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JOINT SERVICES

RECOGNITION *Journal*



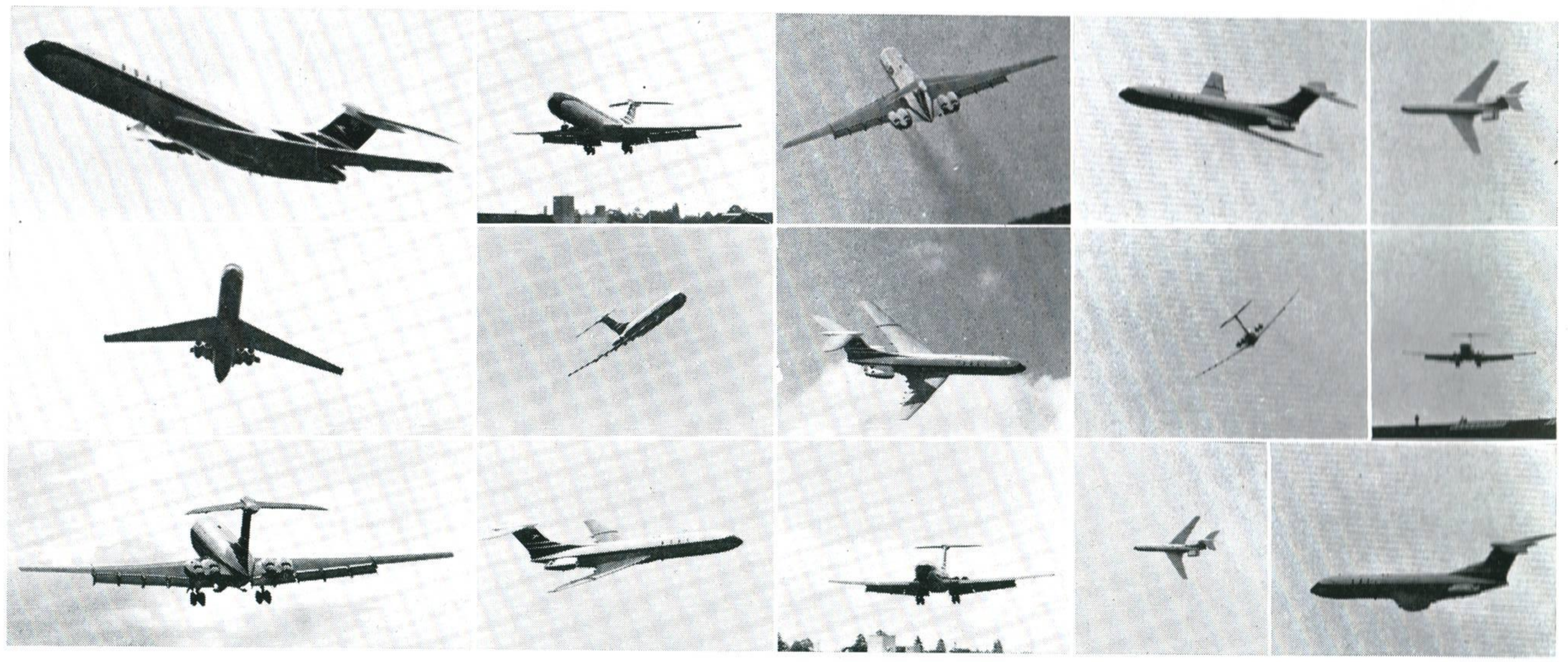
Vol. 22 SEPTEMBER 1967 No. 9

TEST PAPERS

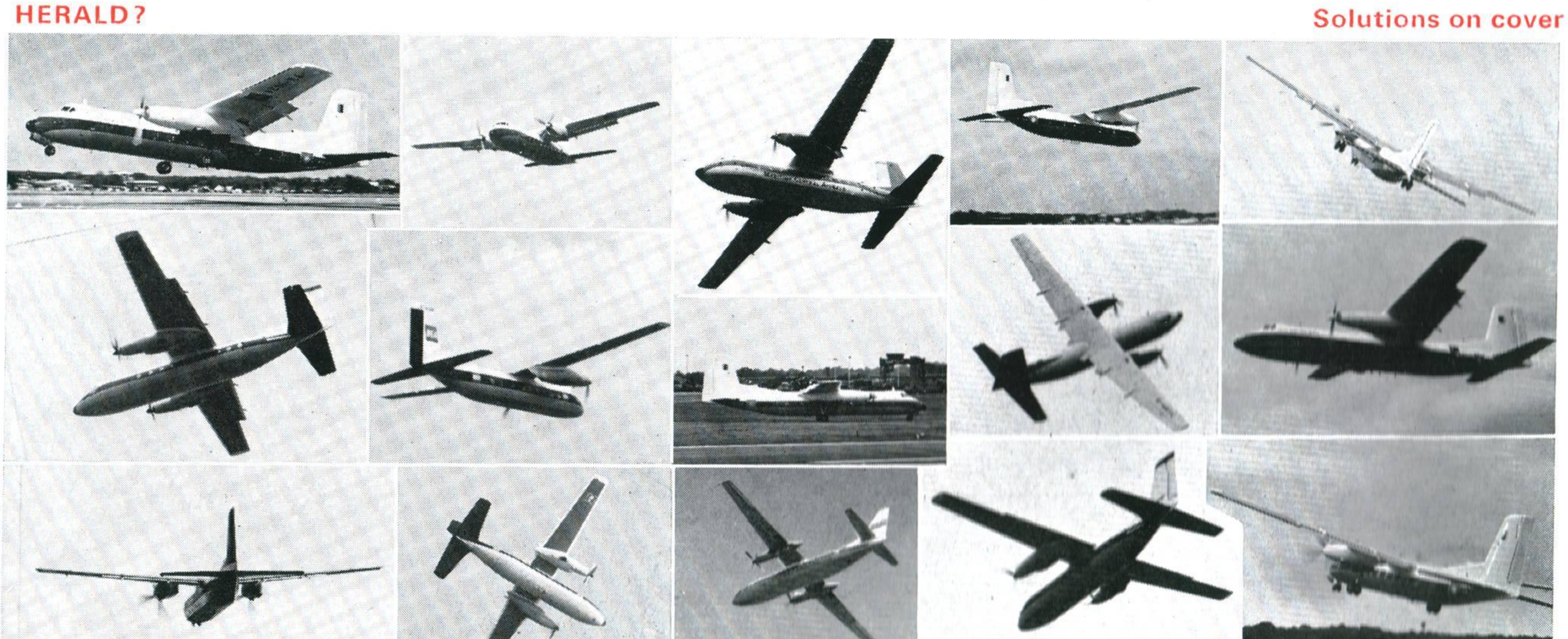
HERCULES?



VC-10?



HERALD?



Solutions on cover

SEPTEMBER 1967 Vol. 22 No. 9

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*

DEFENCE CUTS

Everyone is familiar with the term "Defence Cut"—we know only too well what it means—but we want to draw attention to a different kind of "Defence Cut".

