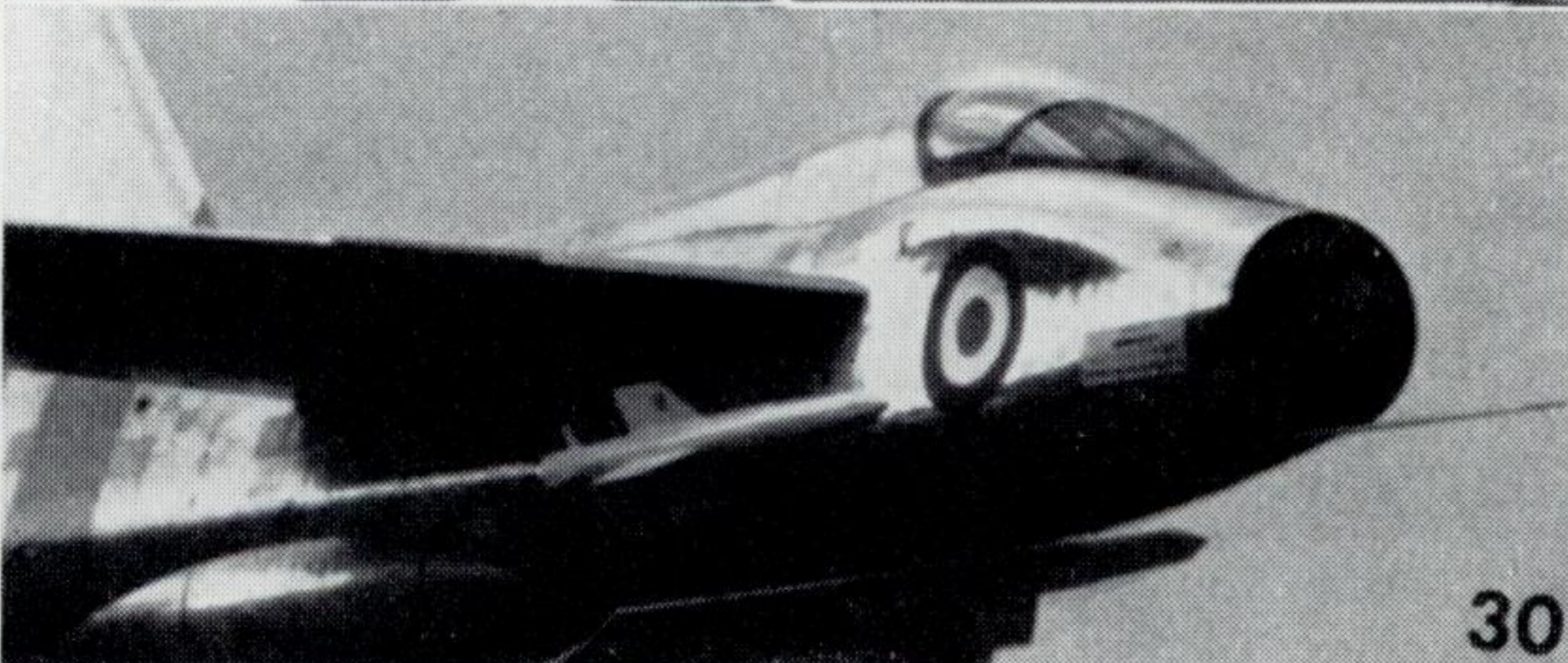
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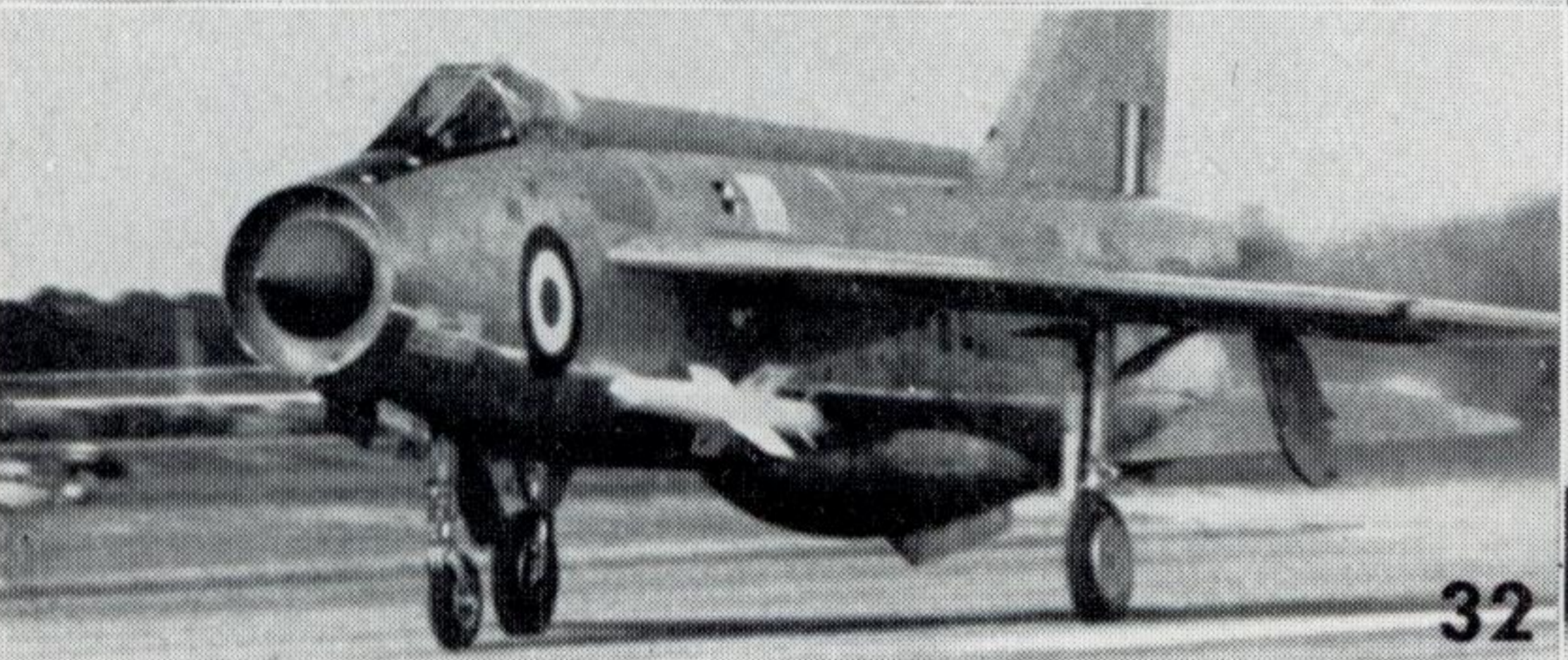
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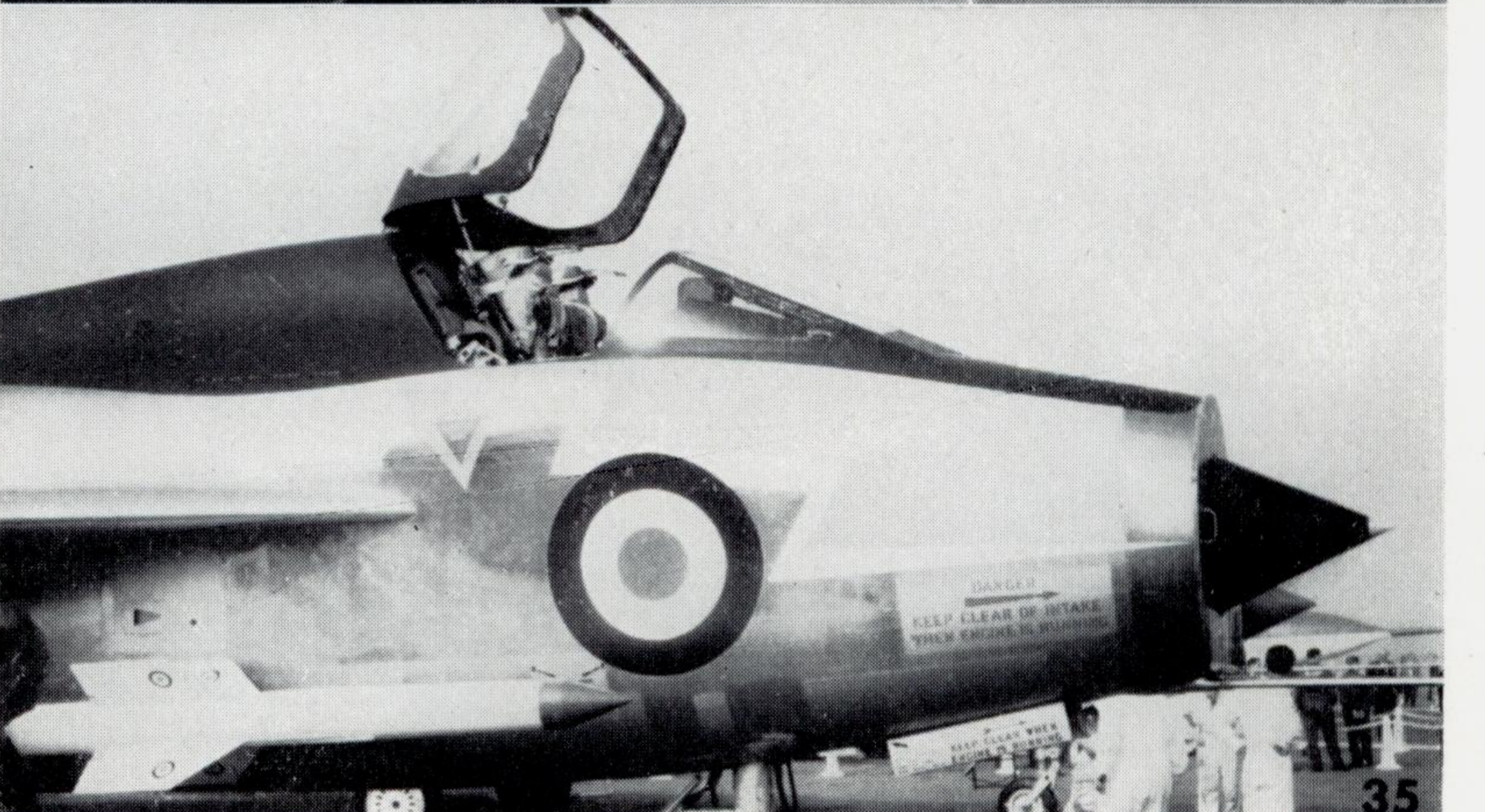
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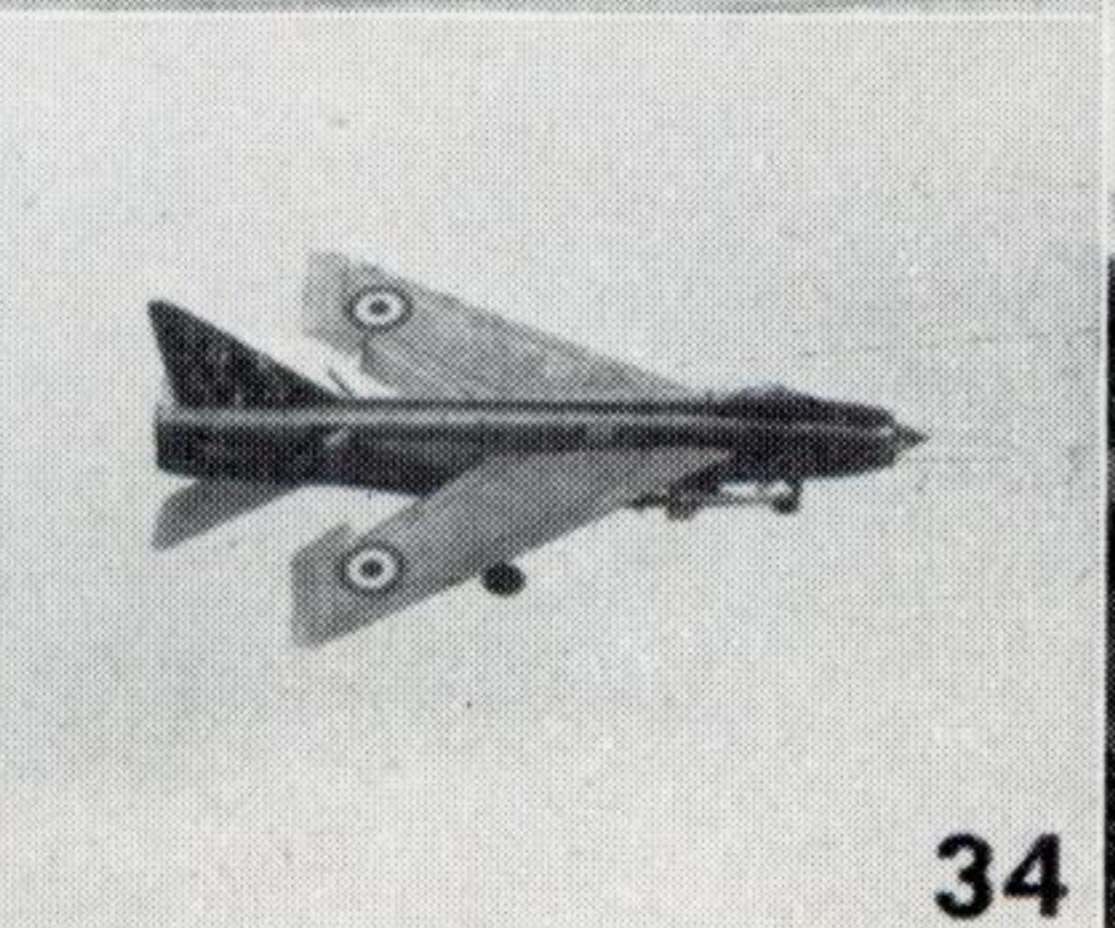
