

JOINT



SERVICES

RECOGNITION

Journal



Vol. 24 SEPTEMBER 1969 No. 9

JETRANGER

The Bell Model 206 JetRanger is a five-seat turbine-powered general-purpose helicopter which first flew in January 1966. By the middle of last year about 300 had been built, including some produced under licence in Italy, and the type is now in service in many countries. Two military versions are also in production—the TH-57A primary light turbine training helicopter for the U.S. Navy and the OH-58A light observation helicopter for the U.S. Army. Length of fuselage is 28 feet 2 inches





JOINT SERVICES

RECOGNITION JOURNAL

The *Joint Services Recognition Journal* is a monthly publication produced by the Directorate of Flying Training (R.A.F.), Ministry of Defence, and prepared in collaboration with the Admiralty Board, the Army Department and the Ministry of Technology. Applications for copies can only be accepted from the Services or other official bodies, and must be submitted through the normal official publications supply channels—not to the Editorial Office or direct to the Ministry of Defence.

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* *Identification Lessons*

THE JOURNAL — AND YOU

With the spreading of the new System of Identity Training, of which the *Journal* is, at present, an essential part, we are receiving many requests for back numbers. These contain trainers on various older types of aircraft—even obsolescent ones—but which fly operationally in different parts of the world and which cause identification headaches. By the way, in this regard, many *Journals* up to ten years old, and one or two of greater vintage, contain valuable trainers on ships, aircraft and tanks which are still in foreign Service.

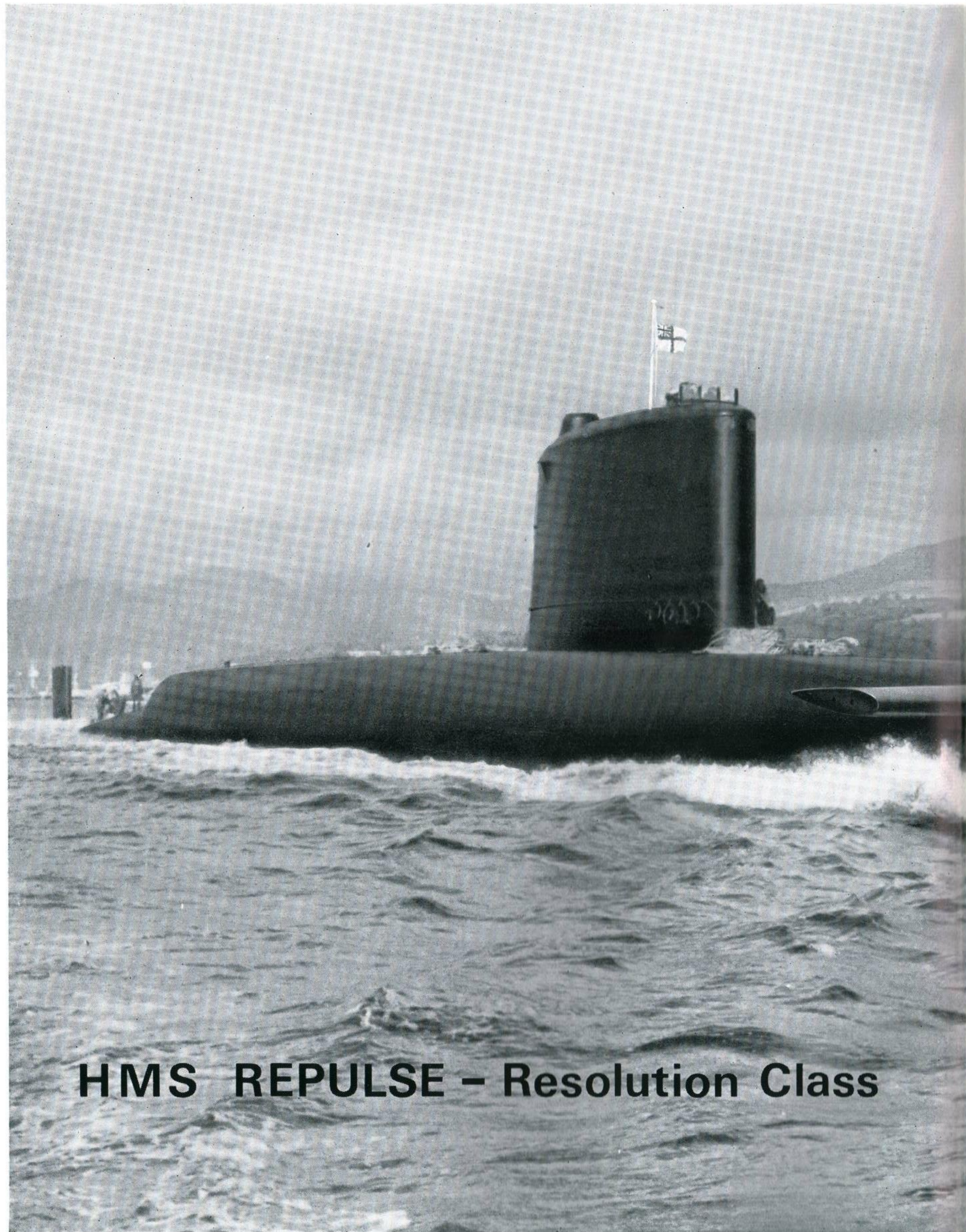
The editorial office is not responsible for general distribution, and no more than a few file copies of each edition are held, so we cannot meet any demands sent to us. Demands, should go through unit publications officers and usual channels to APFS who will supply any back issues they happen to have in stock. Unfortunately, stocks are soon exhausted despite a surplus print. If, therefore, what appears to be a selection of ancient *Journals* comes your way and they cannot be found useful on your unit, the editorial office would be glad to receive them.

Distribution is not on a lavish scale and it has often been found that they reach destinations where those whose need is very real cannot get hold of them. Normally, *Journals* received by units should be retained for a long time and not be thrown away when the new one comes in. Nor should they be held in the cloistered quiet of Intelligence Sections. They must be made available to the many who need them for training. They are not after all intended for intelligence purposes.

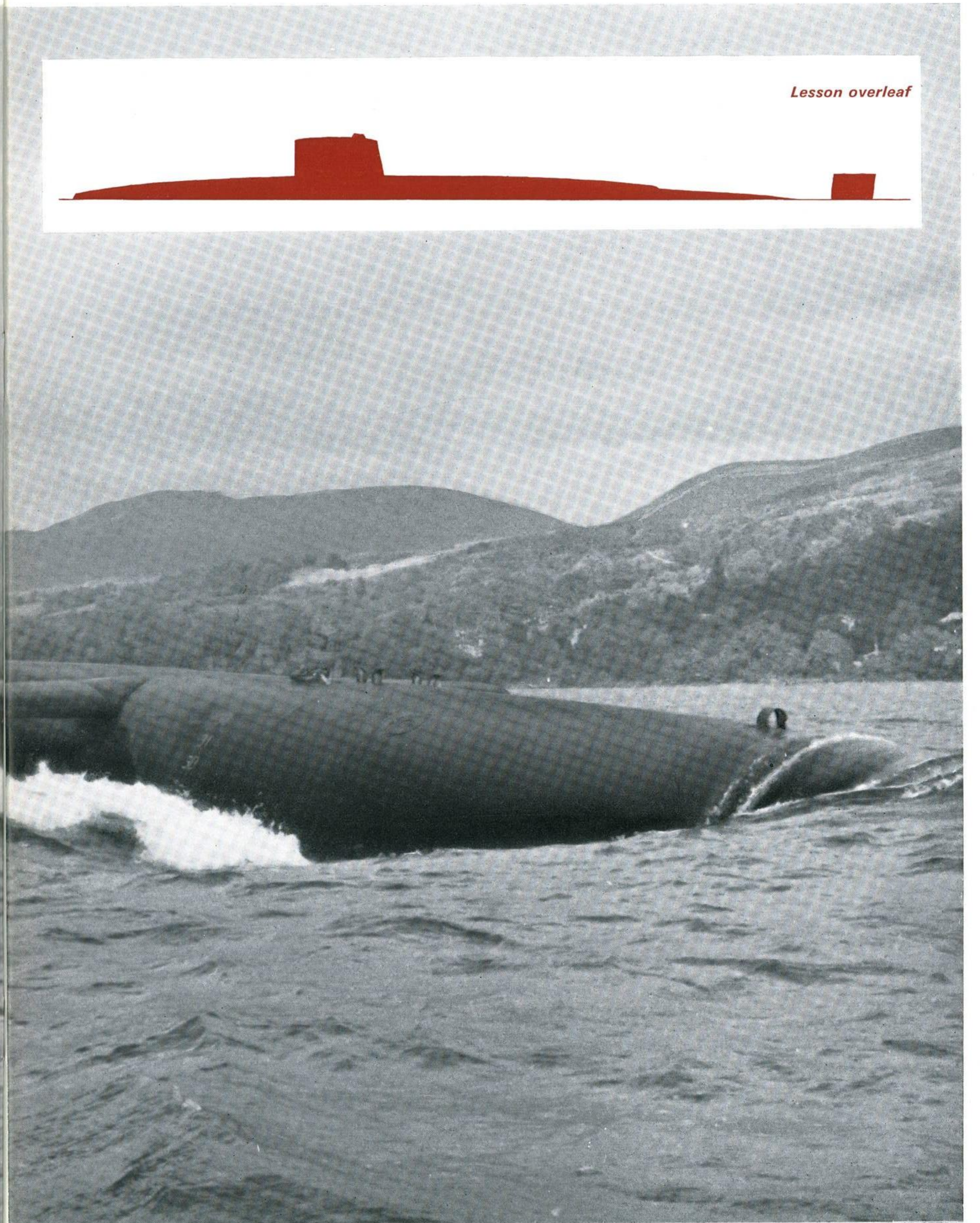
The *Journal* cannot cover all classes of all ships, vehicles, aircraft, weapons and the hundred and one other things which servicemen require to identify. If the service man is to do his job properly, he must be aware of what is going on around him during exercises and manœuvres—particularly those involving tanks, ships and aircraft of NATO forces.

Now to other things. The appearance of the *Journal* belies its nature; it is not a picture book, nor, as we have just said, is it a piece of intelligence material. It is paper synthetic training machinery of high training potential. It is a collection of carefully prepared trainers, which *if correctly used*, will really train in a short time, compared with the traditional lecturing, picture-projecting technique and learning by heart. The correct procedure for using it is clearly set out in every copy of the *Journal* and it must be used in the way prescribed, or it will fail to do its job. Thumbing through it won't do your identity training much good and if you hang on to it for yourself it won't do *anyone* any good.

There is no magic or mystique about the training system. The trainers are laid out to use the enormously powerful perceptive powers inherent in every human being and to train anyone in a skill for which we all have a natural aptitude. It is never difficult to identify one's family and a large circle of friends; why therefore should it be any more difficult to identify a large number of objects? Well, it is not difficult. In current jargon, it's dead easy, but only if the correct procedure is adhered to and *Journals* are not hoarded by individuals, or sections, or units, or thrown away before they have served their full time and purpose.



HMS REPULSE - Resolution Class



Lesson overleaf



H.M.S. *REPULSE* Nuclear Powered Ballistic Missile Submarine

HMS *Repulse* is one of the four units of the "Resolution" Class of the "Polaris" programme and is a product of Vickers-Armstrongs' Barrow yard. *Repulse* is propelled by steam turbines which are driven by a pressurised water-cooled nuclear reactor and has a submerged speed of 25 knots.

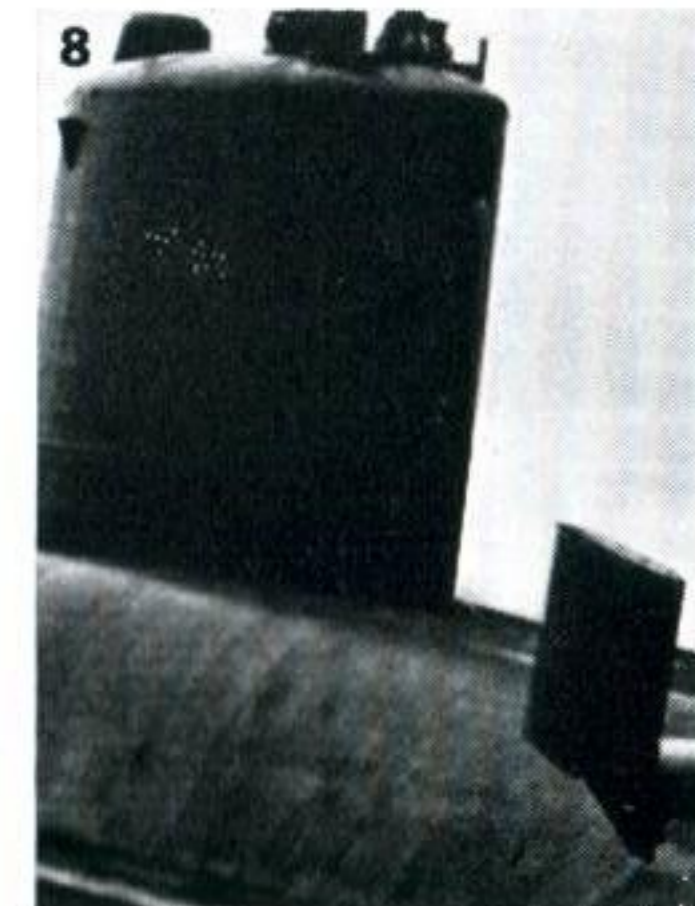
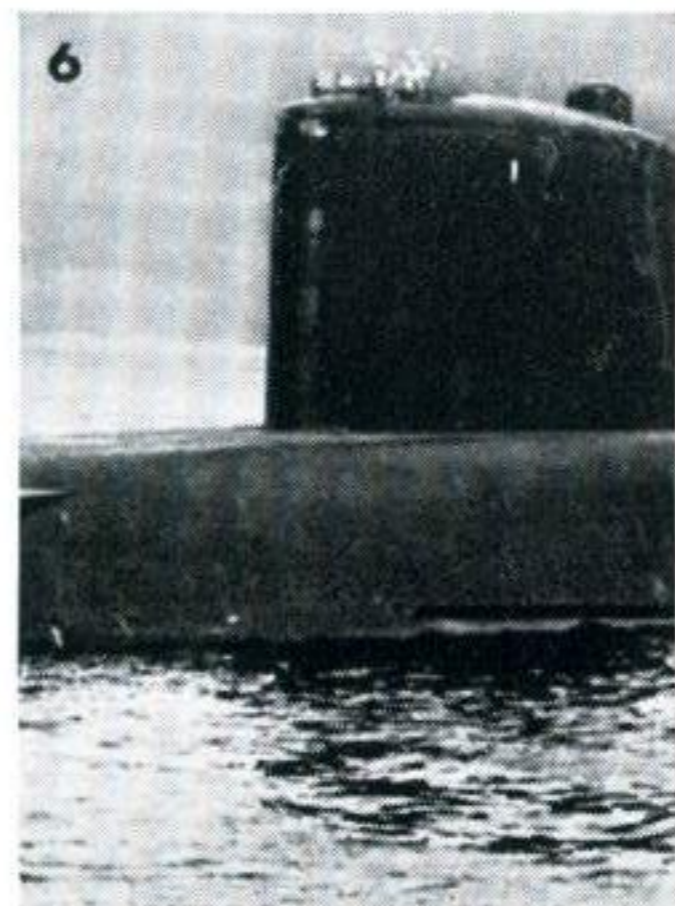
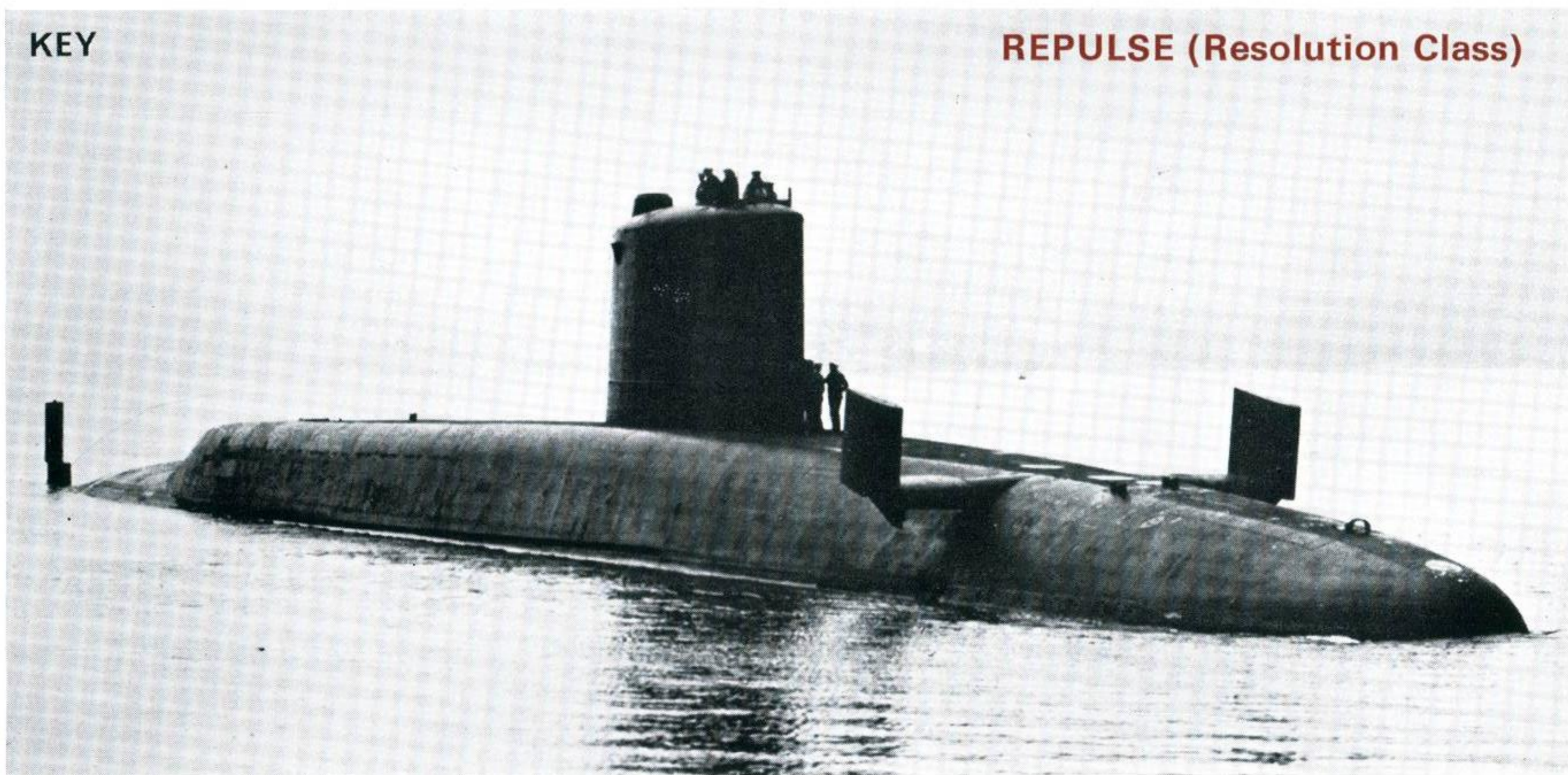
Part of her armament is six 21-inch torpedo tubes and she can also carry 16 "Polaris" missiles. Her surface displacement is 7,500 tons; she measures 425 feet in length overall; her complement is about 140 Officers and Ratings and as with others in her class, there are two crews available.

In appearance she is not unlike a large conventional submarine. She is more straight backed than the "Dreadnought" or the "Valiant" Classes which are "whale backed", i.e. curved from stem to stern in profile. The general impression is that "Repulse" is "down by the bows", and this is quite a valuable feature, visible—in reasonable conditions—for some distance. The fin is comparatively broad and slopes slightly down toward the back and has a conspicuous "hump" on top.