The *Joint Services Recognition Journal* contains Recognition lessons on aircraft, ships and tanks. These are prepared at no little cost in time, energy and money. They require a large number of photographs and one of the biggest headaches is collecting them. Readers will have noticed from time to time, paragraphs inserted in the *Journal* requesting units to send in photographs for this purpose, but besides this there is a vast hinterland of sources of photo supplies which have to be regularly ferreted for views of the various subjects. This itself is no small part of the production side and it is not unknown for six months—or even longer—to elapse before sufficient photographs are available to make a worthwhile lesson on a particular subject.

The next step is to draft a specification for the lesson so that maximum training value is obtained from the pictures. Every lesson embraces a set of key photographs and a large number of target photographs which have to be used in conjunction with each other.

The illustrator then prepares his layout in such a way that the maximum efficiency results from the proper use of the completed lesson. In doing this, he has to watch that a target is not too far away from another target or a key photograph which will provide him with the answer he wants as he identifies that particular target. The illustrator must ensure that tell-tale marks, numbers, roundels, etc. are removed from targets, so that the trainee's attention is forced to the object itself rather than to its marking "decor" or its livery. This is a lengthy task and calls for ingenuity (the idea being to make the trainee search the basic shapes for his answers). Having prepared the lesson, checks are made to see that the photographs remain up-to-date and that the lesson really does work—if the teaching procedure is carried out properly. It is then prepared for press, the text being written and added, the type-face chosen etc. Several lessons and other features are then gathered together to form one edition of the *Journal* and the whole is passed to the printer.

About two weeks later the proofs are returned and are made into what is called a "paste-up". At this stage the information is checked to ensure that the subject matter has remained up-to-date. Within a few days the paste-up is sent back to the printer who then prepares and returns page proofs. Checks are again made on the accuracy of the material before being returned to the printer for final publishing. Thus it will be seen that it might take anything up to six or eight months to produce a lesson on a particular subject in these *Journals*.

Readers will therefore appreciate the complex and lengthy process involved in producing the recognition lessons as they finally appear in these *Journals*. The manner of presentation and layout of the various pictures in the lesson is of paramount importance for recognition training and for this reason we do not always agree to suggestions that they can be cut out piecemeal and displayed in other ways. This destroys their whole object as a recognition training lesson and abrogates all the effort which has been put into their production.

Such action could be termed a "Defence Cut" of a rather destructive nature, as it not only wastes the effort of producing the lessons, but, more particularly, denies their full training value to those who are really in need of it.



VC-10 C. Mk. 1

VC-10 and SUPER VC-10

The medium and long range Vickers (B.A.C.) VC-10 is in service with three airlines, i.e. B.O.A.C., B.U.A. and Ghana Airways, and also—as the VC-10 C Mk. 1—with R.A.F. Air Support Command. In its military role it can carry a maximum of 150 troops plus up to 19,040 lb. of equipment. Range with maximum payload of 59,000 lb. is 3,668 miles.

The Super VC-10, in service with B.O.A.C. and East African Airways and on order for Varan Air-Siam, is a long range version with a 13 foot longer fuselage (lengthened fore and aft of the wing), more fuel and higher weights, but the basic shape remains the same.

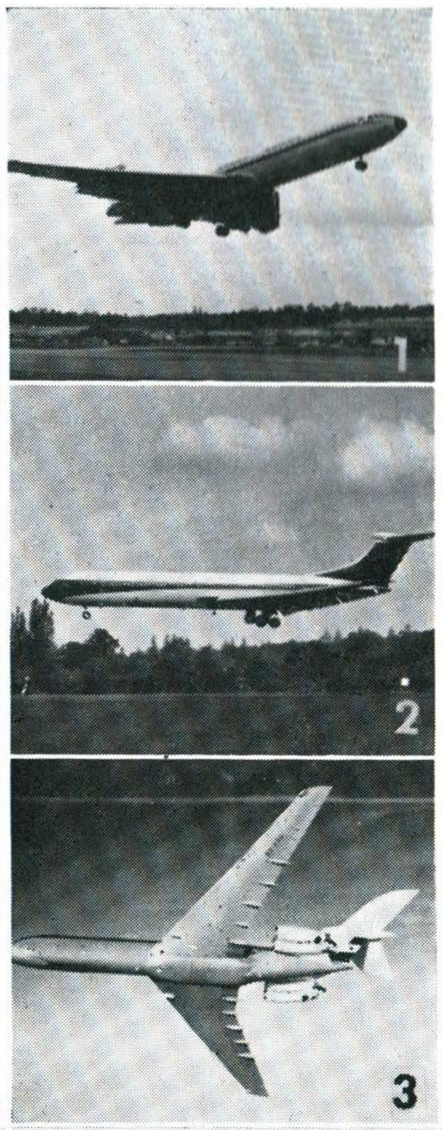
With Russia's IL-62 (Classic) airliner bearing a remarkably close resemblance (particularly to the Super VC-10) and other foreign airliners being of fairly similar configurations, the VC-10 needs to be learned properly as indicated on page 252. If you learn your lessons in this way such differences as you need to know will become apparent. Don't learn VC-10 and Classic together. Compare them when both are known.

