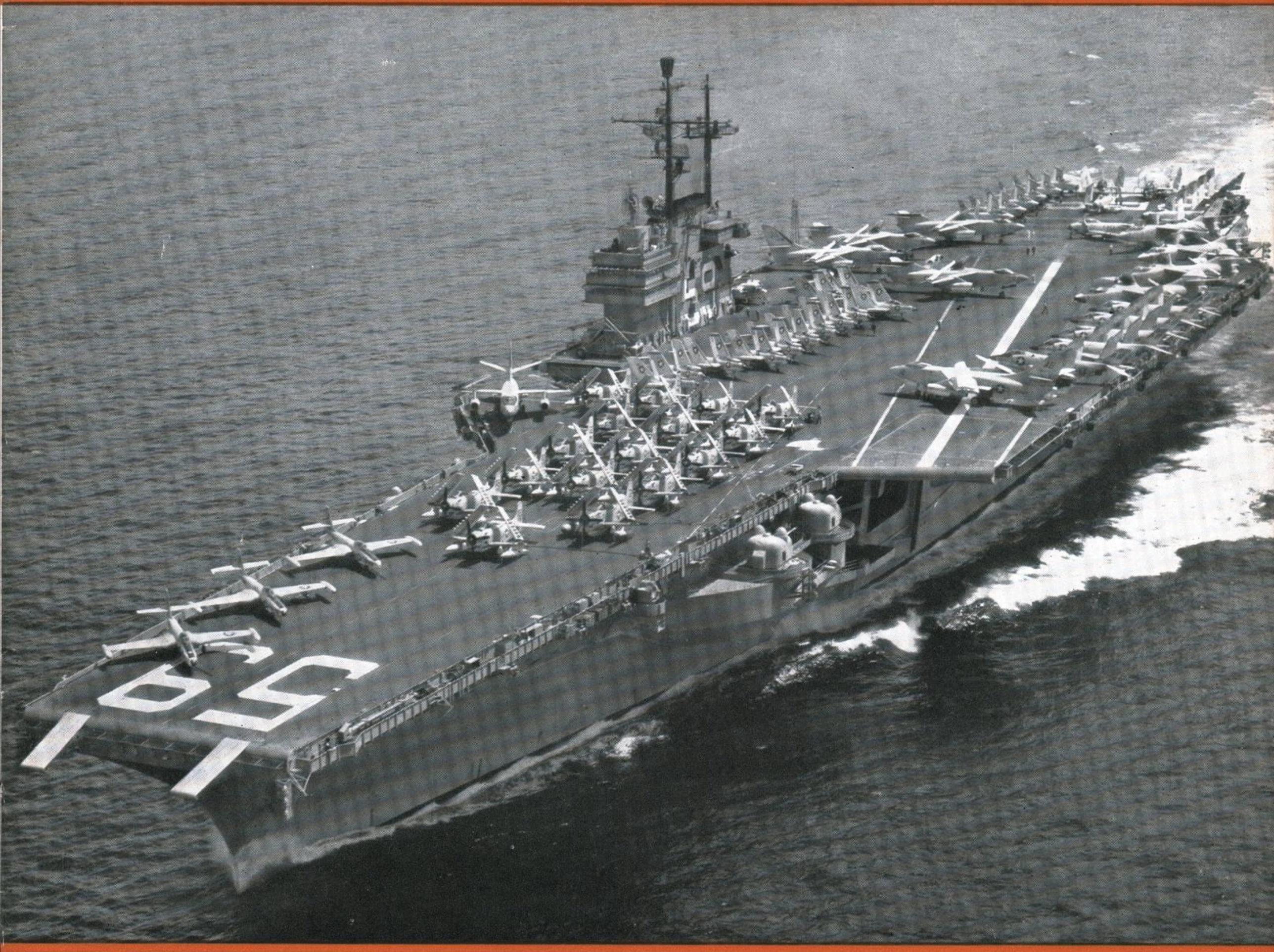
THE ROYAL OBSERVER CORPS

RECOGNITION

Journal

and R.O.C. GAZETTE



Vol. 3 AUGUST 1961 No. 8

Herald (DART)

One would think that so distinctive an aeroplane as the Handley Page Dart Herald with its large fin, high wing, and obtrusive turboprop engines would be easy to identify. Yet it has been misidentified, and will be unless you practise identifying it. Use target No. 14 as a key to identify any others in this lesson.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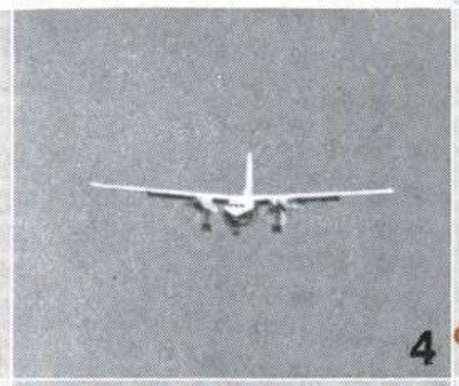
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Compare fin with 14
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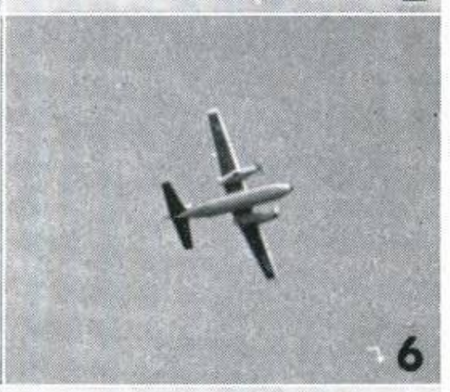
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Handley Page Dart Herald
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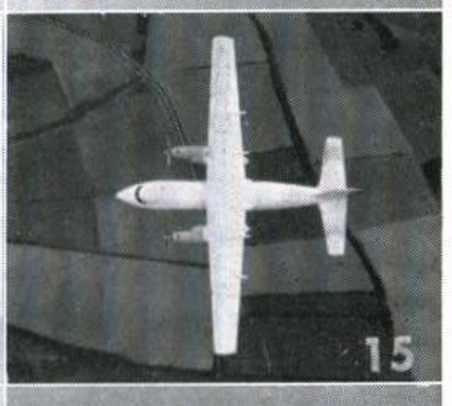
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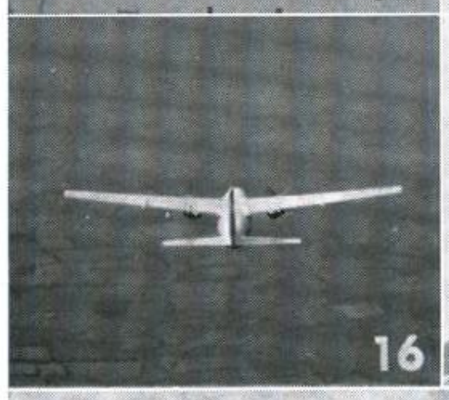
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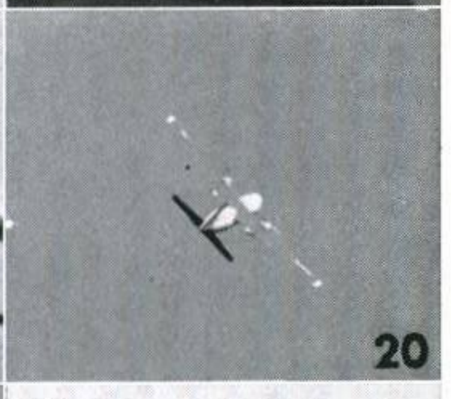
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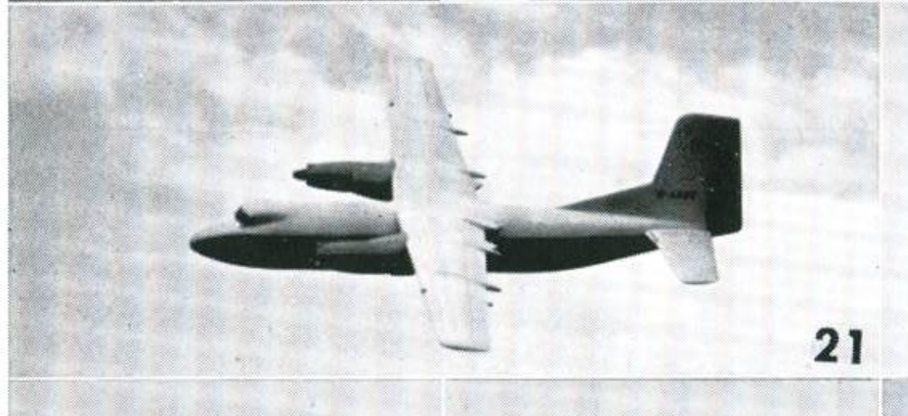
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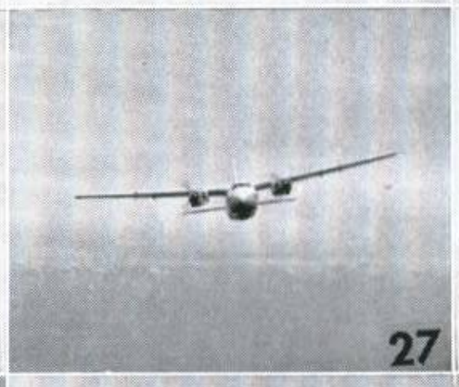
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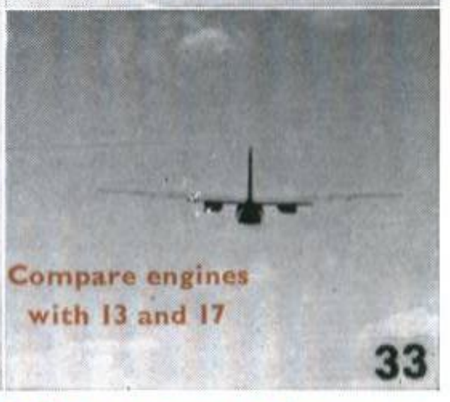
Compare engines with 13 and 17
33

Solutions are on the cover.

AUGUST 1961 Vol. 3 No. 8

THE ROYAL OBSERVER CORPS

RECOGNITION JOURNAL

AND R.O.C. GAZETTE

The Royal Observer Corps Recognition Journal and Gazette is a monthly publication produced in the Department of the Assistant Chief of the Air Staff (Training), Air Ministry, and prepared in collaboration with the Ministry of Aviation (Air Technical Publications). Applications for copies must be submitted through the normal official publications supply channels—**not** to the Editorial Office or direct to the Air Ministry.