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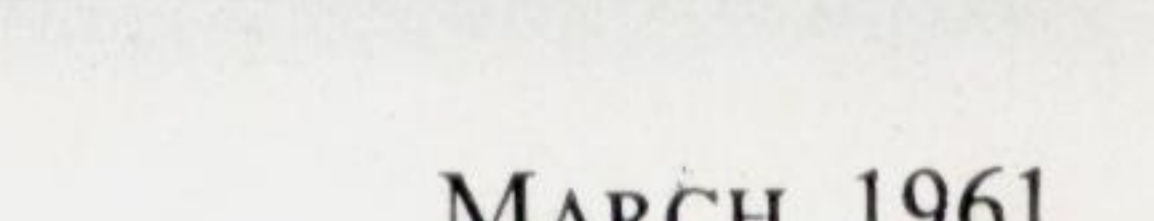
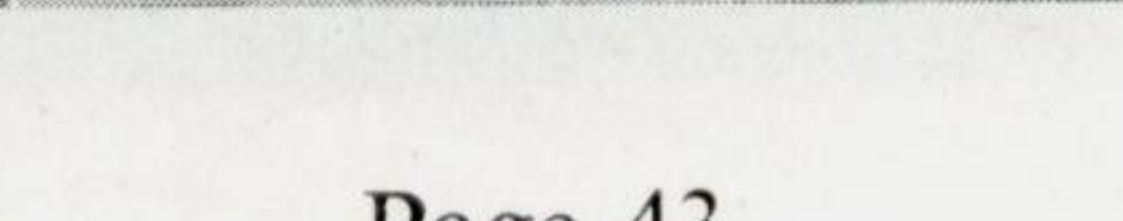
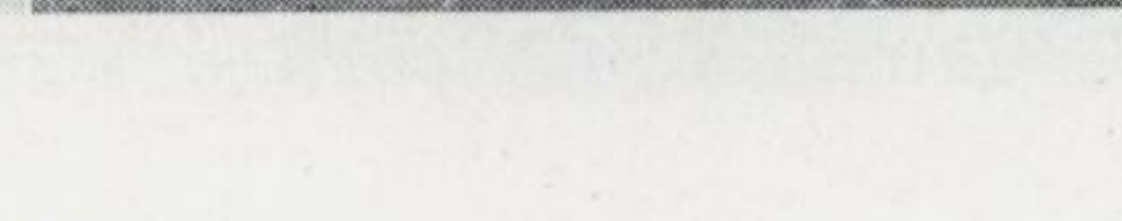
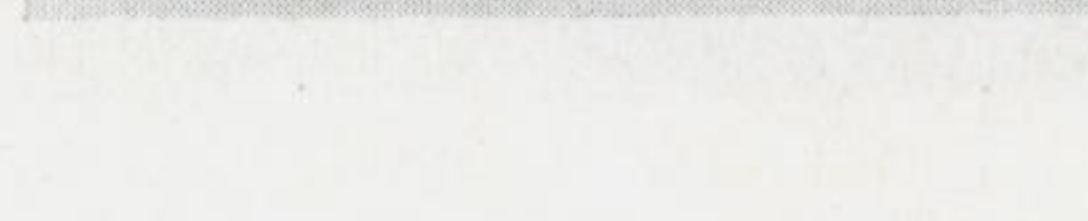
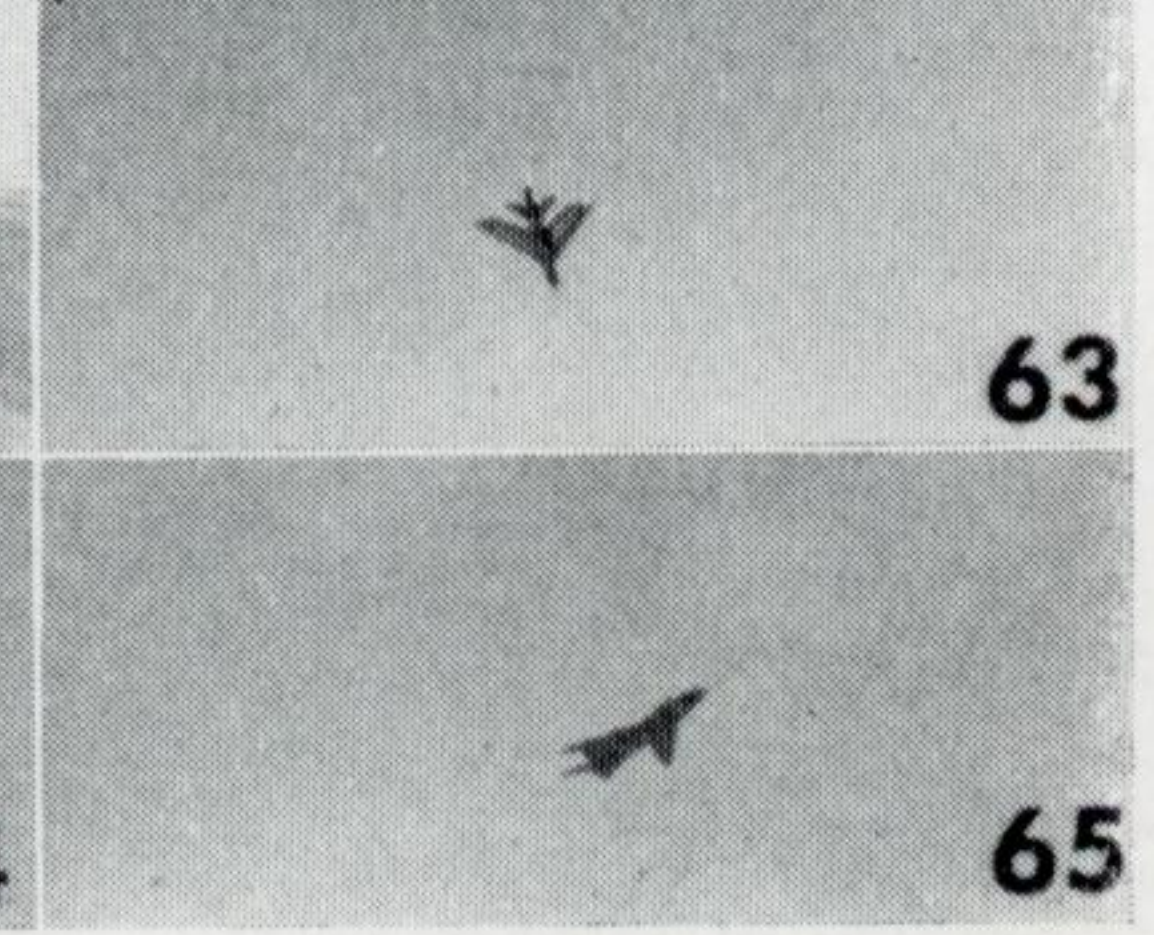
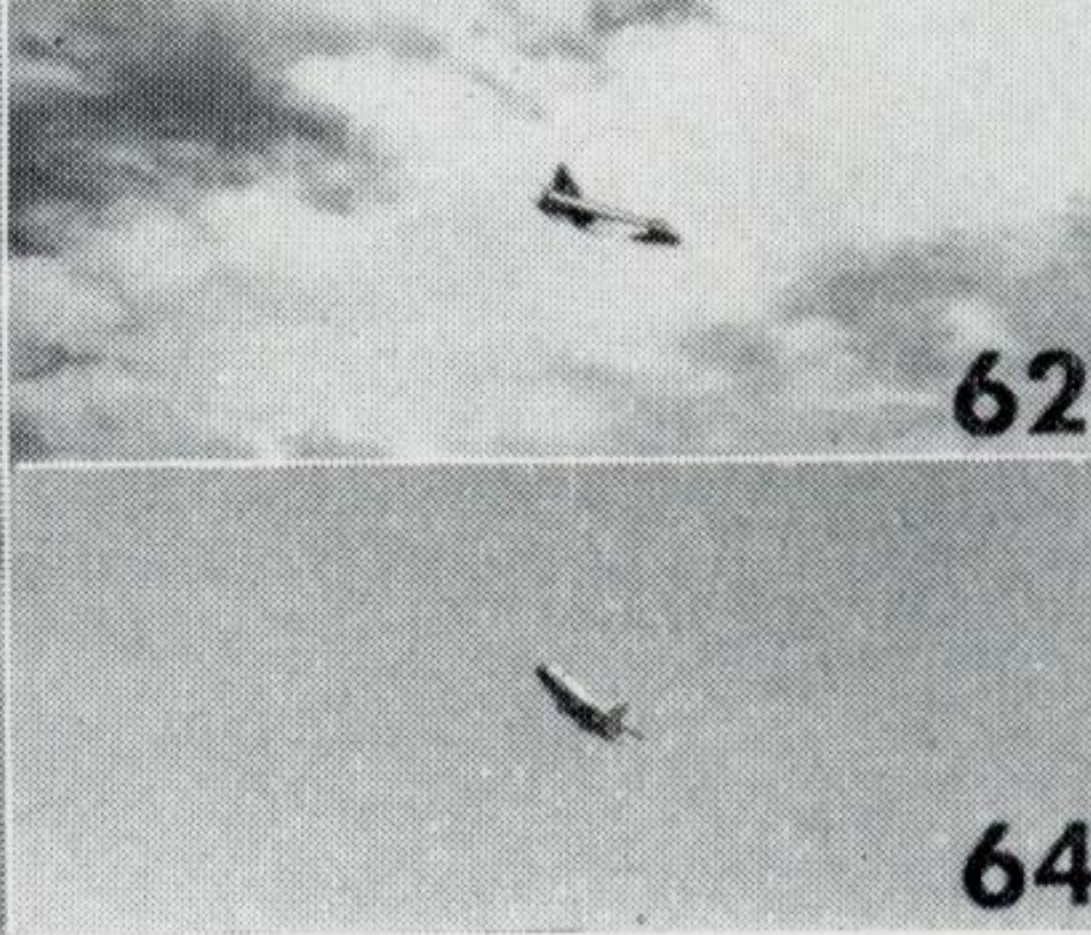
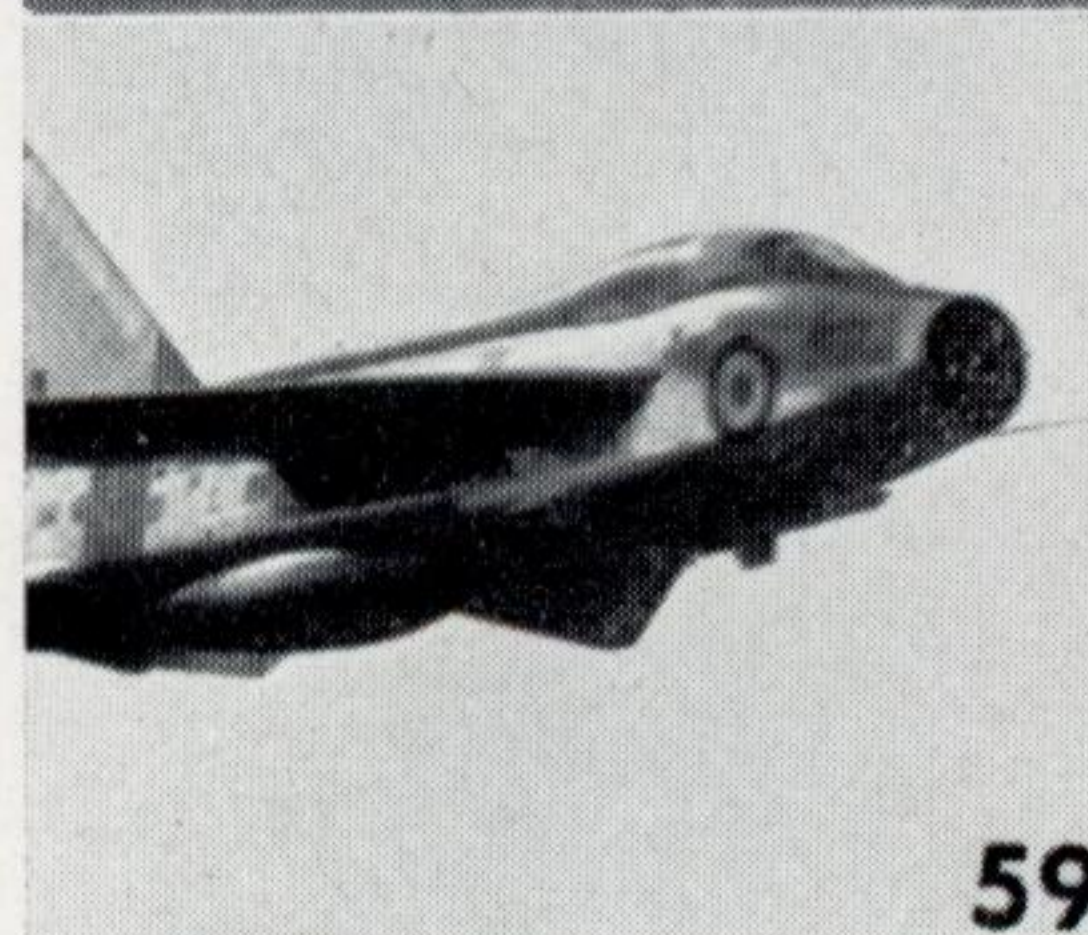