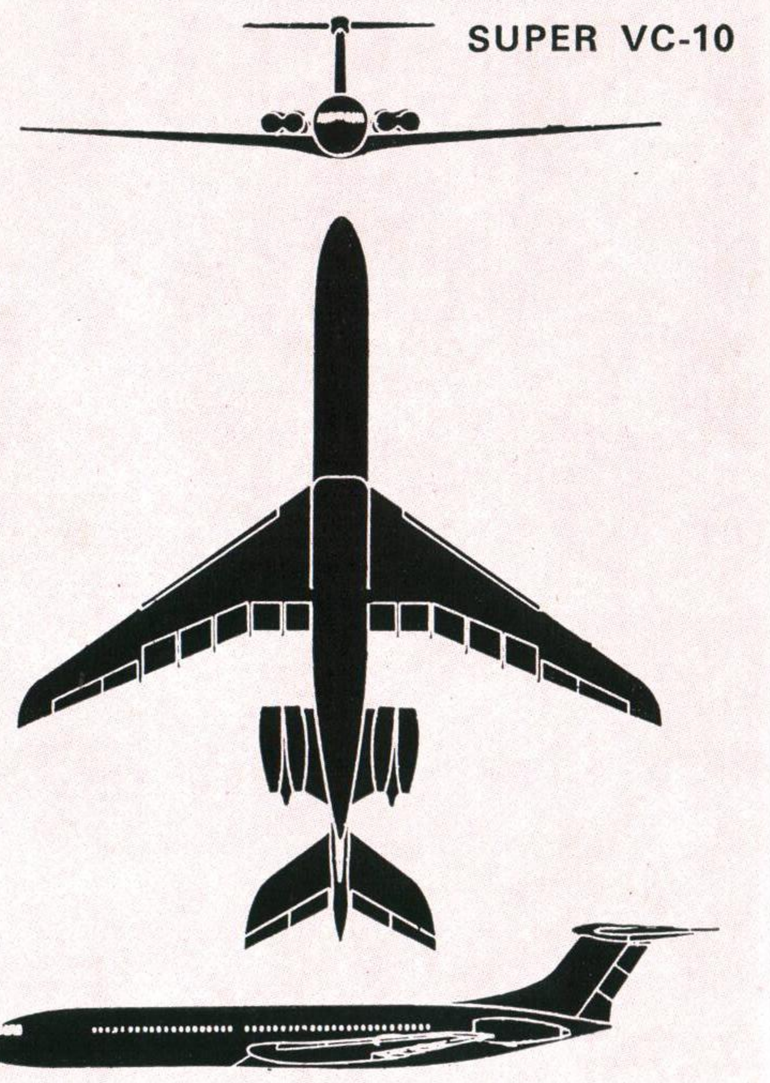
Lesson rules are on cover



SUPER VC-10





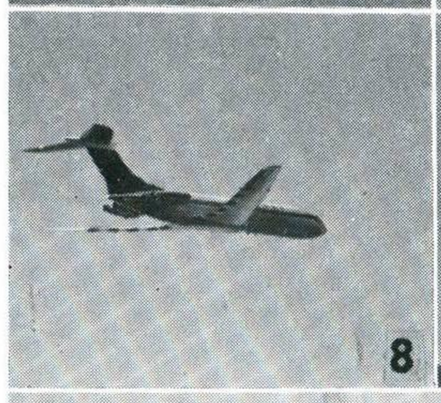




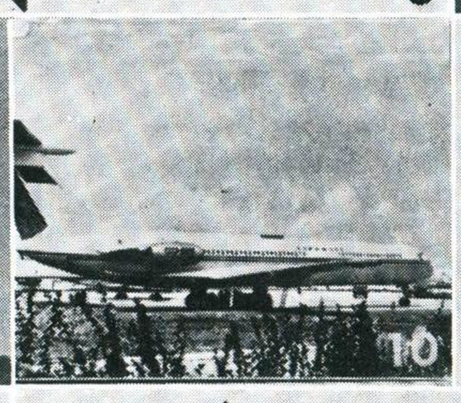


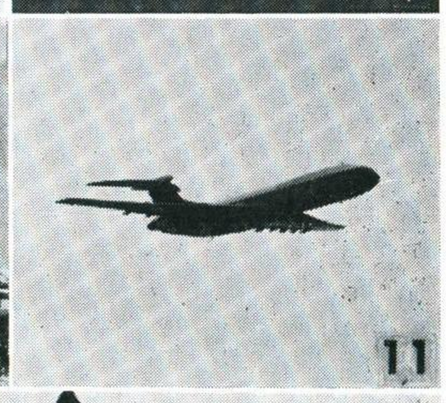














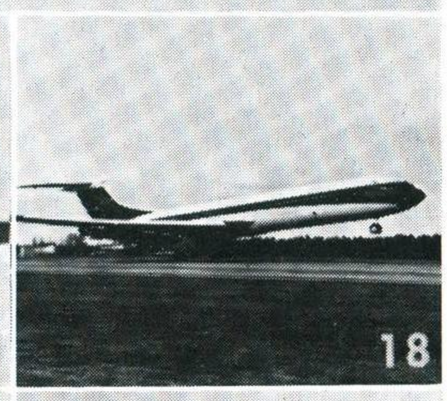








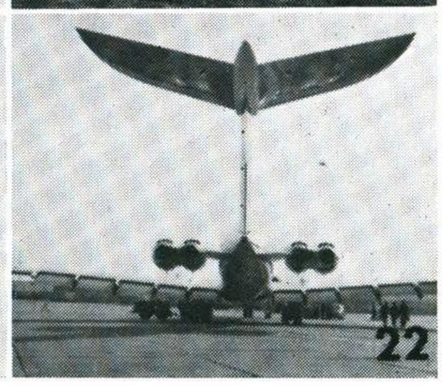




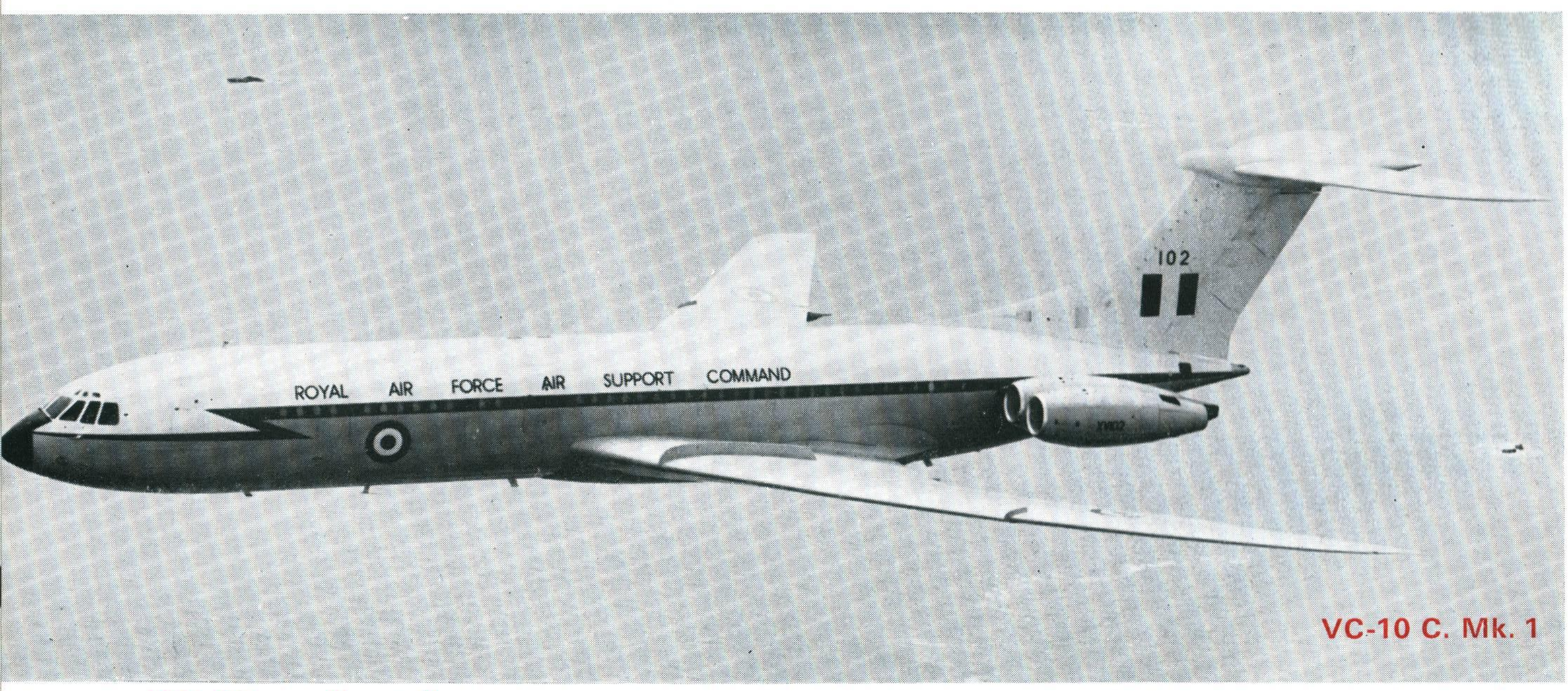








continued overleaf



VC-10 C. Mk. 1

VC-10 continued


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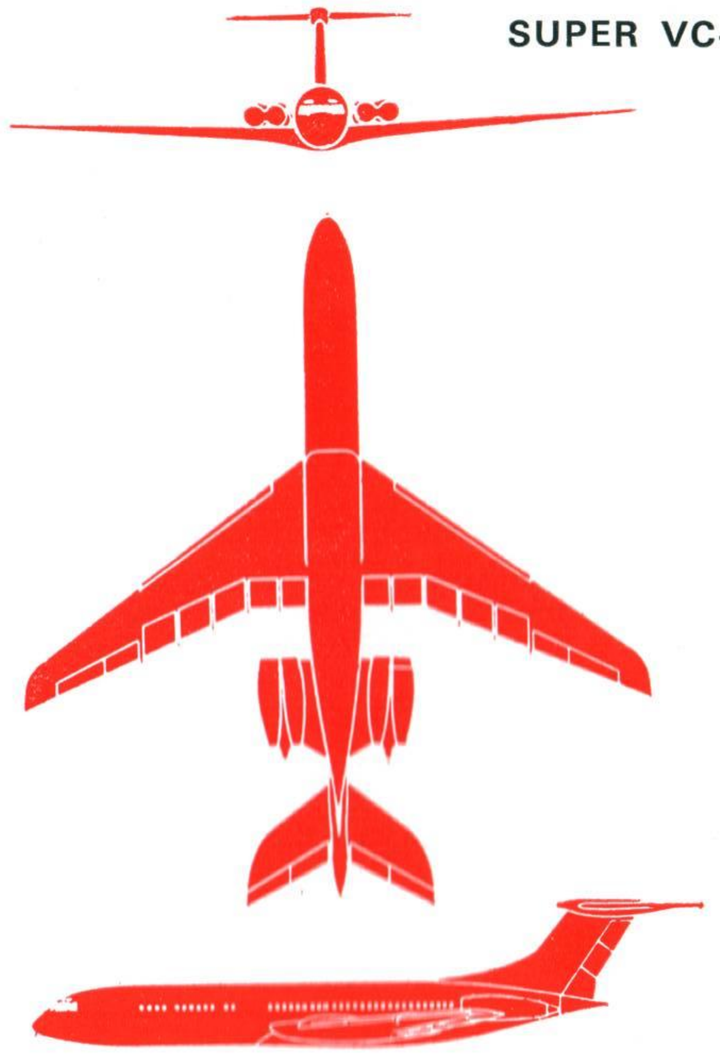

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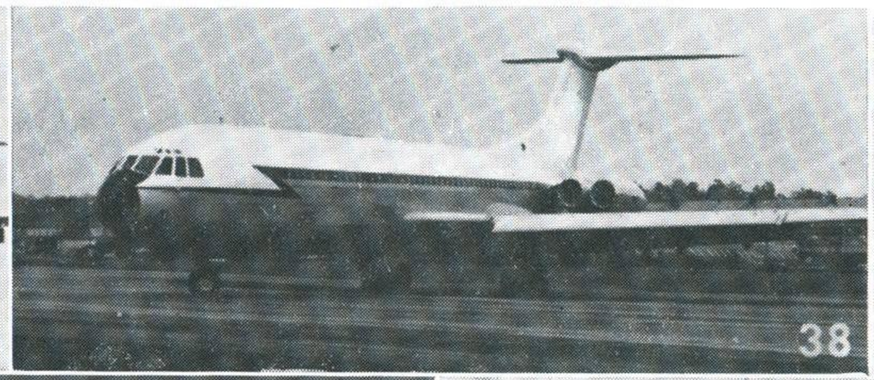


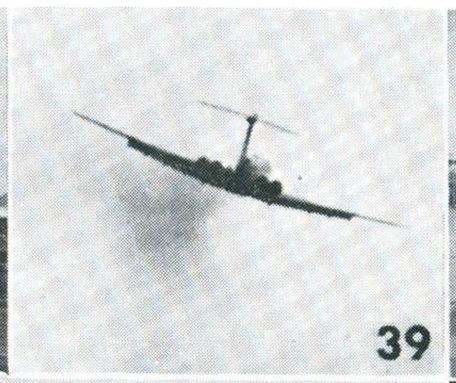
SUPER VC-10



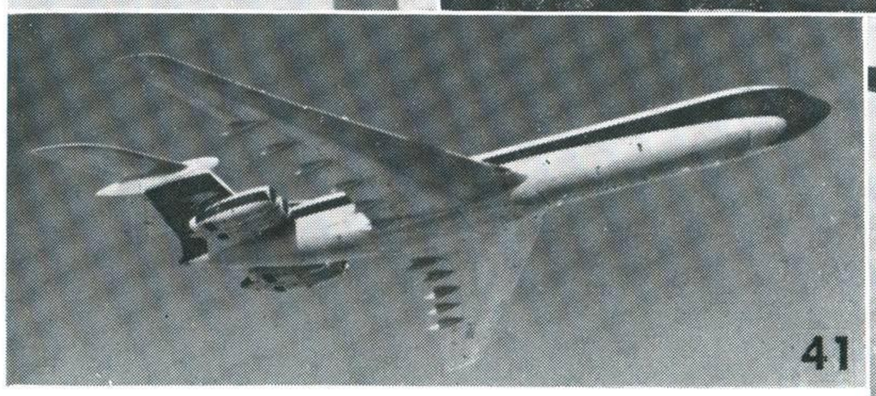
VC-10


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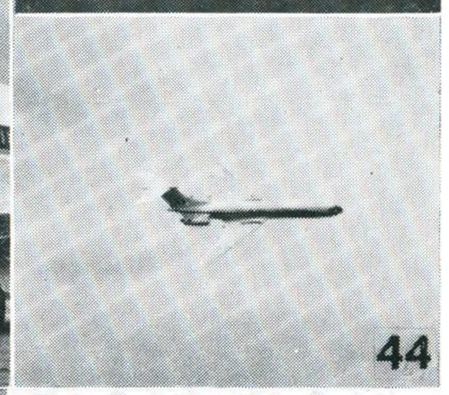