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CONTENTS

**Identification Lessons*

They Failed to Recognise

THE importance of accurate aircraft identification was brought home vividly during the last war in a series of regrettable mistakes that exacted a toll measured in hundreds of lives, quite apart from the loss of millions of pounds worth of valuable war weapons. It could happen again.

Some of the errors are almost inconceivable; it is a fact, strange as it may seem, that the first aircraft brought down by Spitfires in the last war were—Hurricanes! It happened on September 6th, 1939, three days after war was declared, in a fiasco that became known to pilots as the "Battle of Barking Creek," when, due to a fault in the radar system (then known as radiolocation to a privileged few), the sirens were set wailing in the London Area and East Anglia. Fighters rose to intercept a non-existent enemy and in the ensuing mêlée, which included anti-aircraft gunfire from the Medway towns directed at our own fighters, two Spitfire pilots of No. 74 Squadron shot down two Hurricanes of No. 56 Squadron. One pilot baled out; the other was killed.

The early war years saw many such tragic errors; even an elderly Vickers Vildebeest and an innocent Avro Tutor fell victims to anti-aircraft gunfire from their own side. A Lockheed Hudson, transporting very important people, was blasted out of the sky by a Hurricane pilot who averred, not only that it was a Dornier Do 17, but that it bore crosses on its sides and that the rear gunner had fired at him!

Two R.A.F. fighter pilots attacking what they thought to be an enemy bomber, lost it in cloud and returned to base reporting an unsuccessful attack on a Junkers Ju 88. Meanwhile, a Beaufighter pilot at another airfield was reporting that he had beaten off an attack by two Messerschmitt Me 109s. The two sets of times and areas coincided!

The aeroplane said to be most easily distinguishable was the Westland Lysander, widely known even to the public for its unorthodox appearance; indeed, a newspaper once commented that aircraft could be divided into two classes—Lysanders and other aircraft. But the snag was that the Germans had an aircraft of similar configuration—the Henschel Hs 126. Of the existence of the German counterpart, the R.A.F. pilots were well aware; it had featured in Intelligence briefing matter, but what was lacking was positive training in identification of both. As a result, the pilot of Lysander L 4801 of No. 16 Squadron, conducting a reconnaissance of the Calais area, where British troops were making an heroic stand, died at the hands of three Spitfire pilots.

One of the worst results of the lack of proper training was the failure to distinguish between the Bristol Blenheim and the Ju 88. Even in the third year of the war, 1941, there was a catalogue of distressing mistakes. On January 22nd the combined anti-aircraft defences of the Lowestoft area, including Army and Naval units, concentrating on a lone Blenheim, T 2435 of No. 139 Squadron, brought it down in flames. The following Court of Inquiry recommended emphasis on recognition training. When Ju 88s raided St. Eval on April 1st that year, a Hurricane fired on Blenheim IV T 2398 of No. 53 Squadron which was in the vicinity. The pilot gave as his excuse that it looked very similar to a Ju 88. Later in November, Red Section of No. 121 (Eagle) Squadron, eagerly scrambling with their recently allotted Spitfires to investigate a "bogey," came across Blenheim IV T 2324 from No. 54 Operational Training Unit over Wetherby. They assumed it was a Ju 88 and opened fire. The Blenheim spun into the ground taking a member of the crew with it; the other member managed to bail out.

These and other tragic errors all resulted from lack of identity training. Not that Britain was alone in such difficulties. An American staff officer in the Pacific Area in May 1944 reported—"Almost no week goes by during which some U.S. plane is not shot down by U.S. ground, air or naval forces. In many cases the fault is both discipline and lack of recognition—in all cases poor recognition is contributory." A year later, an American Command Report contained these words—"There is still room for improvement in

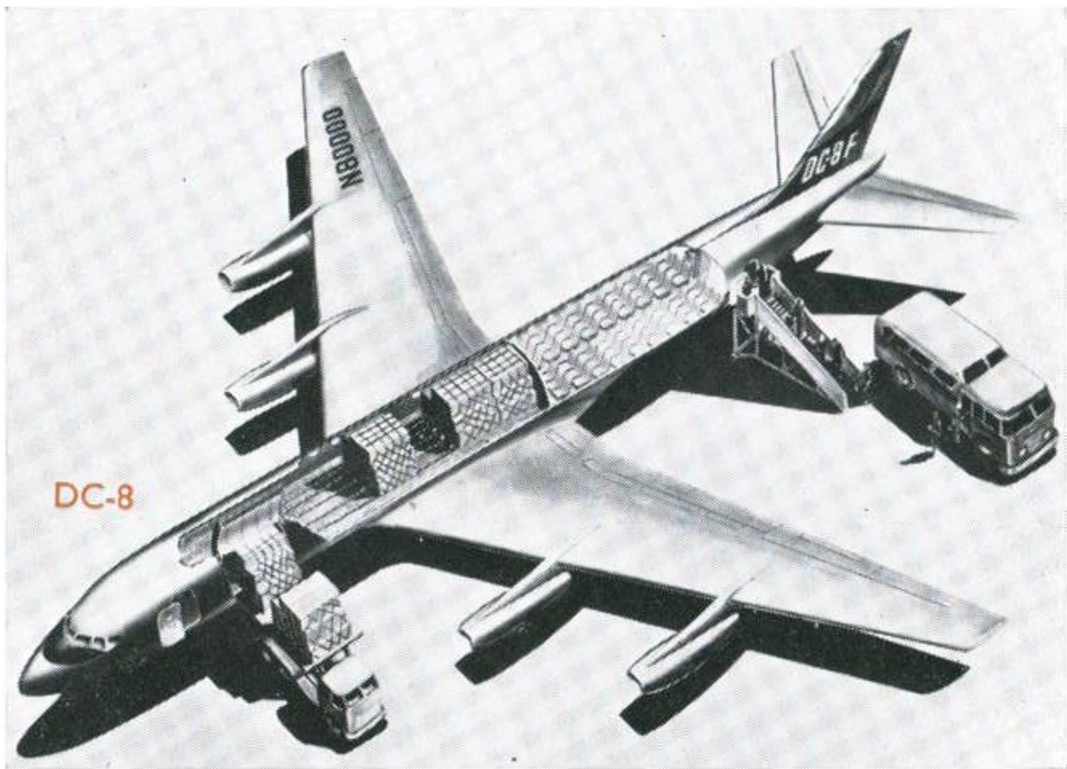
continued on back page

Briefs

A collection of items of news and interest.

New DC-8

A development of the Douglas DC-8, the DC-8F combined cargo/passenger aircraft, aims to be the first pure jet available for mass-cargo movement. First flights are scheduled for August 1962.



DC-8

* * *

Airedale

* * *

Russian Records

According to an American aviation magazine, Russia has successfully tested a nuclear-powered bomber, which flew on test for 21 days without refuelling. *The Daily Telegraph* has recorded a Russian claim for a height record for a manned aircraft, for an E-66 (*sic*) aircraft which reached a height of 105,600 feet.

* * *

Probe and Drogue

Latest of many aircraft operated by Flight Refuelling Limited to be fitted with probe and drogue flight refuelling equipment are two Canberra B.2s, WH 734 and WK 143, of which the former is illustrated.

Airing the Airedale

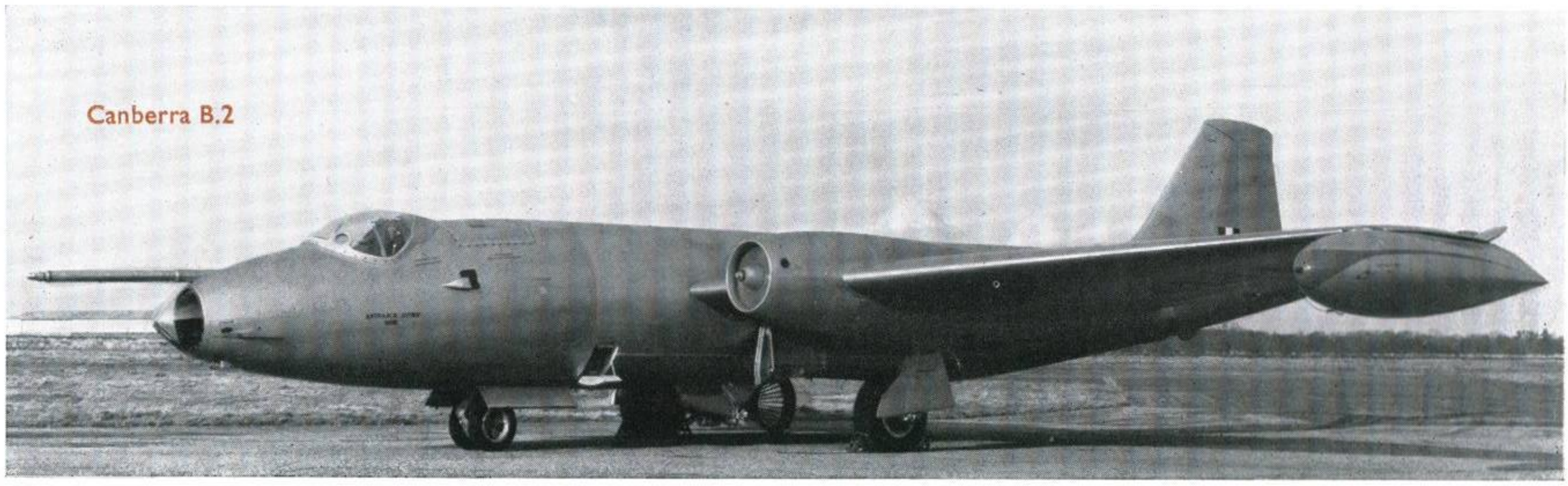
First of the new BEAGLE (British Executive and General Aviation Ltd.) aircraft, the Beagle-Auster A.109 Airedale is a four-seat touring or sports monoplane, powered by a 180 h.p. Lycoming engine.