Lesson instructions are on page 233

KEY

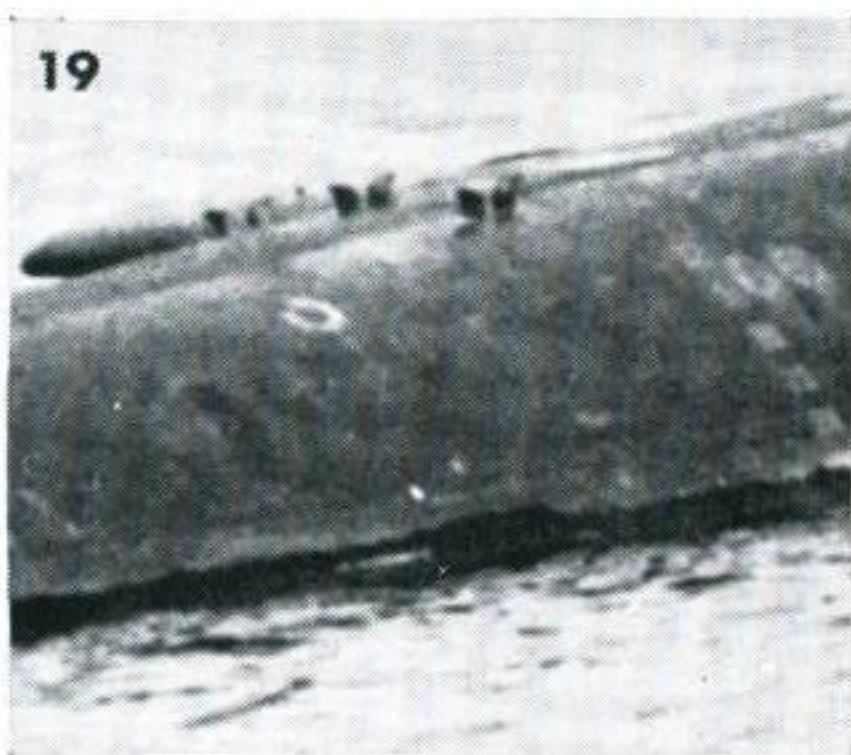
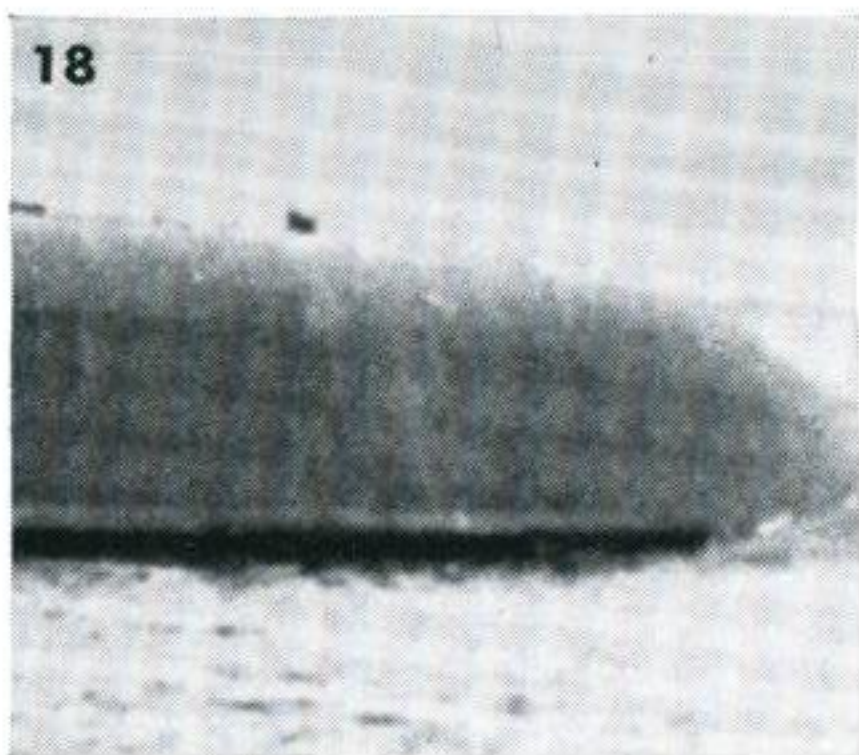
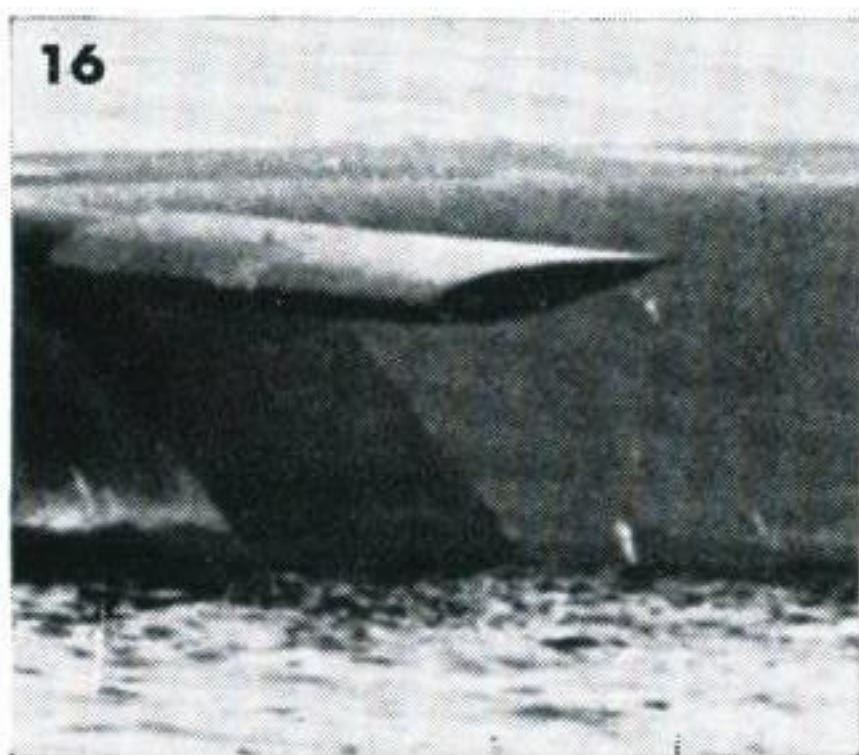
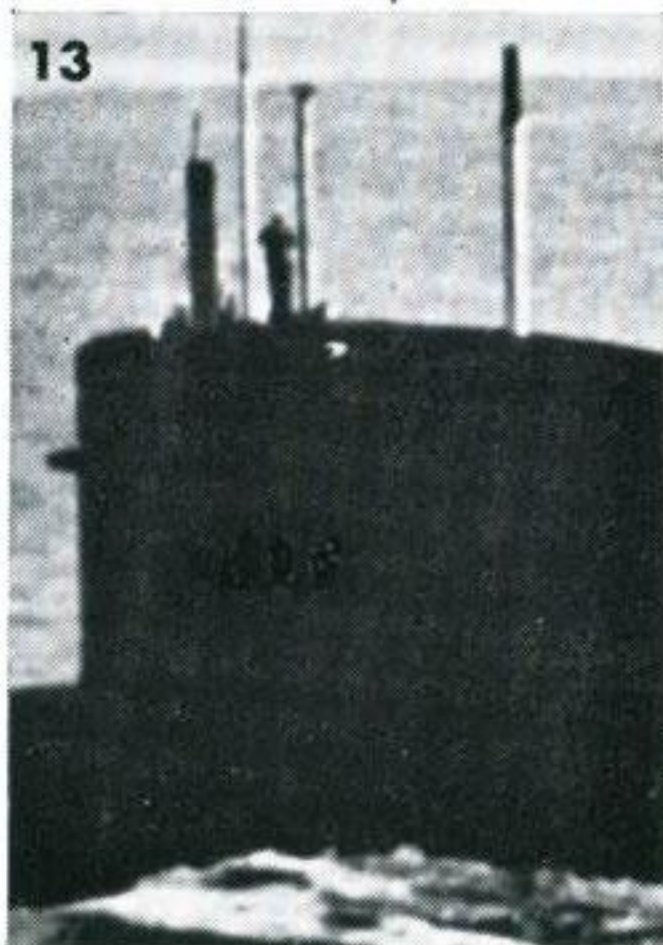
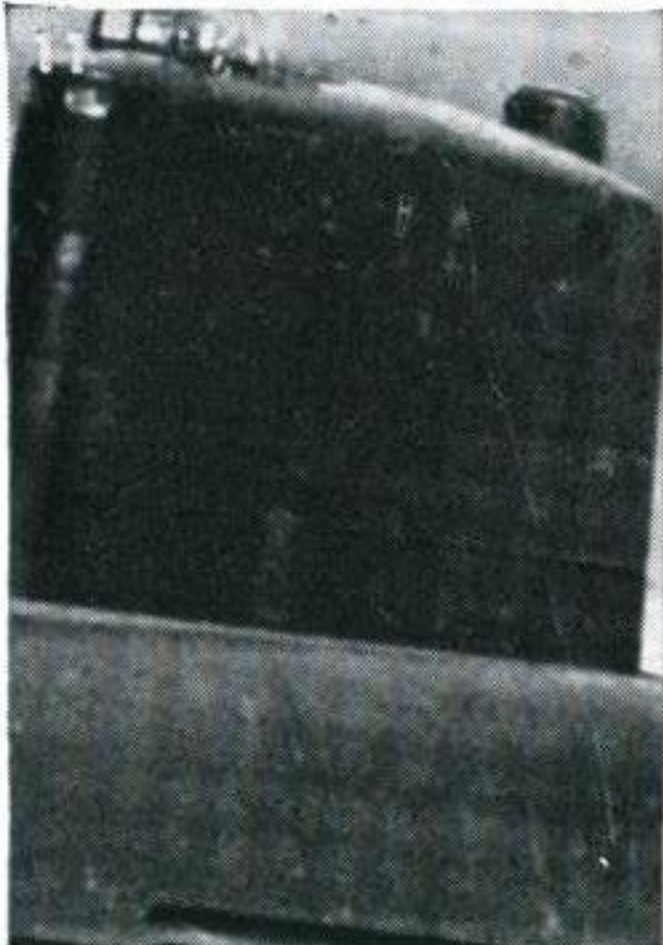
REPULSE (Resolution Class)



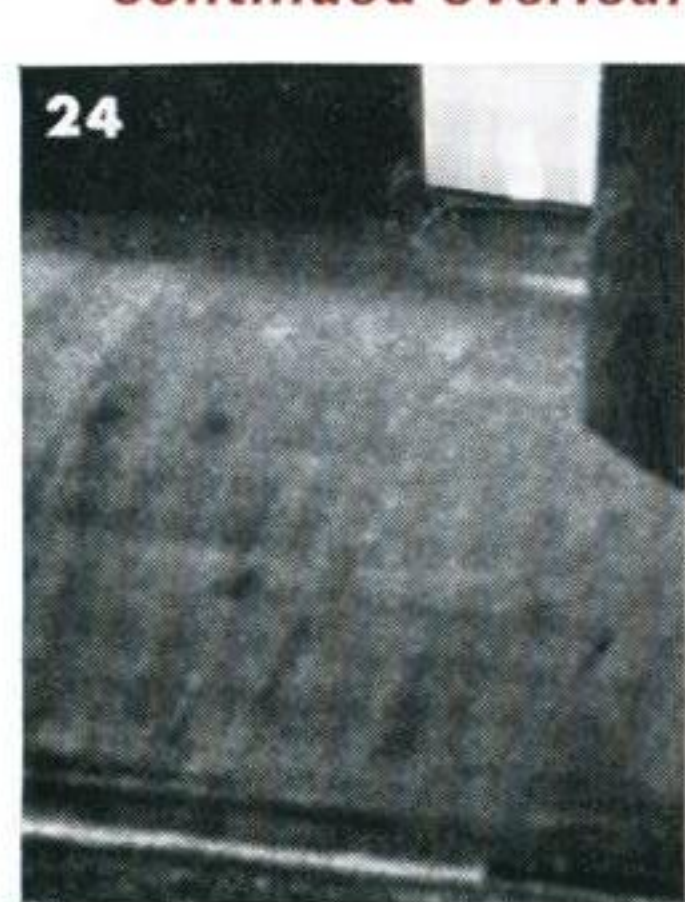
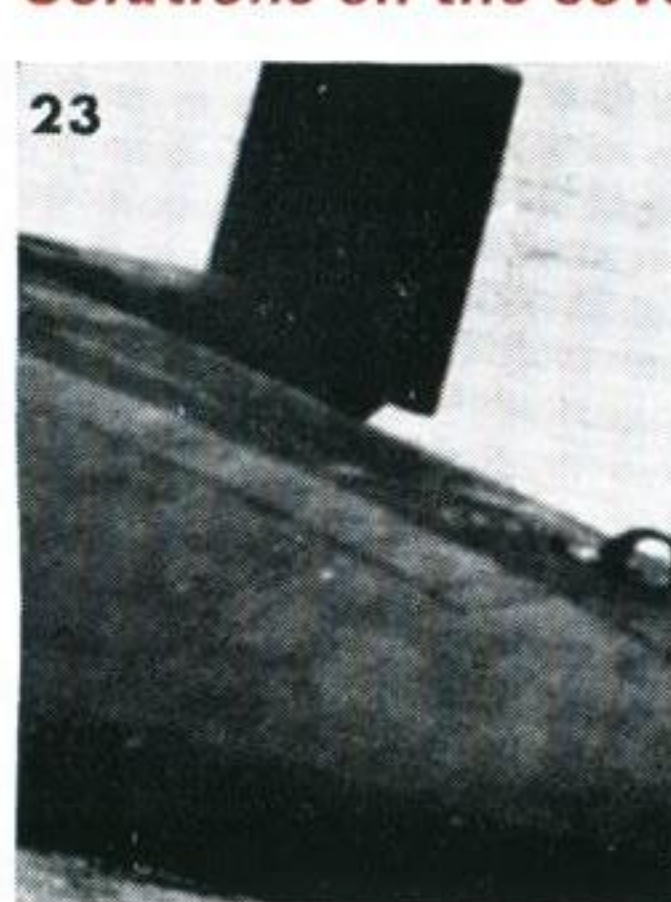
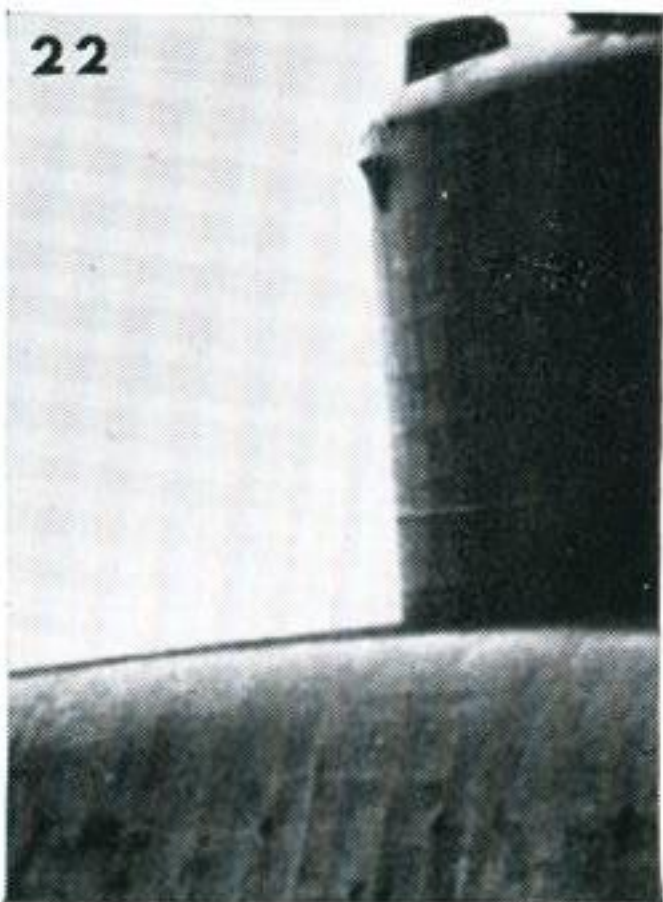
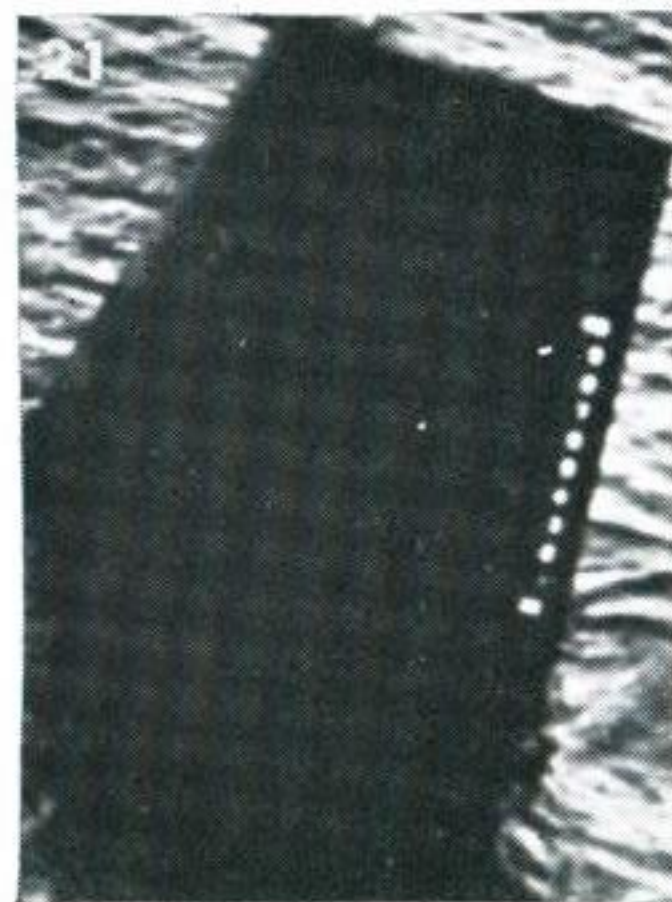
KEY



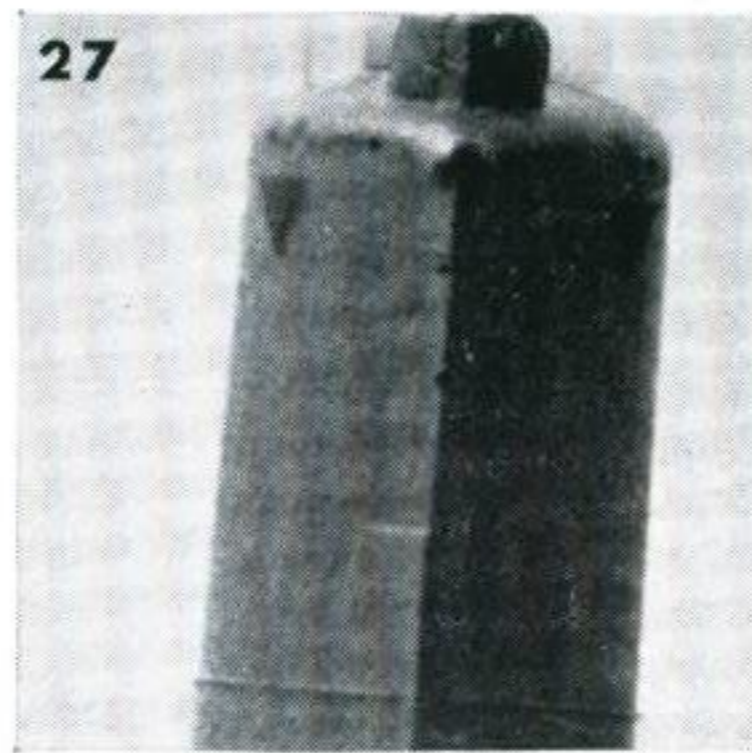
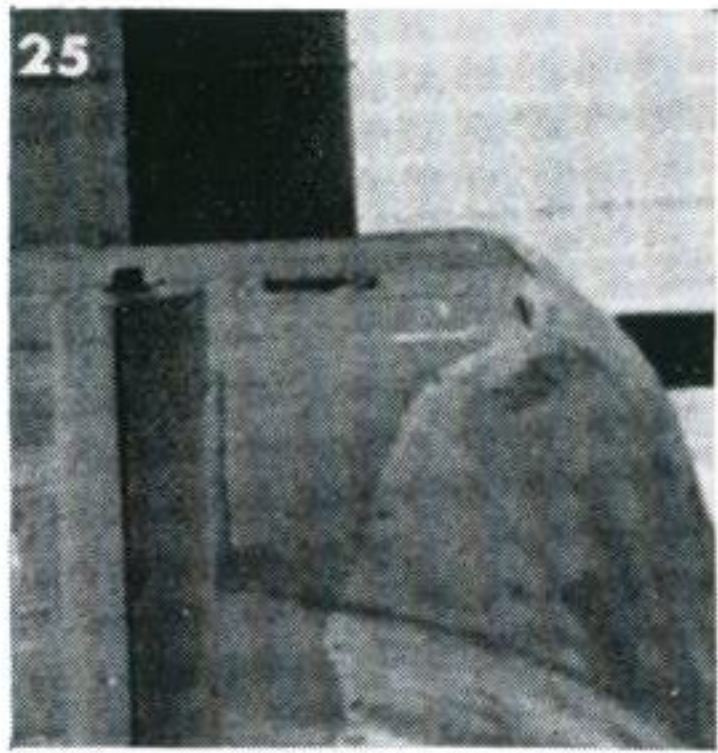
REPULSE (Resolution Class)