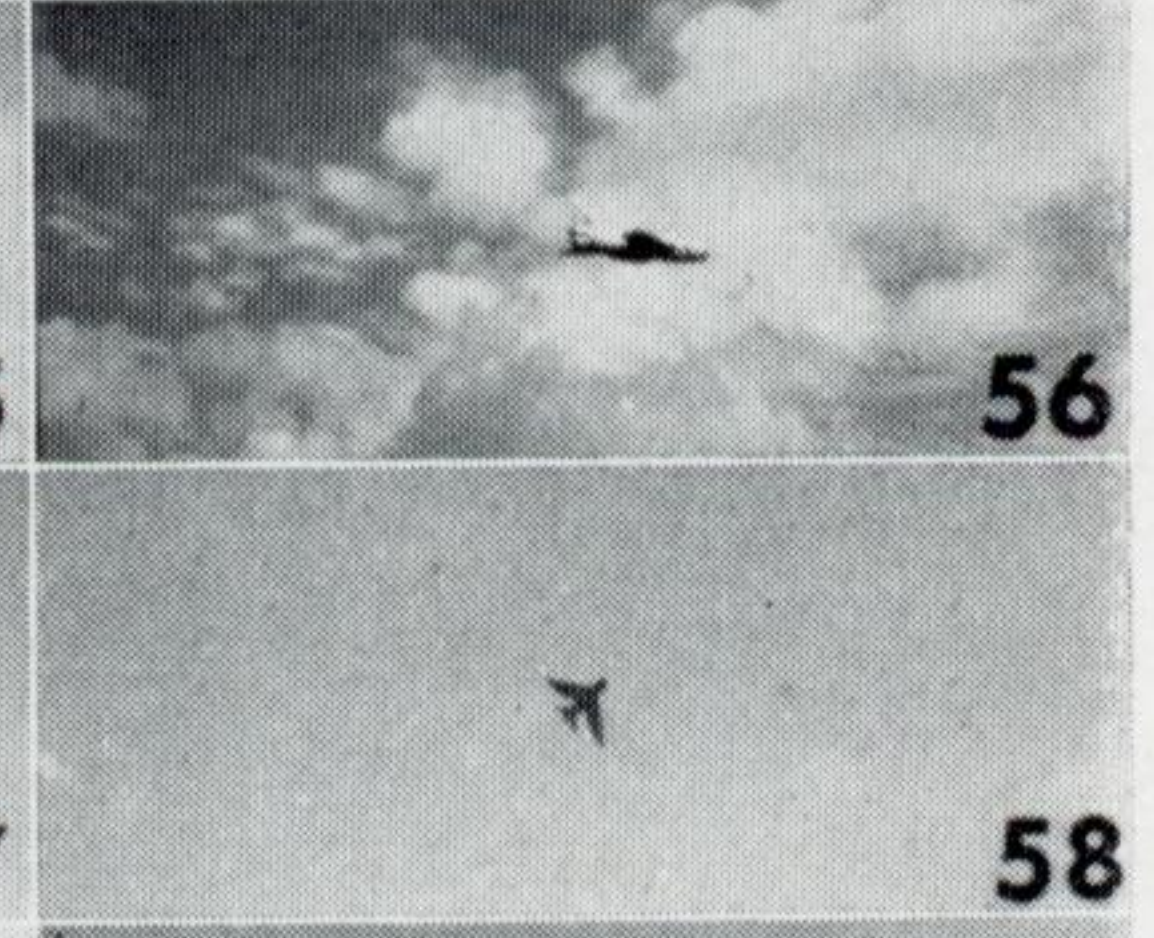
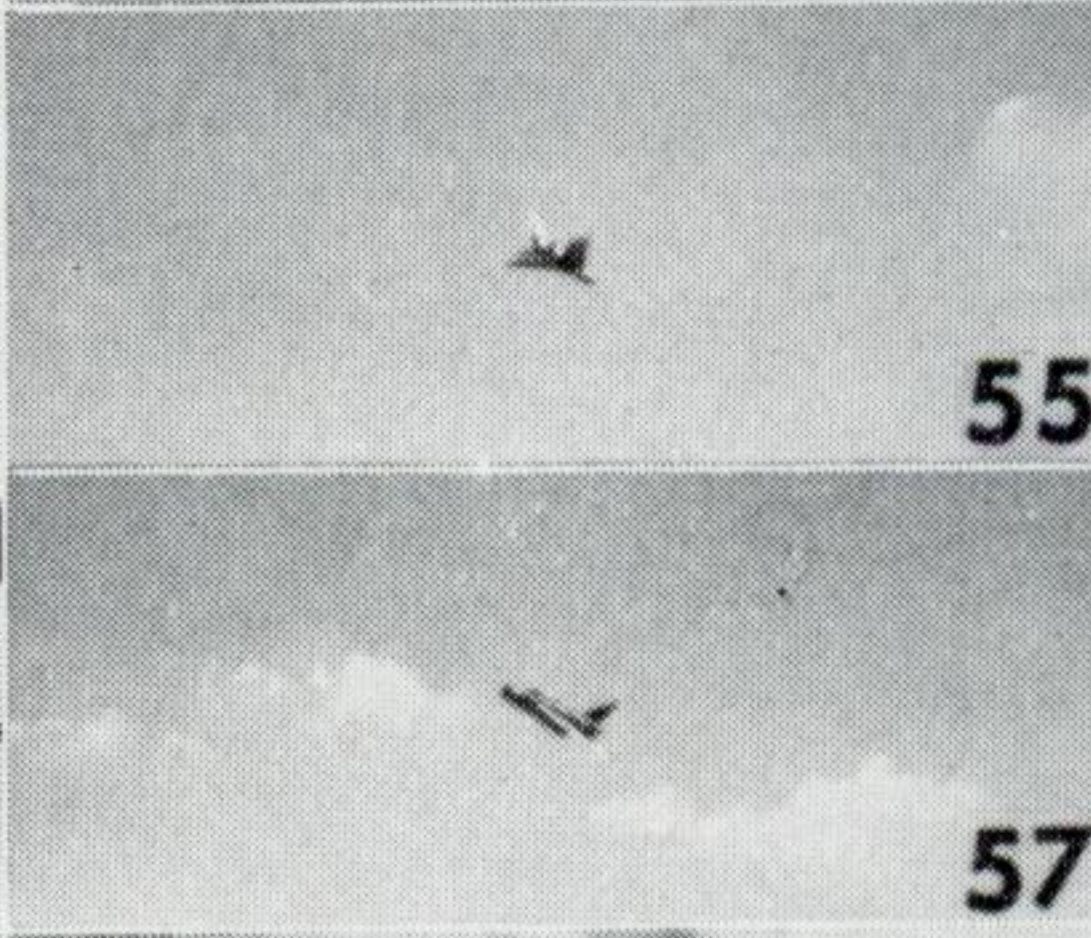
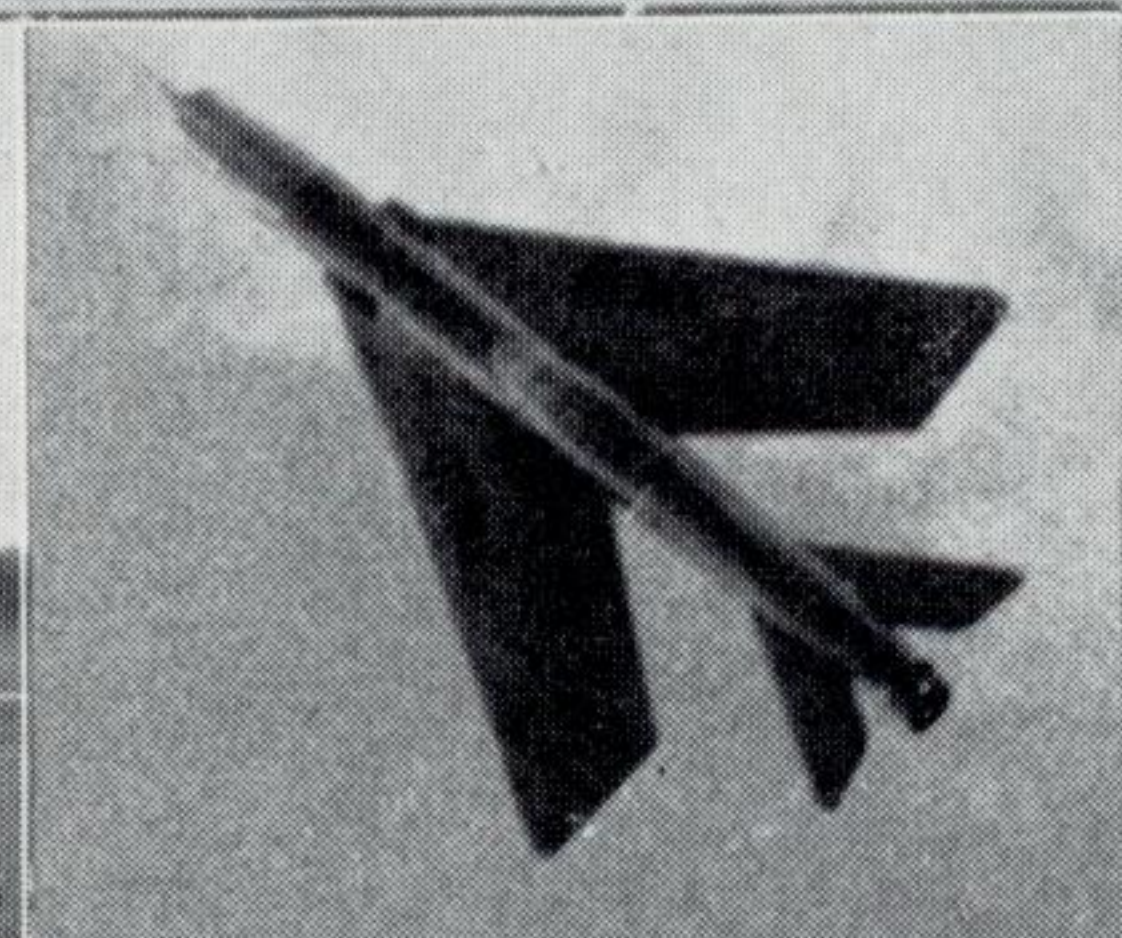
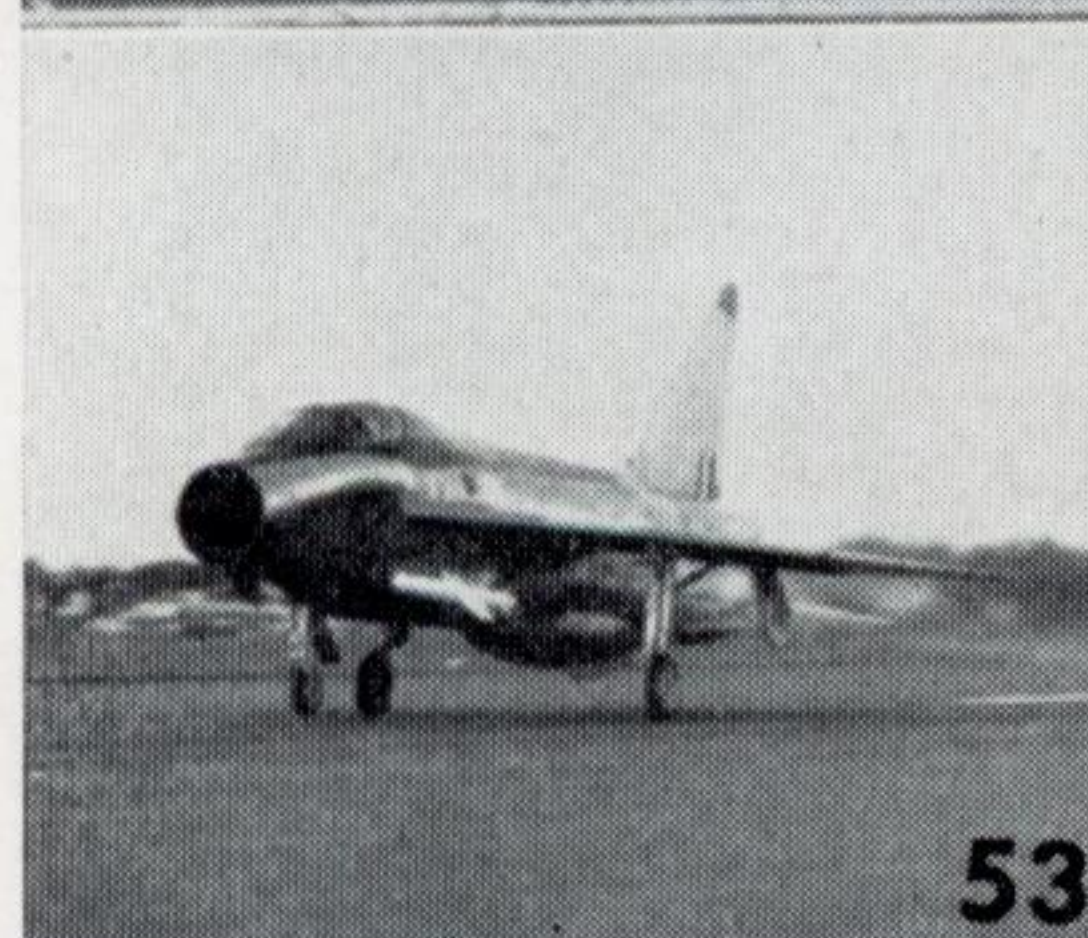
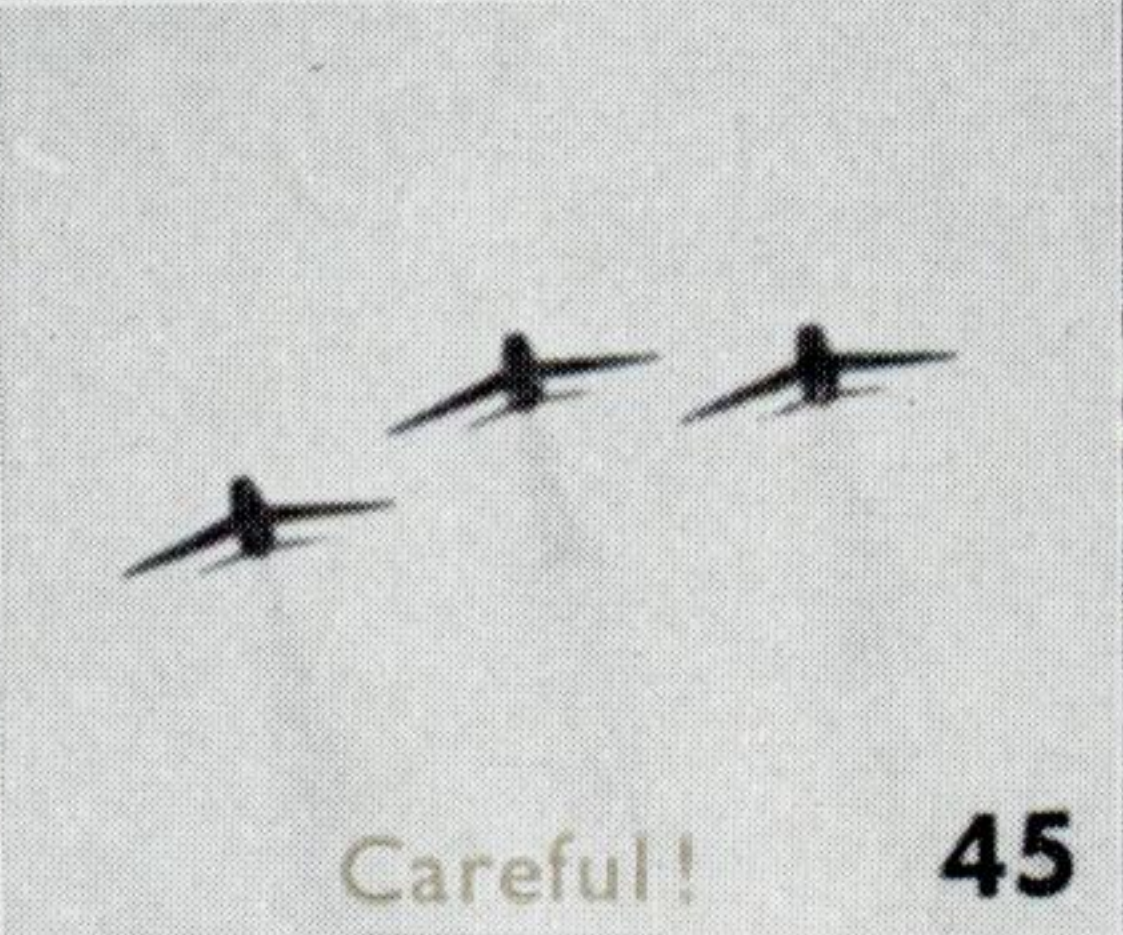
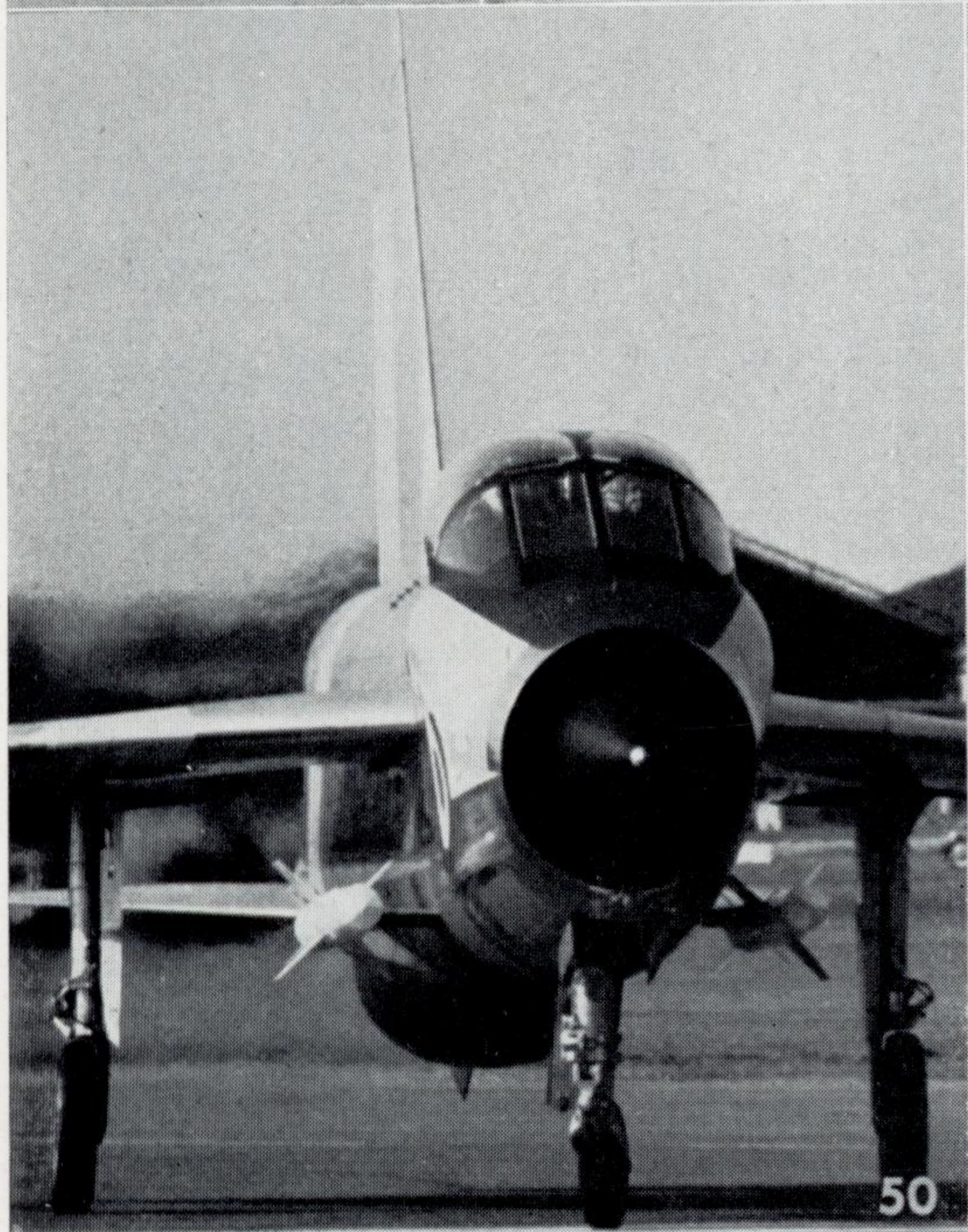
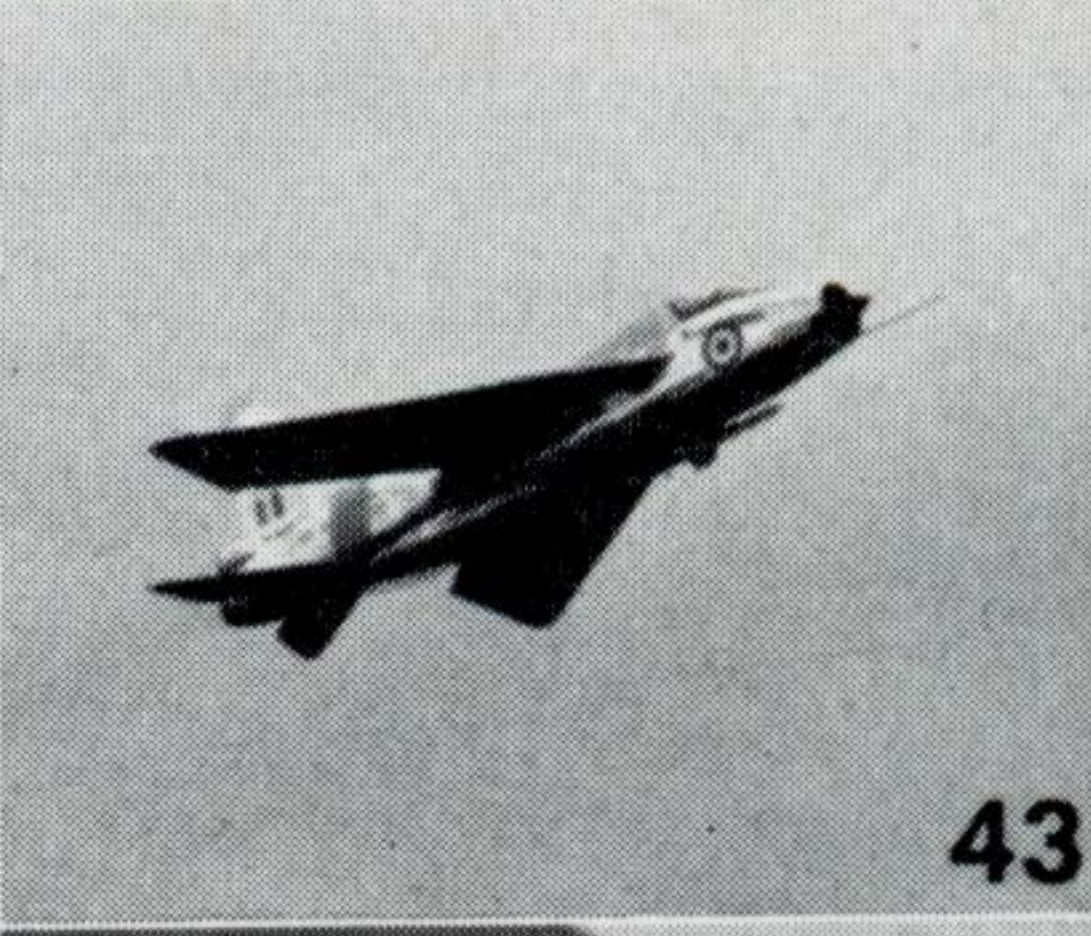