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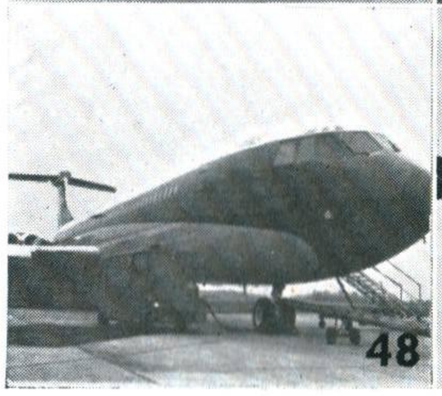
VC-10




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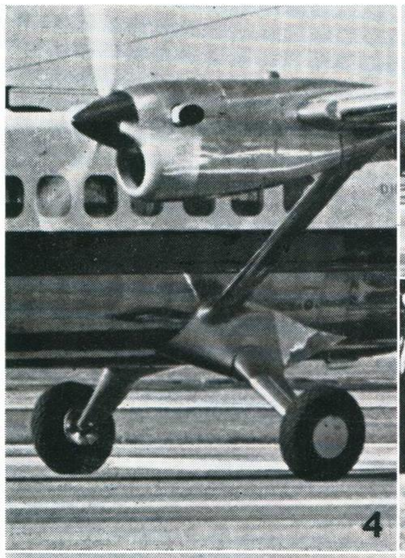
TWIN OTTER

As suggested by its name, the Twin Otter is derived from the single-engined Otter, retaining much of the latter's fuselage and mainplane structure but having two turboprop engines. The prototype flew in May, 1965, and de Havilland Canada has now sold more than 100 examples of this STOL utility transport and feederliner. First military customers are Chile (8) and Norway (4). Flown by a crew of two, the Twin Otter seats 13–18 passengers or alternatively, as an ambulance aircraft, it can accommodate 9 casualty stretchers and three sitting casualties.