Solutions on the cover continued overleaf

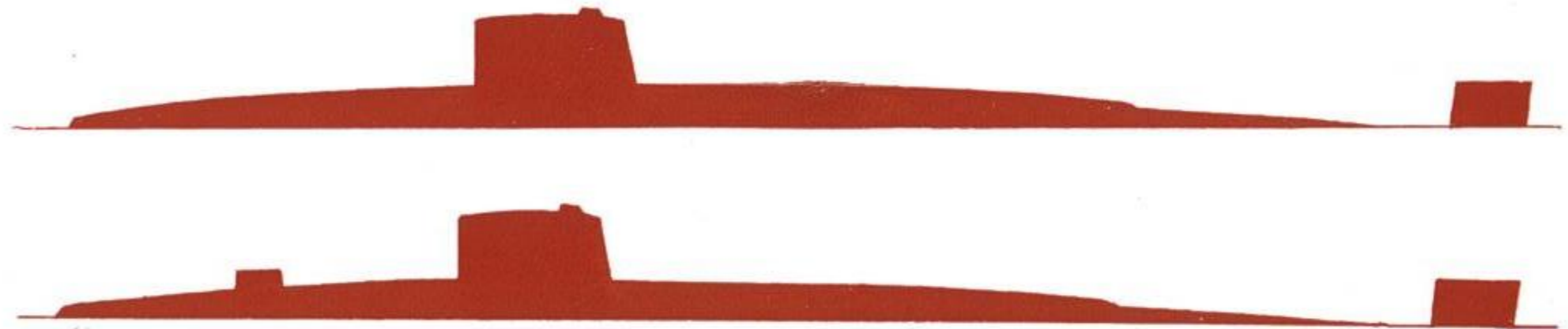
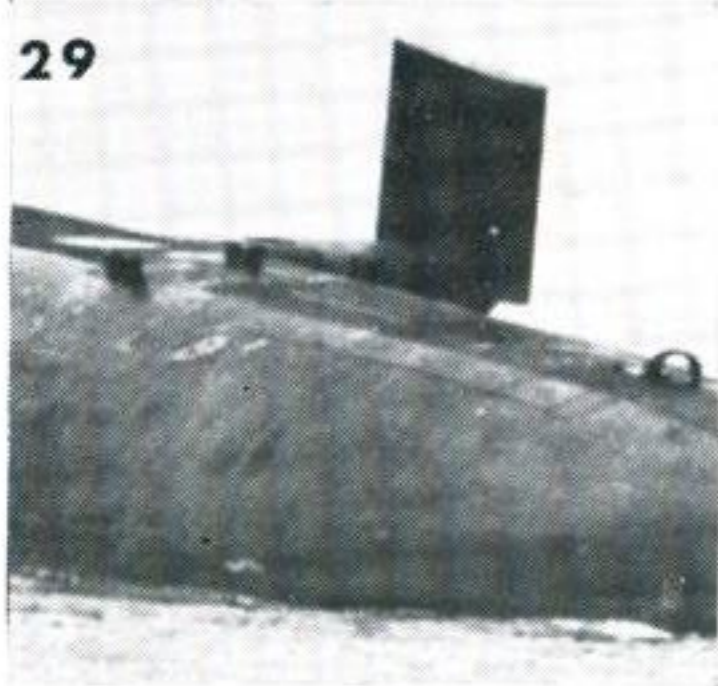


REPULSE *continued*



Lesson instructions are on page 233

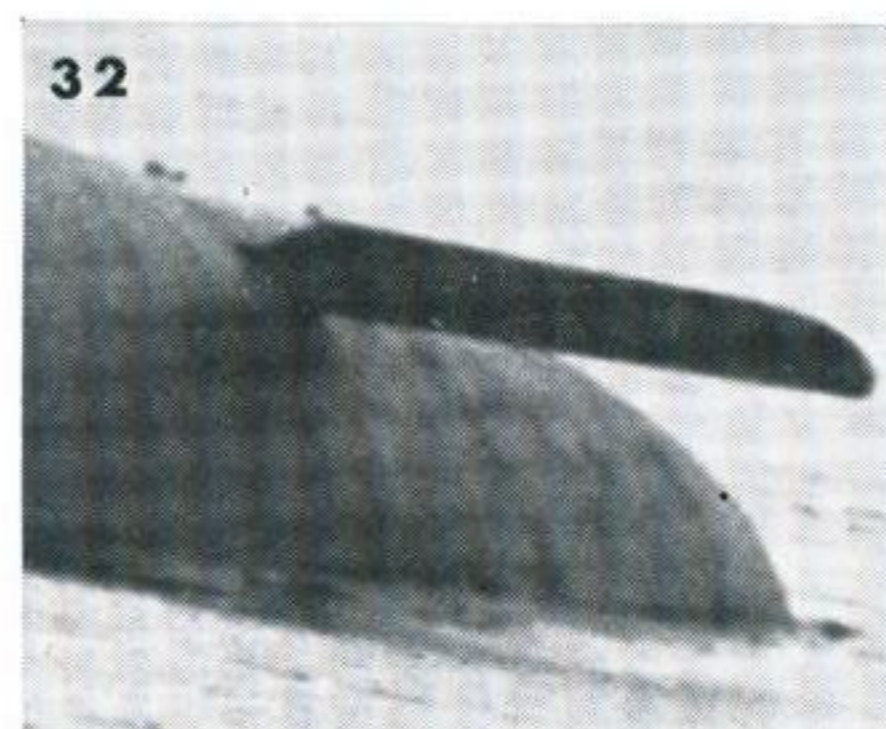
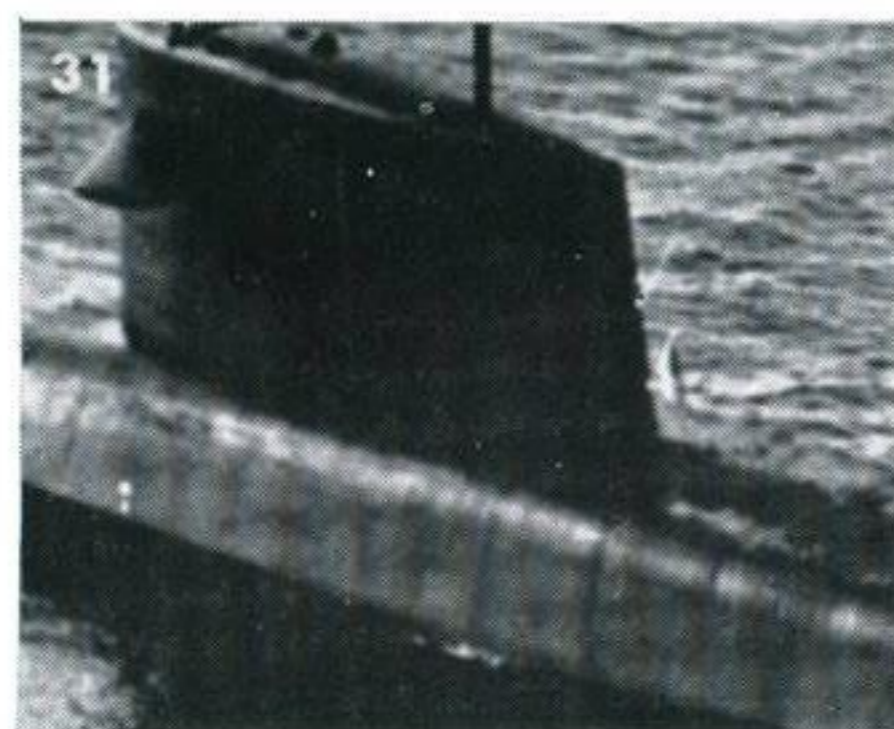
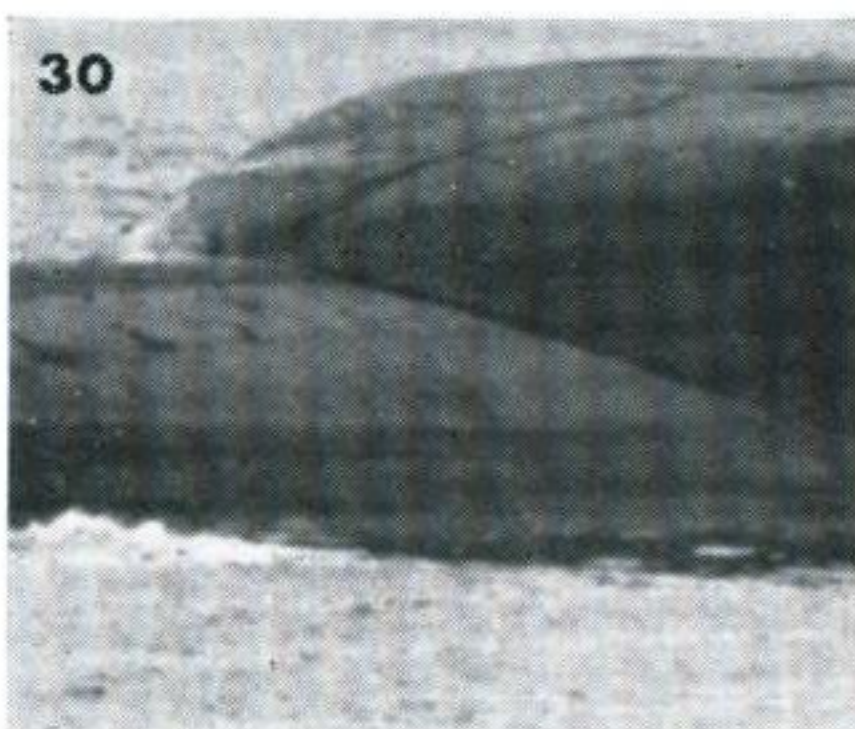
Solutions on the cover



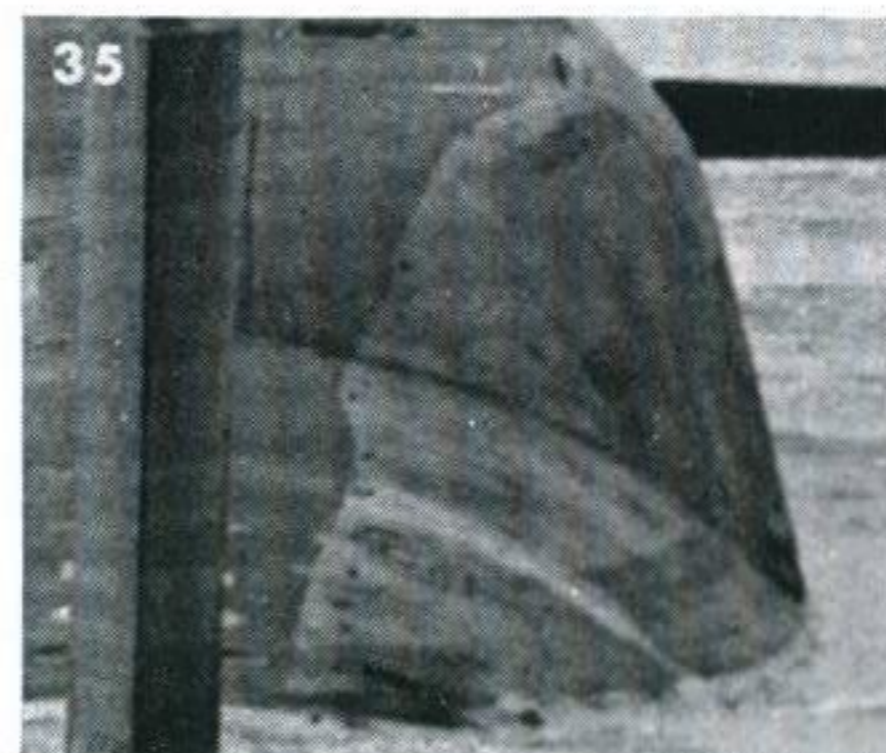
KEY



REPULSE (Resolution Class)



**REPULSE
(Resolution Class)**



FELLOWSHIP?



THUNDERCHIEF?



Lesson Instructions Identity training is a matter of "doing", rather than gathering information. Submit to the instructions given in every edition of the *Journal* and your recognising ability will become automatic.

1. Read the text associated with the lesson.
2. Prepare a list of target numbers so as to be able to tackle the targets in that order.
3. Identify the target pictures by comparing them with the key views: start with the easy ones so as to gain experience: also use targets already identified to solve the more difficult ones.
4. When certain of the identity of a target write down its name **IMMEDIATELY** against the appropriate number on your list. **THIS IS IMPORTANT.**
5. Lessons should not be hurried or given a time limit. So far as beginners are concerned, it is more important to identify accurately than quickly.
6. Do not attempt conscious memorising of details, shapes, or names. The procedure will take care of that. Do not attempt to do the lesson without the key too soon, wait until your ability to do so is self-evident.

1. Den zur Lehre gehörigen Text lesen.
2. Eine numerierte Typenliste vorbereiten, in der angesprochene Typen in eine gewisse Ordnung gebracht werden können.
3. Typen ansprechen durch Vergleich mit den Hauptansichten (von oben, von unten, von vorne, von hinten und von der Seite). Anfangen mit den einfachen Bildern, um Erfahrung zu bekommen. Die angesprochenen Typen zur Ansprache der schwierigeren benutzen.
4. Wichtig: Sobald ein bestimmtes Flugzeugbild mit Sicherheit richtig angesprochen ist, sofort die Typenbezeichnung in die entsprechende Stelle der Liste eintragen.
5. Bei der Übung nicht beeilen oder eine zeitliche Begrenzung festlegen. Für Anfänger ist es wichtiger, richtig anzusprechen als schnell.
6. Nicht mit Einzelheiten, Umrissen, Namen aufhalten.

KEY



BOEING 727-200

BOEING 727

Production of this short-to-medium range trijet transport began at the end of 1960 and the first of the basic 727-100 Series aircraft first flew in February 1963. Several other versions have since appeared including the 727C with a side-loading freight door and fuselage fittings for mixed passenger and freight loads; the

727QC, a quick-change model of the 727C; and the stretched 727-200 with a 10 foot longer fuselage and other changes.

The 727 is in world wide service, and could be confused with other trijets as well as twinjets unless learned as an individual aircraft.

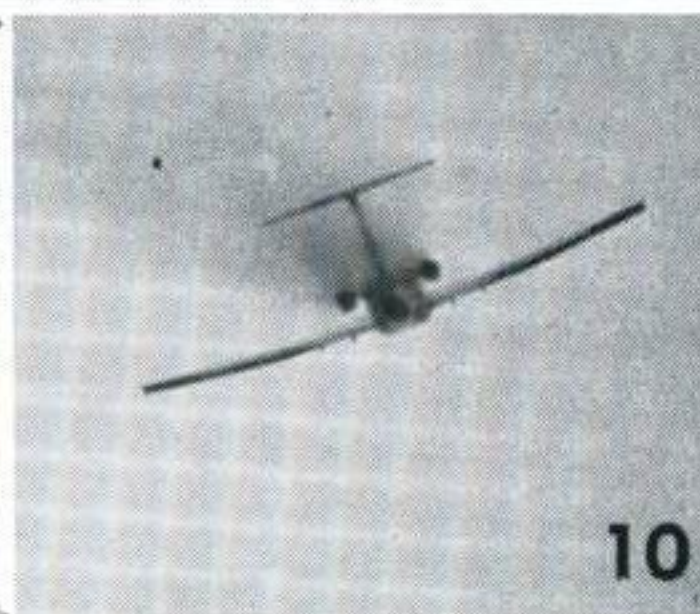
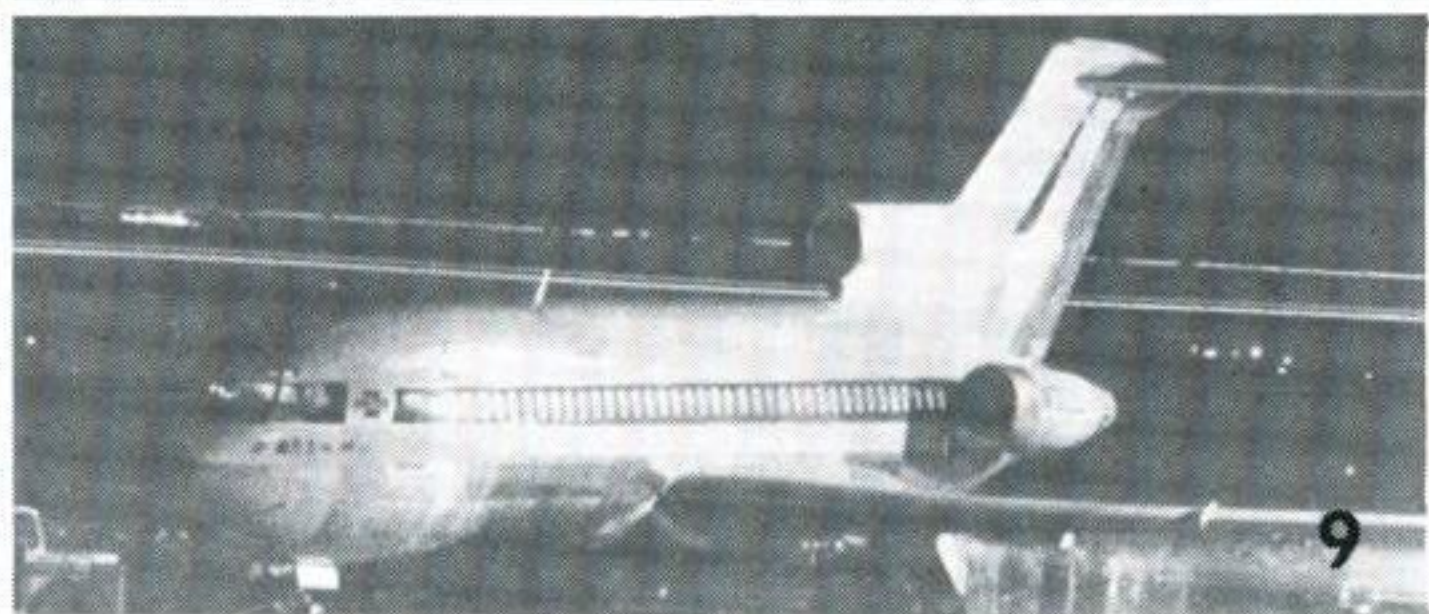
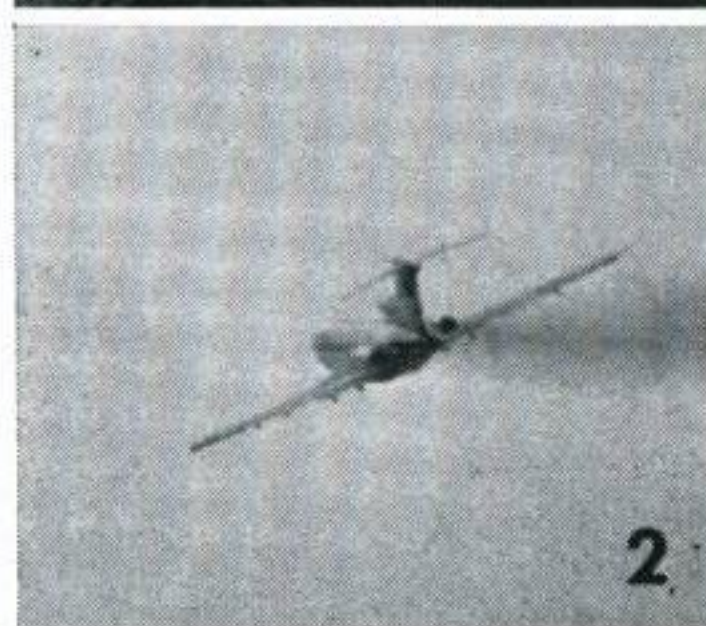
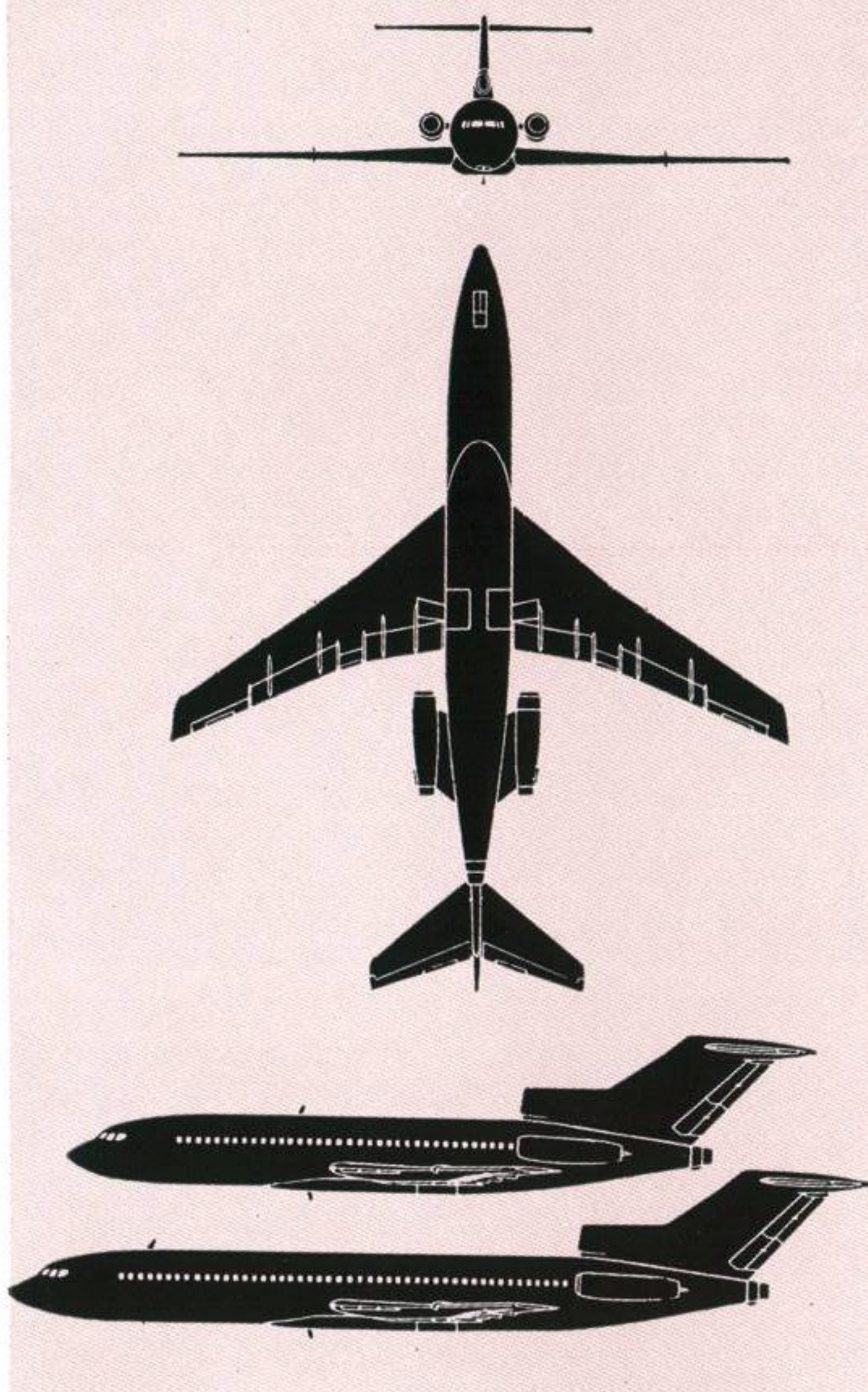
Lesson instructions are on page 233 Solutions on the cover