* * *

B.A.C. One-Eleven

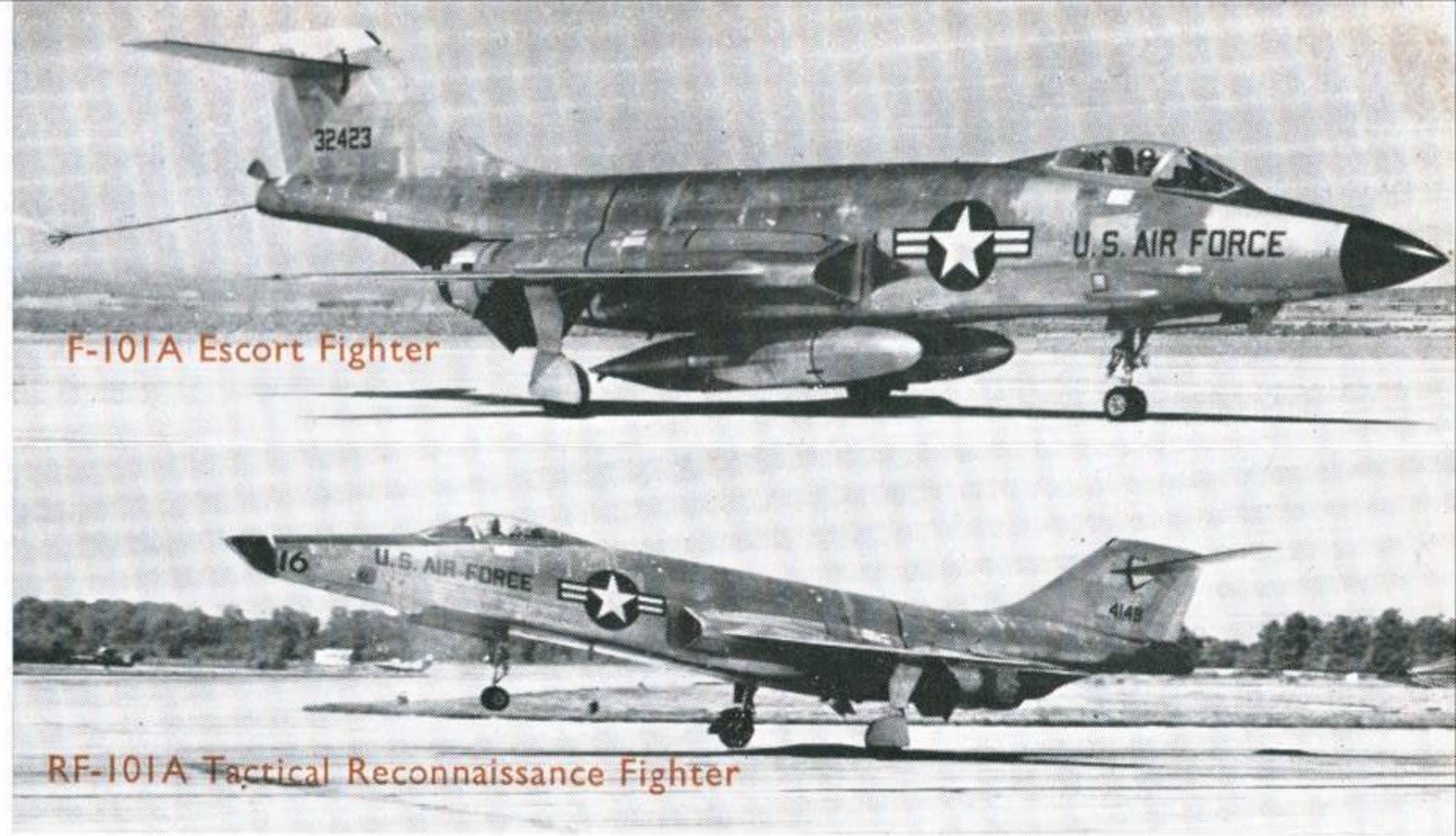
Designed for short-haul work, carrying up to 69 passengers at a cruising speed of 540 m.p.h., the new British Aircraft Corporation (which embraces Vickers-Armstrongs) airliner promises to be a " jet successor to the Viscount." Already American, as well as British, orders have been placed for this aircraft.

B.A.C. One-Eleven

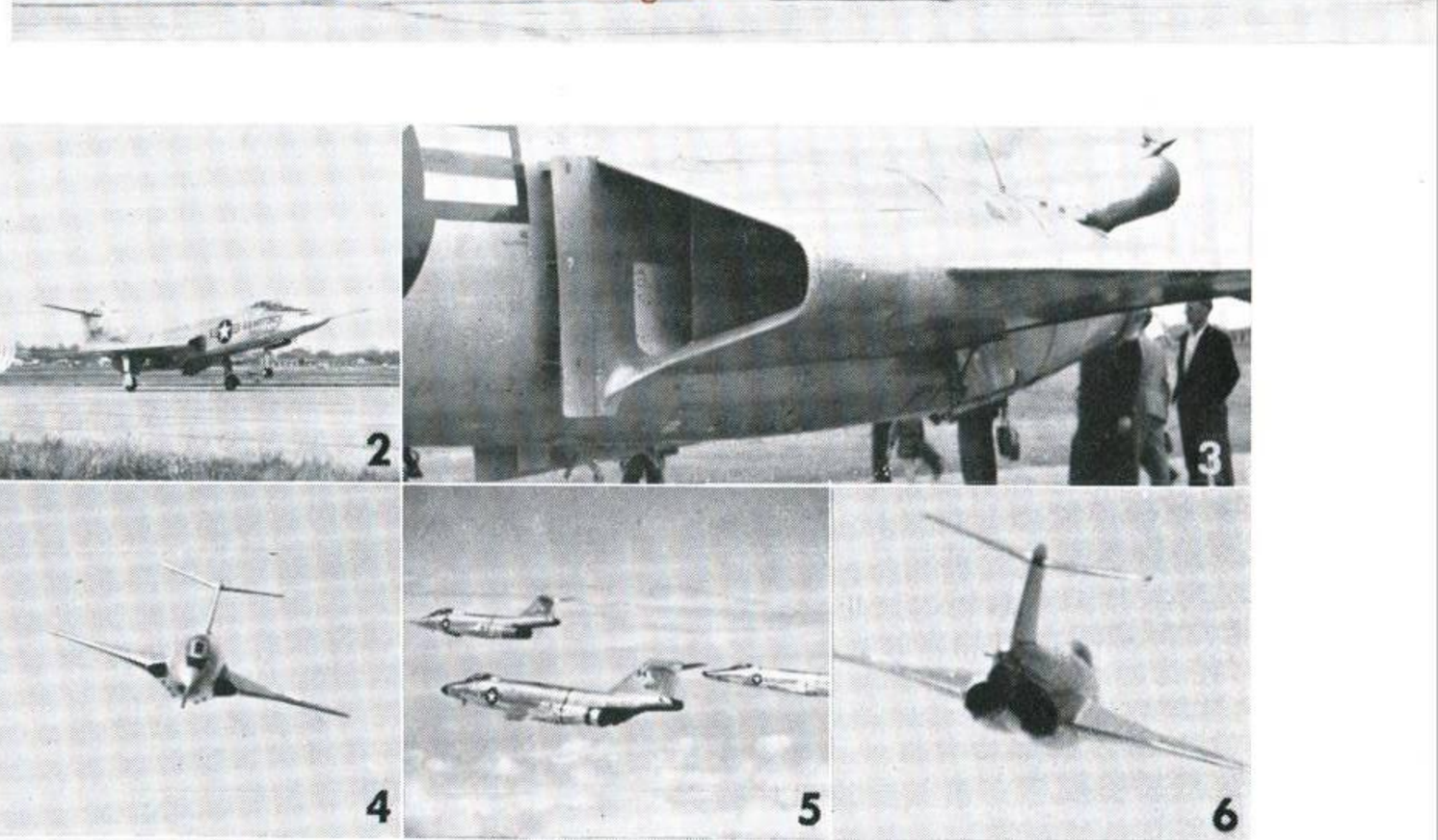

Canberra B.2

Voodoo

While the basic configuration of the F-101 Voodoo has remained the same, this refresher lesson brings in variations on the Voodoo theme. The original production fighter, the F-101A, is shown at the top and immediately below it is the RF-101A, a long-range tactical reconnaissance version: note its "pen-nib" nose. A two-seat version, the F-101B, is distinguished by its cockpit canopy (see target No. 18). With these points in mind and making good use of the key views, can you be certain that all these are views of Voodoos?