KEY

Lesson rules are on cover


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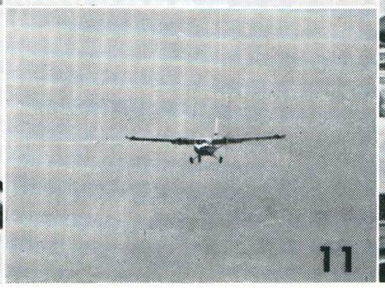

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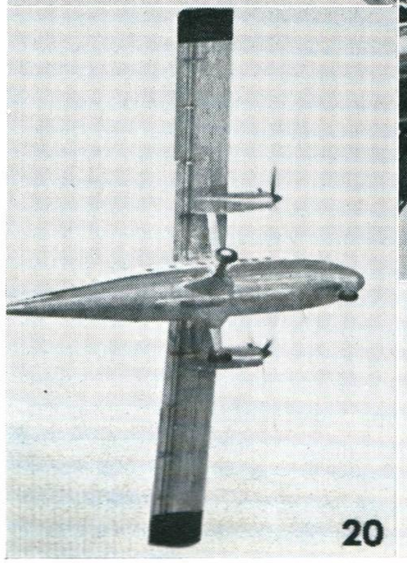

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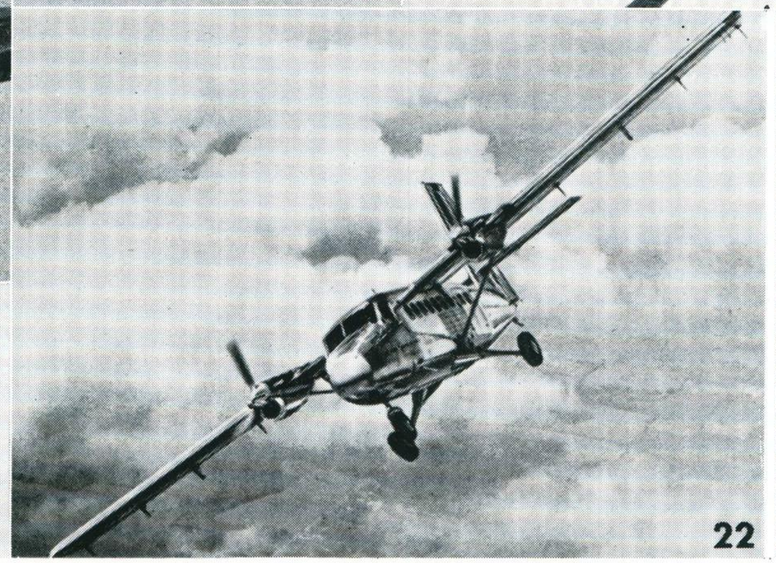

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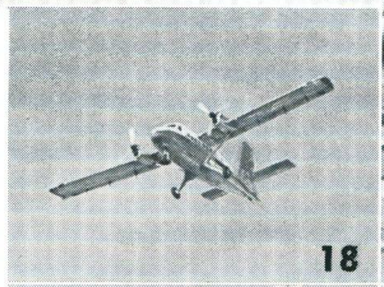

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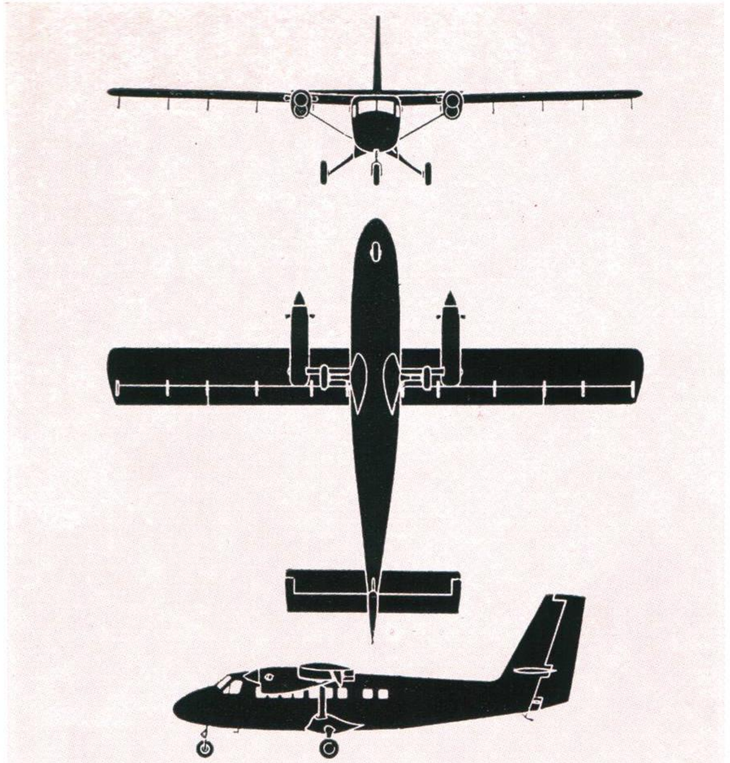

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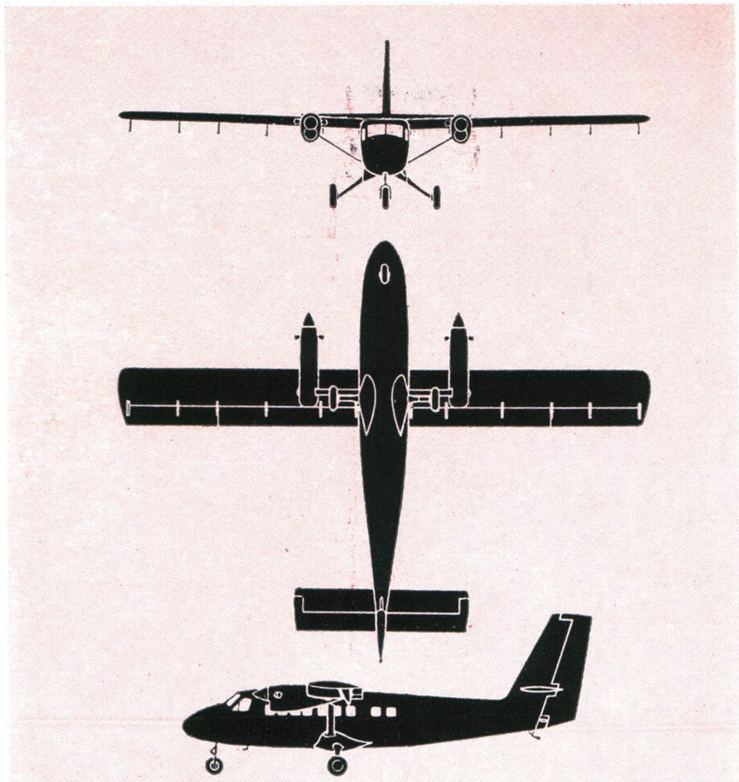