KEY

BOEING 727-100



Span 108 feet



KEY
BOEING 727-200



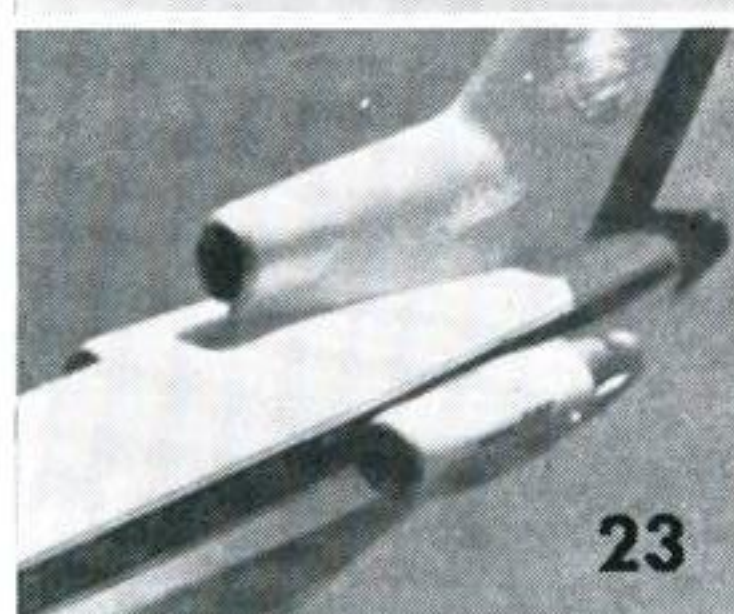
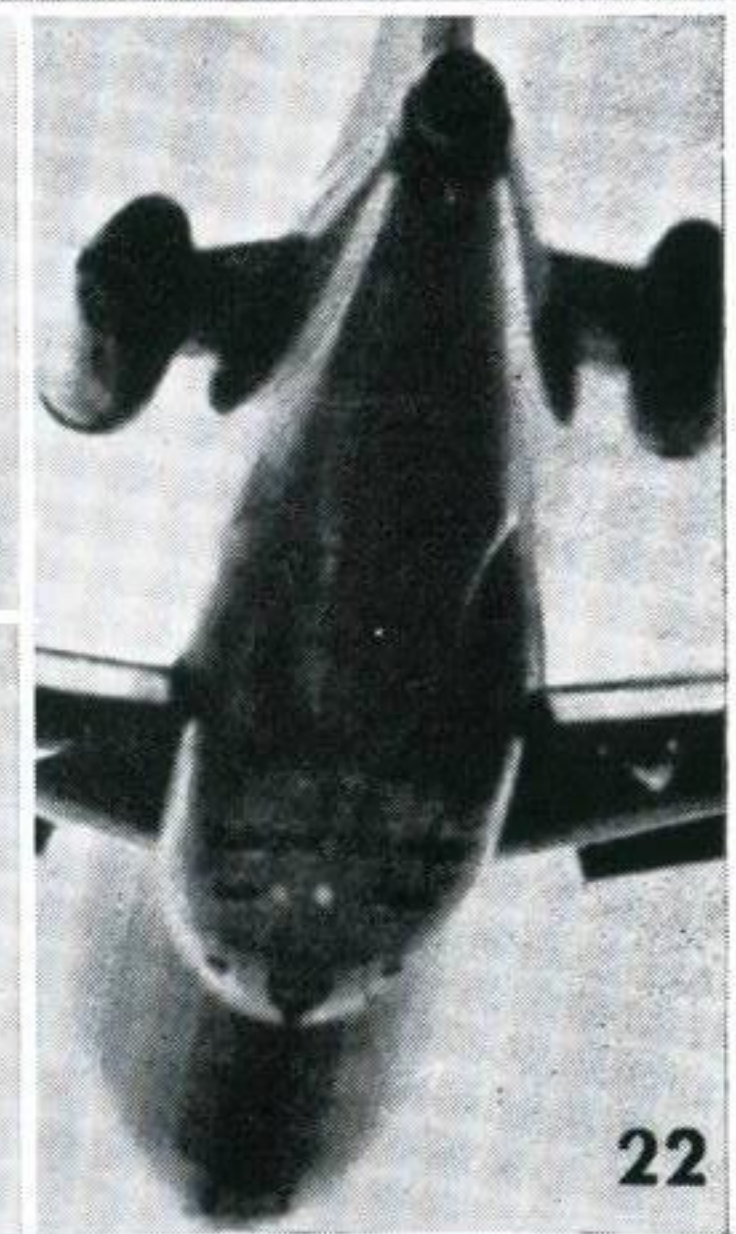
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KEY

BOEING 727-100

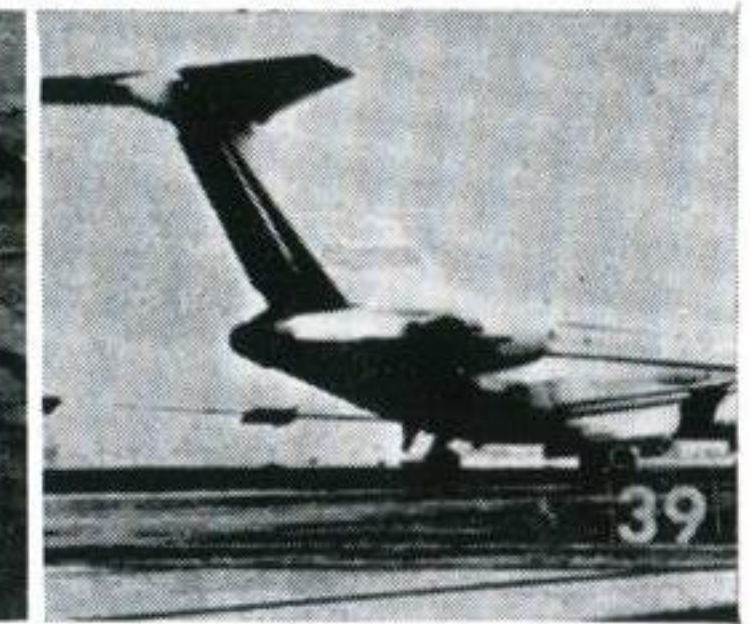
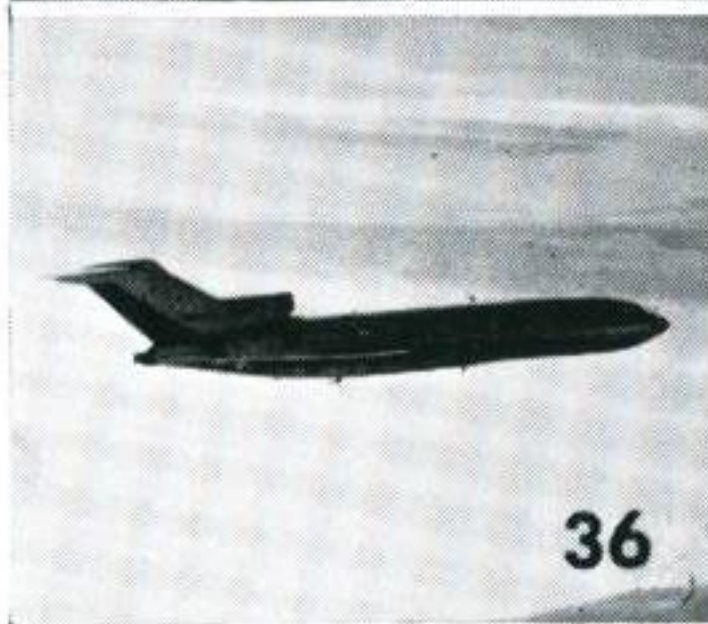
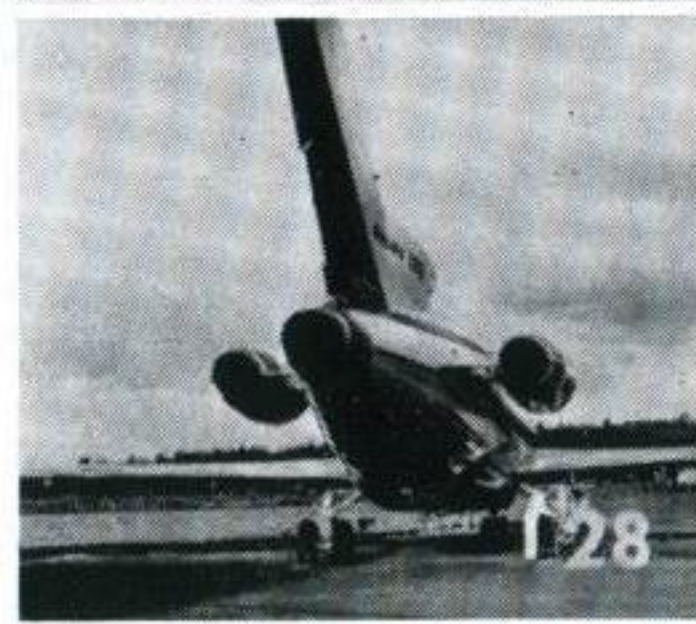


BOEING 727 *continued*



If you carefully read the lesson instructions on page 233 and report—in writing—all targets as Boeing 727—or otherwise, if jokers—you should have no difficulty in identifying it from amongst other contemporary types. Answers on the cover.

Span 108 feet



KEY



BOEING 727-100



HARRIER

Now in squadron service with RAF Air Support Command, the Hawker Siddeley Harrier G.R.1 single-seat V/STOL strike and reconnaissance fighter is capable of near-supersonic speed in level flight and can carry a maximum external load of 5,000 lb. Typical combat load comprises two 30-mm. Aden cannon pods, two 1,000-lb. and two 750-lb. bombs, or two 30-mm. cannon and four MATRA 116 launchers for 68-mm. SNEB missiles.



Lesson overleaf

HARRIER G.R. Mk. 1



HARRIER G.R. Mk. 1

The world's first operational V/STOL combat aircraft, the Hawker Siddeley Harrier G.R. Mk. 1 entered RAF service in April of this year and is replacing the veteran Hunter in the ground attack fighter role. Because of its ability to take-off and land vertically and even fly sideways and backwards it will be particularly valuable in the close support role—operating from small, unprepared strips hitherto practicable only for helicopters, and in some places where helicopters cannot operate if rotors are large or twinned.