F-101A Escort Fighter



RF-101A Tactical Reconnaissance Fighter

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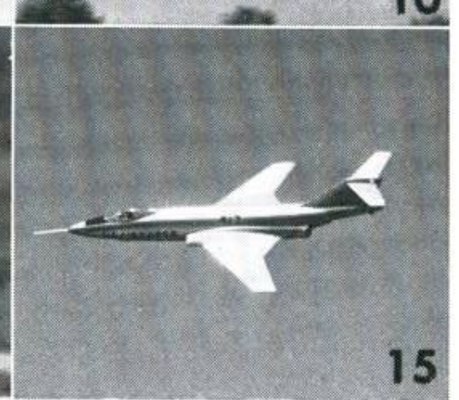
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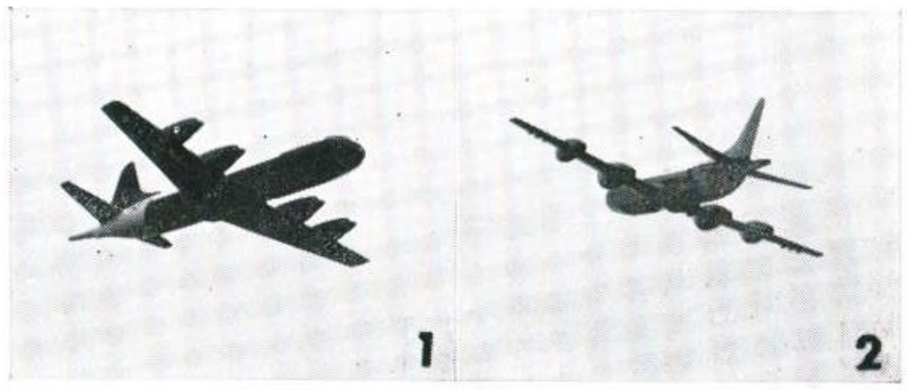
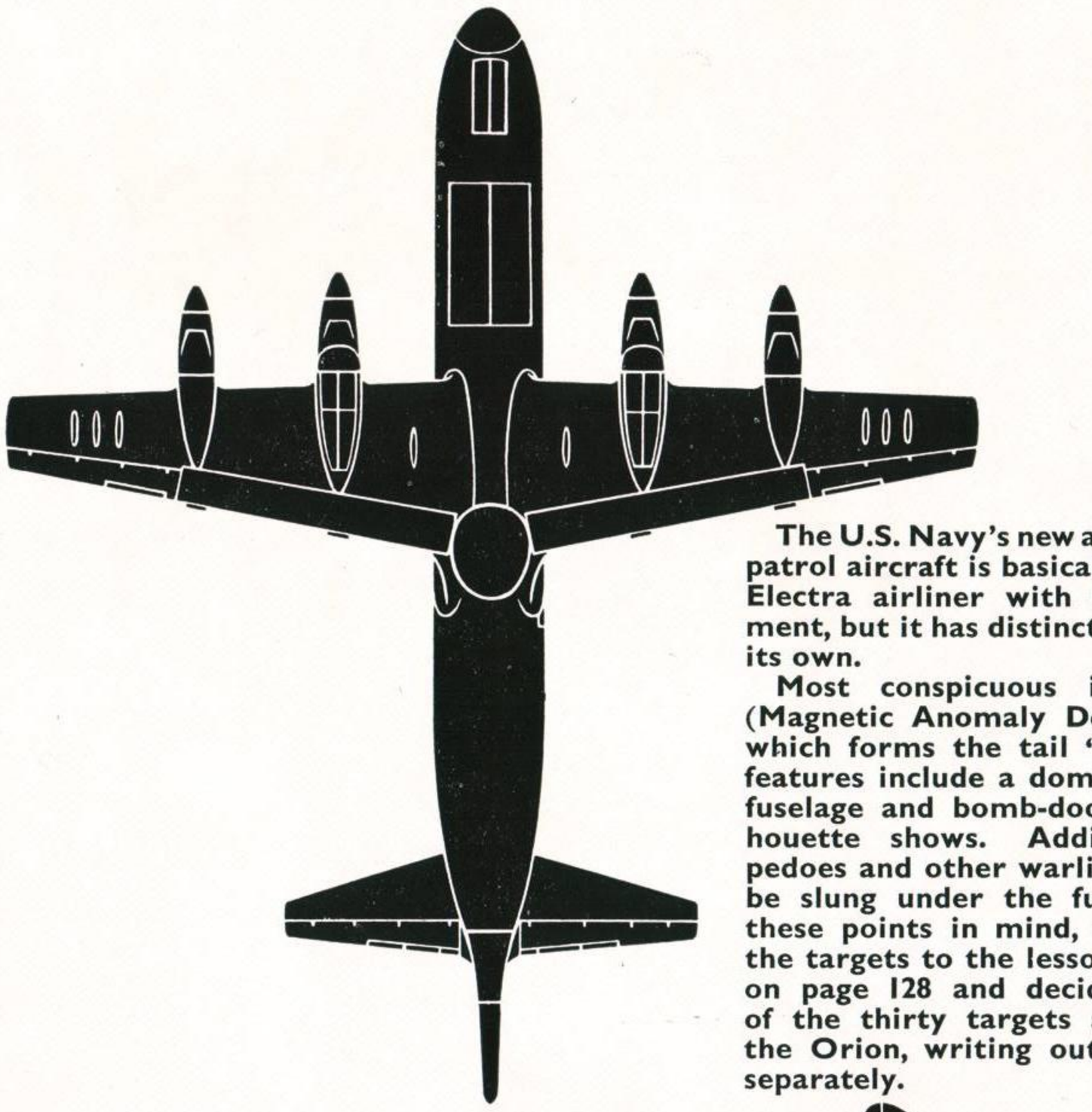
Solutions and full lesson instructions are on the cover.

Orion

Lockheed P3V-1

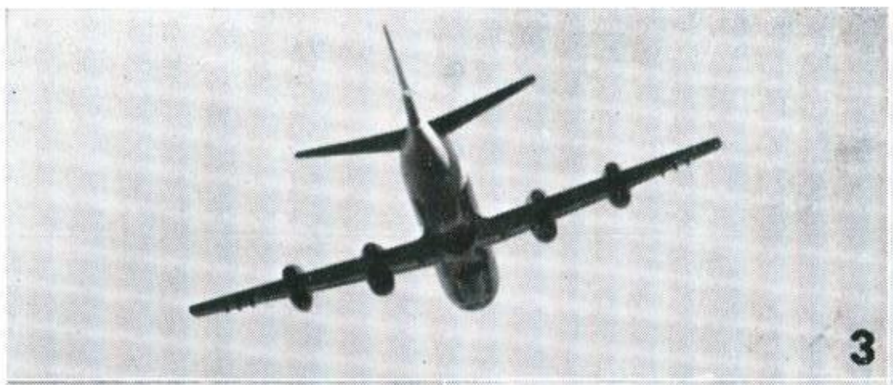


Span 99 feet



The U.S. Navy's new anti-submarine patrol aircraft is basically a Lockheed Electra airliner with special equipment, but it has distinctive features of its own.

Most conspicuous is the MAD (Magnetic Anomaly Detection) gear which forms the tail "sting"; other features include a dome beneath the fuselage and bomb-doors as the silhouette shows. Additionally, torpedoes and other warlike stores may be slung under the fuselage. With these points in mind, work through the targets to the lesson instructions on page 128 and decide how many of the thirty targets are indeed of the Orion, writing out each answer separately.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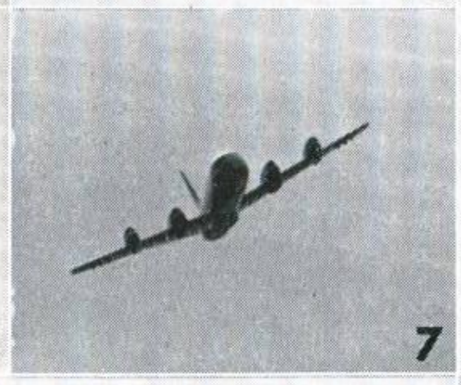
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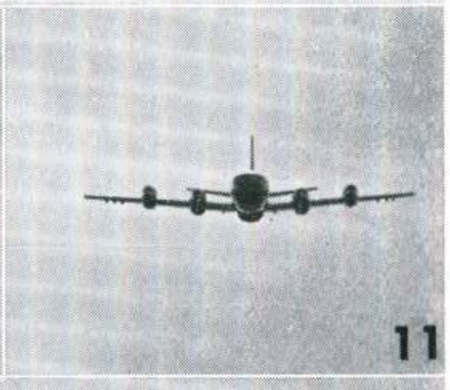
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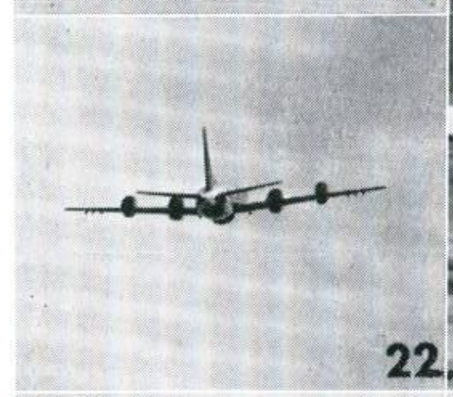
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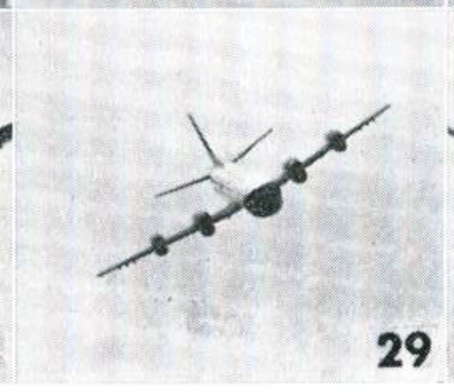
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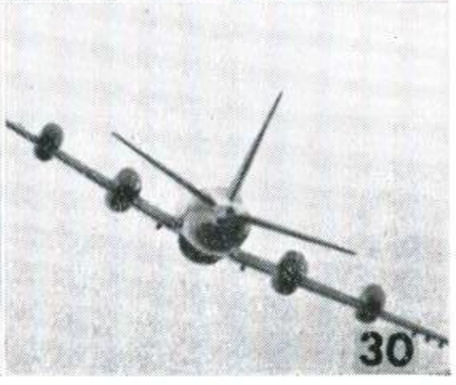
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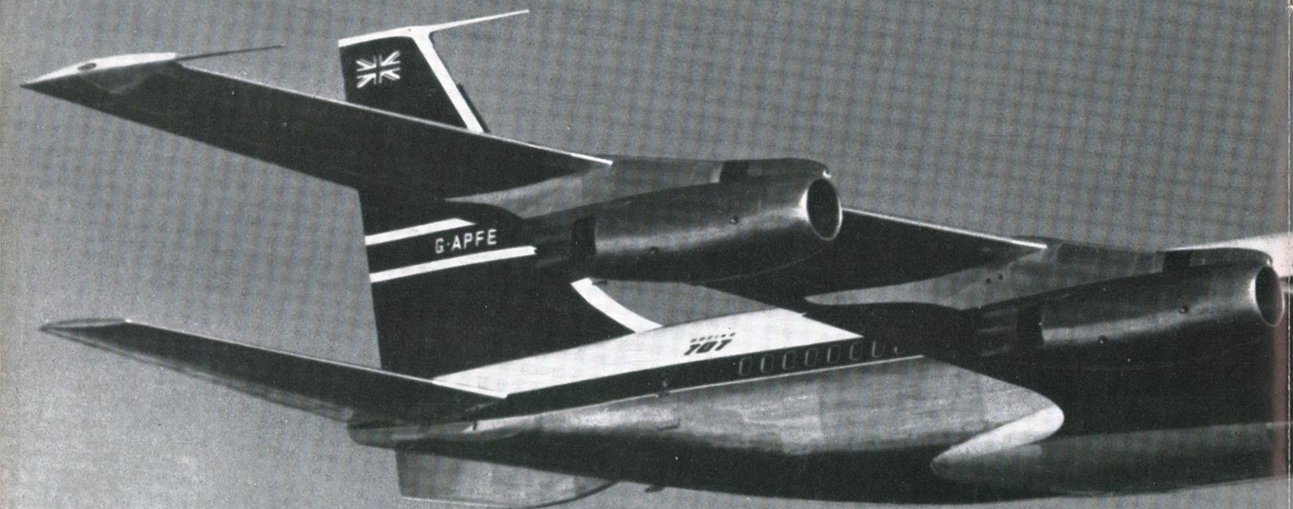
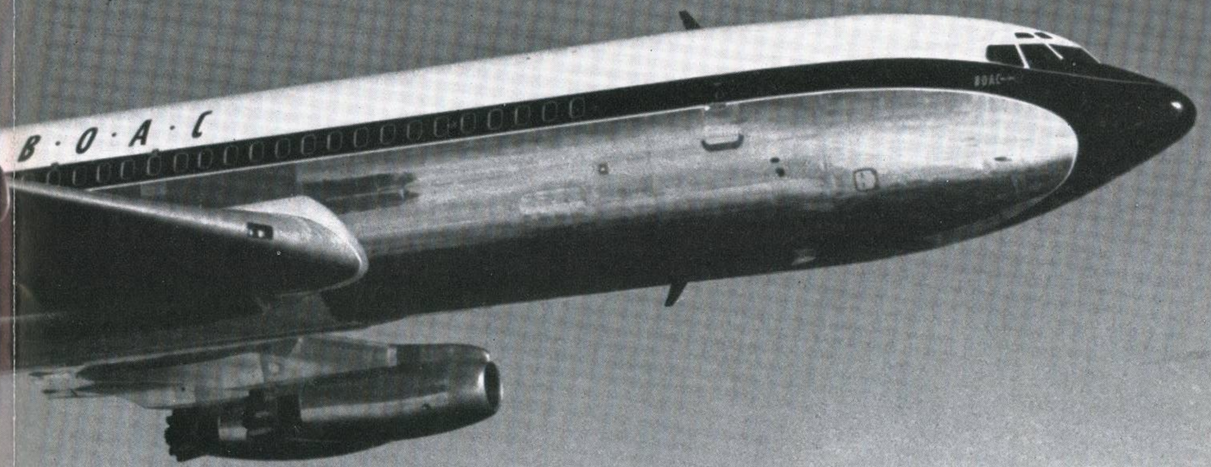
Boeing 707