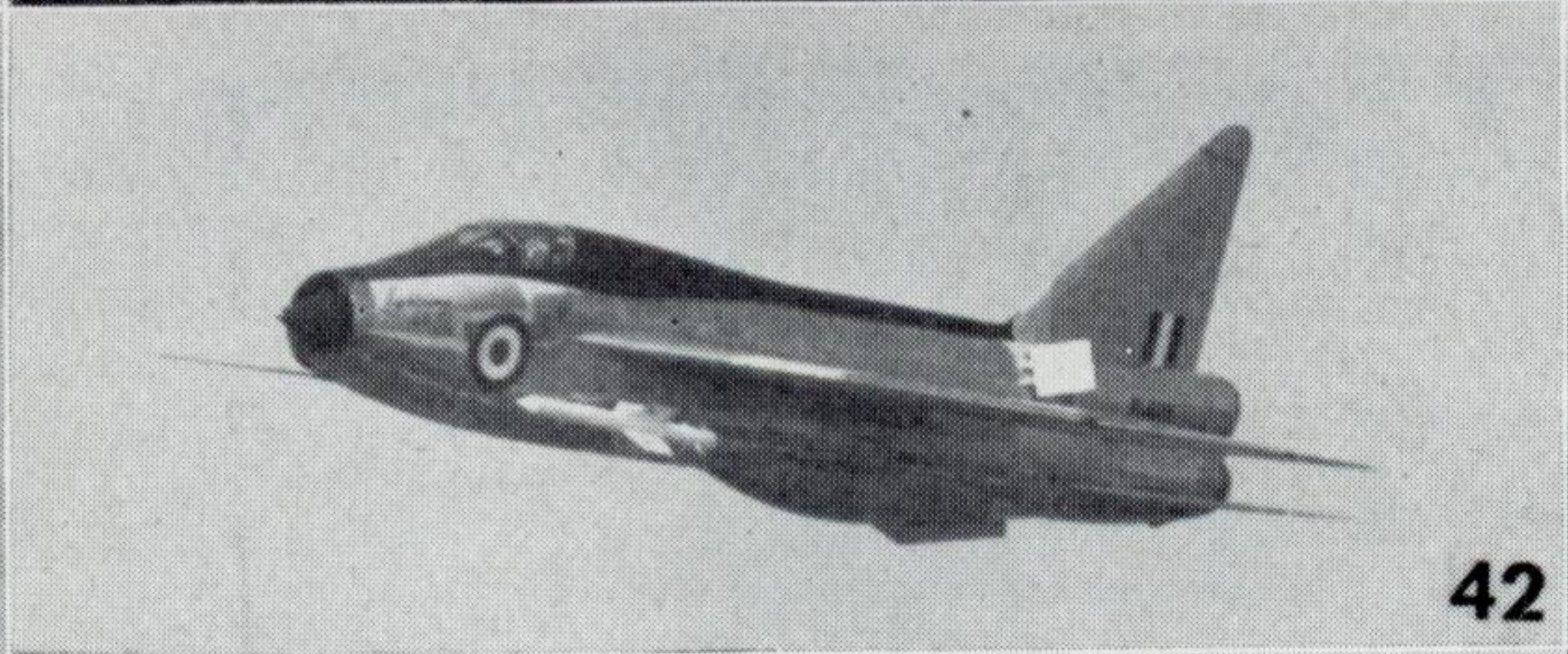
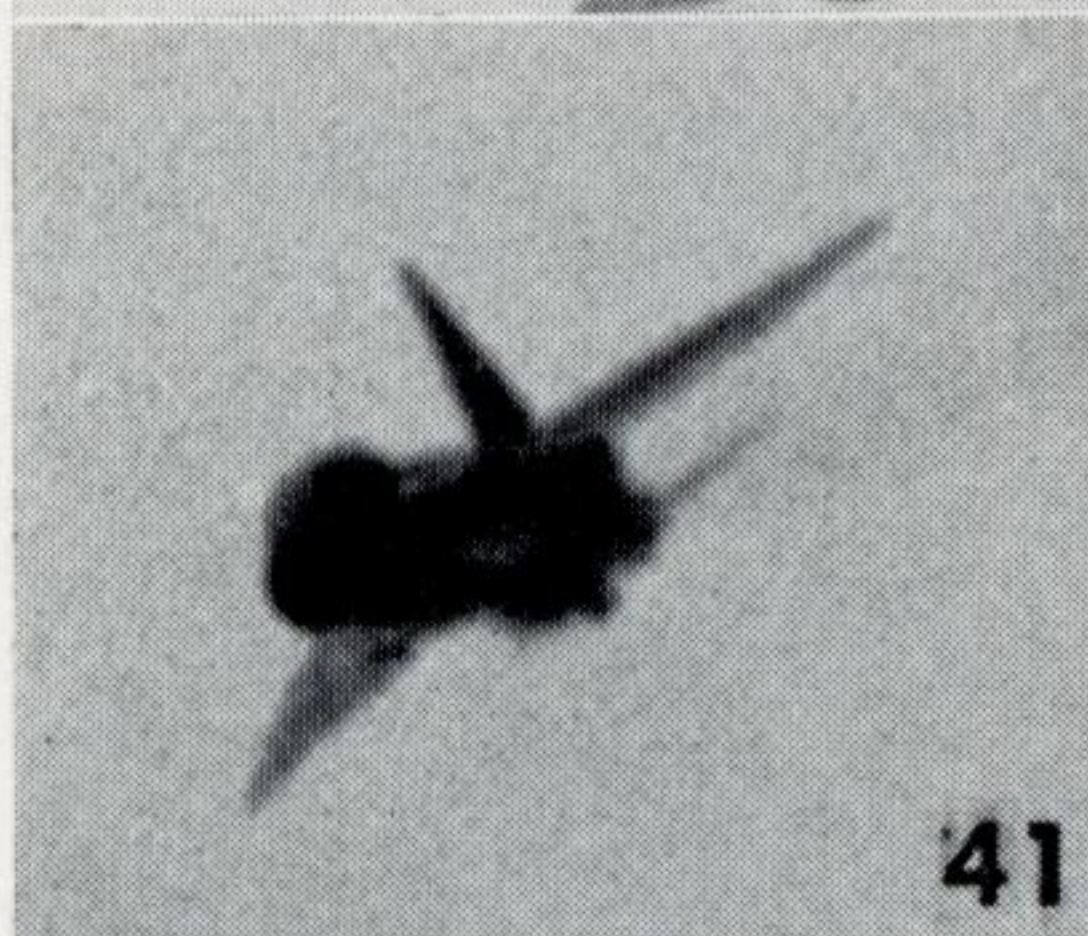
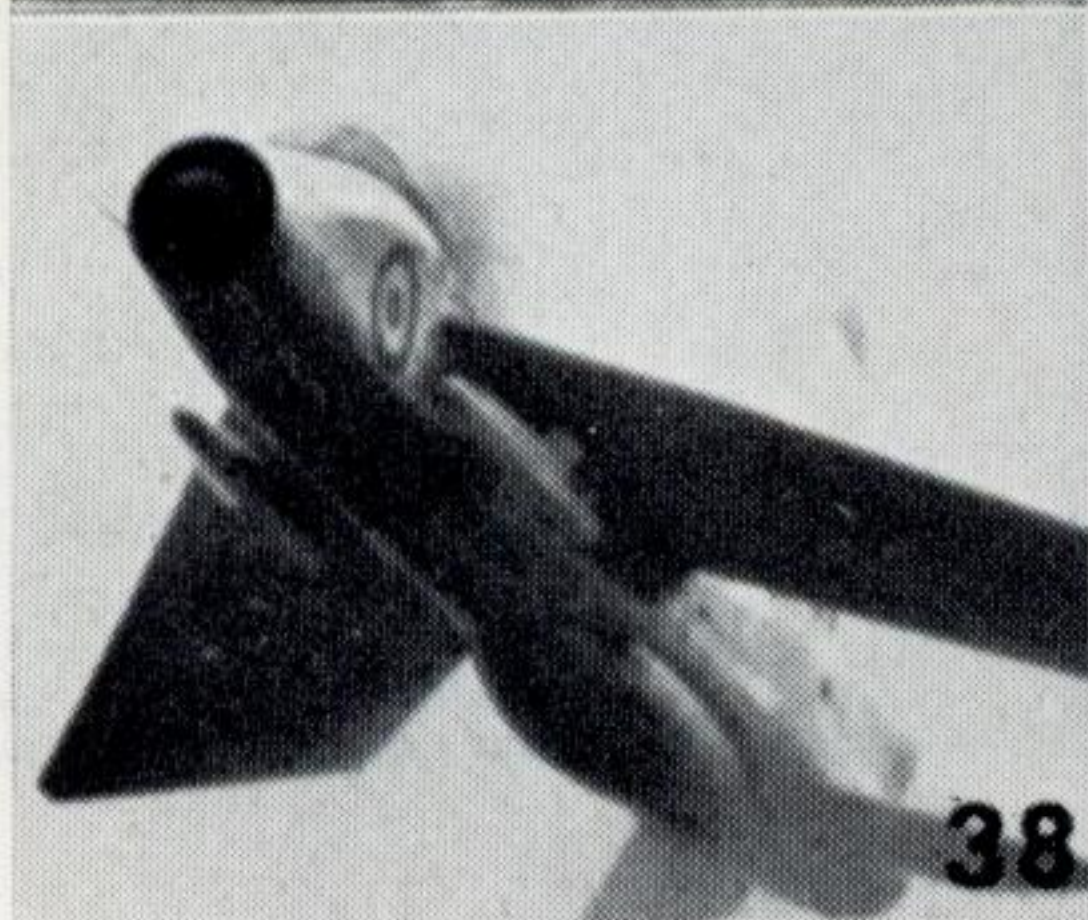
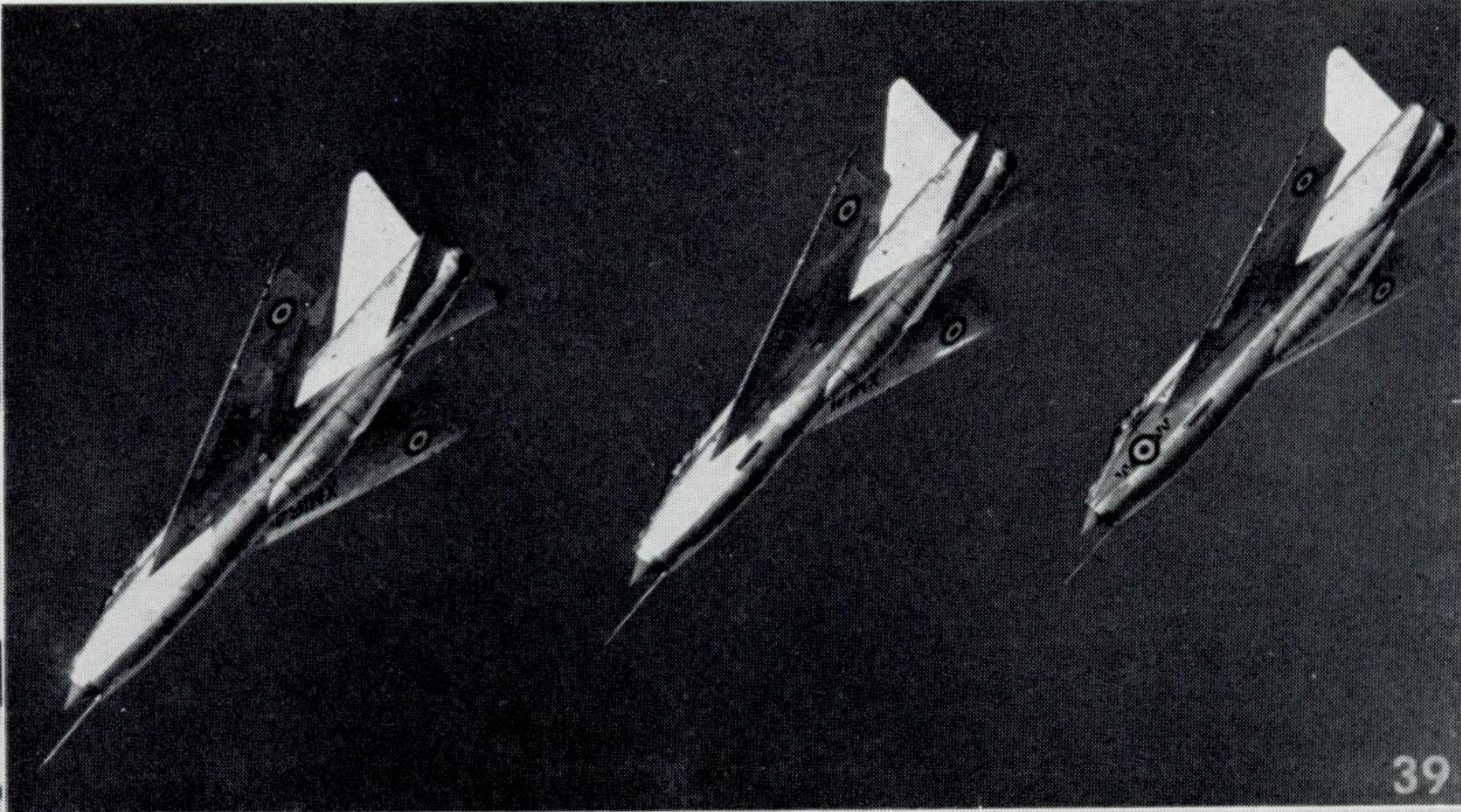
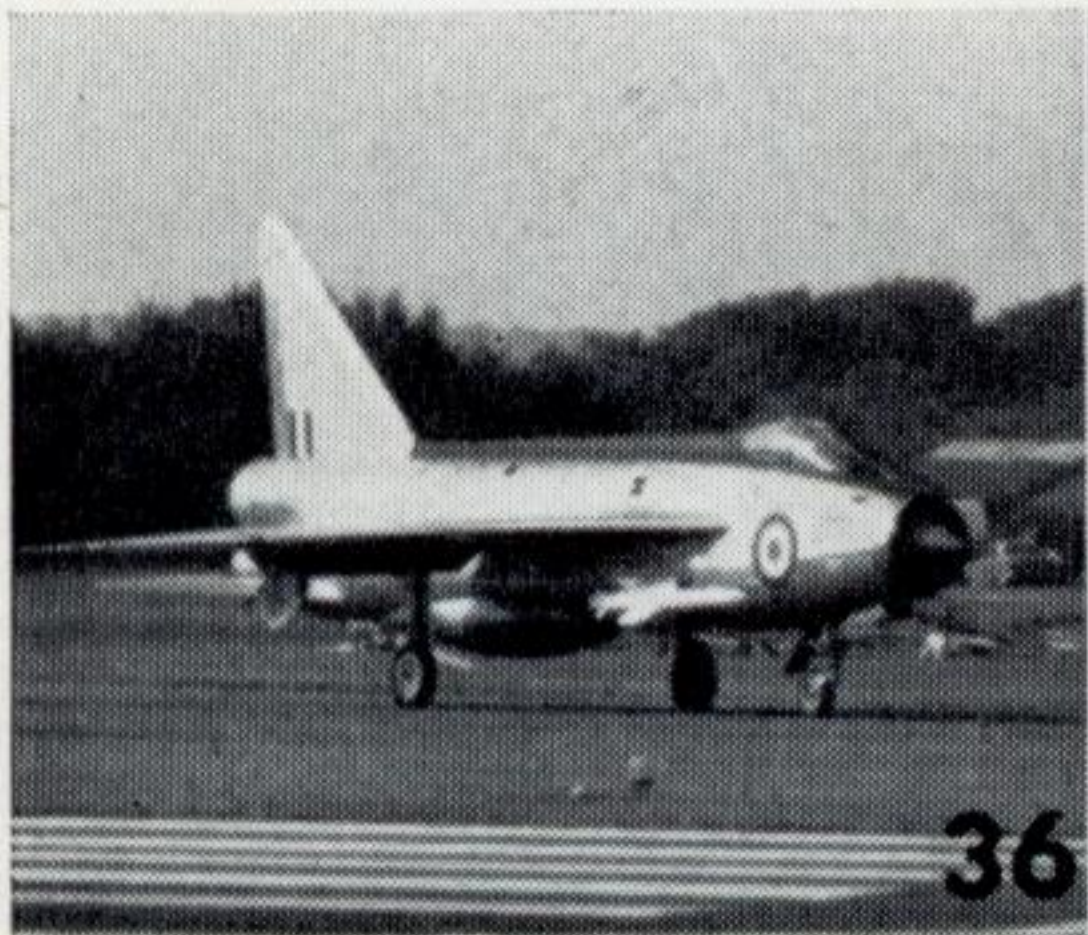
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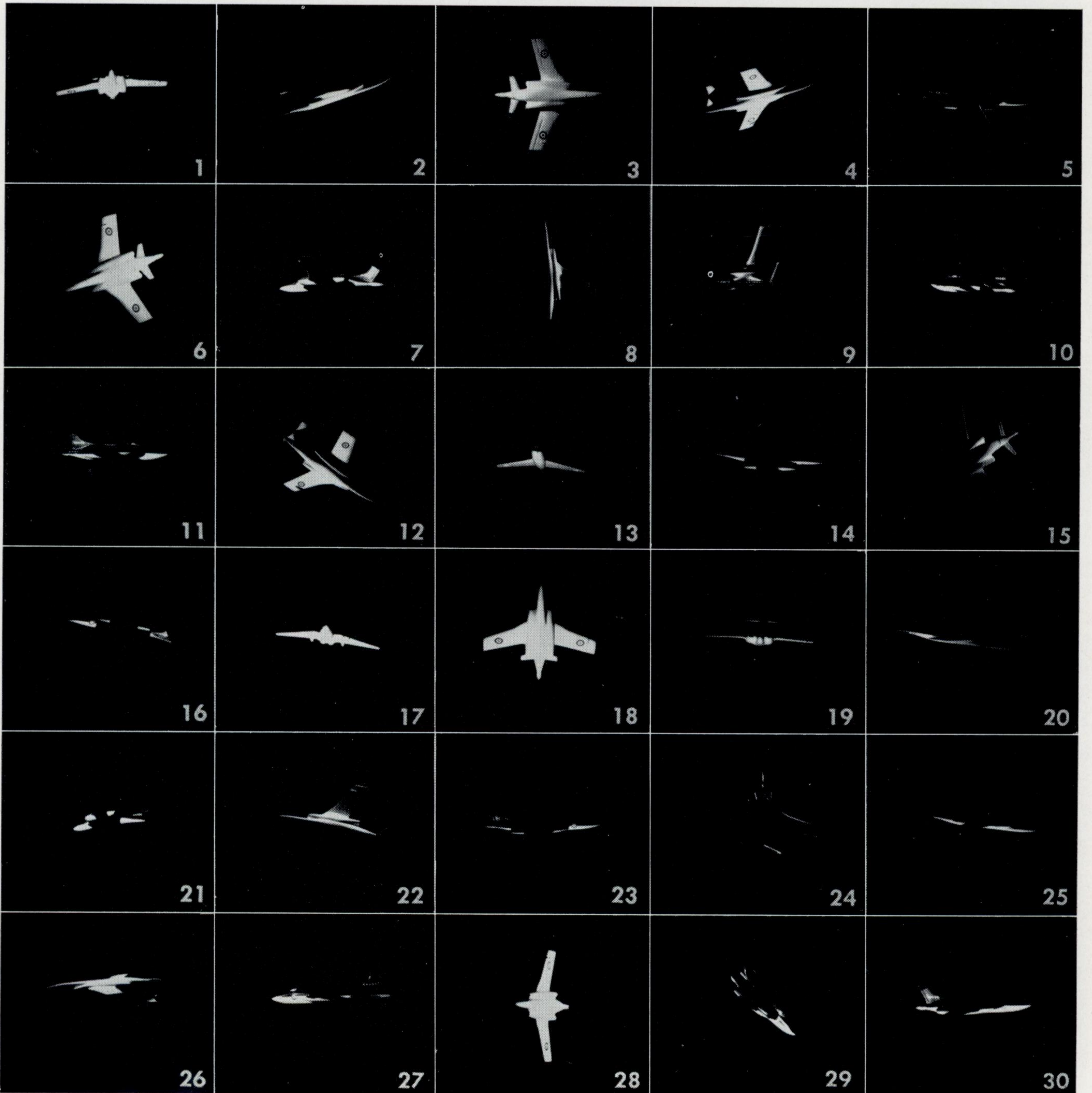
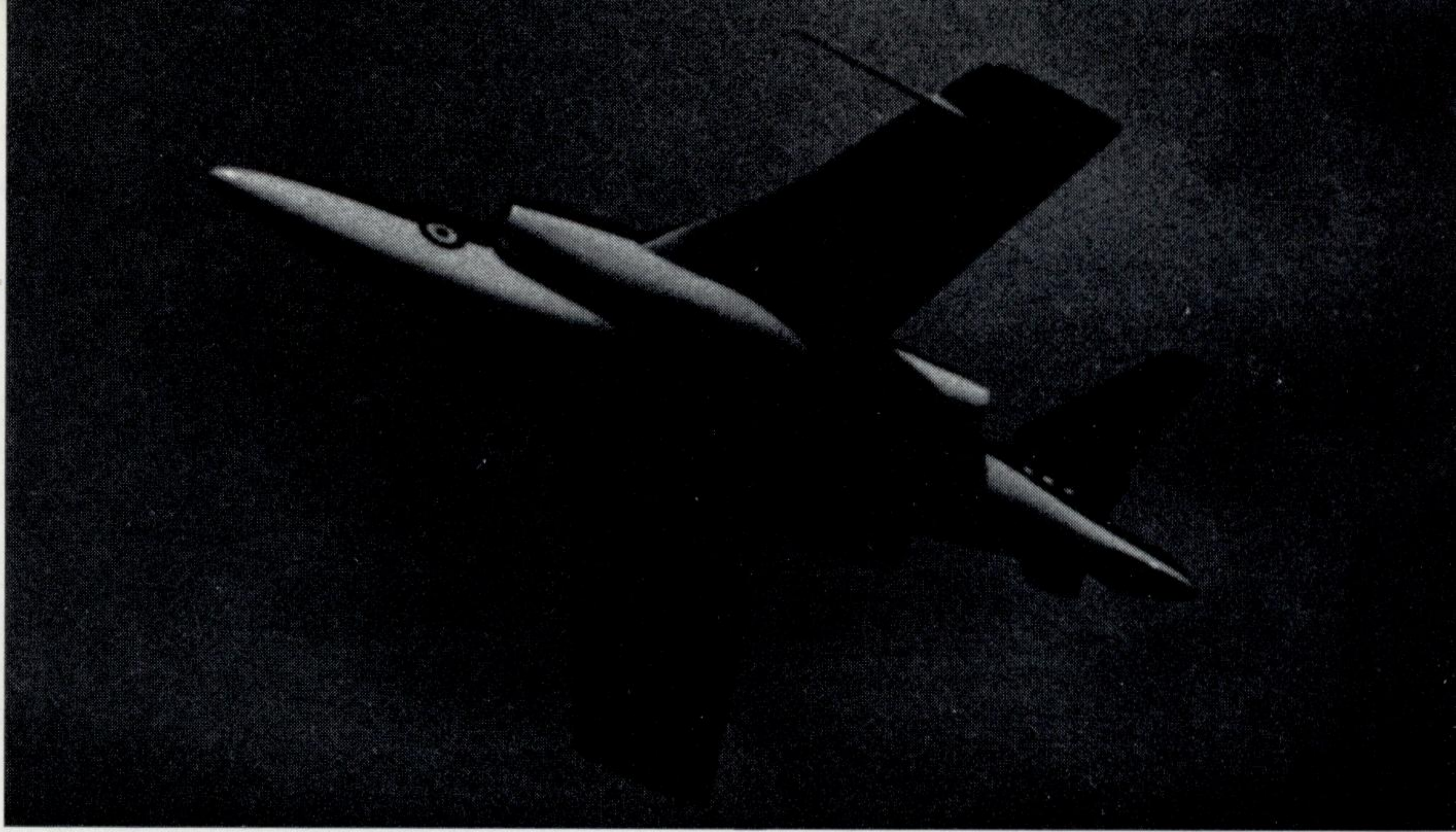