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September 1967

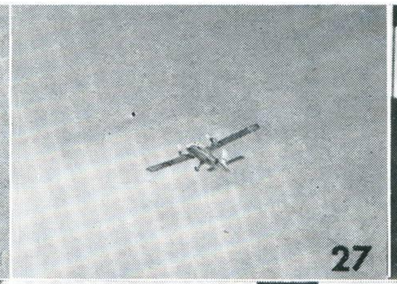


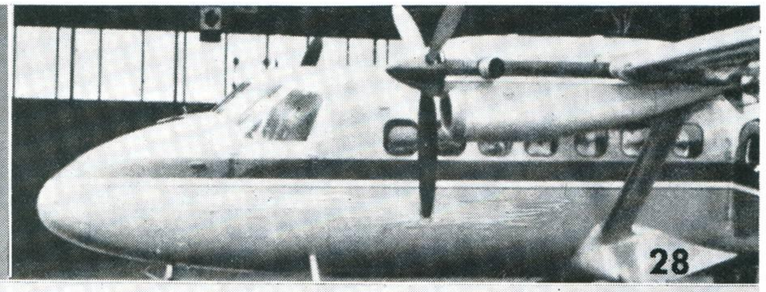


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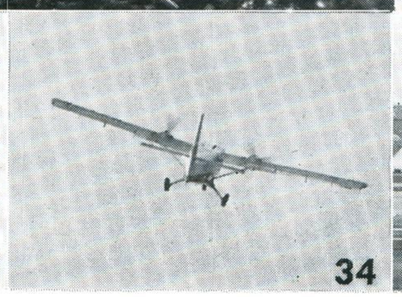

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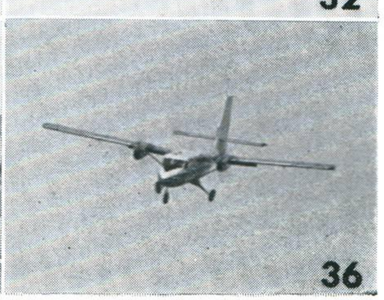

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TWIN OTTER *continued*

In some respects the Twin Otter is not unlike the Britten-Norman Islander and even the single-engined Turbo-Beaver can look fairly similar from certain angles. However, it has no really close doubles and, as you will discover even when its key features cannot be seen, you will not be prevented from identifying the Twin Otter if you have tackled the lesson in accordance with the instructions on page 252. Check your results with the correct solutions given on the back page.



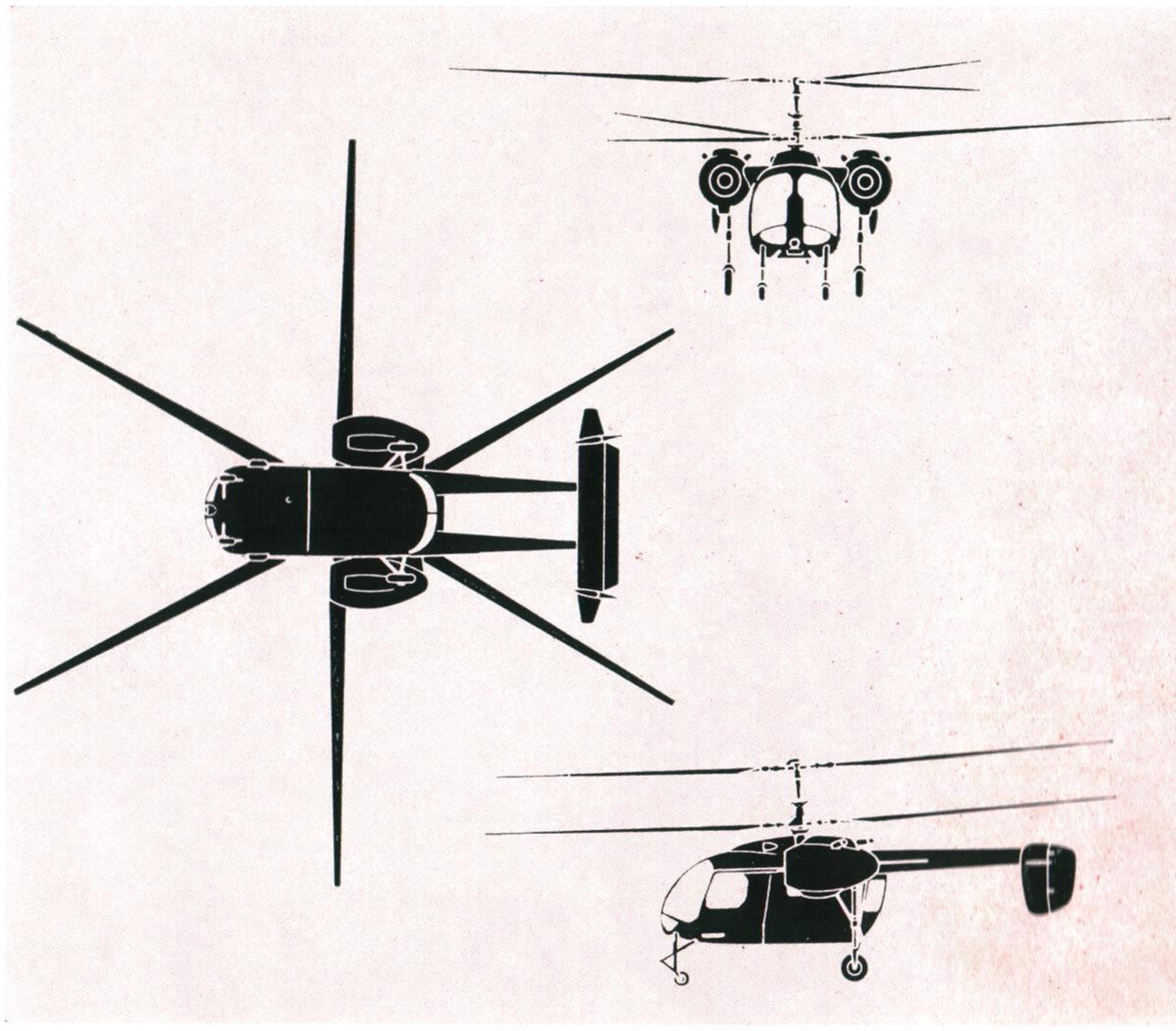
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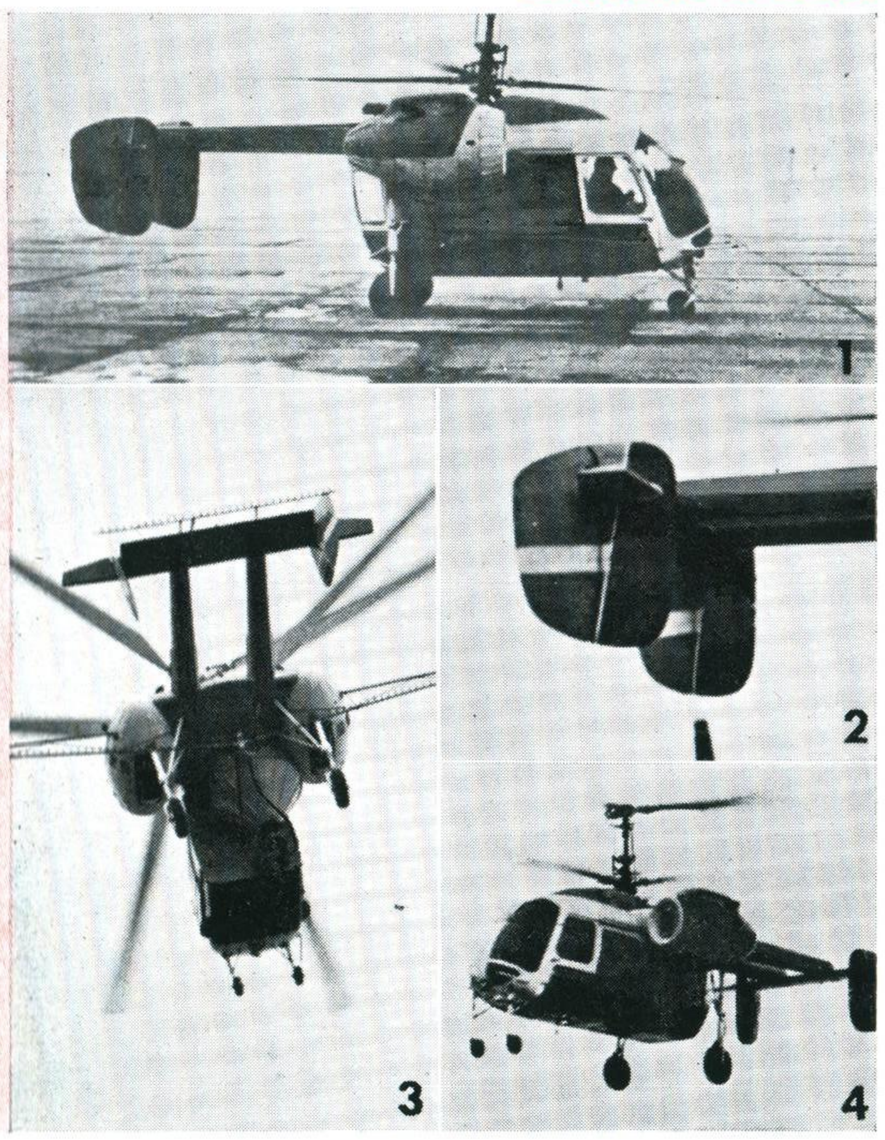
HOODLUM