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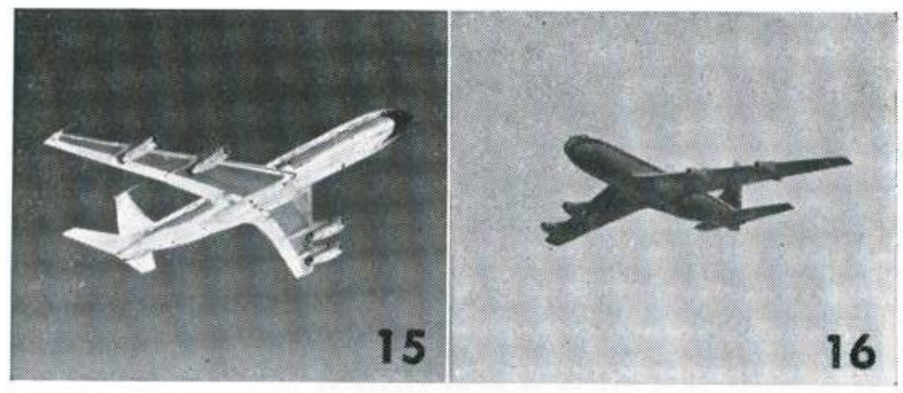
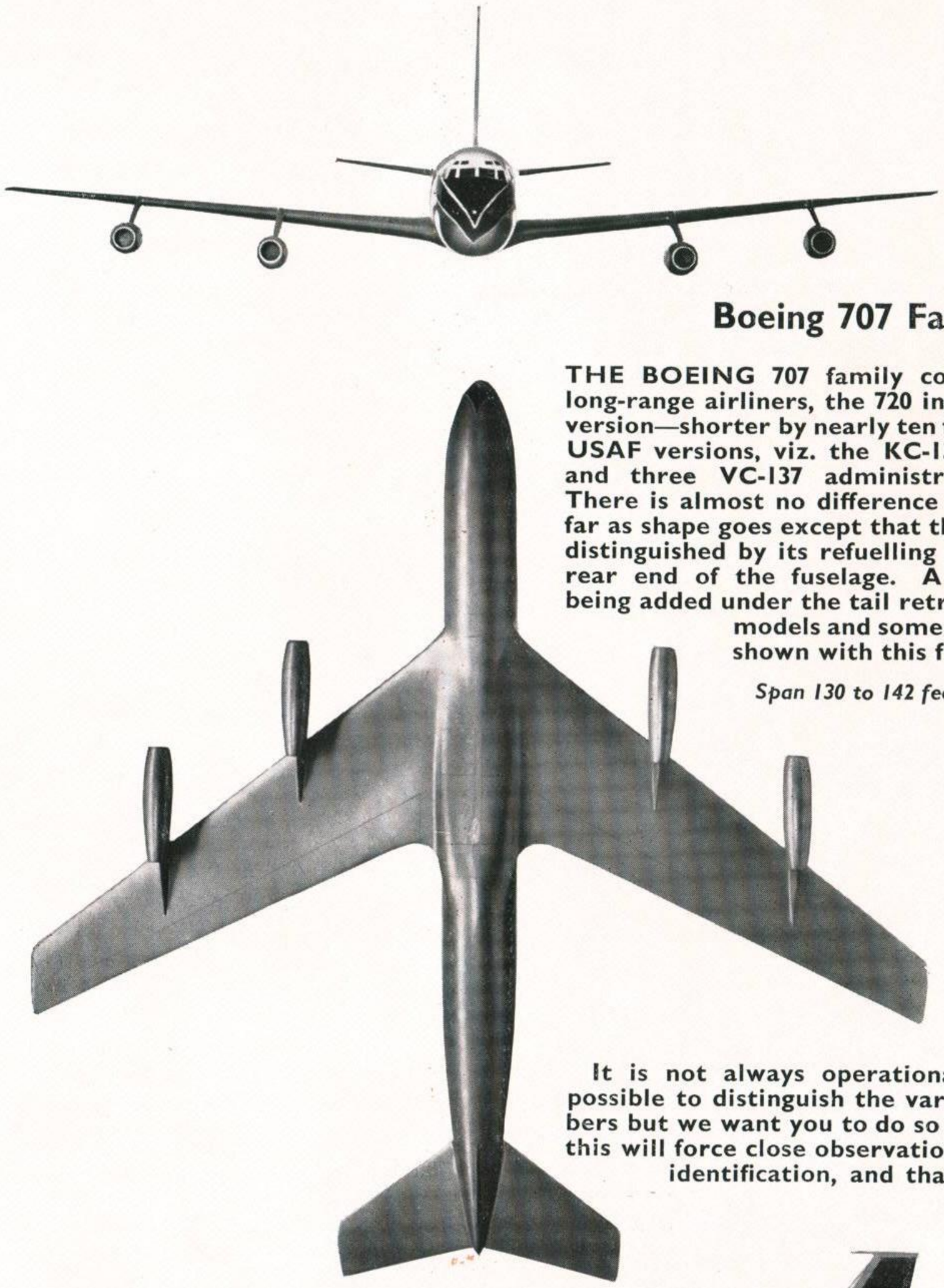
Boeing 707



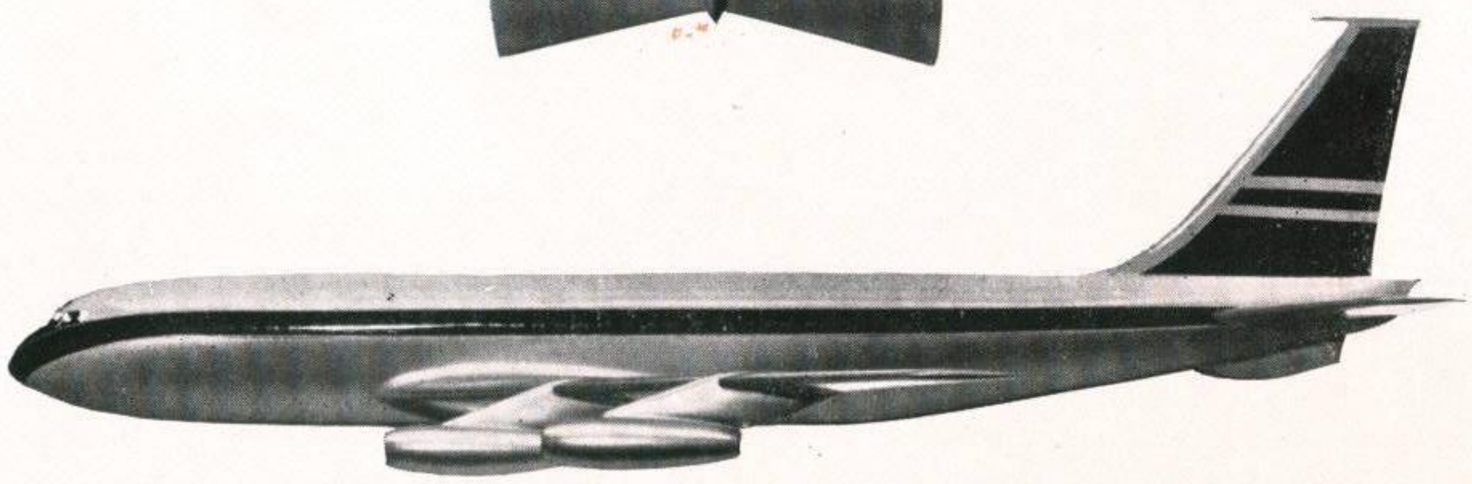


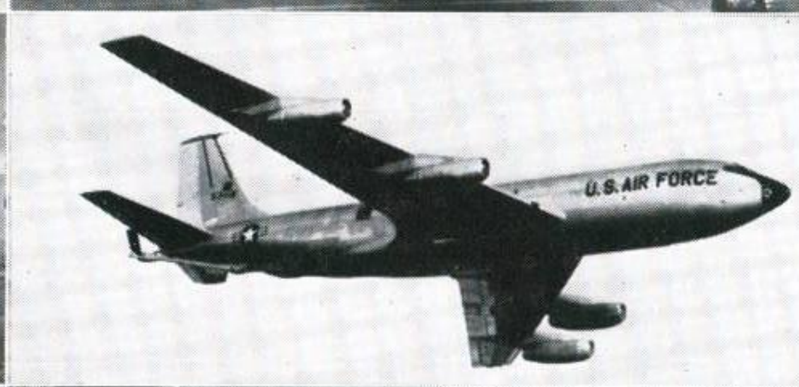
Boeing 707 Family

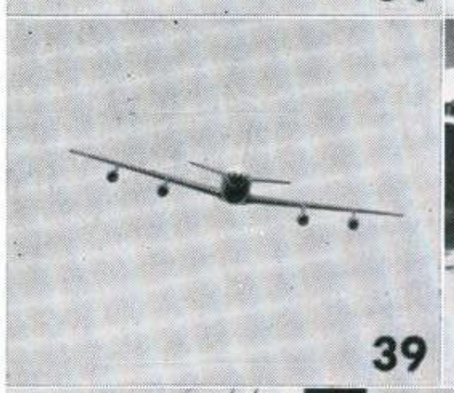
THE BOEING 707 family consists of the 707 long-range airliners, the 720 intermediate range version—shorter by nearly ten feet—and the two USAF versions, viz. the KC-135A Stratotanker and three VC-137 administrative transports. There is almost no difference between them so far as shape goes except that the Stratotanker is distinguished by its refuelling gear beneath the rear end of the fuselage. A stabilising fin is being added under the tail retrospectively to 707 models and some of our targets are shown with this fitted.