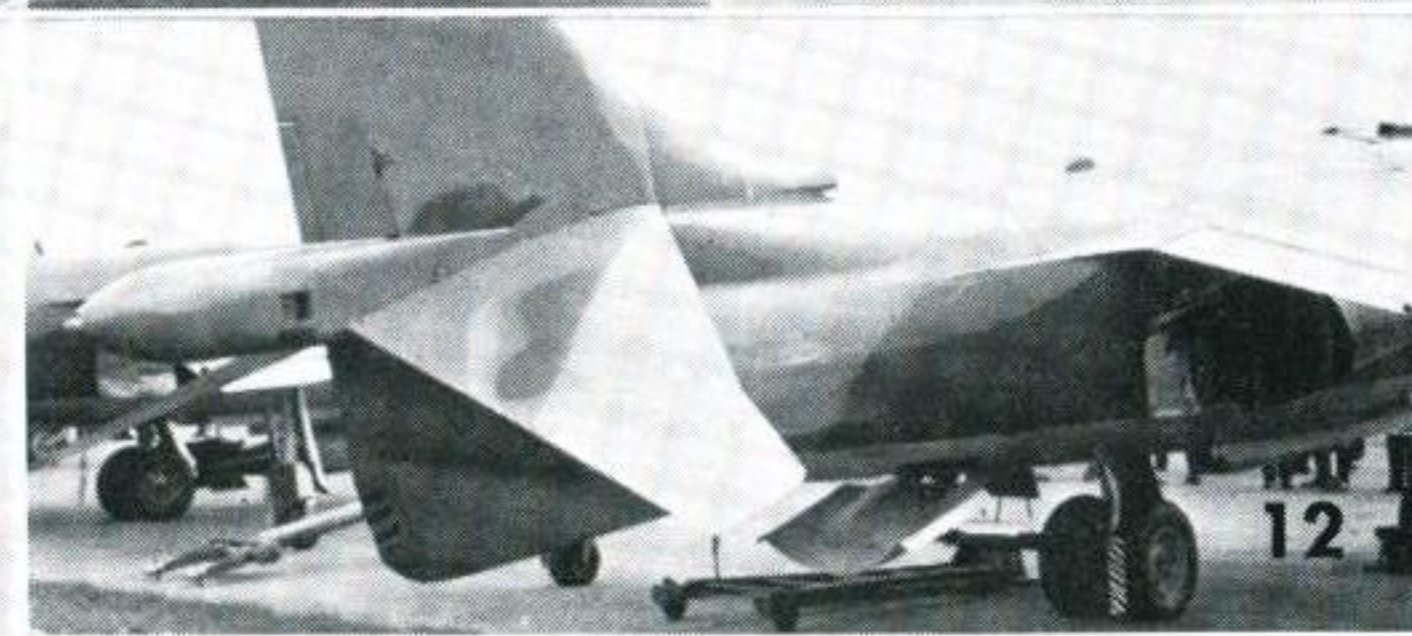
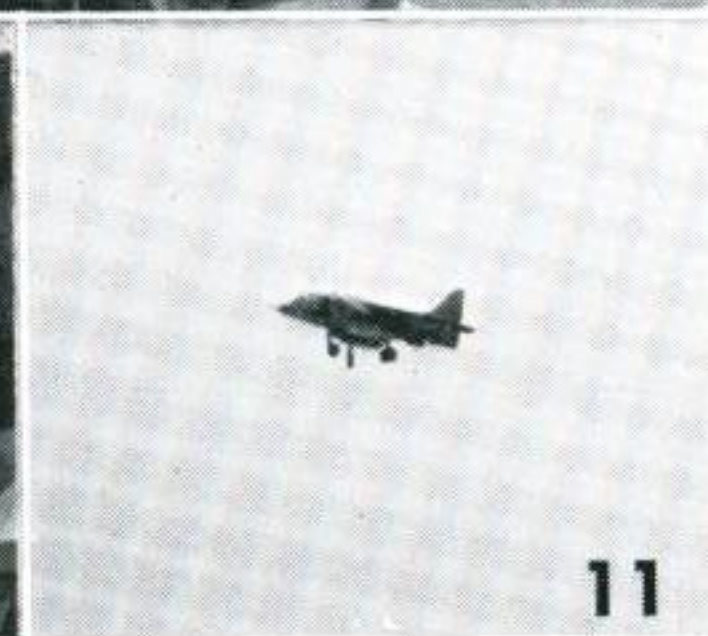
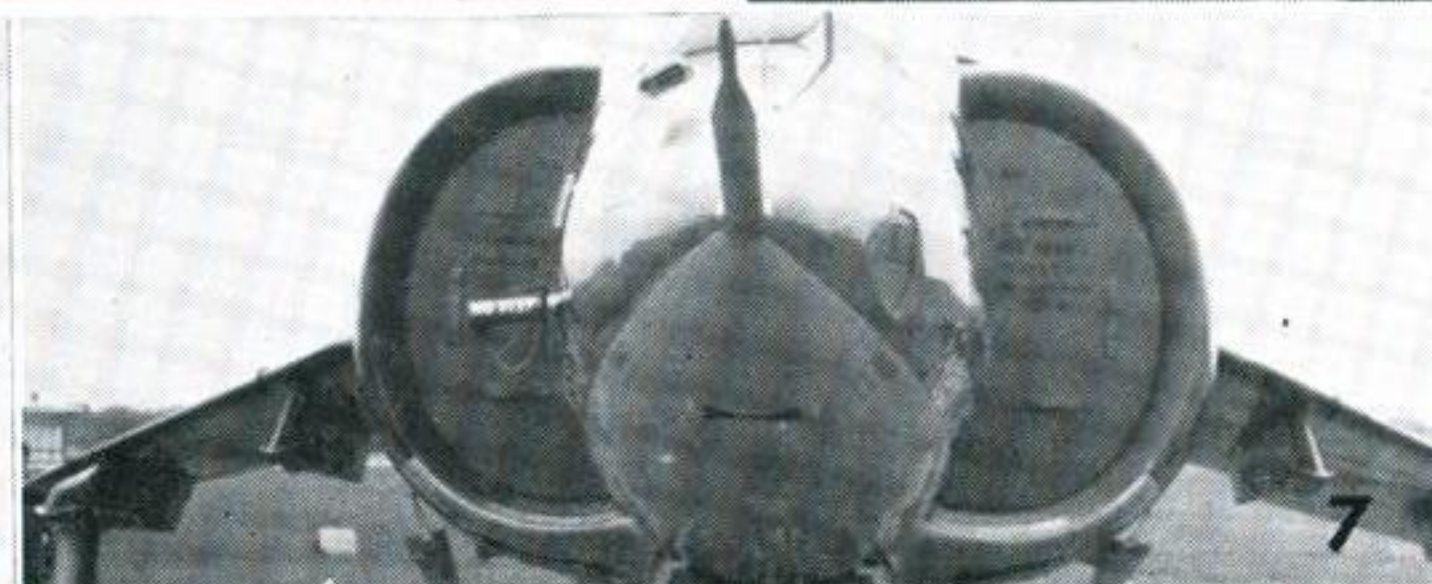
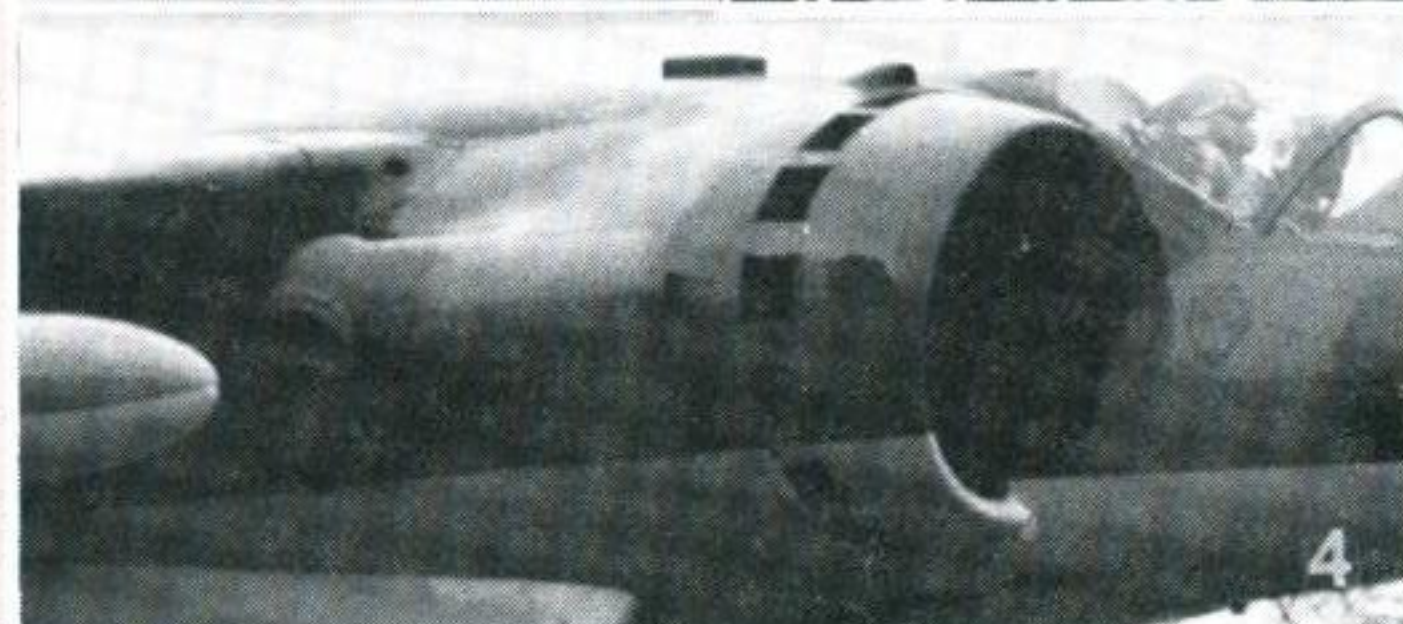
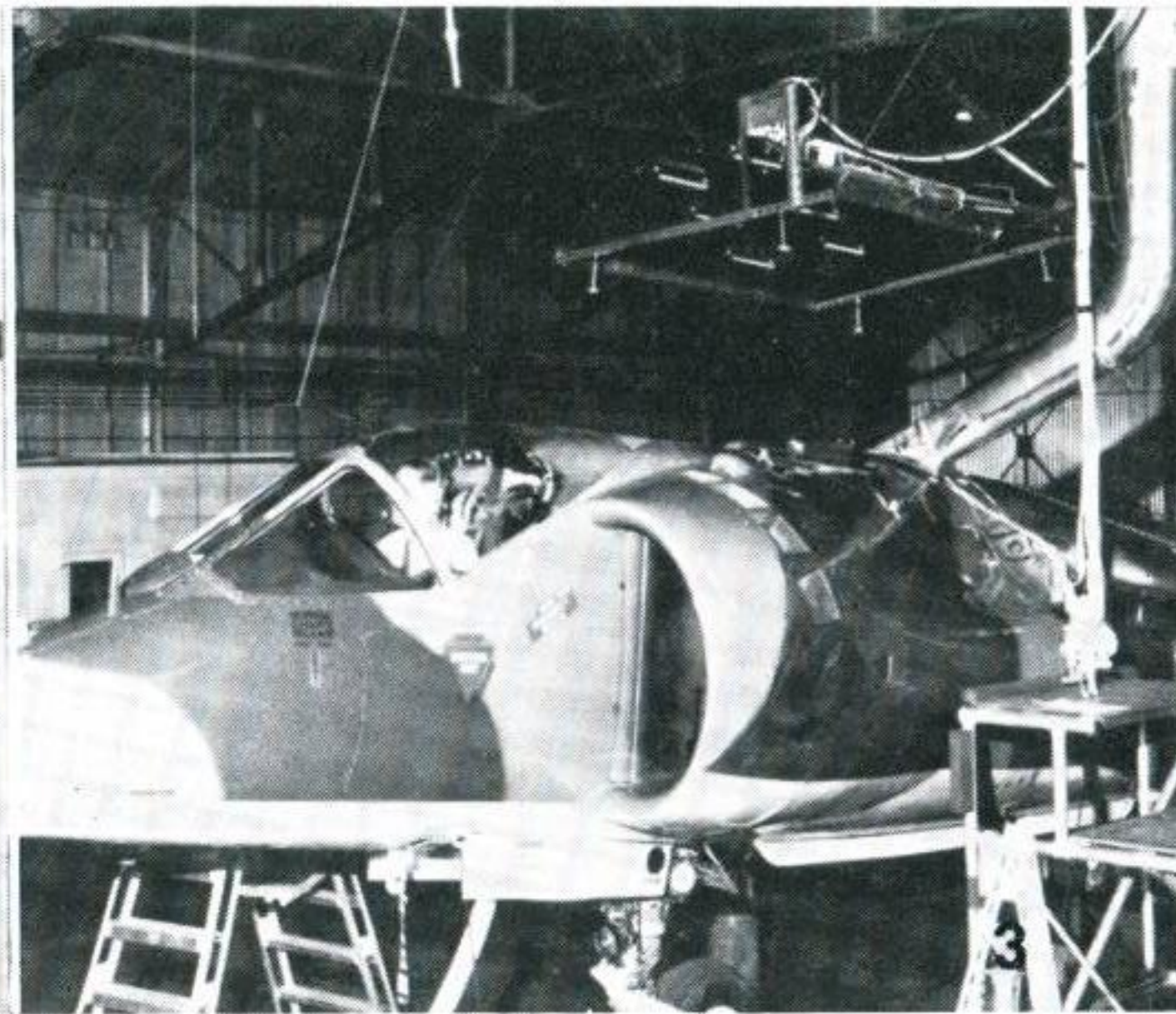
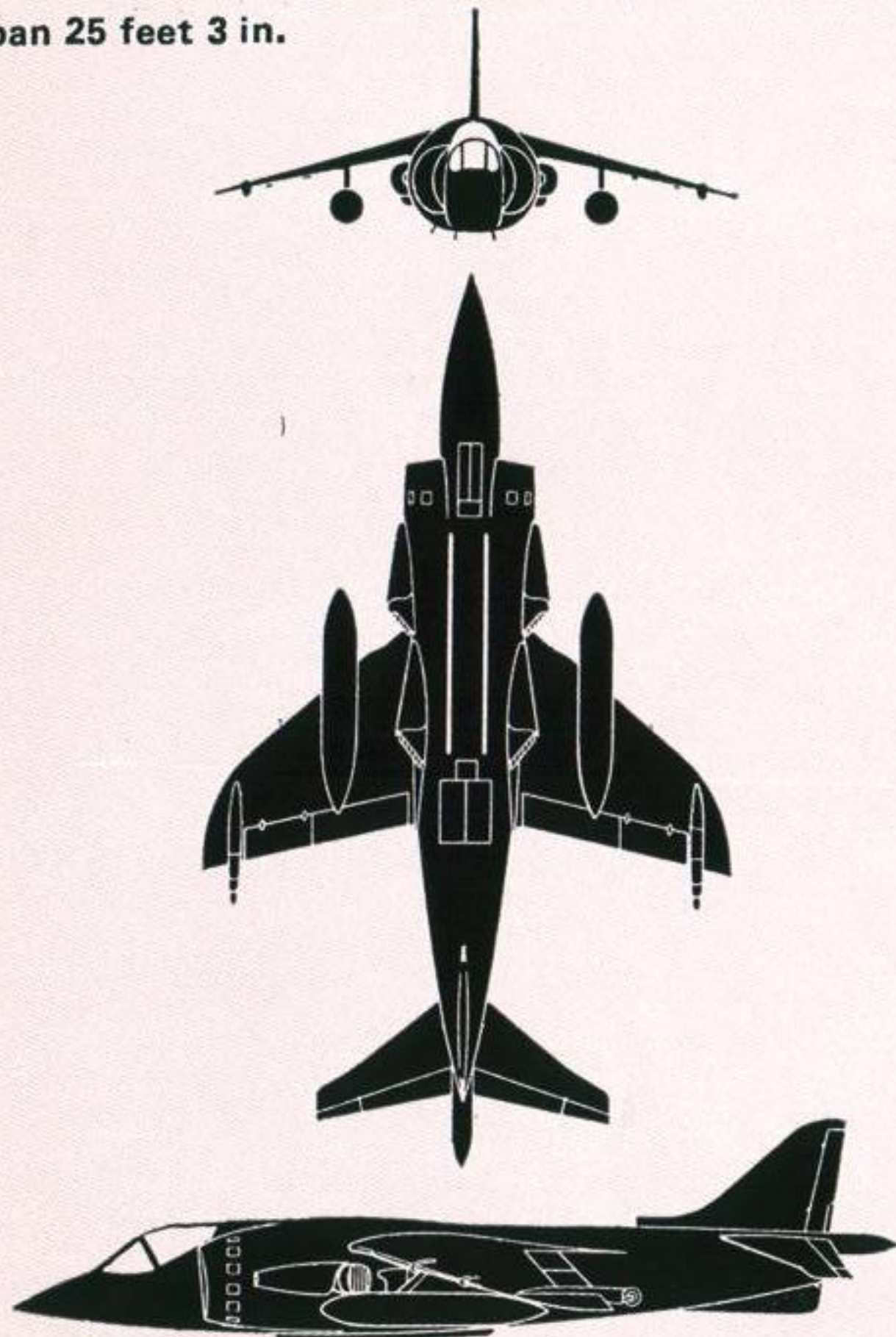
The Harrier is a development of the Kestrel trials aircraft and differs in being slightly larger and having extended wing tips projecting beyond the outrigger wheel fairings. Sixty-nine Harrier G.R. Mk. 1s have been ordered for Air Support Command, plus 11 tandem two-seat Harrier T. Mk. 2s which have an extended, "hump-backed" cockpit canopy, a long pointed rear fuselage extension and an enlarged ventral fin.

Lesson Instructions are on page 233

HARRIER G.R. Mk. 1



Span 25 feet 3 in.



Solutions on the cover continued overleaf

KEY

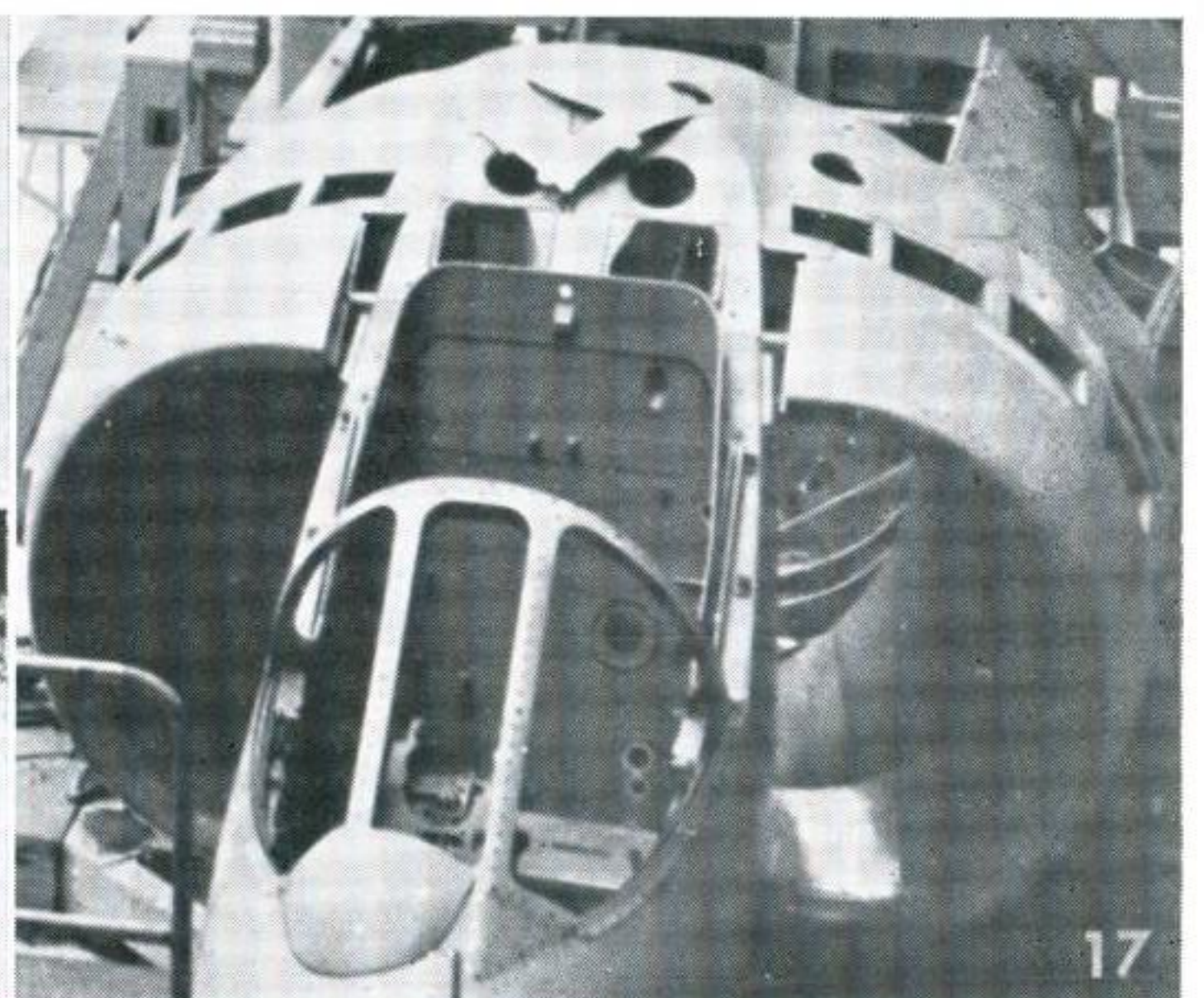
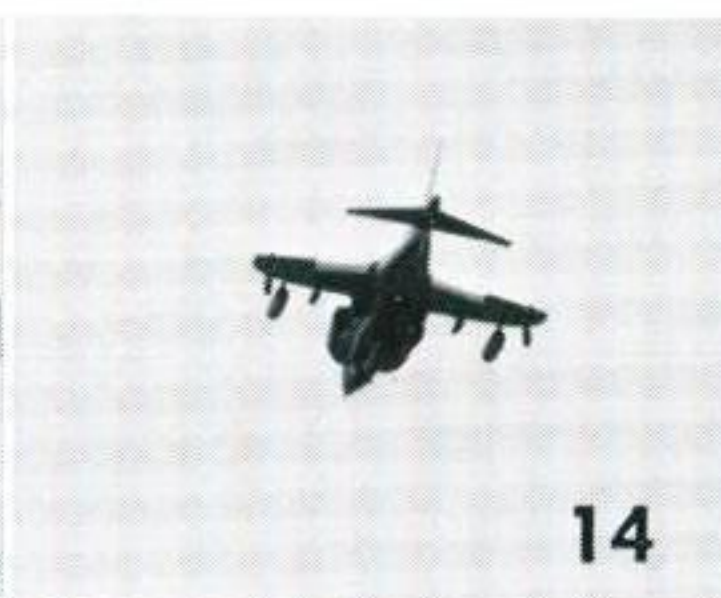


HARRIER G.R. Mk. 1



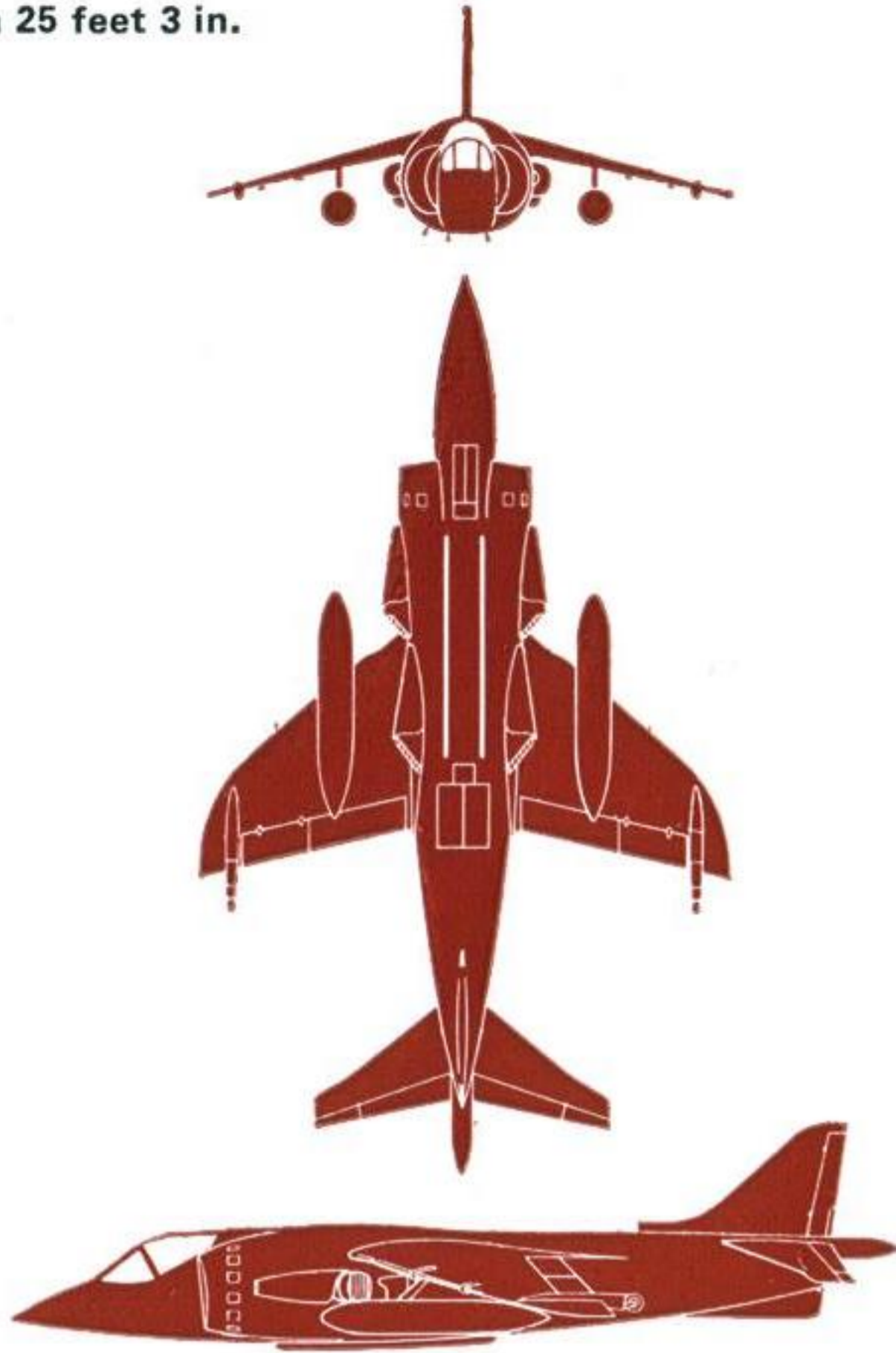
KEY

HARRIER G.R. Mk. 1 *continued*

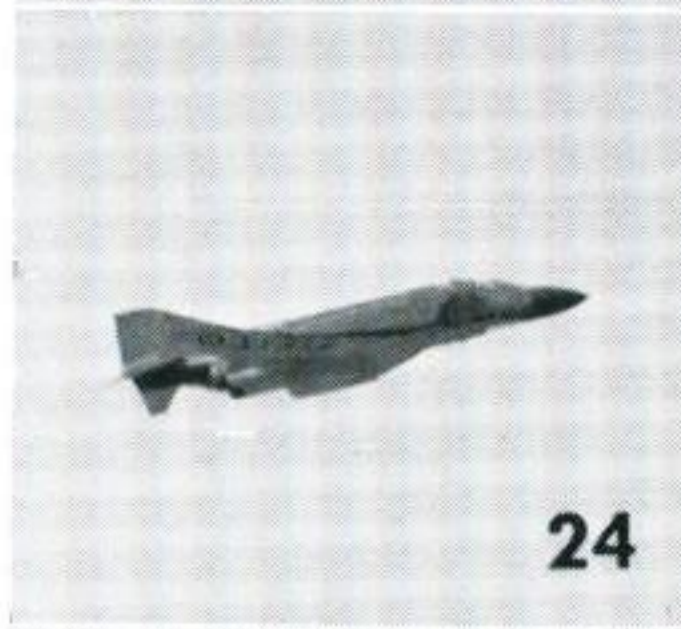


The lesson instructions on page 233 should be strictly carried out and all targets reported as Harrier, or otherwise if jokers, before you check your answers with the solutions on the cover.

Span 25 feet 3 in.