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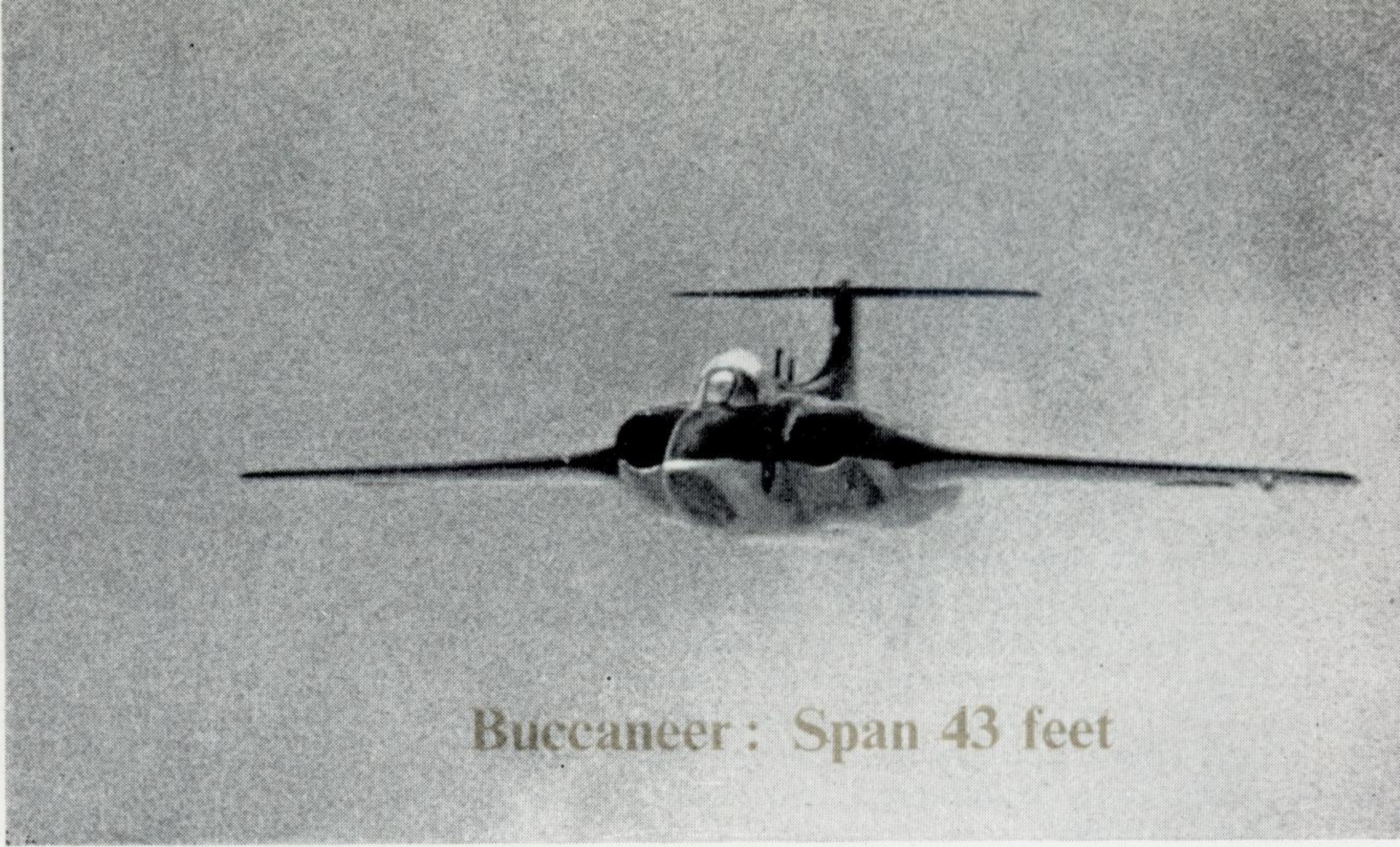
# BUCCANEER in Highlights and