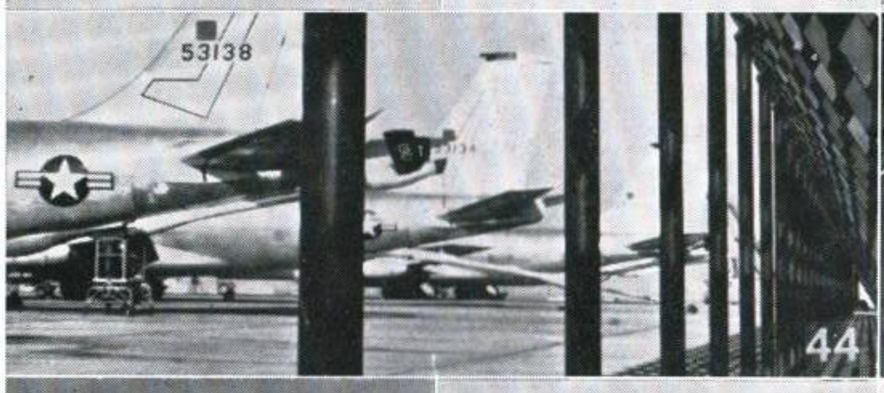
Span 130 to 142 feet according to model

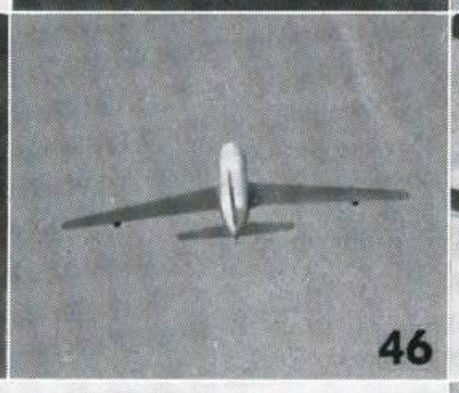
It is not always operationally necessary or possible to distinguish the various family members but we want you to do so here if you can as this will force close observation, not to mention identification, and that is a good thing.

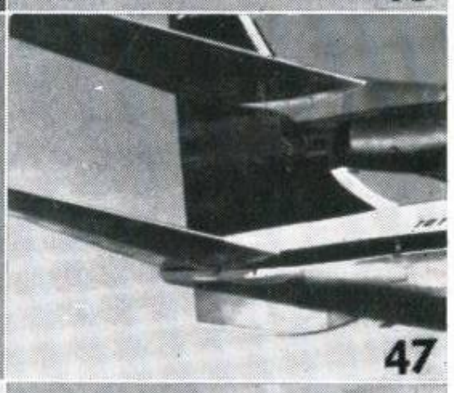


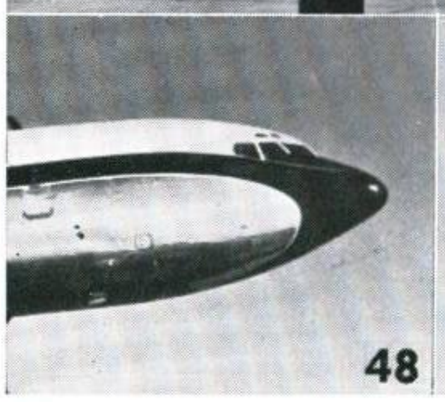


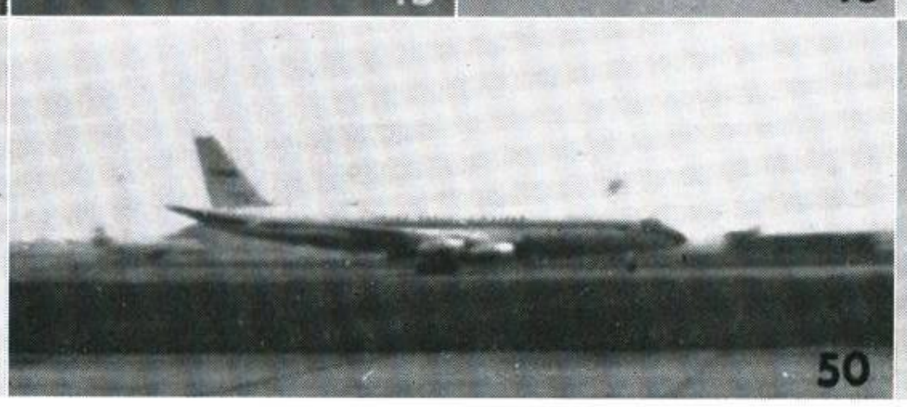












Full lesson instructions appear on cover.

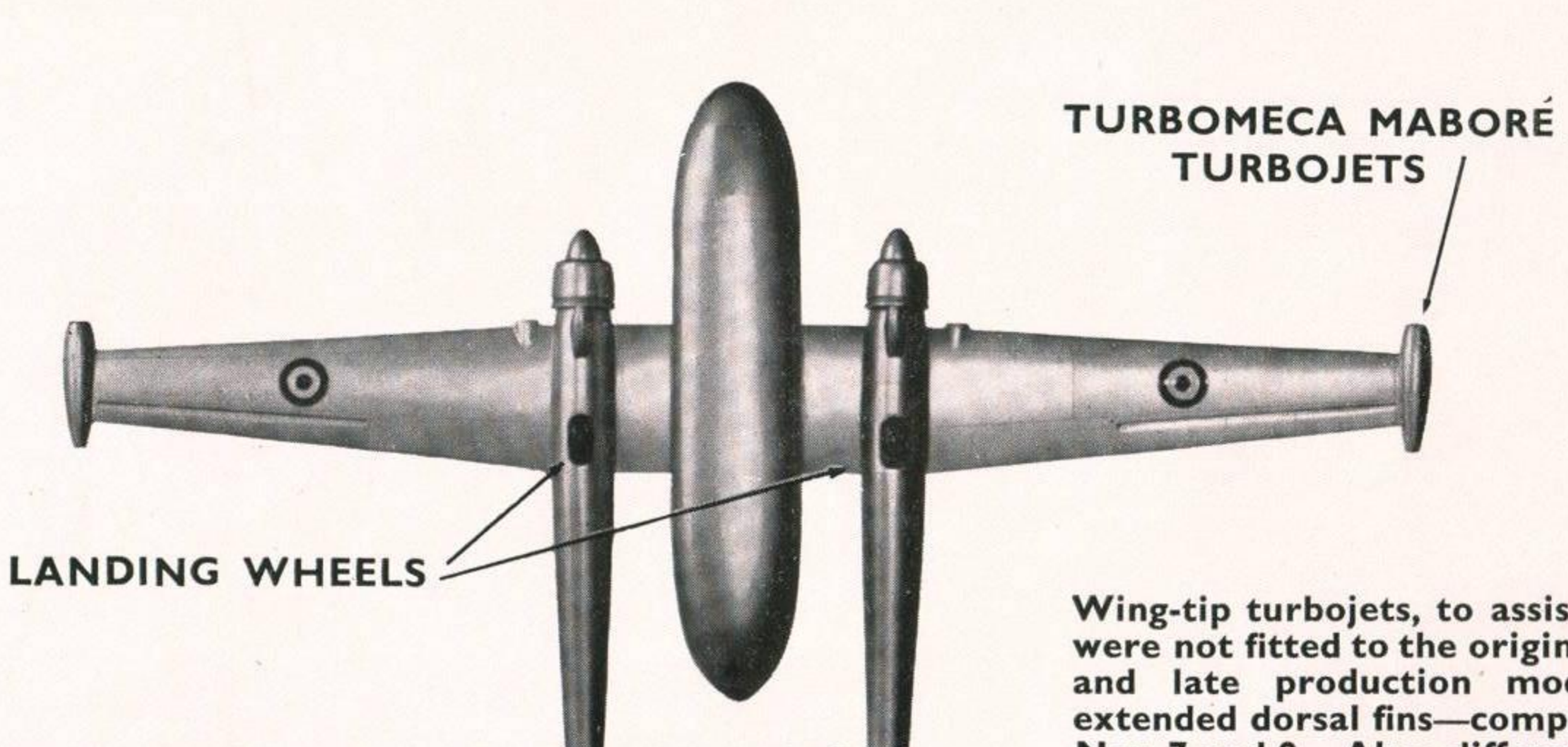
A list of solutions appears on the cover.

NORATLAS

French Military Transport

The twin-boom box-car has become popular for military transports to facilitate loading vehicles by running ramps from the end of the fuselage. But don't be deceived into thinking that so distinctive an aeroplane is necessarily easily identifiable without practice. However, working through these targets to the lesson instructions on page 128 will help you to do so and also impress on you that there are variants on the Noratlas theme which it is as well to be aware of.

Span 107 feet



Wing-tip turbojets, to assist take-off, were not fitted to the original version and late production models have extended dorsal fins—compare target Nos. 7 and 9. Also, different engines call for modified cowlings—compare target Nos. 24 and 31.

The annotated details are for information; they are not necessarily significant identification features.