23



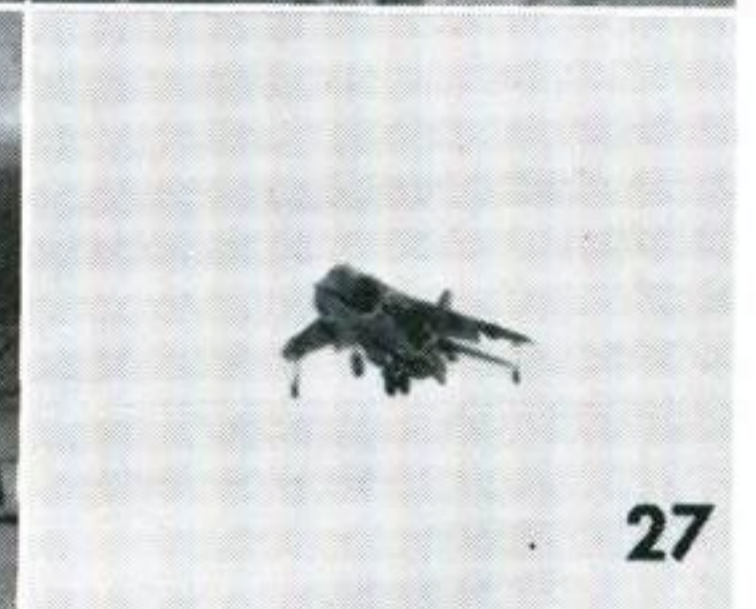
24



25



26



27



28



29



30



31



32



33



34

KEY HARRIER G.R. Mk. 1





ANDOVER C1 KEY

ANDOVER C1

Developed from the Hawker Siddeley 748 commercial airliner, the Andover C. Mk. 1 is a short-range military transport with rear loading doors, a revised tail and other modifications. The prototype Andover first flew in December 1963 and the first of 31 production aircraft for the RAF first flew in July 1965, No. 46 Squadron of Air Support Command, No. 48 Squadron in the Persian

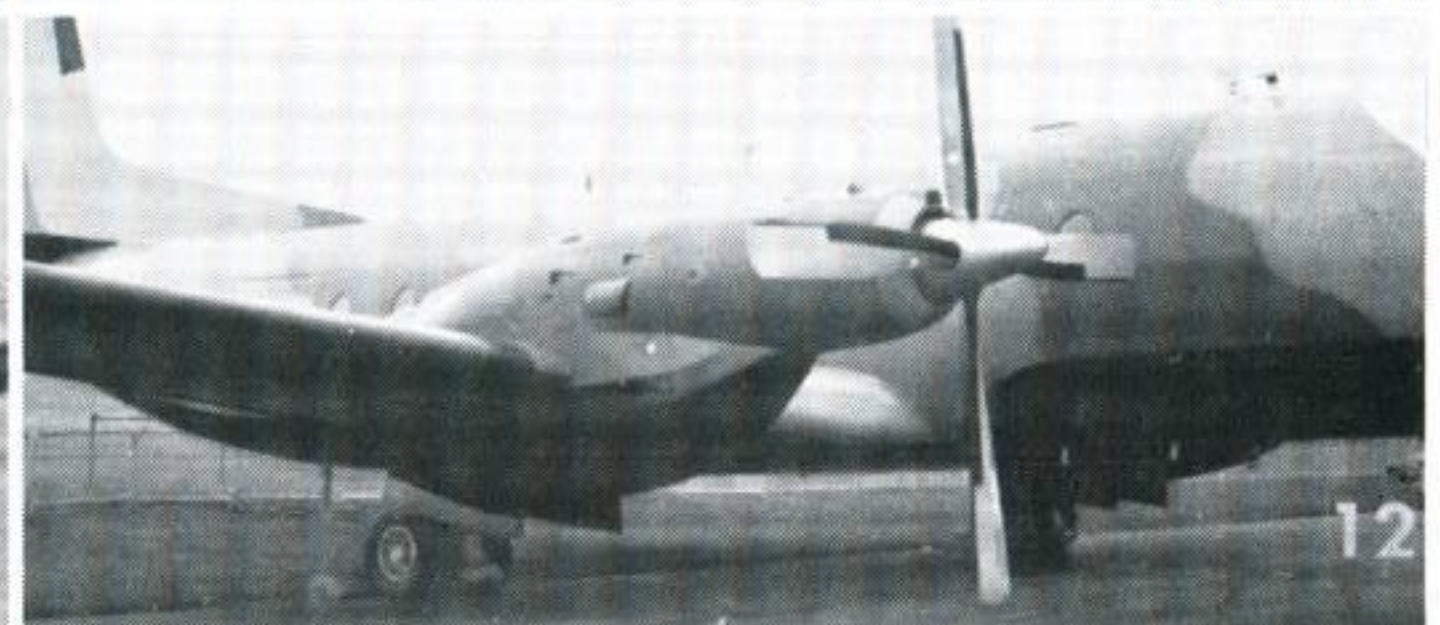
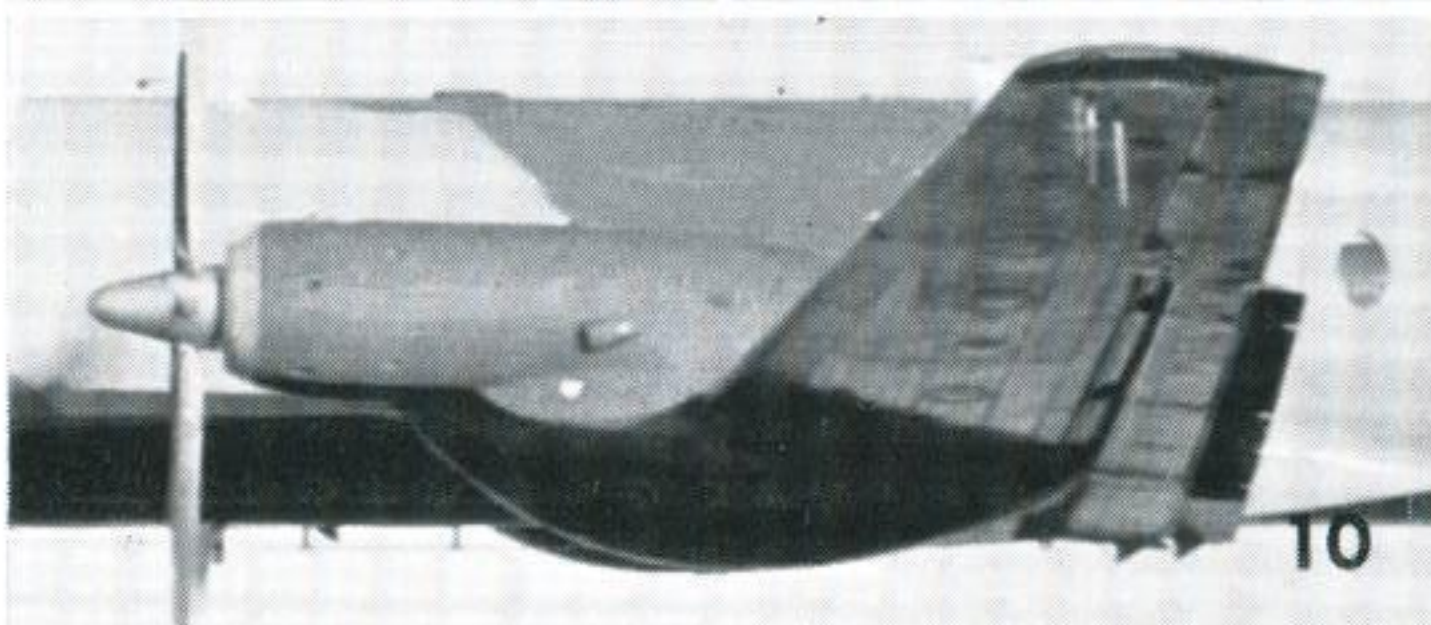
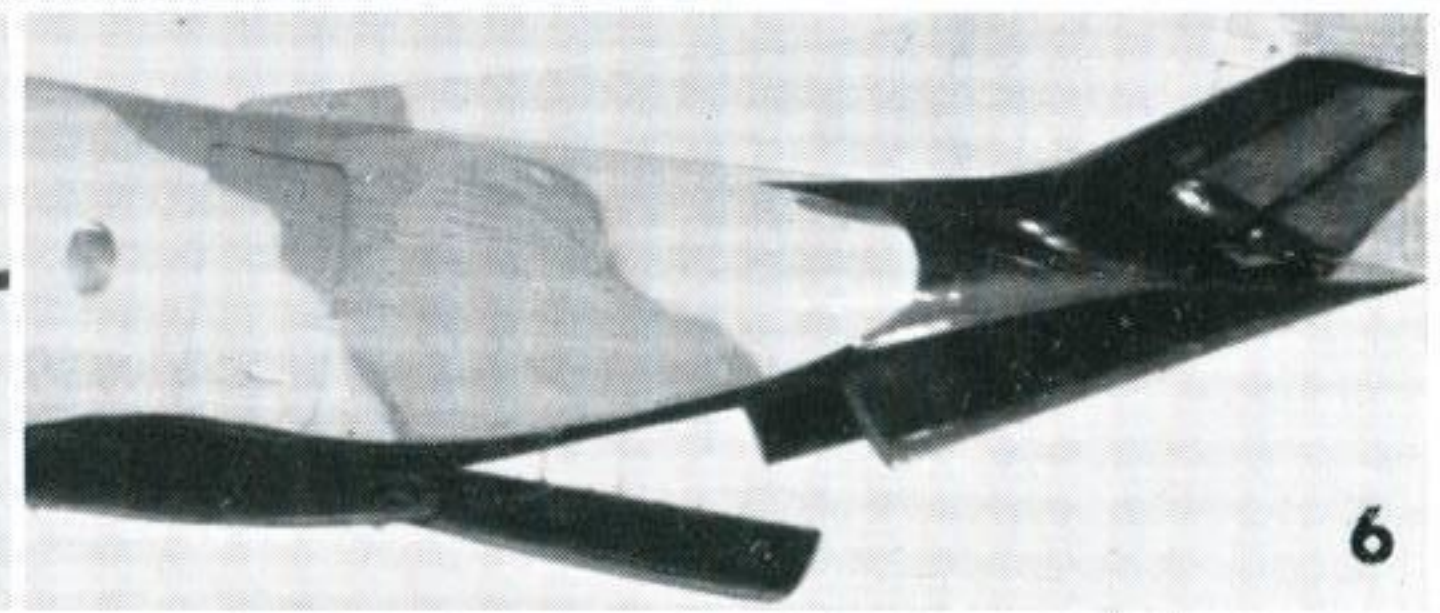
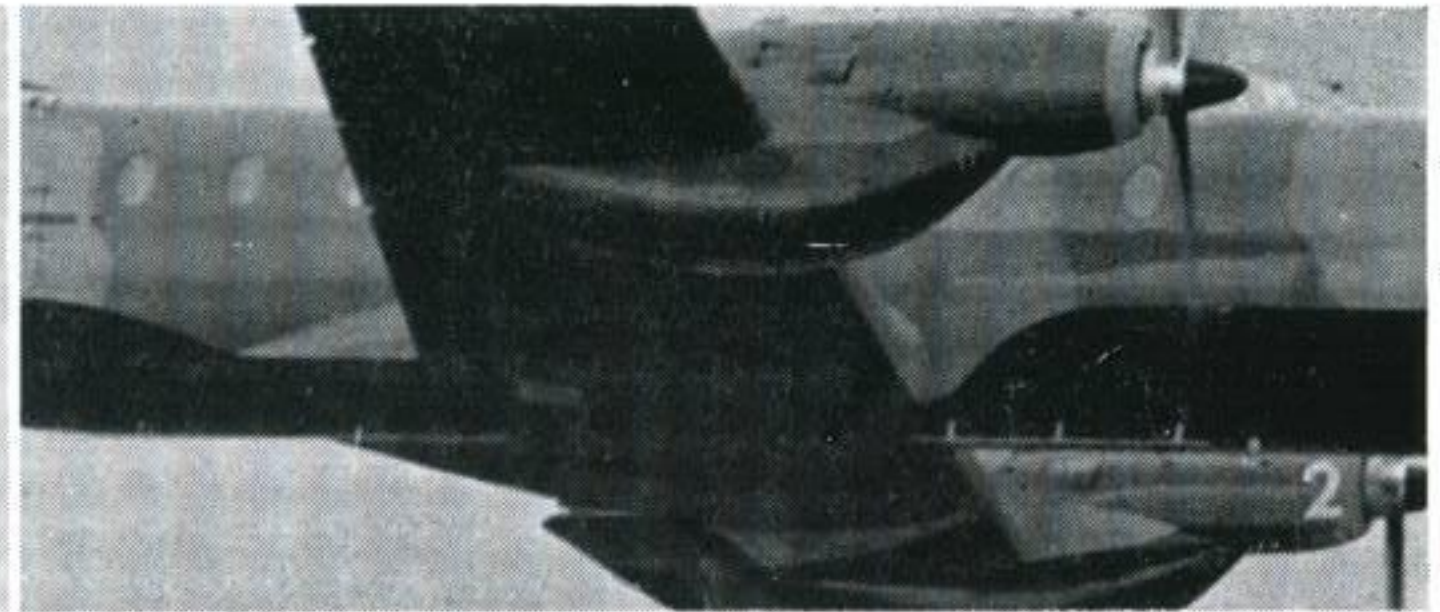
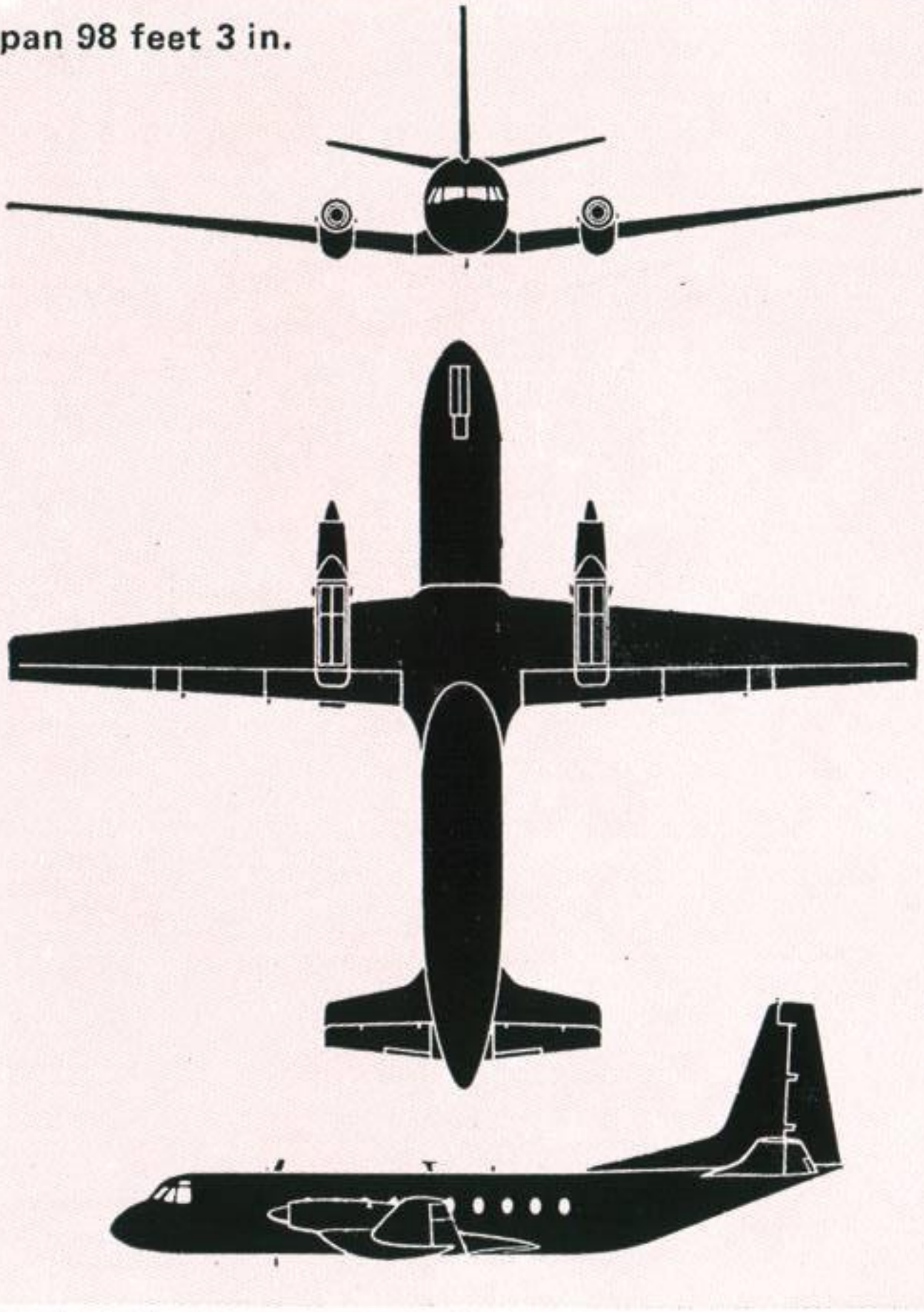
Gulf and No. 52 Squadron of the Far East Air Force now being fully equipped with the type. A remarkable and useful feature of the C. Mk. 1 is its variable landing gear which enables it to "kneel", if required, to facilitate loading and unloading. A military version of the HS748 Srs 2, known as the Andover CC2 serves with the Queen's Flight at RAF Benson, Oxfordshire.

Lesson instructions are on page 233



KEY ANDOVER C1

Span 98 feet 3 in.