These are views of the Buccaneer as it appears at altitudes where the air is rarefied and sunlight is undiffused by vapour. In such circumstances only part of the aircraft may be seen, strongly illuminated by strong sunlight, while the rest is lost in heavy shadow against the dark sky. In order to identify an aircraft in these circumstances this special kind of training is necessary. However, the procedure for obtaining this experience is the same as for other forms of recognition training.



## End-on

Aircraft seen end-on lose much of their characters—indeed they take on totally different characteristics, are much less distinctive and generally resemble each other much more closely. That is not to say that they are not identifiable, but it does mean that special experience of identifying them in those aspects is necessary. This is how the Buccaneer looks when end-on—or somewhere near end-on. The usual lesson rules apply as for other recognition lessons.

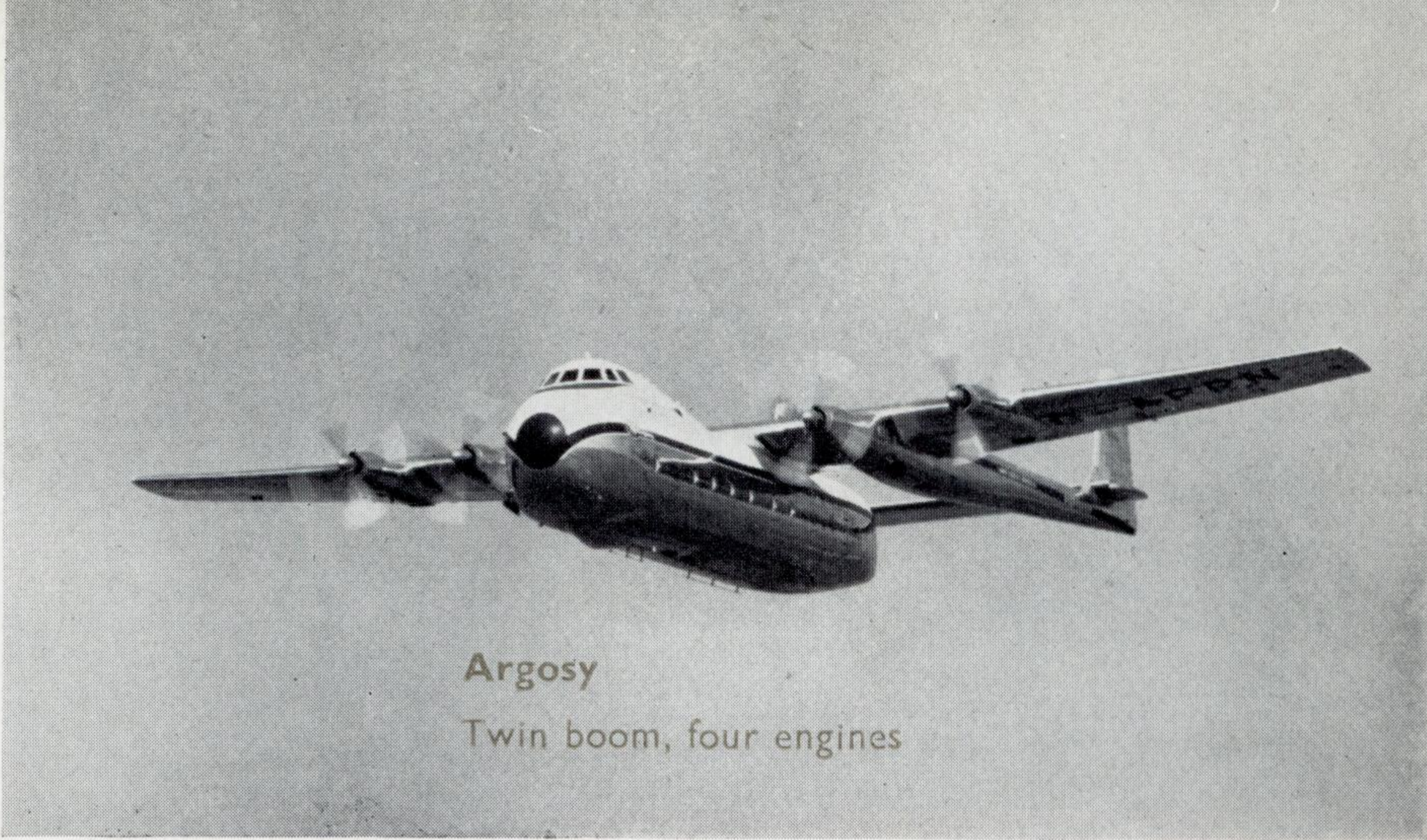


Buccaneer : Span 43 feet



# Argosy

The various projected versions of the Argosy present no recognition training problem as they all conform externally to the same basic configuration. The only major deviation from the standard design is the military version (AW. 660) on order for R.A.F. Transport Command, which features the "Beaver tail" or "crocodile jaws" type rear-loading doors of which more later.

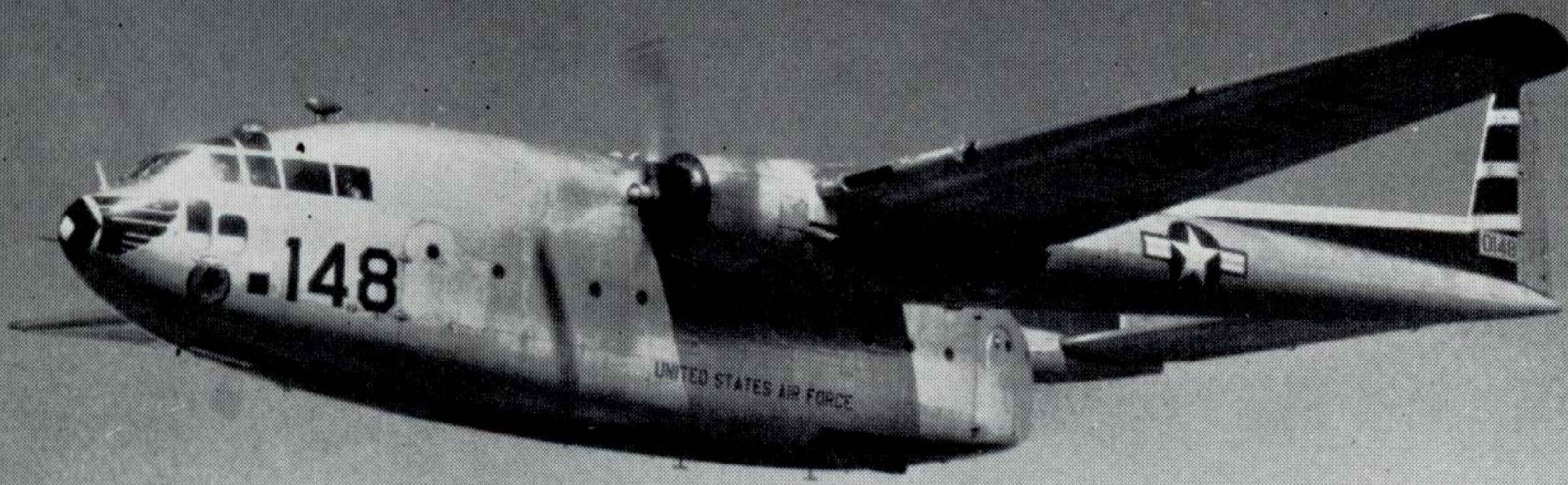


Argosy

Twin boom, four engines

## BOOM IN TRANSPORTS



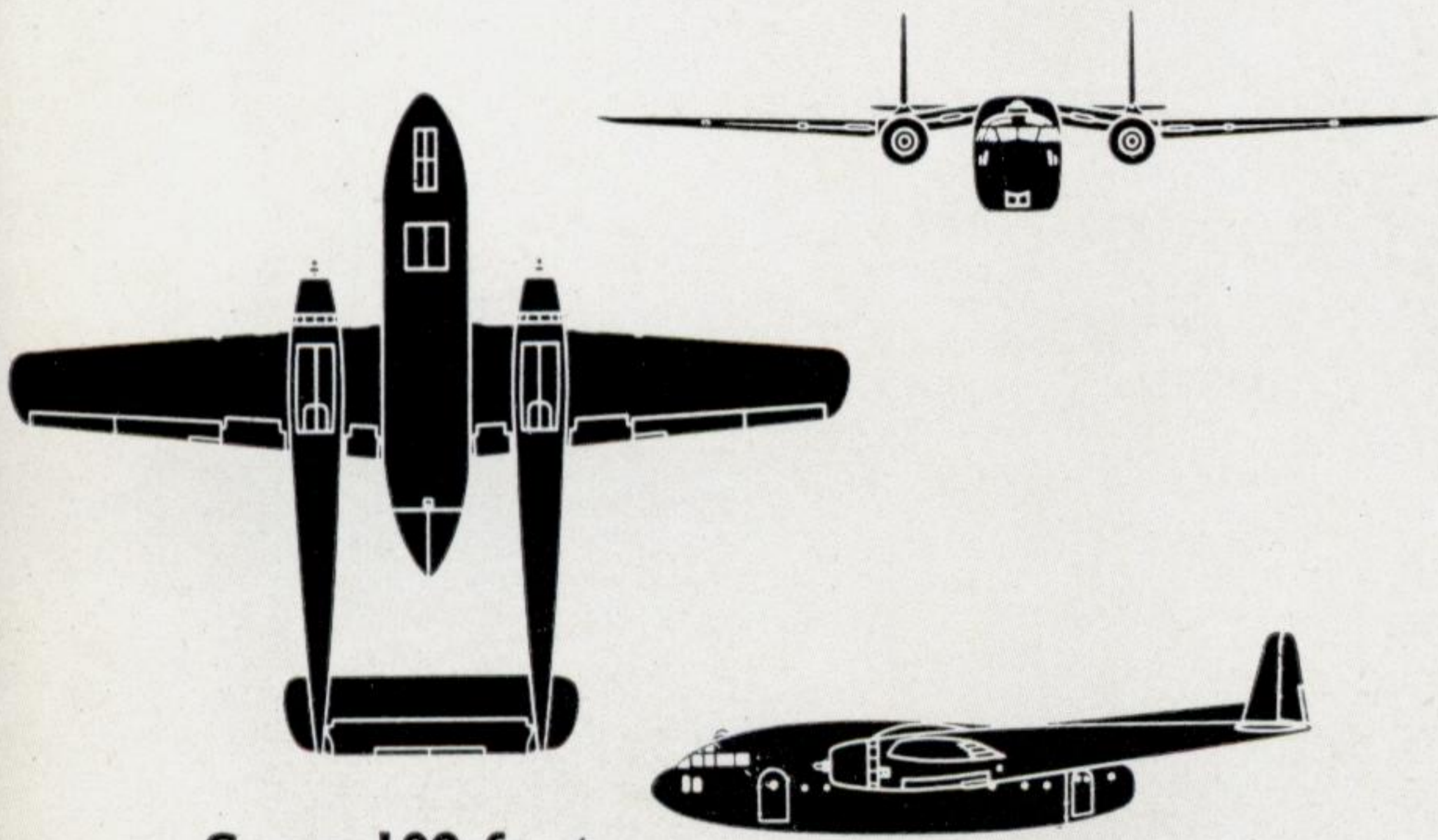


**C-119 Packet**

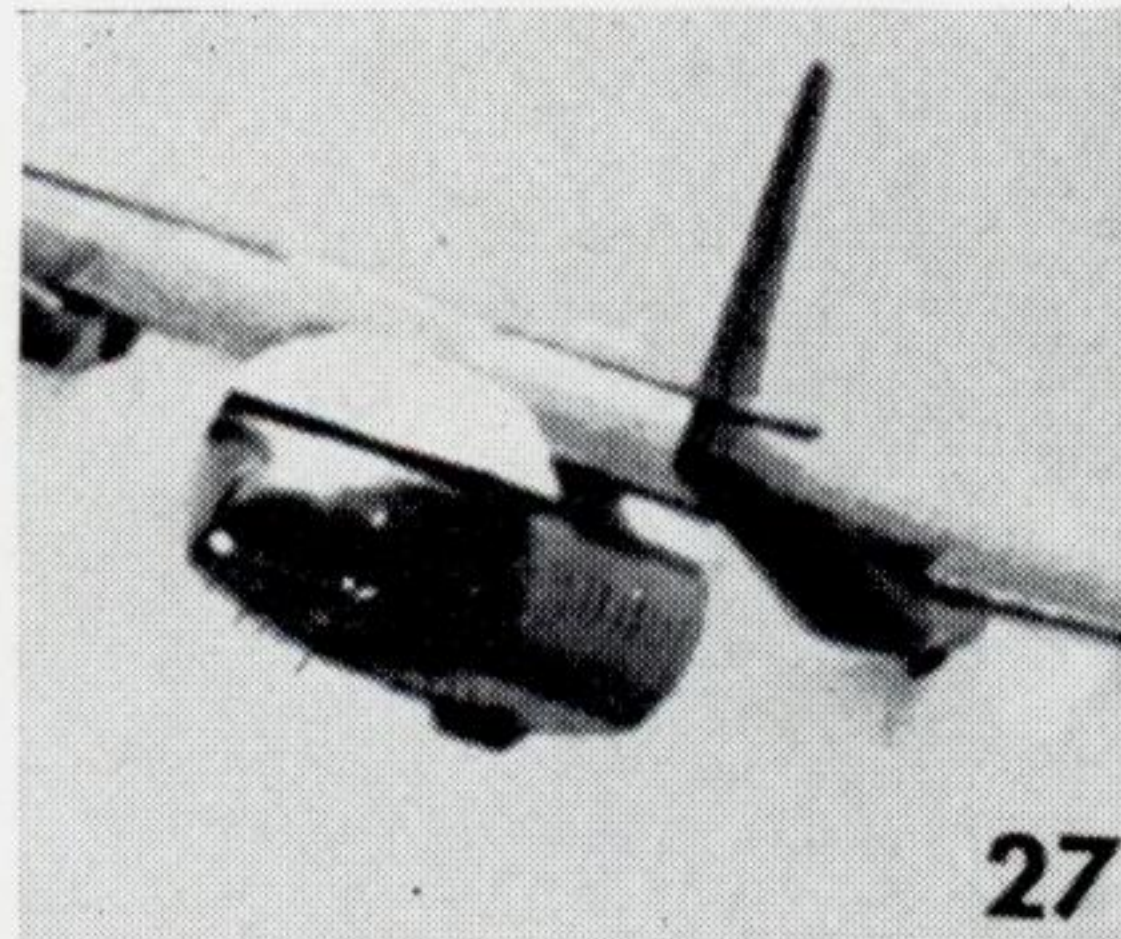
Twin booms, twin engines.

# Packet

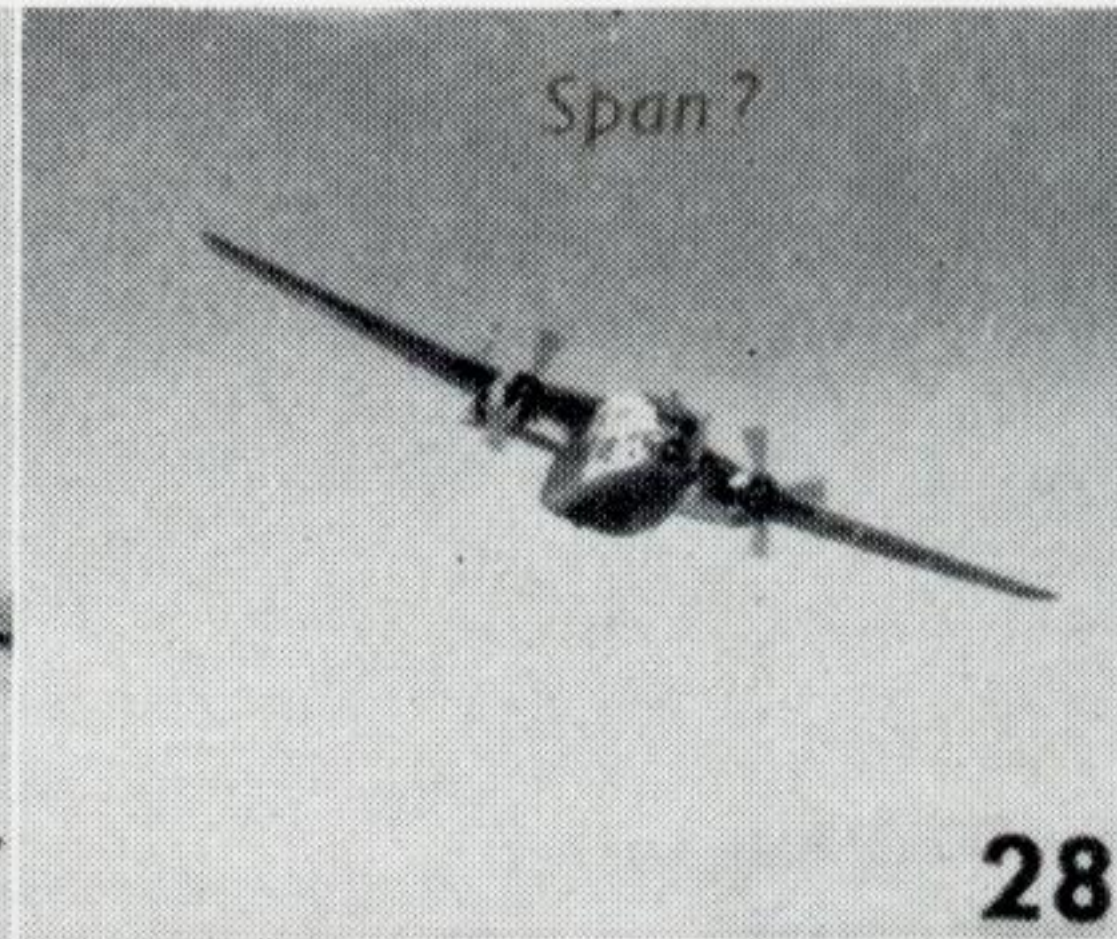
The U.S.A.F. C-119 Packet is also in service with the U.S. Marine Corps as R-4Q and but for paintwork, is identical. There are four versions of the Packet: C-119B; C-119C (R-4Q-1), with fins added below booms; C-119F (R-4Q-2) with small fins added underneath the booms; and C-119G has different air screws. All versions are characteristically similar.