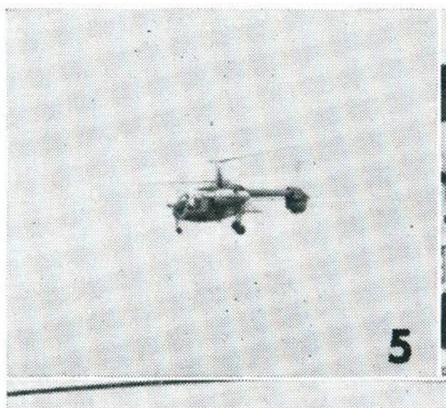
Russia's Kamov Ka-26 twin-engined helicopter first flew in 1965 and production deliveries began in 1966. It features the usual Kamov contra-rotating co-axial three-blade rotor system and the plastic and fibreglass rotor blades are interchangeable. The six-seat passenger cabin aft of the crew compartment is designed as a detachable pod and when removed Hoodlum can be operated in a freight-carrying role with an open platform for the payload or a hook for slinging bulky loads at the end of a cable or in a cargo net. Alternatively, Hoodlum can be fitted with dust-spreading apparatus or spraybars for agricultural work. As an air ambulance Hoodlum can carry two stretcher patients, two seated casualties and a medical attendant. A winch enables Hoodlum to be used for rescue duties and, because of the helicopter's small size and manoeuvrability, it can be operated from platforms on small ships.

Notable recognition features of Hoodlum are the almost barrel-shaped engine pods, carried one either side of fuselage on high-mounted stub wings, and the two slim tail-booms carrying the seemingly upside-down twin fins and rudders. Use the instructions on page 252 and report these targets as Hoodlums, or otherwise if jokers.

Solutions on cover



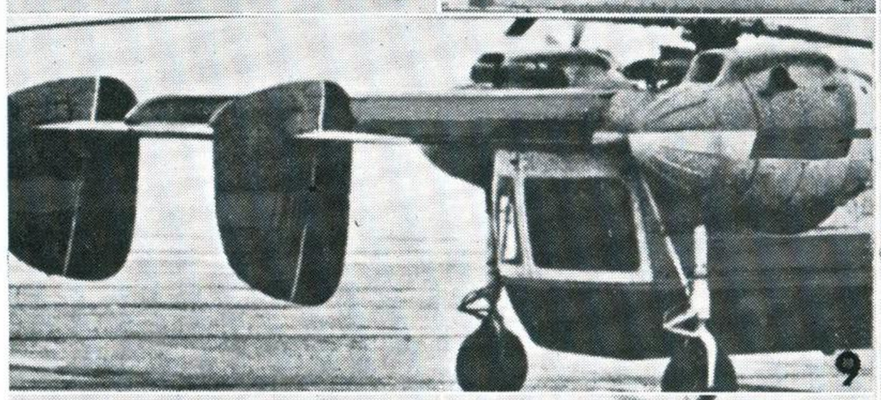



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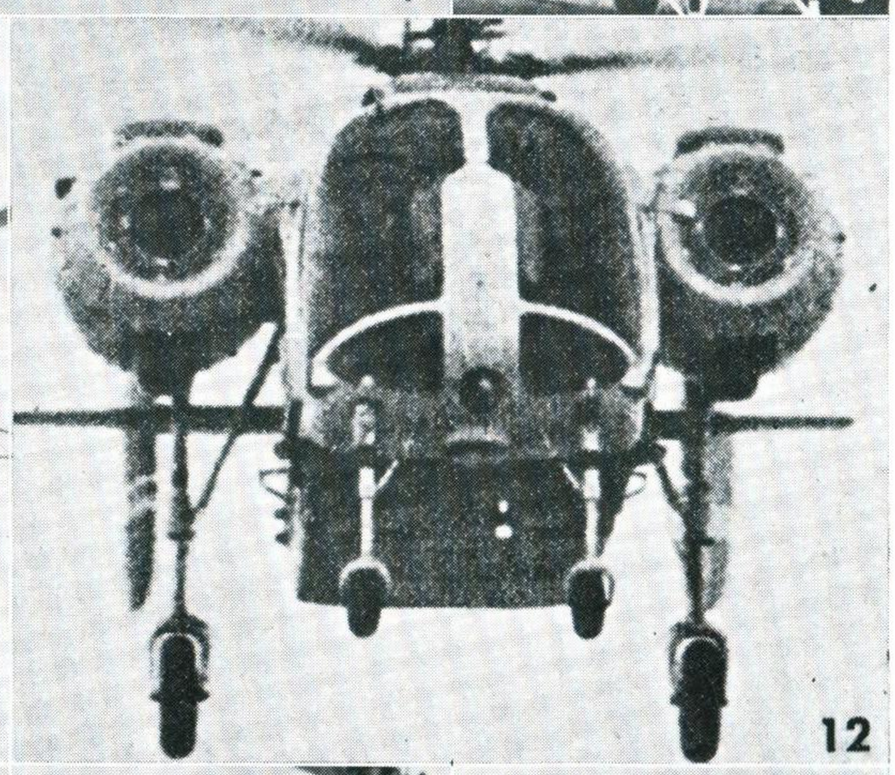