Solutions on the cover

continued overleaf

ANDOVER C1 KEY

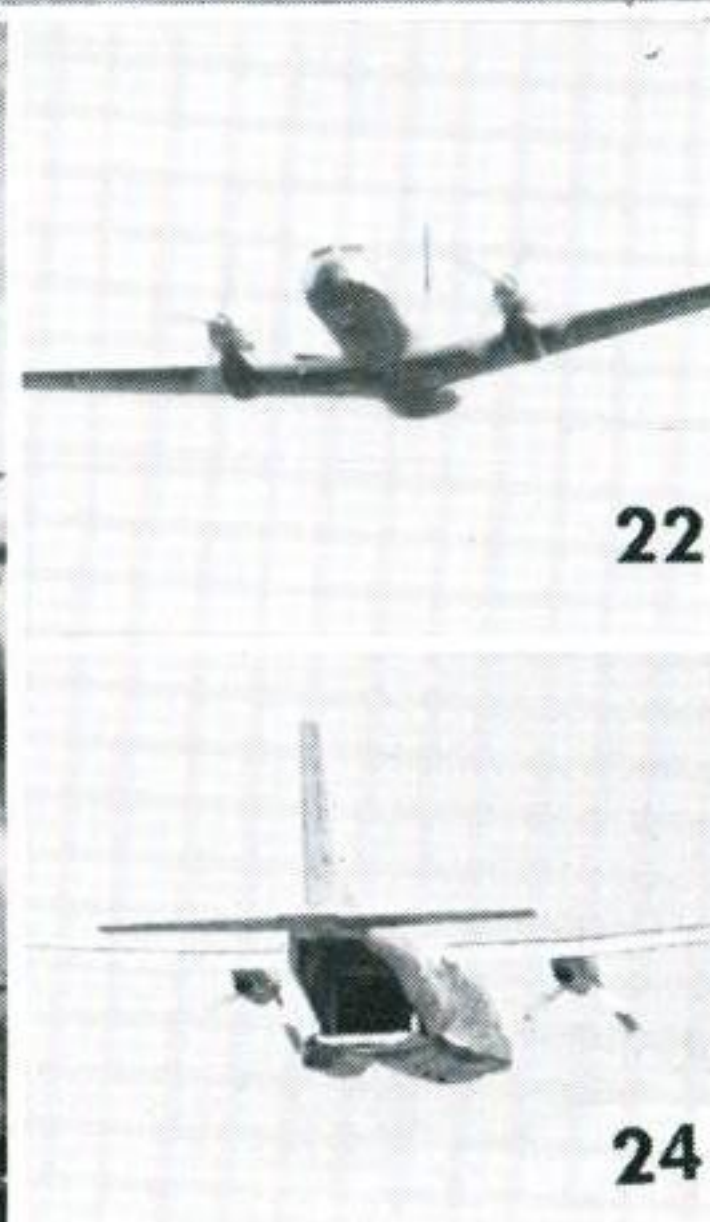


ANDOVER C1



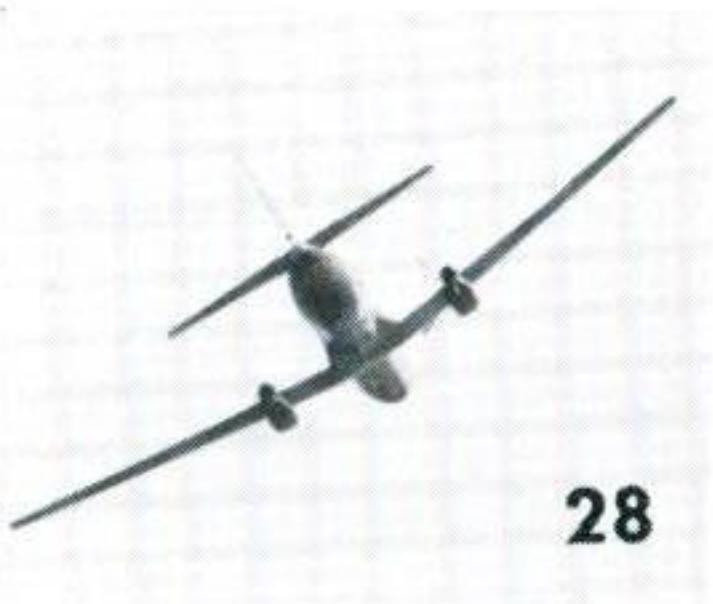
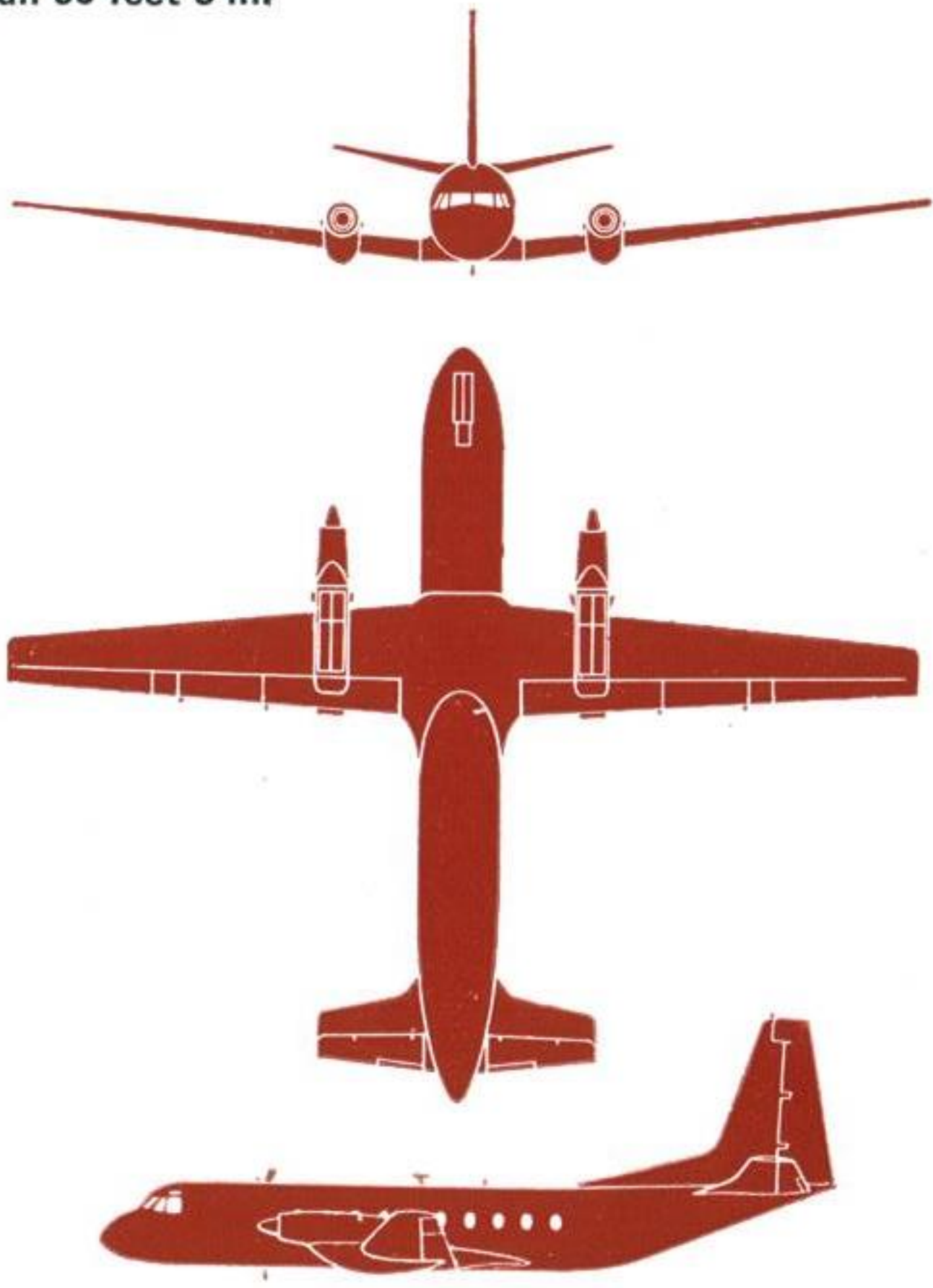
KEY

ANDOVER *continued*



Note that the Andover C1 differs from the C2 and HS748 in having a longer fuselage, a taller fin and rudder, dihedral on tailplane and elevators and a flattened, sharply upswept underside to the rear fuselage which incorporates loading doors. Work to the lesson instructions on page 233, report all targets as Andover C1—or otherwise if jokers—and check your answers with the solutions on the cover.

Span 98 feet 3 in.

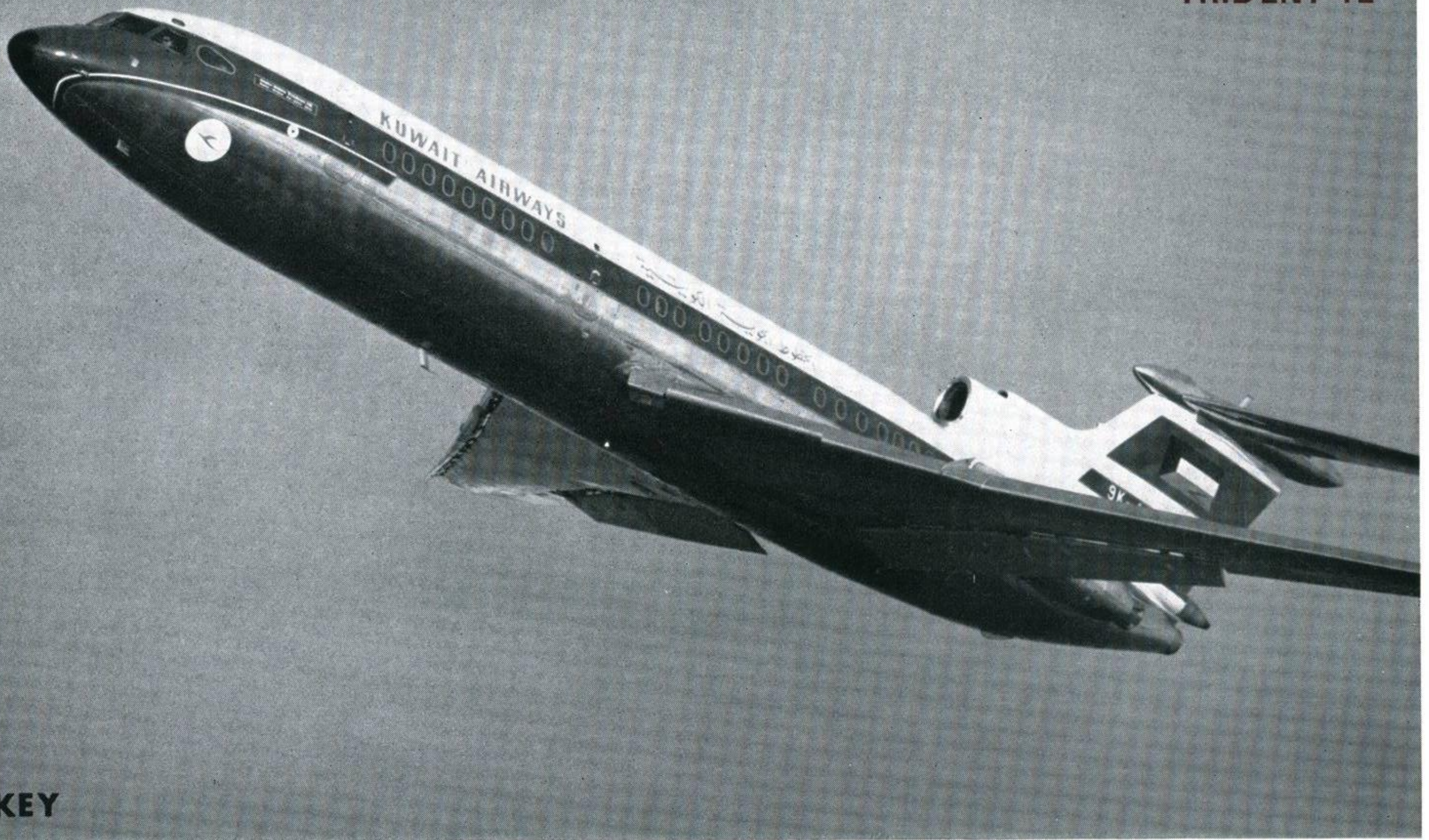


KEY

ANDOVER C1



TRIDENT 1E



KEY

TRIDENT

Lesson Instructions are on page 233

This short-haul jet transport, the original Hawker Siddeley Trident 1C (alias DH121), first flew in January 1962 and the type entered service in the spring of 1964. Also in service is the Trident 1E with a 95-foot wing span with leading-edge slats, and the Trident 2E with a 98-foot wing span. The differences in span are scarcely detectable in flight but possibly can be in this lesson. A third main version, the Trident 3B which will

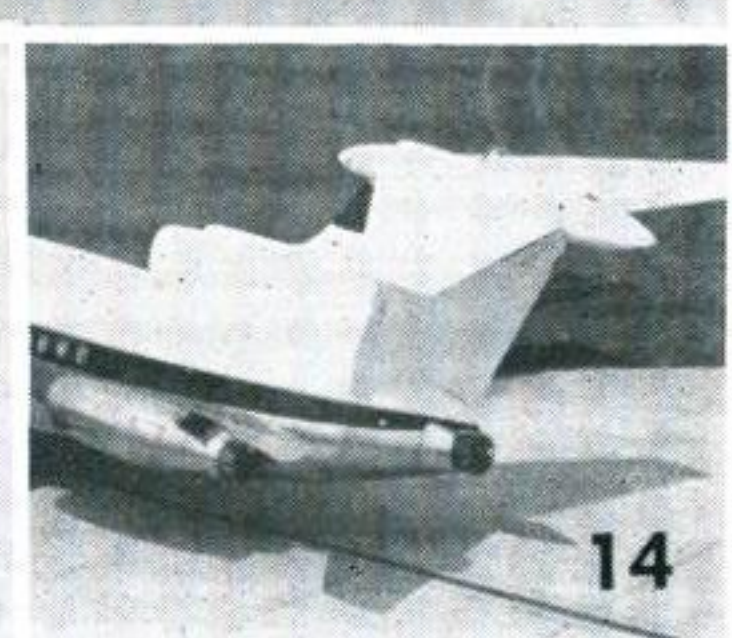
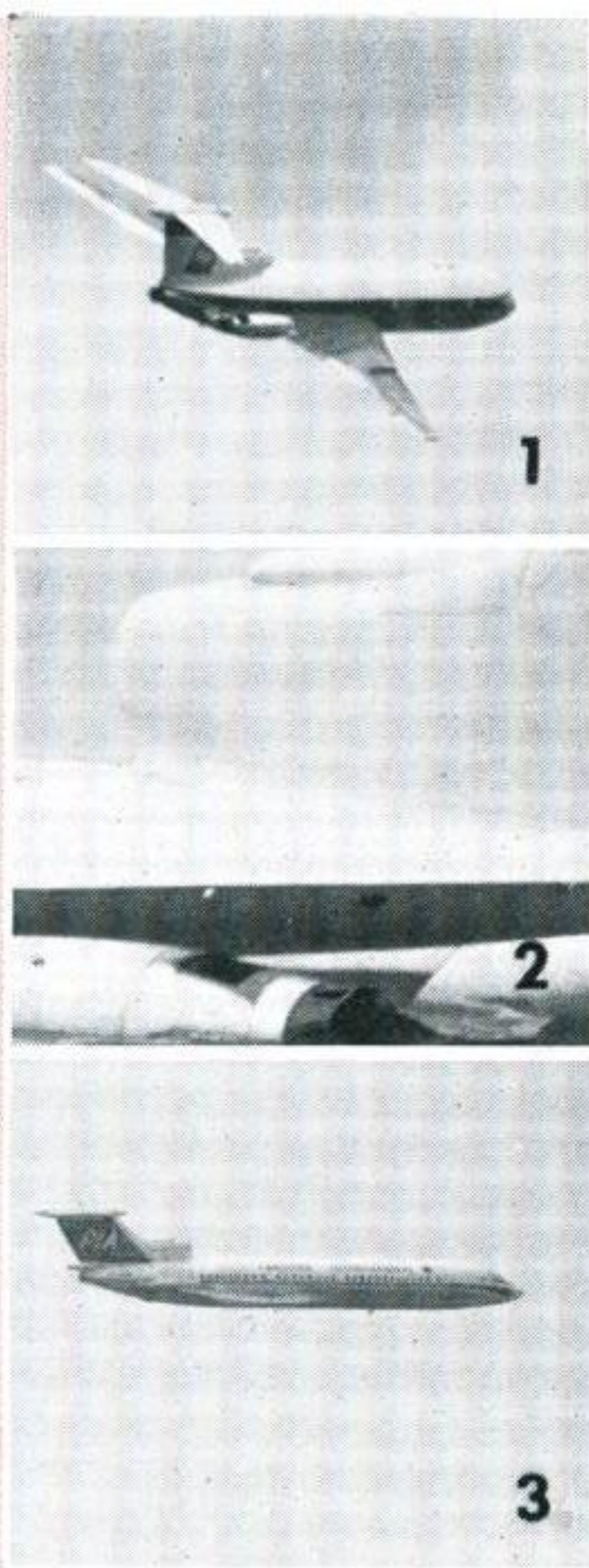
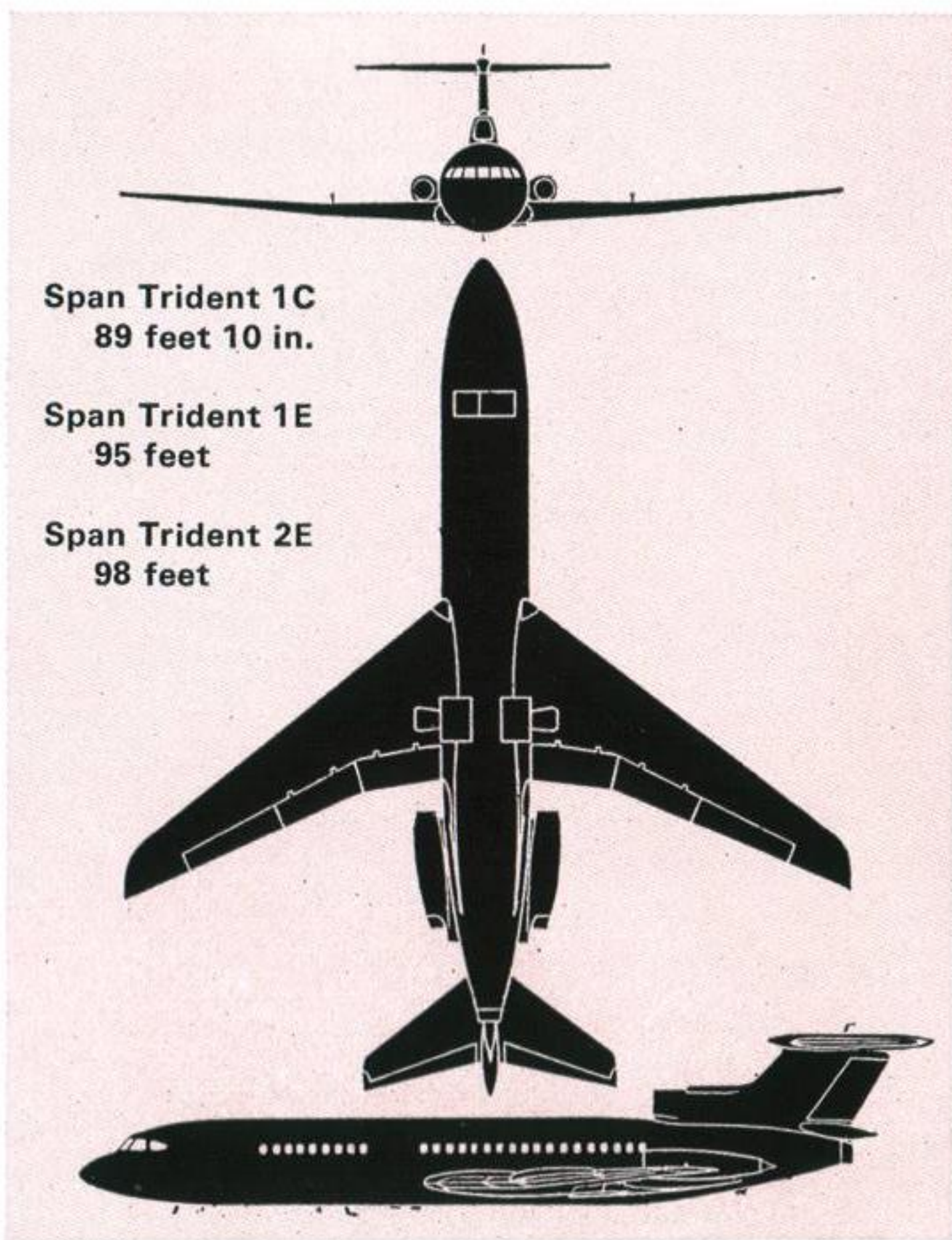
have a 16.5-foot fuselage stretch, is due for delivery in 1971.

The Trident 2E short-to-medium range airliner is powered by three 11,930 lb st Rolls-Royce Spey-25 Mk. 512-5W engines and carries a crew of three or four and up to 117 passengers at a cruising speed of approximately 600 m.p.h. Like all other versions of the Trident it can make fully-automatic landings.