Span 109 feet



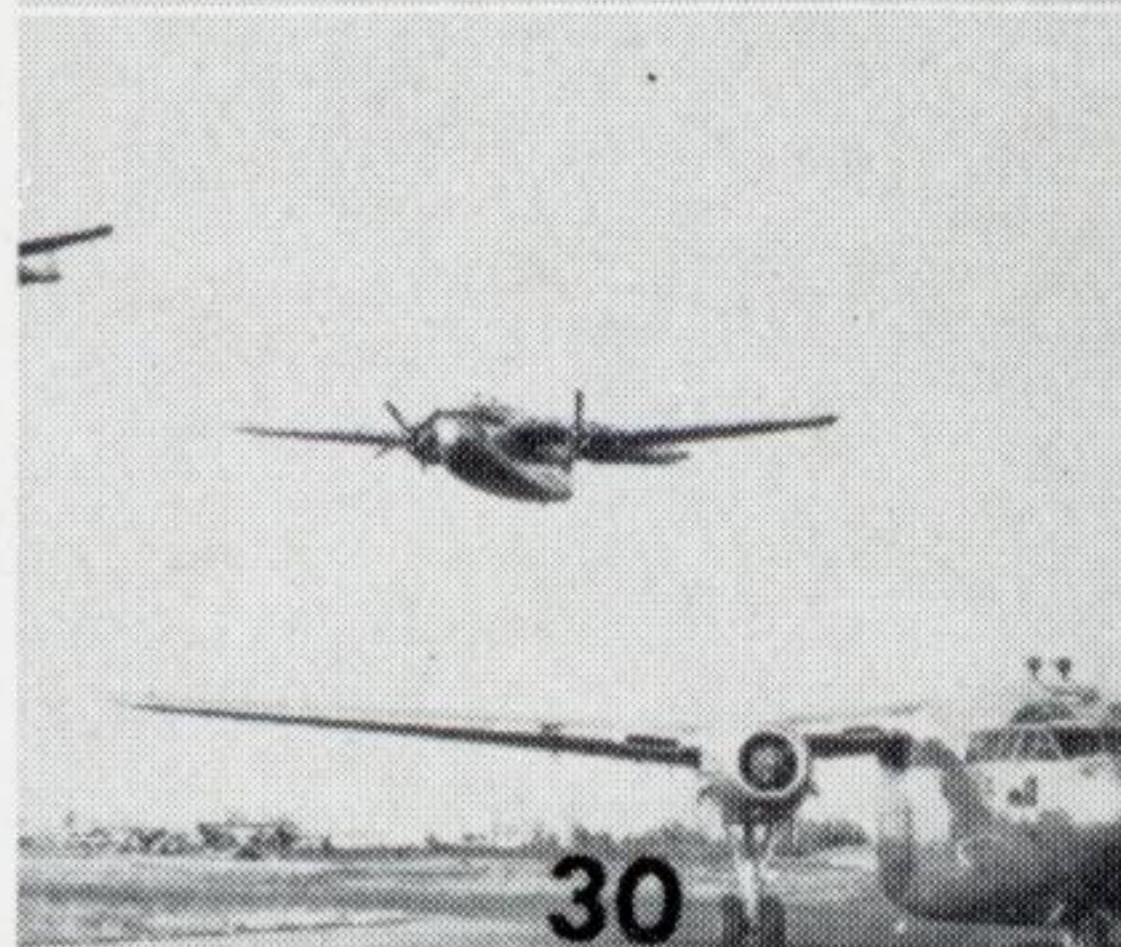
27



28



29



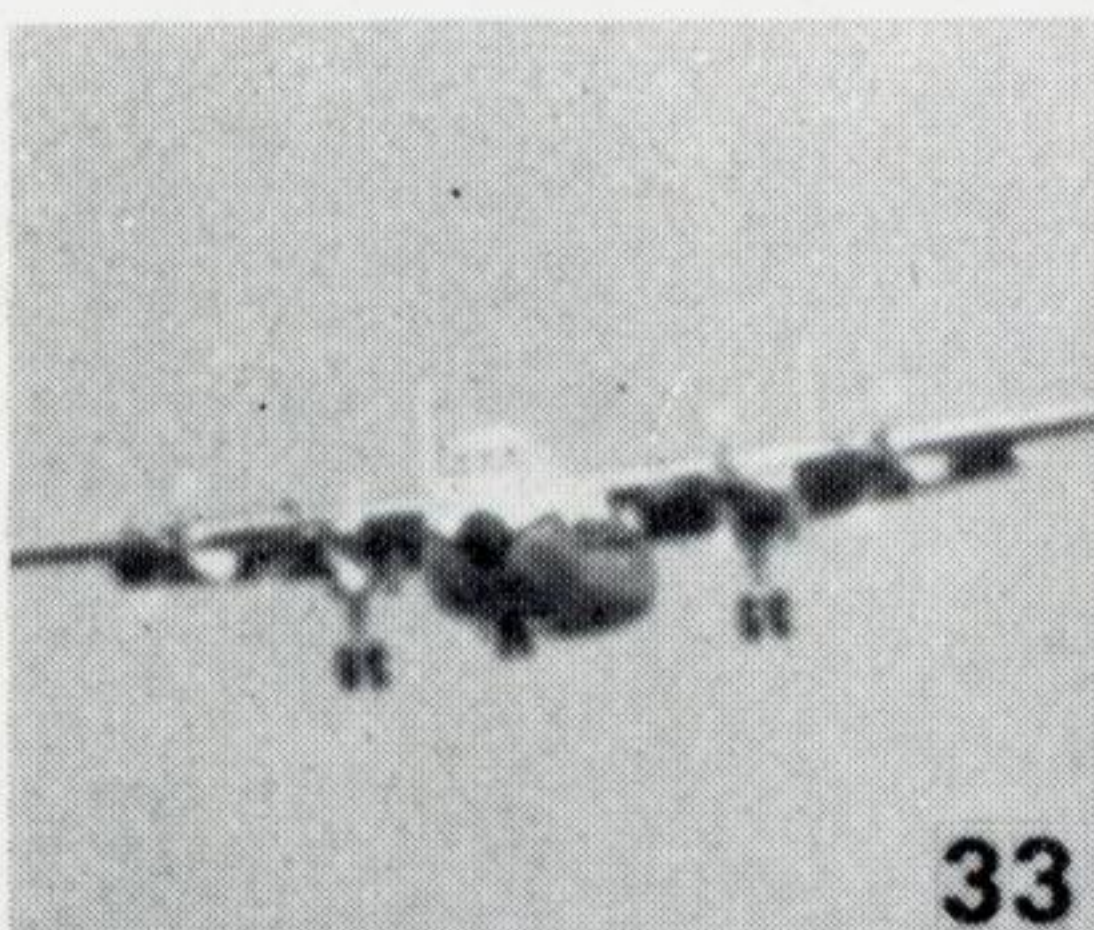
30



31



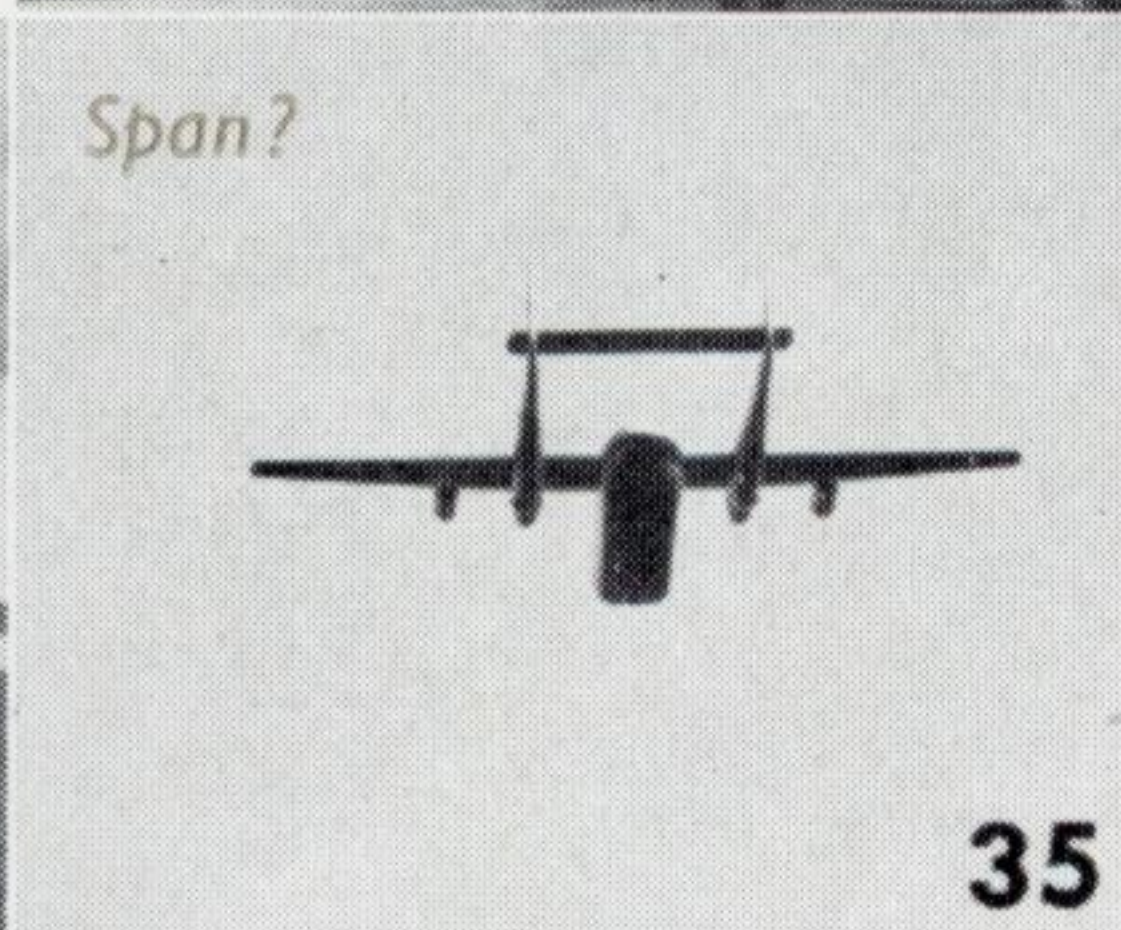
32



33



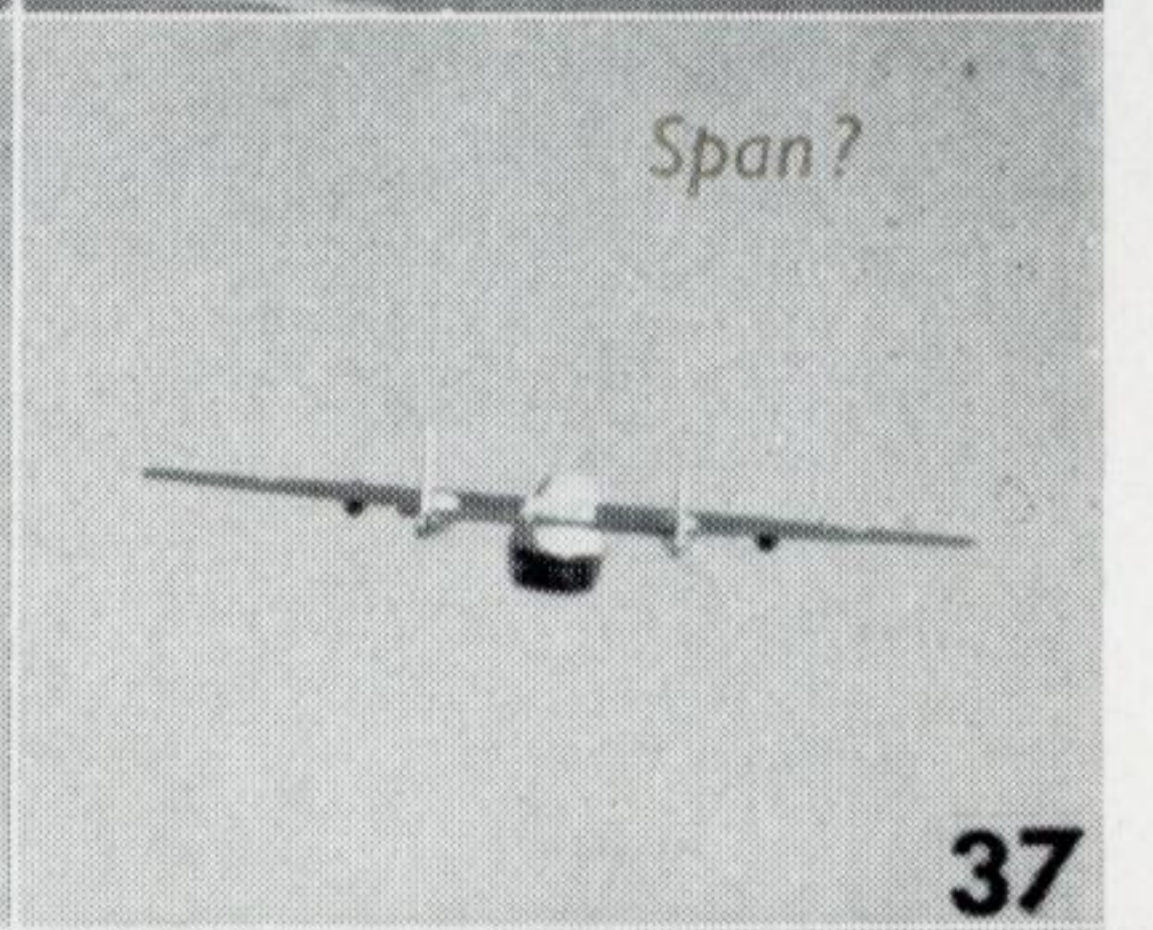
34



35



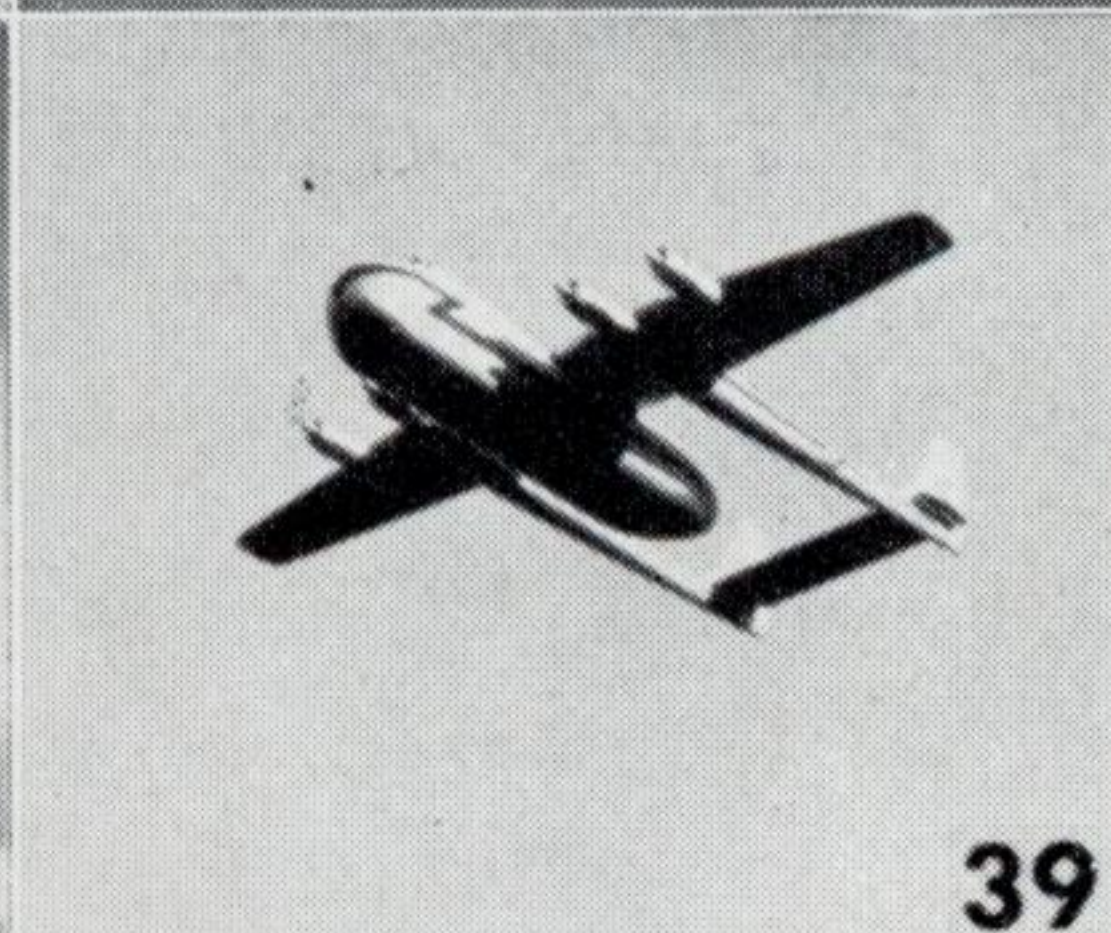
36



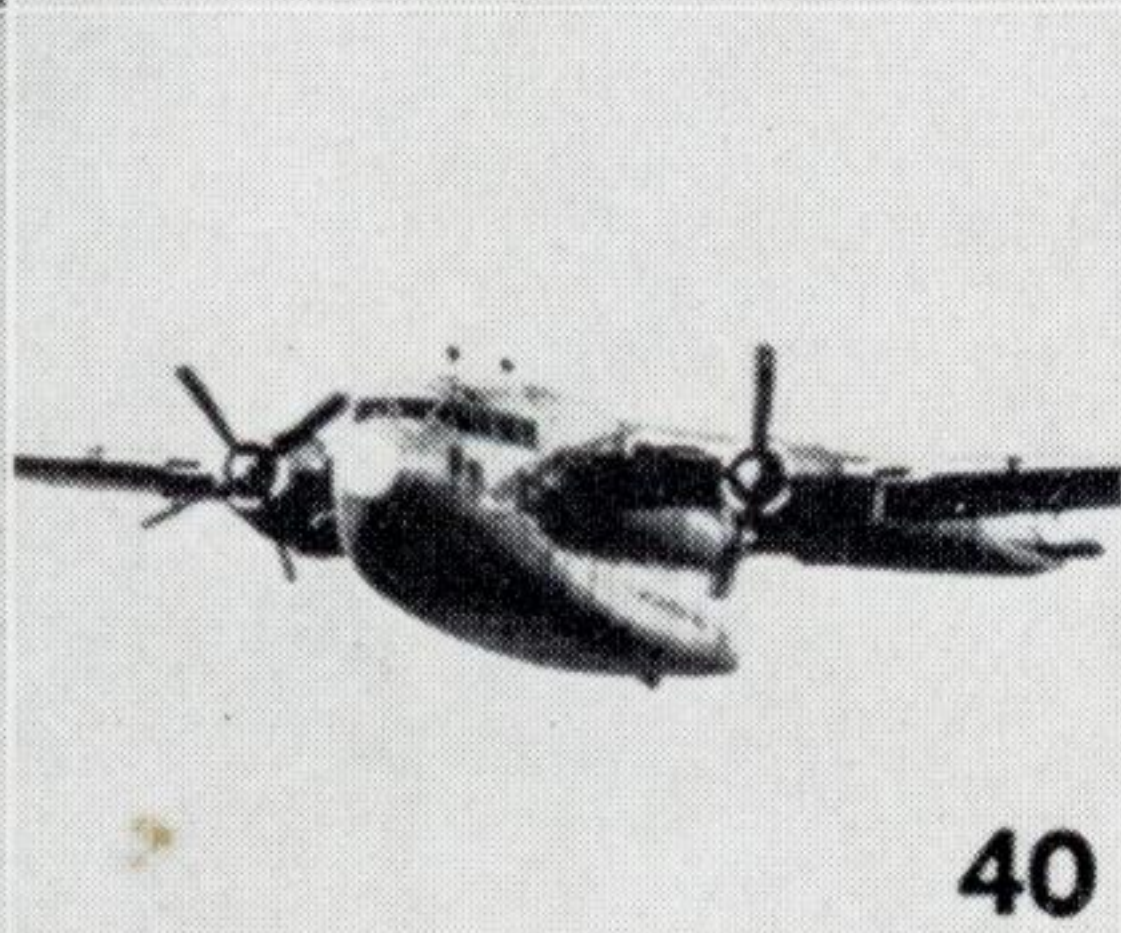
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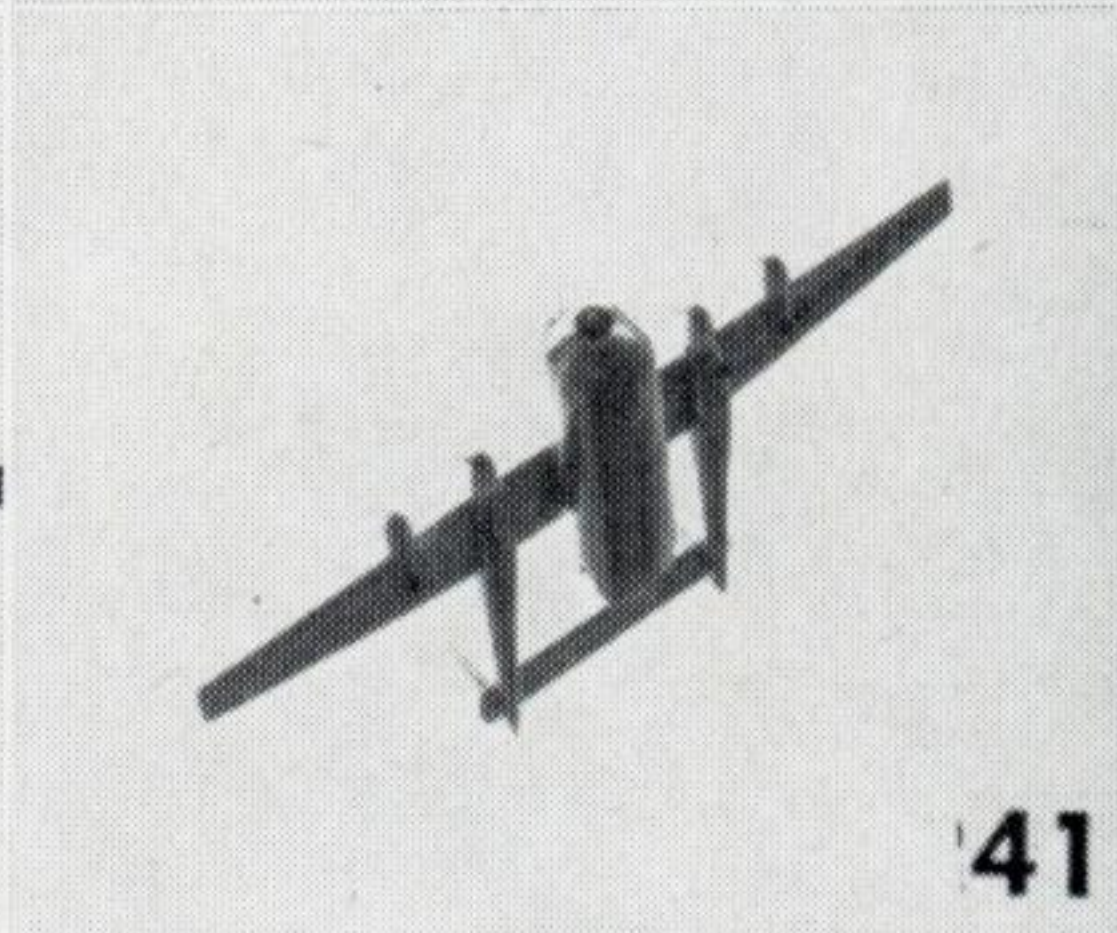
38



39



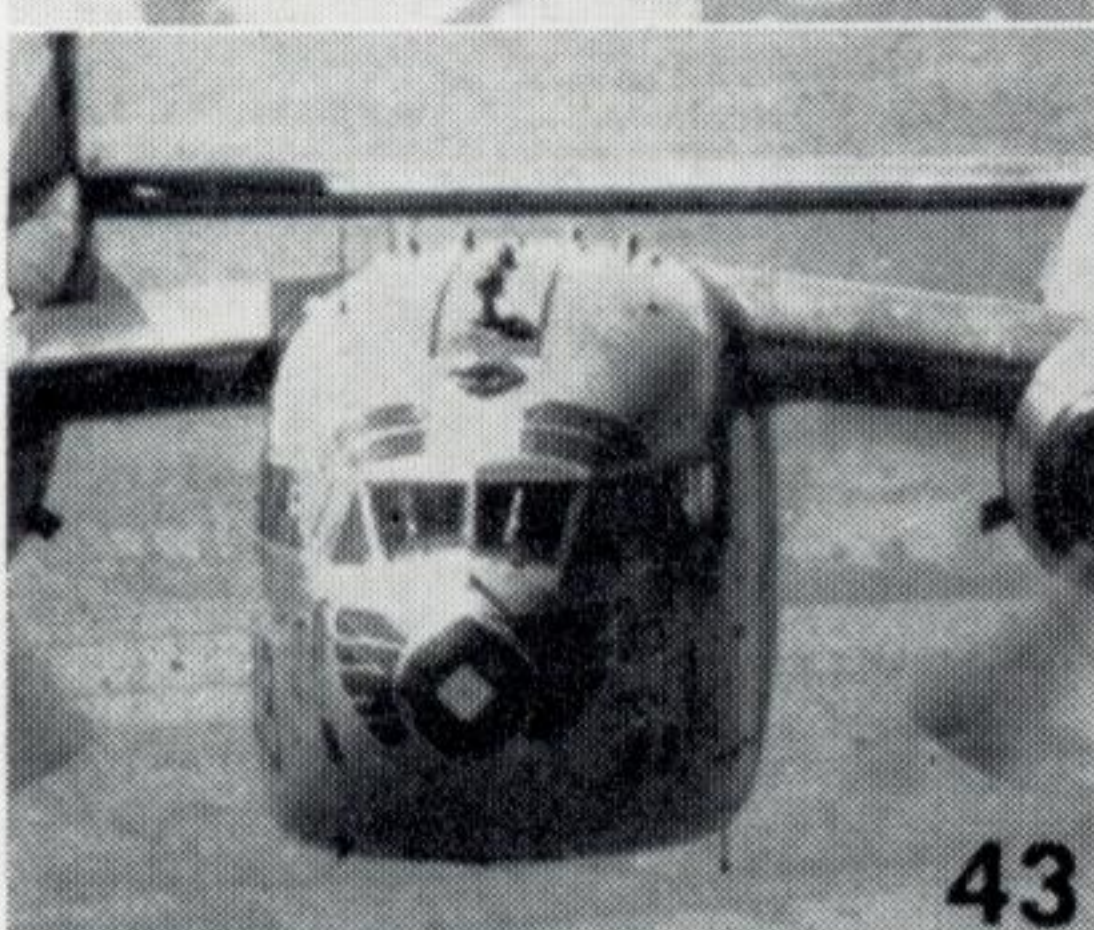
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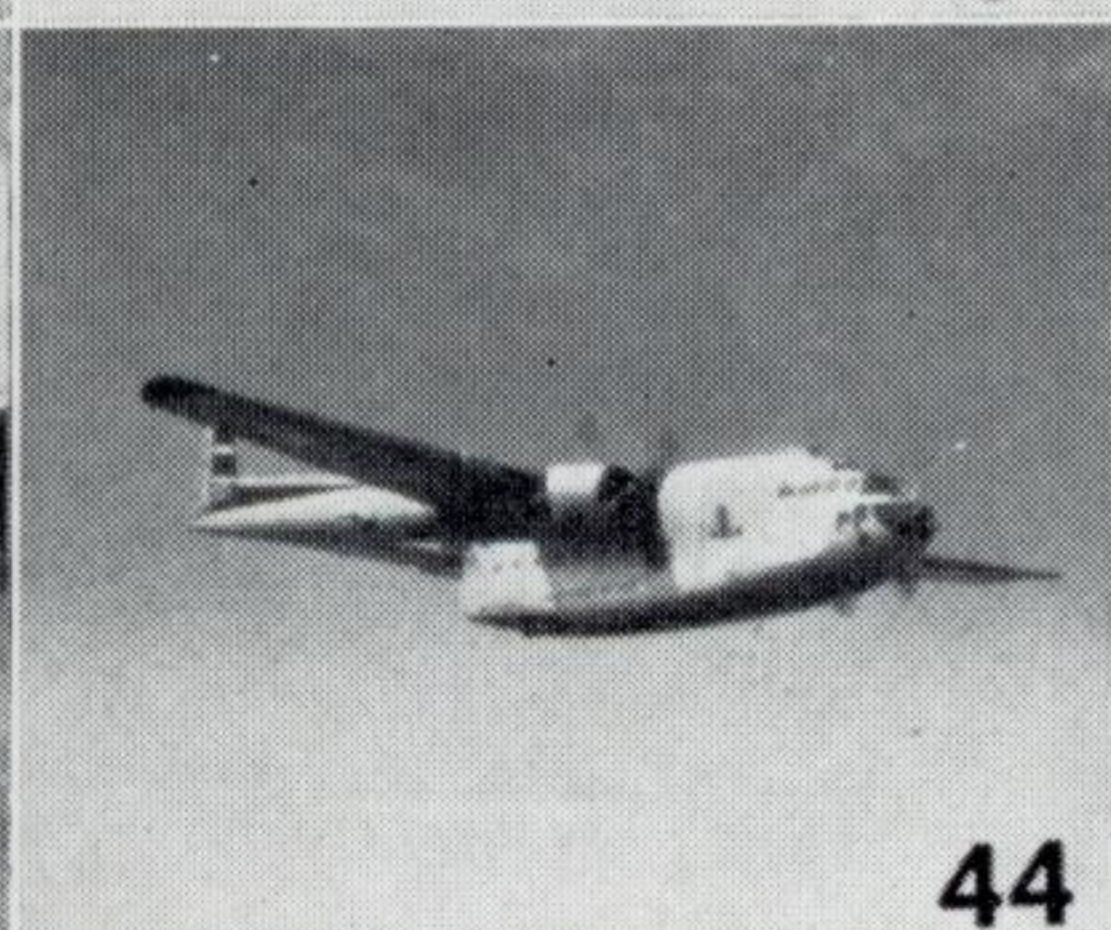
41