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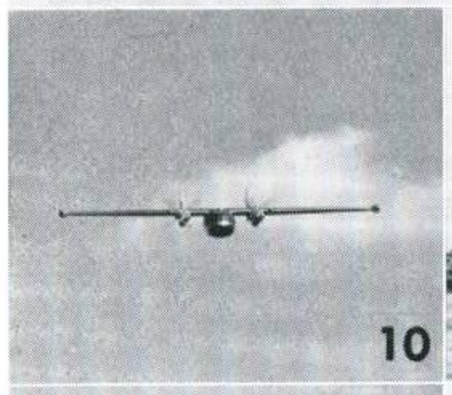
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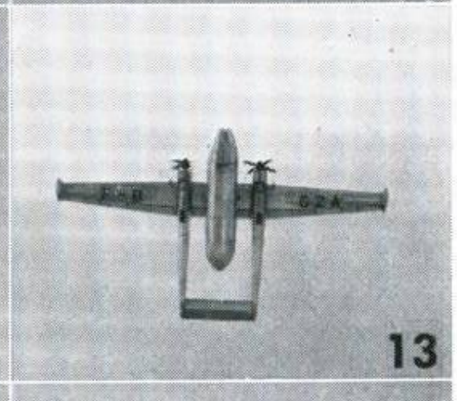
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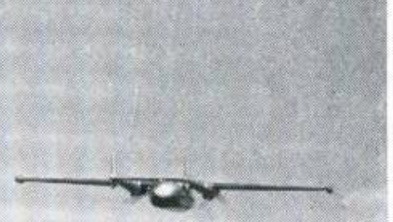
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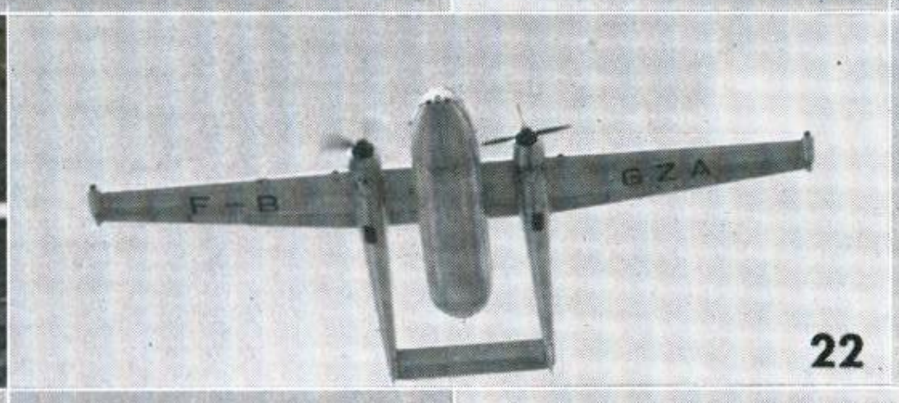

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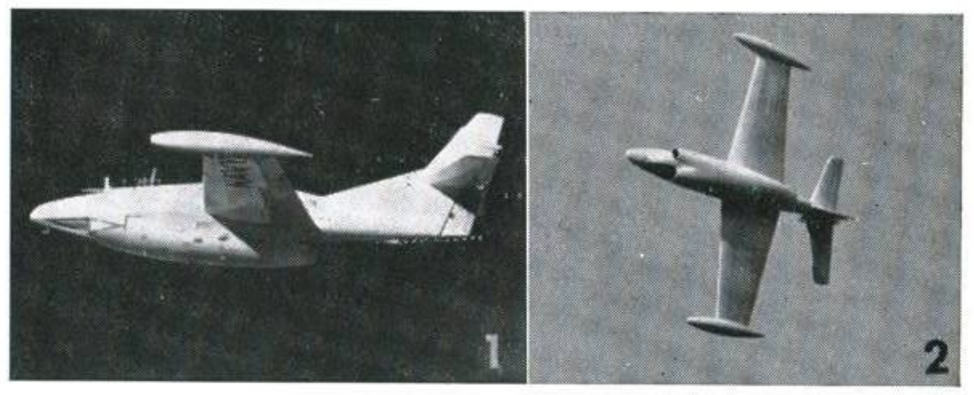
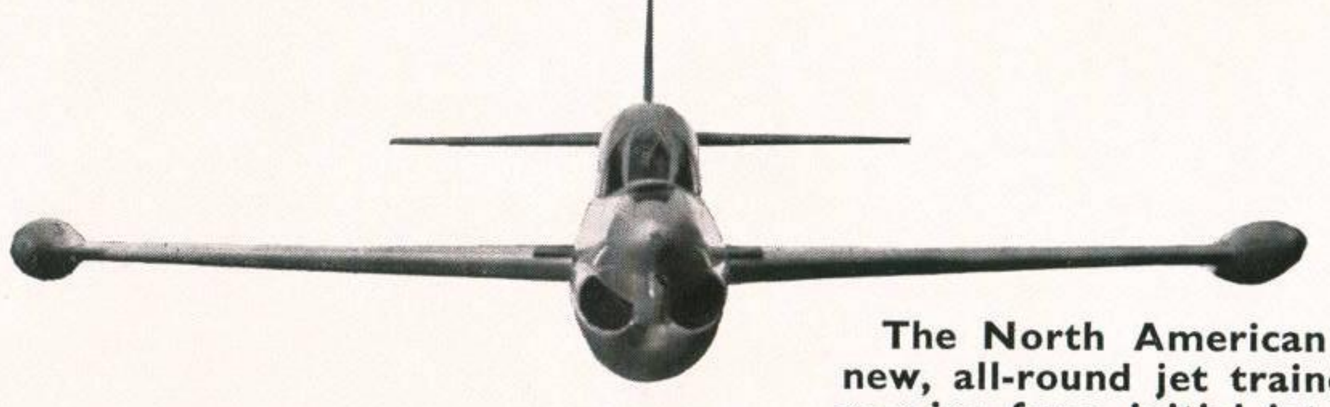
Full lesson instructions appear on cover.

Solutions are on the cover.

BUCKEYE (T2J-1)
U.S. Navy Trainer

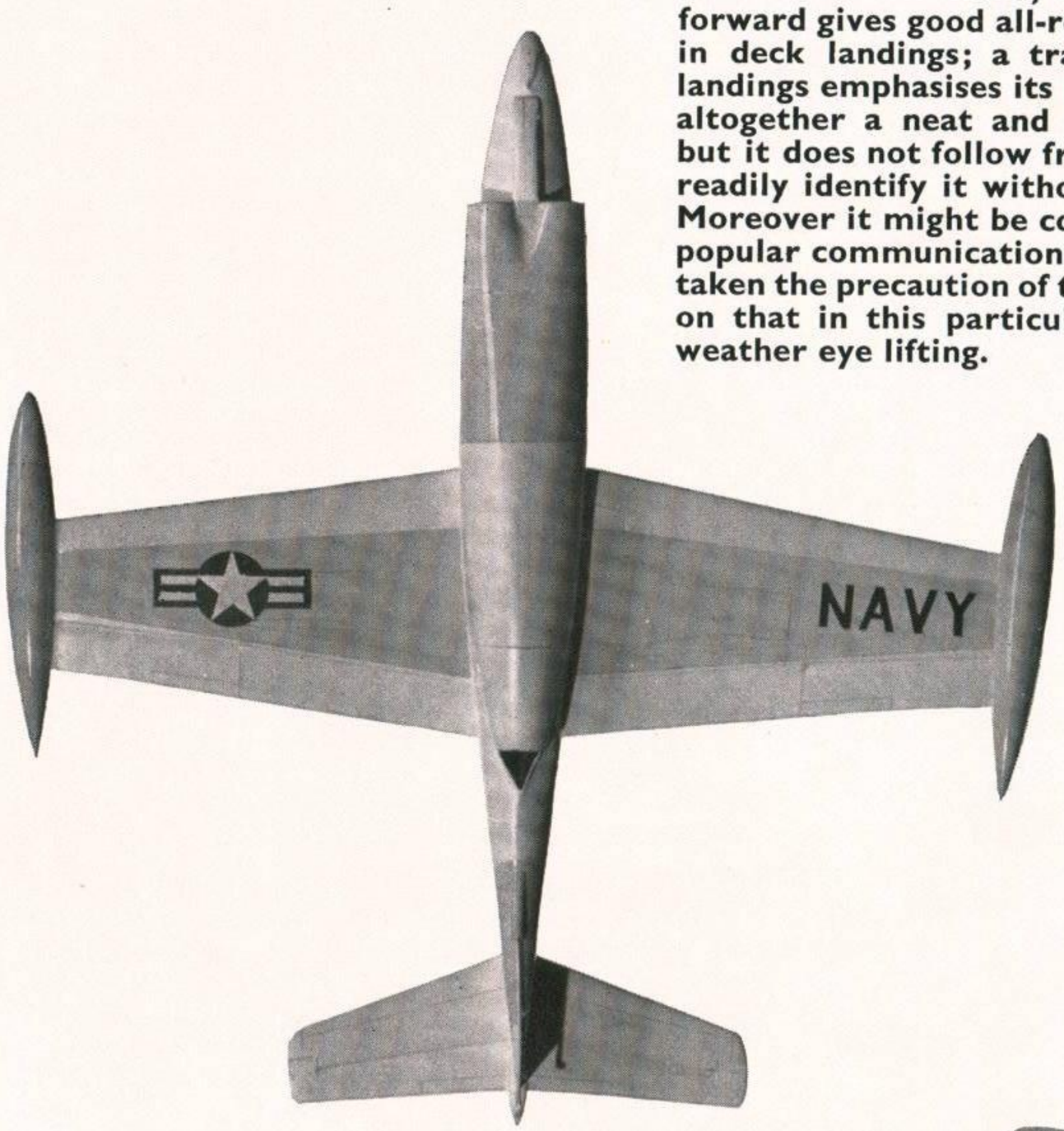




Span 36 feet

The North American T2J-1 Buckeye is a new, all-round jet trainer suitable for tasks ranging from initial jet flying instruction to deck landing practice and also for armament training for which various stores can be carried externally under the wings.

The Buckeye's visual characteristics are linked with its tasks; the long cockpit well forward gives good all-round view for its crew in deck landings; a trailing hook for those landings emphasises its naval character. It is altogether a neat and distinctive aeroplane but it does not follow from that that you will readily identify it without training to do so. Moreover it might be confused with a certain popular communications aircraft and we have taken the precaution of trying to catch you out on that in this particular lesson; so keep a weather eye lifting.