TRIDENT 1C

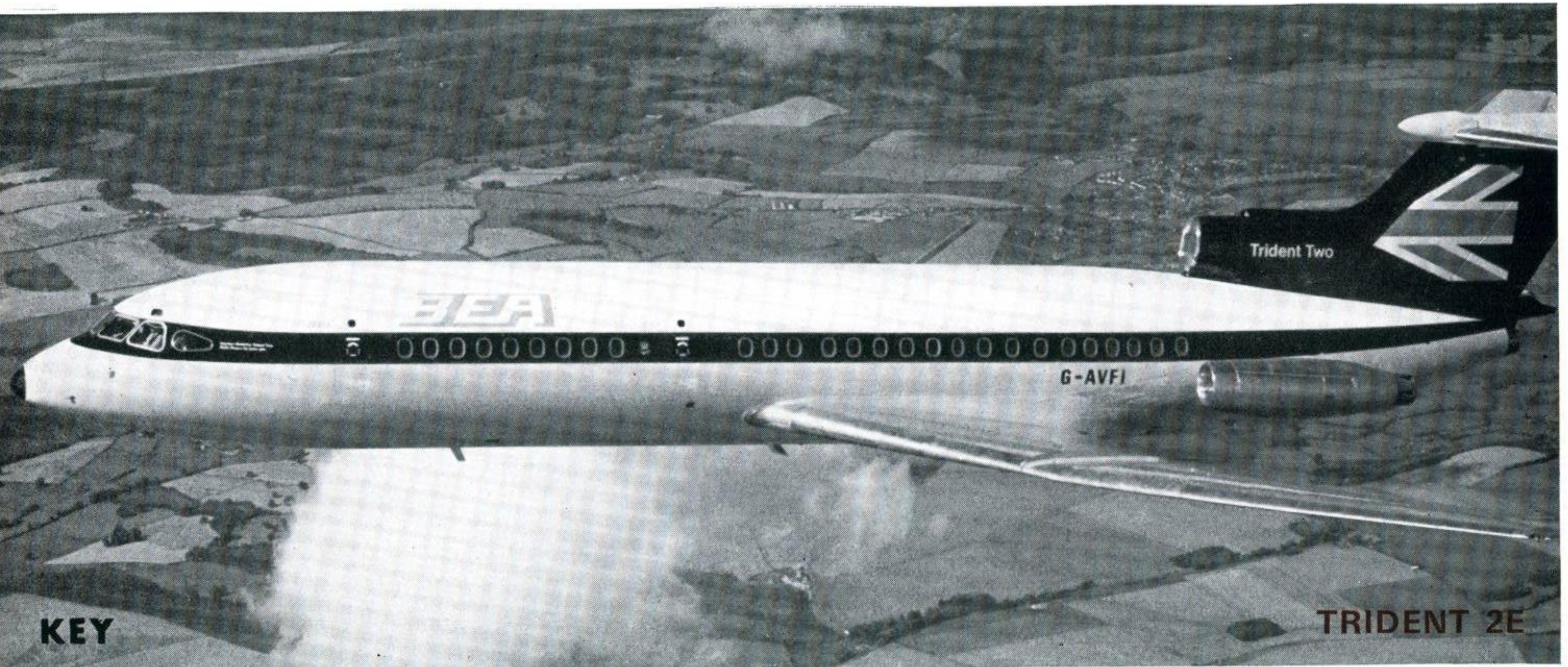


KEY



Solutions on cover continued overleaf

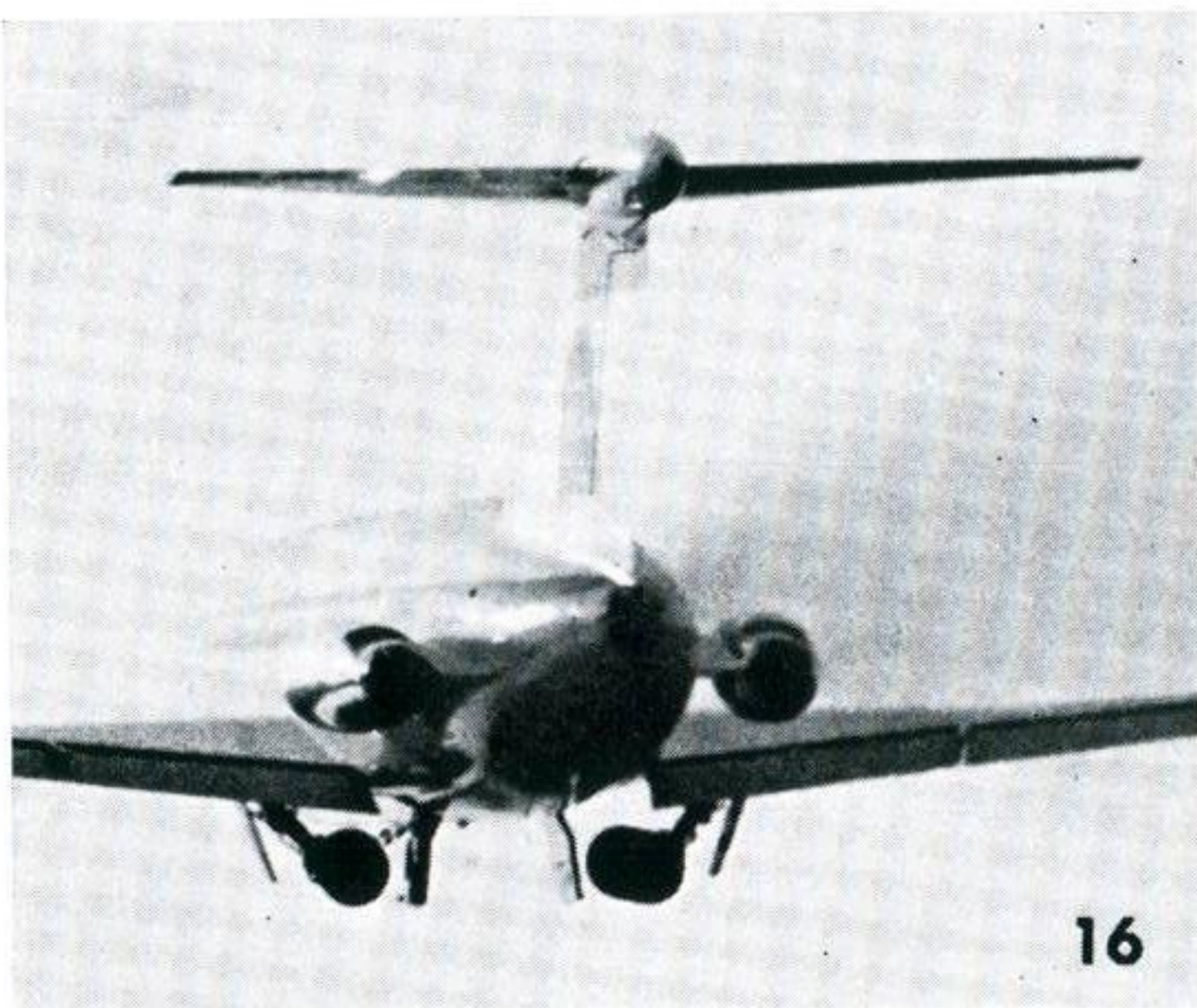




KEY

TRIDENT 2E

TRIDENT *continued*



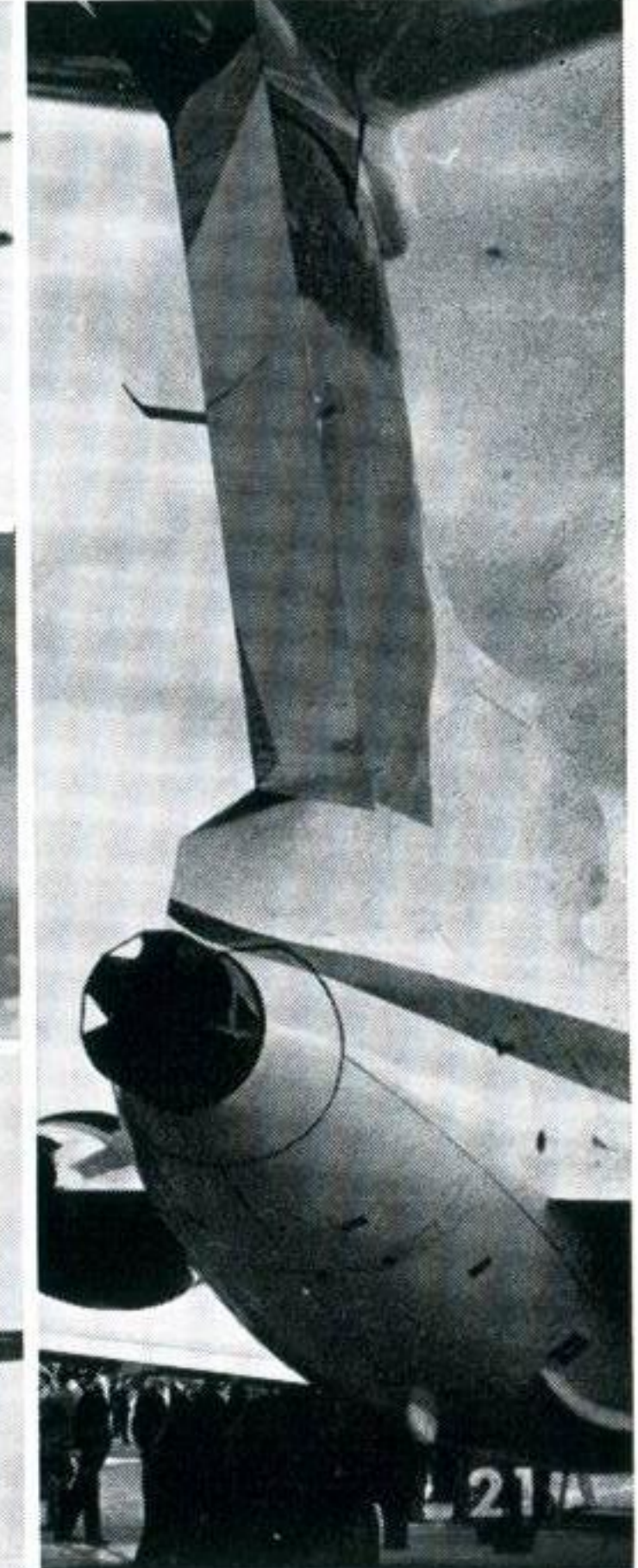
16



15



17



21



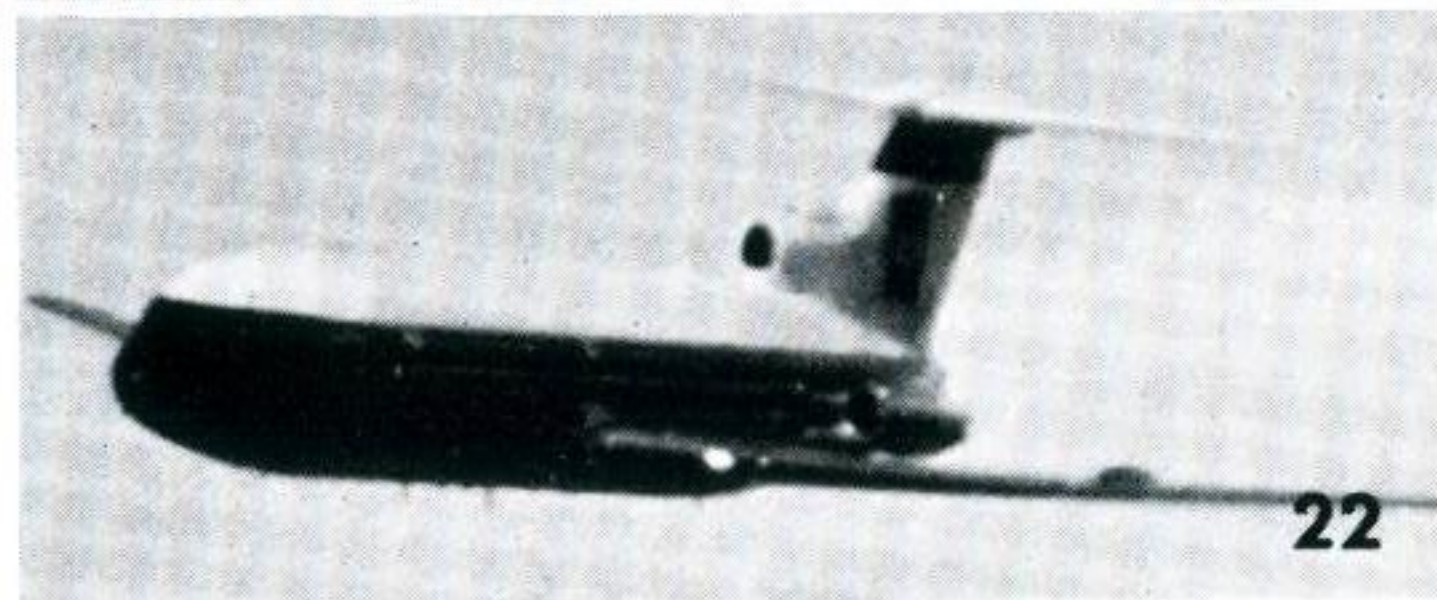
18



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22



23

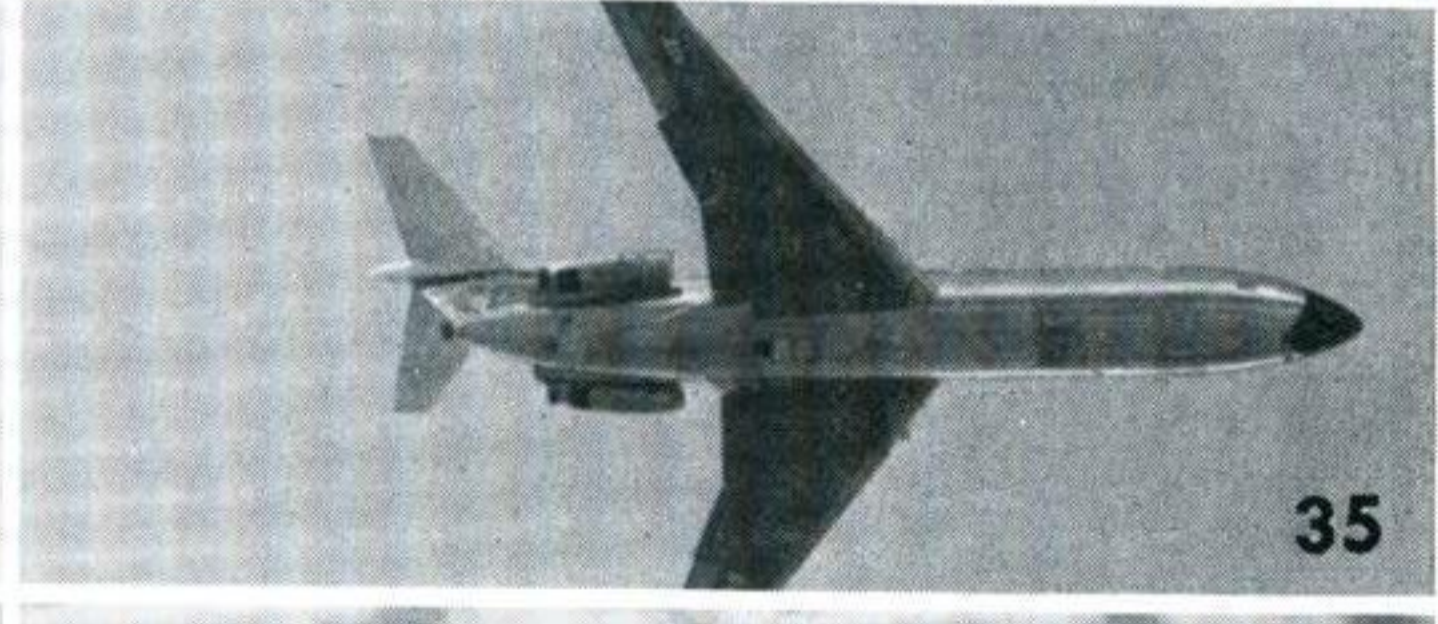
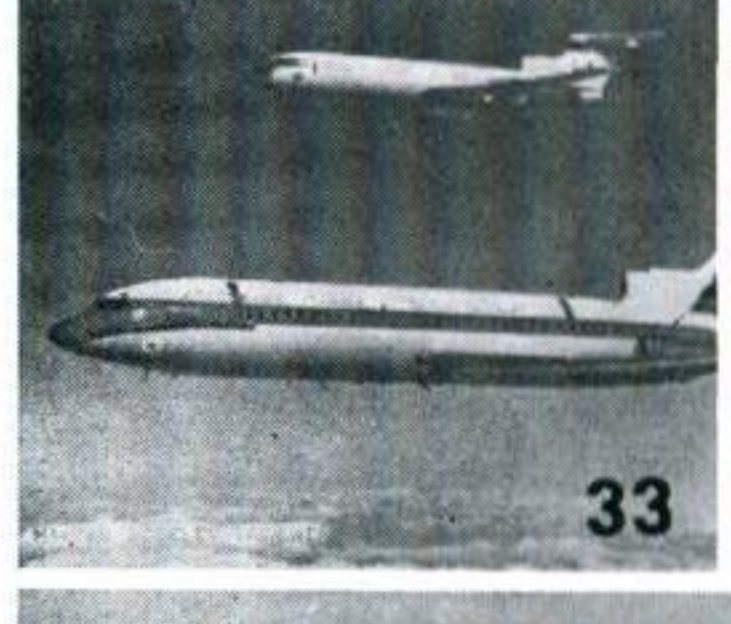
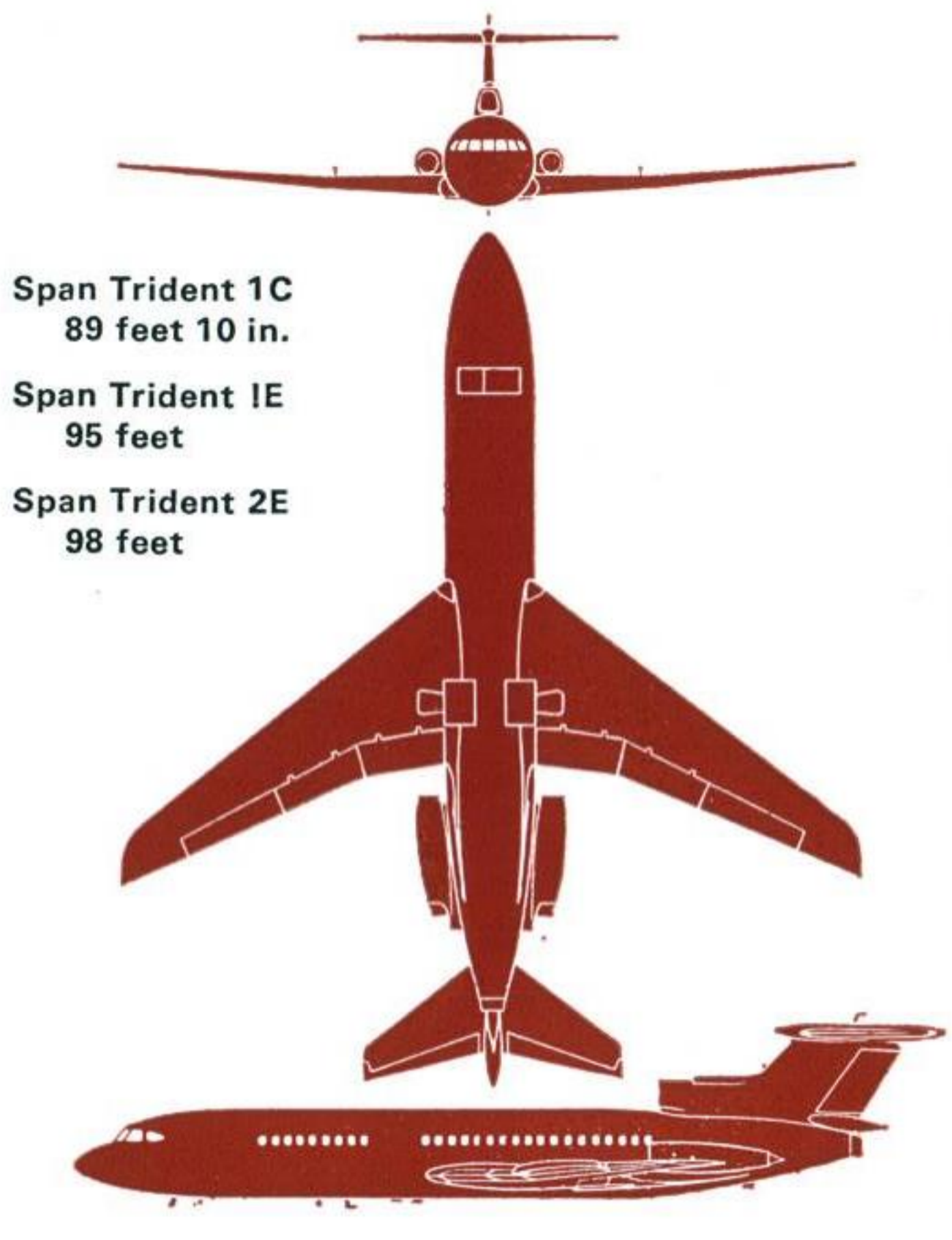


24



25

In the air the Trident could be confused with other jet transports, but the instructions on page 233 will provide you with a means of knowing the Trident. Check list for answers is on the cover.



SOLUTIONS TO TESTS AND EXERCISES



Cover photo: H.M. Submarine Renown is the second of the four "Resolution" Class Polaris armed vessels. To the casual observer all submarines are said to look alike and all nuclear submarines even more like each other. A little real training will soon show that they are very different. The Resolution Class are the largest underwater craft ever built for the Royal Navy, having an overall length of 425 feet and a submerged displacement of 8,400 tons. The main visual difference between the Resolutions, Dreadnought and Valiants is that the latter are "whale-backed". Our photograph shows the stern view of H.M. Sub. Renown, bluff, whale-like, indeed the whole of the nuclear classes of submarine, British and American, tend to have whale-like forms.

ADDENDUM

In the Vulcan trainer in the June 1969 Edition of the *Journal* some views of the Avro Vulcan B1 were included. This was not done in error. The visible structural differences between the Vulcans B1 and B2 are so small as to be negligible in a trainer of this kind. No Vulcan B1s now exist so that any Vulcan observed flying can only be a B2. It would have saved some correspondence and telephone calls had we simply labelled the trainer "Vulcan" and perhaps have indicated that certain views were of the Vulcan B1 and explained what the differences were. It might also have added something to the training value to ask trainees to try to distinguish the differences between them. However, the trainer loses little as it stands when the object is simply to train people to identify a Vulcan. We are grateful to all those experts who have communicated with us on this matter.

Page 228

H.M.S. REPULSE (Resolution Class)

All targets are **H.M.S. Repulse** except Nos. 13, 21 and 31 which are jokers.

Page 233

TEST PAPERS

Fellowship Jokers are first line 3rd picture, second line 1st and 4th pictures.

Thunderchief Jokers are second line 1st picture and third line 1st picture.

Page 252

Vigilante Jokers are first line 5th picture and third line 1st picture.

Page 234

BOEING 727

All targets are **Boeing 727** except Nos. 10, 11, 17, 20 and 37 which are jokers.

Page 238

HARRIER G.R. Mk. 1

All targets are **Harrier G.R. Mk. 1** except Nos. 2, 15 and 24 which are jokers.

Page 244

ANDOVER C1

All targets are **Andover C1** except Nos. 5, 9, 16, 24, 28 and 32 which are jokers: Targets 9, 28 and 32 are **HS748s**.

Page 248

TRIDENT

All targets are **Trident** except Nos. 5, 13, 15, 25 and 36 which are jokers.

TEST PAPER

Solutions above

VIGILANTE?