42



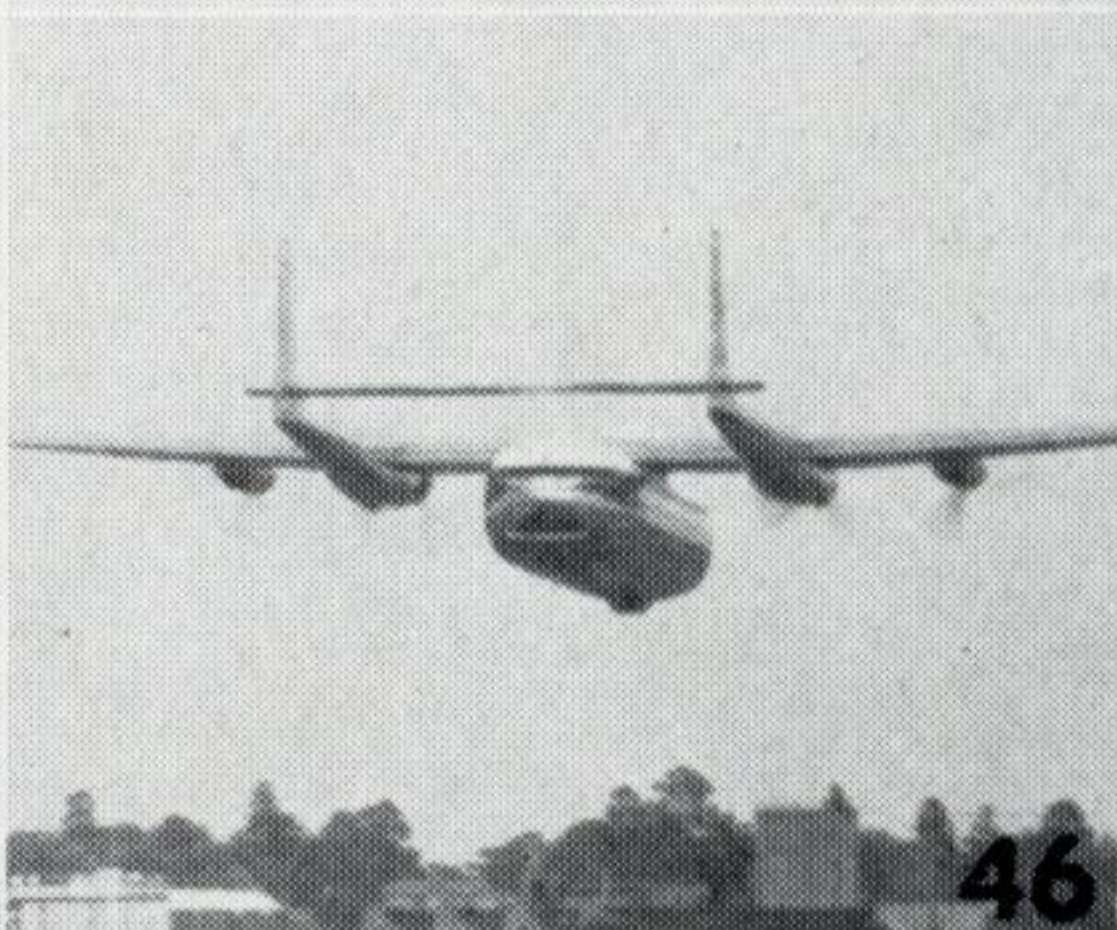
43



44



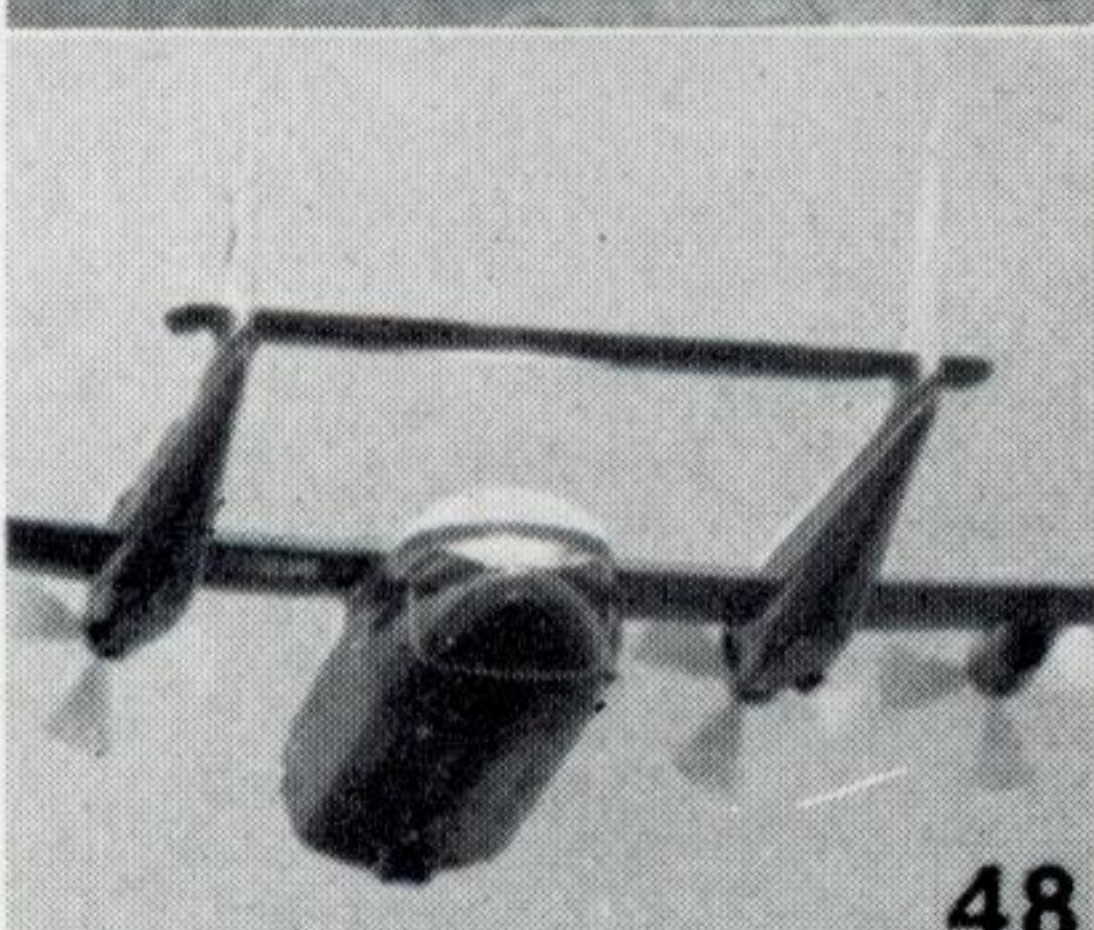
45



46



47



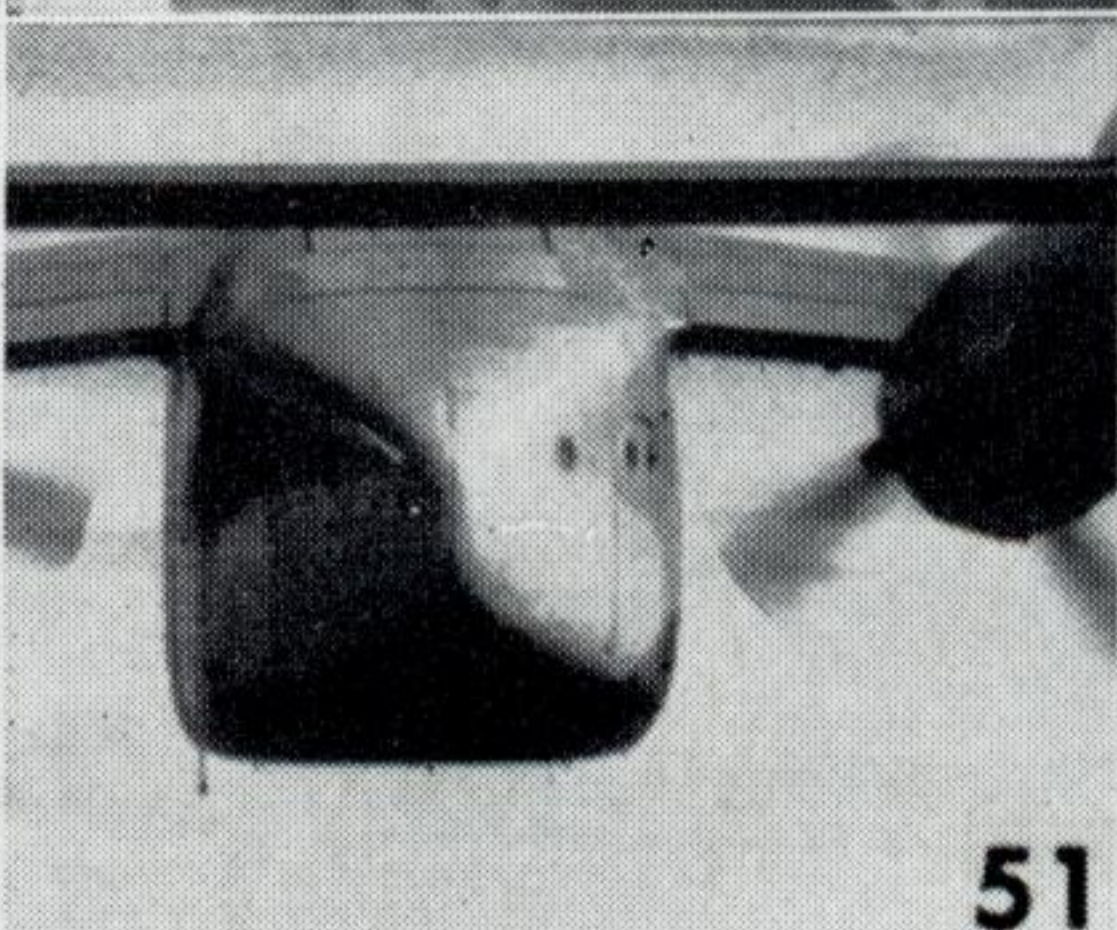
48



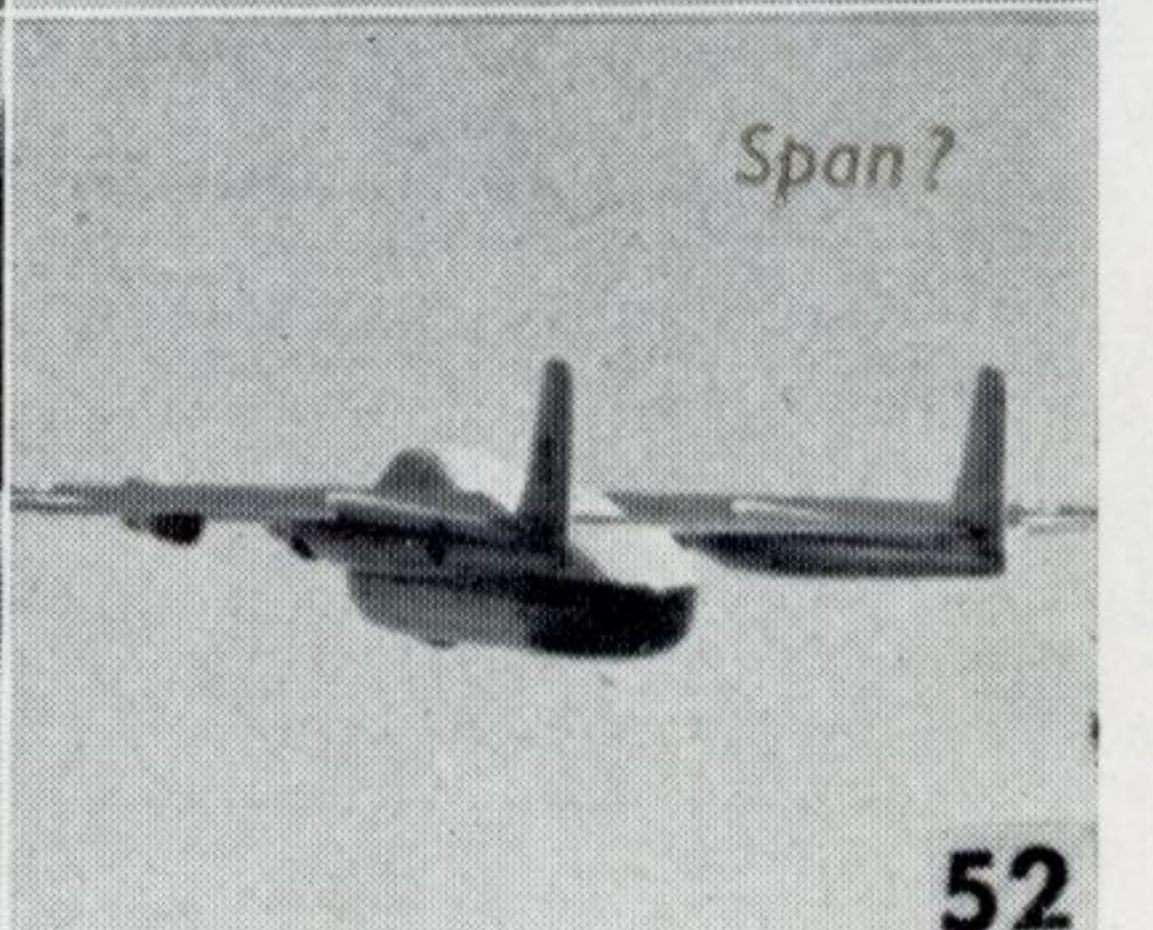
49



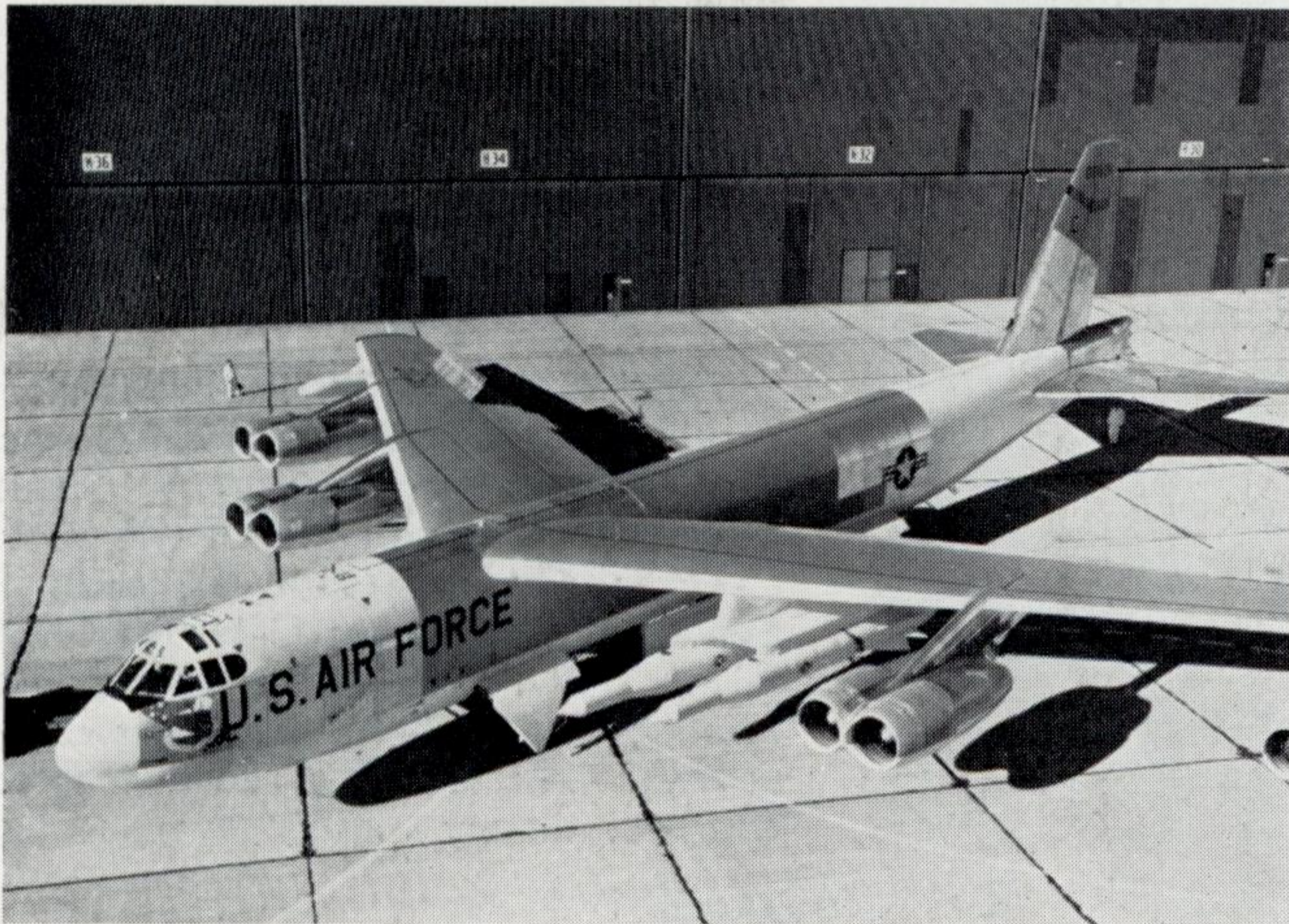
50



51



52



**Cover Photo:** The Boeing B-52H missile launcher equipped with a full complement of four Douglas Skybolt missiles which are mounted on special pylons inboard of the inner pairs of engines. What with wing-tip tanks, four pairs of jet engines and two pairs of Skybolt missiles the B-52H may well hold the record for under-wing appendages when fully operational. Incidentally the B-52H has Pratt and Whitney turbofan engines giving a 10-15% increase in unrefuelled range. So far as appearances go, like the B-52G but unlike the earlier B-52s this latest version has a fin of reduced height which makes it (the fin) look much broader and rather less impressive.

## SOLUTIONS TO TESTS AND EXERCISES IN THIS EDITION

Page 36

### AVRO 748

All targets are **Avro 748's** except number 10, which is a **C-131 Samaritan**, and numbers 3 and 15, which are both **F-27 Friendships**.

Page 39

### SEAHAWK

All targets are **Seahawks** except number 11, which is a **Hunter F Mk. 6**.

### LIGHTNING

Pages 40 and 41. All targets are **Lightnings F Mk. I**

Pages 42 and 43

- |                       |                        |                       |
|-----------------------|------------------------|-----------------------|
| 23. Lightning T Mk. 4 | 38. Lightning T Mk. 4  | 53. Lightning T Mk. 4 |
| 24. Lightning F Mk. I | 39. Lightnings F Mk. I | 54. Lightning T Mk. 4 |
| 25. Lightning F Mk. I | 40. Lightning F Mk. I  | 55. Lightning F Mk. I |
| 26. Lightning F Mk. I | 41. Lightning T Mk. 4  | 56. Lightning F Mk. I |
| 27. Lightning F Mk. I | 42. Lightning T Mk. 4  | 57. Lightning F Mk. I |
| 28. Lightning F Mk. I | 43. Lightning T Mk. 4  | 58. Lightning F Mk. I |
| 29. Lightning T Mk. 4 | 44. Lightnings F Mk. I | 59. Lightning T Mk. 4 |
| 30. Lightning T Mk. 4 | 45. F-100 Super Sabres | 60. Lightning F Mk. I |
| 31. Lightning F Mk. I | 46. Lightning T Mk. 4  | 61. Lightning F Mk. I |
| 32. Lightning F Mk. I | 47. Lightning T Mk. 4  | 62. Lightning F Mk. I |
| 33. Lightning T Mk. 4 | 48. Lightning T Mk. 4  | 63. Lightning F Mk. I |
| 34. Lightning F Mk. I | 49. Lightning F Mk. I  | 64. Lightning F Mk. I |
| 35. Lightning T Mk. 4 | 50. Lightning T Mk. 4  | 65. Faceplate.        |
| 36. Lightning F Mk. I | 51. Lightning T Mk. 4  |                       |
| 37. Lightning T Mk. 4 | 52. Lightning T Mk. 4  |                       |

Page 44

### N.A.39 BUCCANEER

All targets are **N.A.39 Buccaneers** except number 13, which is a **F-100 Super Sabre**, number 17, which is a **Sea Vixen**, and numbers 41 and 44, which are both **CF-100's**.

Page 46 and 47

### ARGOSY/C-119 PACKET

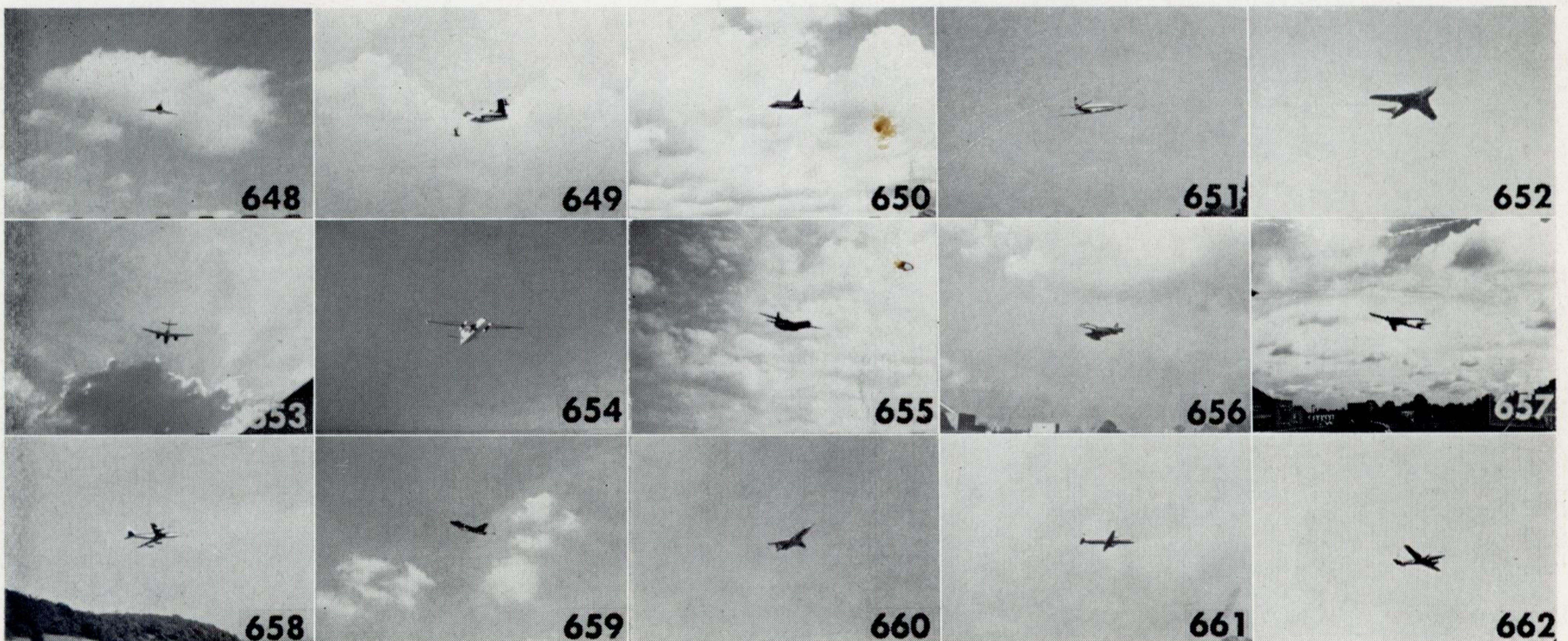
- |                  |                   |                  |
|------------------|-------------------|------------------|
| 1. C-119 Packet  | 19. Argosy        | 36. Argosy       |
| 2. Argosy        | 20. C-119 Packets | 37. Argosy       |
| 3. C-119 Packet  | 21. Argosy        | 38. C-119 Packet |
| 4. C-119 Packet  | 22. Argosy        | 39. Argosy       |
| 5. C-119 Packet  | 23. C-119 Packet  | 40. C-119 Packet |
| 6. Argosy        | 24. Argosy        | 41. Argosy       |
| 7. Argosy        | 25. C-119 Packet  | 42. C-119 Packet |
| 8. C-119 Packet  | 26. Argosy        | 43. C-119 Packet |
| 9. Argosy        | 27. Argosy        | 44. C-119 Packet |
| 10. C-119 Packet | 28. C-119 Packet  | 45. C-119 Packet |
| 11. C-119 Packet | 29. Argosy        | 46. Argosy       |
| 12. C-119 Packet | 30. C-119 Packets | 47. C-119 Packet |
| 13. Argosy       | 31. Argosy        | 48. Argosy       |
| 14. Argosy       | 32. C-119 Packet  | 49. C-119 Packet |
| 15. C-119 Packet | 33. C-119 Packet  | 50. Argosy       |
| 16. Argosy       | 34. C-119 Packet  | 51. C-119 Packet |
| 17. C-119 Packet | 35. Argosy        | 52. Argosy       |
| 18. Argosy       |                   |                  |

### Solutions to Airborne Headaches No. 73 in the January, 1961, issue:—

- |                           |                         |                          |
|---------------------------|-------------------------|--------------------------|
| 633. C-124 Globemaster II | 638. F4H-1 Phantom II   | 643. Vulcan B. Mk. 2     |
| 634. F4D Skyray           | 639. F-106 Delta Dagger | 644. Super Constellation |
| 635. Javelin              | 640. Bison              | 645. Fiat G-91           |
| 636. Twin Pioneer         | 641. Flashlight A       | 646. Noratlas            |
| 637. Neptune P2V-7        | 642. Argosy             | 647. F8U Crusader        |

## AIRBORNE HEADACHES

No. 74



Submission dates for answers to Airborne Headaches No. 74 will be notified at Group Headquarters