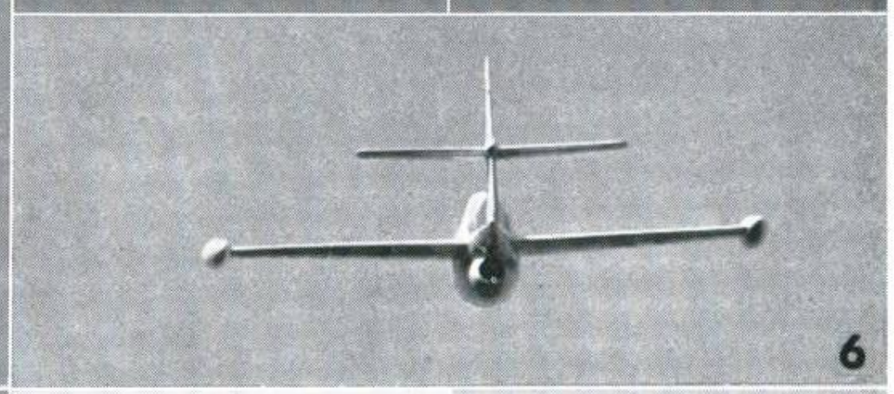
Special Features:

1. *Fuselage mounted jet pod with twin intakes and single orifice.*
2. *Large fin and fairing.*
3. *Elongated cockpit.*


3


4


5


6


7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Span ?
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Span ?
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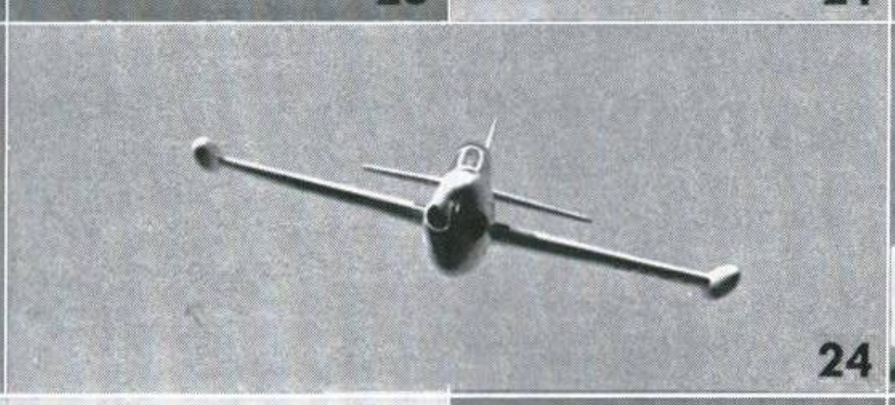
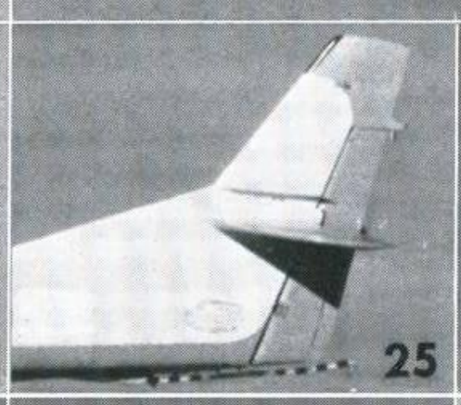
Span ?
23


24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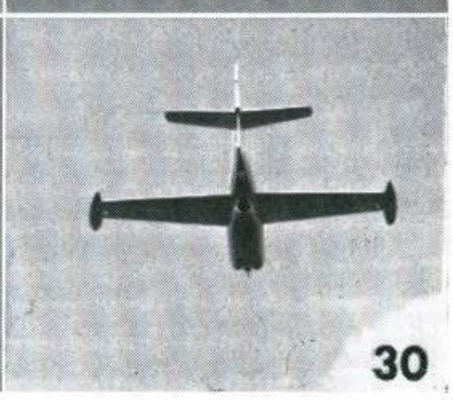
30

Full lesson instructions appear on cover.

Solutions list on the cover.

Cover Picture

CHOCKABLOCK. The deck of the U.S.S. *Forrestal* crowded with over 60 aircraft of seven distinct types as follows: Starboard and mid-deck from bow to stern—three F2H Banshees, a group of 16 AD Skyraiders and a single A3D Skywarrior, then, ranged in a straggling line abreast in front of the island are F9F Cougars, while a TF Trader pokes its nose round the island; aft of the island come four A3D Skywarriors, of which three have their vertical tail surfaces folded, and finally six FJ Furys: Port-side from bow to stern—an A3D Skywarrior, five F3H Demons, four more Skywarriors and then FJ Furys with another Fury, apparently "pranged," in the middle of the stern end of the deck.

SOLUTIONS TO TESTS AND EXERCISES

DART HERALD

Page 114

All targets are **Heralds** except No. 23 which is a **Caribou.**

& 25 which is a Friendship

VOODOO

Page 117

All targets are **Voodoos,** types as follows:—

1. F-101A
2. F-101A
3. F-101A
4. F-101A
5. (*Front*) F-101B, (*Middle*) F-101A, (*Rear*) RF-101A
6. F-101A
7. F-101A
8. RF-101A
9. F-101A
10. RF-101A
11. F-101A
12. F-101A
13. F-101A
14. F-101A
15. F-101A
16. RF-101A
17. F-101A
18. F-101B
19. F-101A
20. F-101B
21. RF-101A
22. F-101A
23. RF-101A
24. F-101A
25. F-101A

LOCKHEED P3V-1

Page 118

29 of the 30 are of **Lockheed Orion;** the exception is No. 20 which is a "pure" **Electra,** in fact Lockheed's own proving flight model registered N7144C.

BOEING 707 FAMILY

Page 120

All the targets are **Boeing 707s** or developments of that model except No. 50 which is a DC-8. Solutions are as follows with airline or service detailed.

1. 707 (PANAM)
2. 707 (T.W.A.)
3. 707
4. 707 (B.O.A.C.)
5. 720
6. 720
7. 707 (Continental Airlines)
8. 707
9. VC-137A } (M.A.T.S. of U.S.A.F.)
10. VC-137A }
11. KC-135A Stratotanker (U.S.A.F.)
12. VC-137A } (M.A.T.S. of U.S.A.F.)
13. VC-137A }
14. 707 (SABENA)
15. 707
16. 707
17. KC-135A Stratotanker (U.S.A.F.)
18. 707
19. VC-137A (M.A.T.S. of U.S.A.F.)
20. 707 (VARIG)
21. 707 (QANTAS)
22. 707
23. 707
24. 707 (Braniff)
25. 707
26. 707
27. KC-135A Stratotanker (U.S.A.F.)
28. 707
29. 707
30. 707 (B.O.A.C.)
31. KC-135A Stratotanker (U.S.A.F.)
32. 707
33. KC-135A Stratotanker (U.S.A.F.)
34. 707
35. KC-135A Stratotanker/RF-101A Voodoo
36. 707
37. VC-137A M.A.T.S. of U.S.A.F.
38. 707
39. 707
40. 707
41. 707
42. 720 (Irish International Airways)
43. 707
44. KC-135A Stratotanker U.S.A.F.
45. 720 United Air Lines
46. 707
47. 707
48. 707
49. 707
50. DC-8
51. 707

DC-8 X

They Failed to Recognise . . .

continued from page 115

aircraft recognition. On one occasion P-38s (the Lockheed Lightning twin-boom fighter), the most distinctive American fighters, were fired on by American ships. It is axiomatic that efficient aircraft recognition will breed good fire discipline. It is imperative that aircraft recognition be emphasised to a greater extent. . . ."

We must learn from past mistakes, for who can say that similar situations will not arise again? If they do, there ought to be no excuses for blunders of the kind we have recounted. We now have a positive identification training system for everyone likely to be concerned. Looking at photographs, listening to talks and briefings or reading technical details will not effectively train in identification: for that you must get down to the kind of experience laid out for you in this and every edition of the *Royal Observer Corps Recognition Journal.*

NORATLAS

Page 124

Noratlas is an acceptable answer to all targets except Nos. 12 and 30. For those who wish to be more discerning, the full identification appears below. (F.A.F.= French Air Force and U.A.T.= Union Aéromaritime de Transports). The Noratlas may also be seen in the livery of Air Algerie or with the insignia of the Federal German Air Force.

1. Nord 2502 (F.A.F.)
2. Nord 2502 (F.A.F.)
3. Nord 2501 (F.A.F.)
4. Nord 2501 (F.A.F.)
5. Nord 2502 (F.A.F.)
6. Nord 2502 (U.A.T.)
7. Nord 2502 (F.A.F.)
8. Nord 2502 (F.A.F.)
9. Nord 2502 (F.A.F.)
10. Nord 2502 (F.A.F.)
11. Nord 2502 (U.A.T.) with turbojets temporarily removed*
12. A.W. Argosy (R.A.F.)
13. Nord 2502 (U.A.T.)
14. Nord 2502 (F.A.F.)*
15. Nord 2502 (Civil)
16. Nord 2501 (F.A.F.)
17. Nord 2502 (F.A.F.)
18. Nord 2502 (U.A.T.)
19. Nord 2502 (F.A.F.)
20. Nord 2502 (F.A.F.)
21. Nord 2501 (F.A.F.)*
22. Nord 2502 (U.A.T.)
23. Nord 2502 (F.A.F.)
24. Nord 2508 (Civil)†
25. Nord 2501 (F.A.F.)
26. Nord 2502 (F.A.F.)
27. Nord 2501 (F.A.F.)
28. Nord 2502 (F.A.F.)
29. Nord 2502 (U.A.T.)
30. Fairchild C-119F (U.S.A.F.)
31. Nord 2502 (F.A.F.)
32. Nord 2502 (F.A.F.)

* Type number not apparent from view shown.
† The gills of the engine cowling identify this as a Nord 2508.

BUCKEYE (T2J-1)

Page 126

All targets are of the **Buckeye** except No. 9, which is **M.S. 760 Paris.**

Lesson Instructions

To obtain the maximum benefit from the identification lessons in the *Journal*, you should carry out carefully the following procedure.

1. Read all the text associated with the lesson. This may contain special lesson instructions and background information on the aircraft, ship or tank concerned.
2. Prepare a list of the target numbers. This is important as you need not tackle the targets in numerical order.
3. Identify the target pictures by comparing them with the key-views, starting with the easy ones first so as to gain experience and using targets you have already identified to help you solve the more difficult ones.
4. When certain of the identity of a target, write down its name immediately against the appropriate target number on your prepared list. This is a most important part of the procedure.
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; speedy identification will come with experience.
6. Don't try to memorise.

20,300 8/61

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