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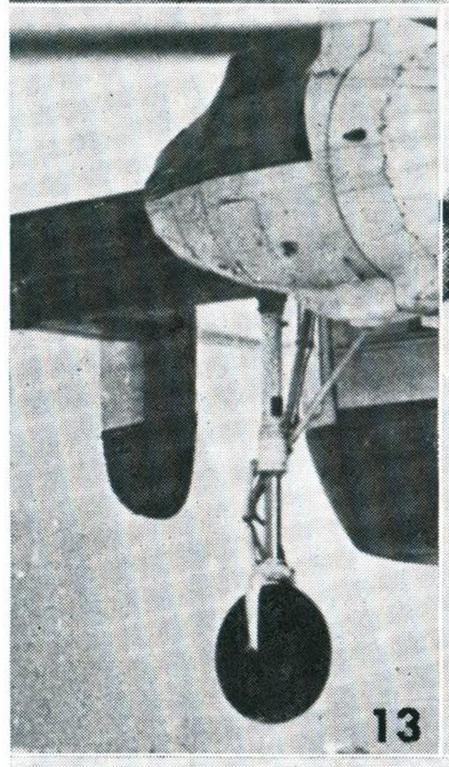

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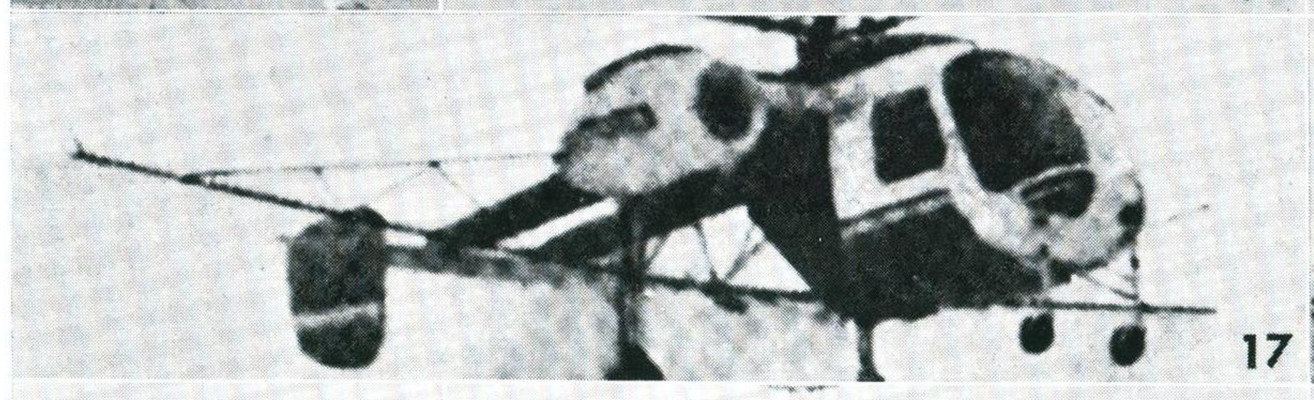

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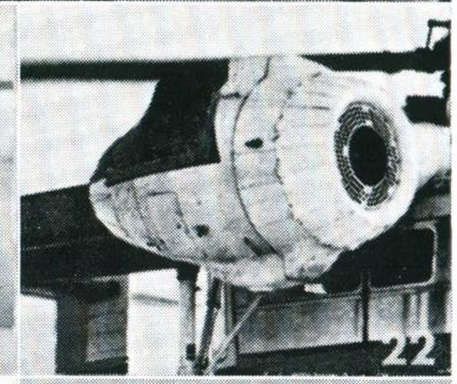

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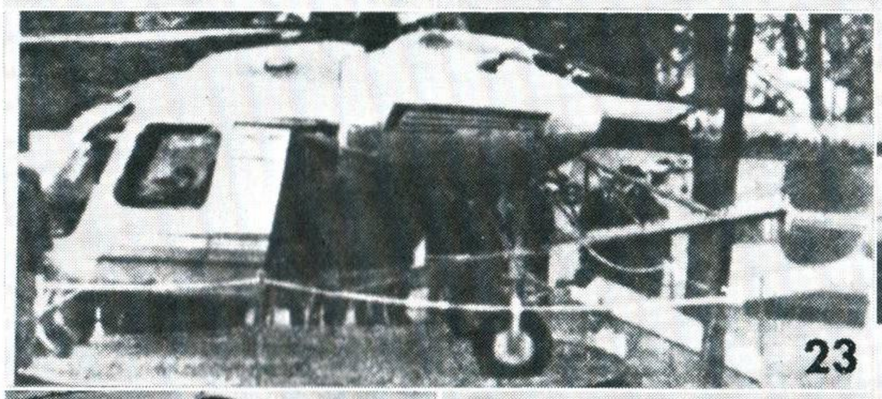

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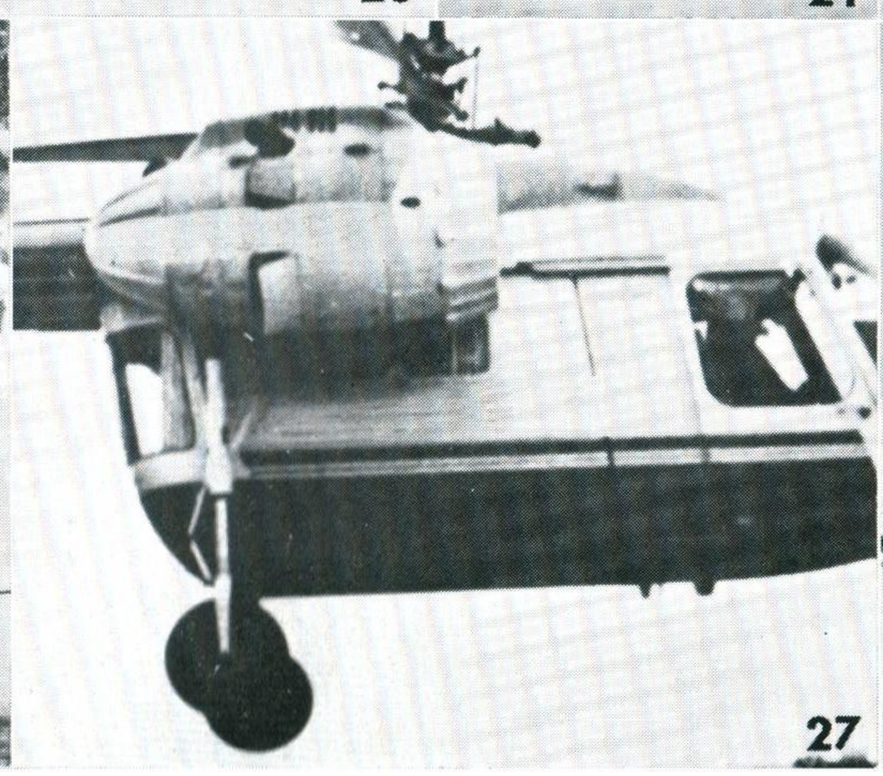

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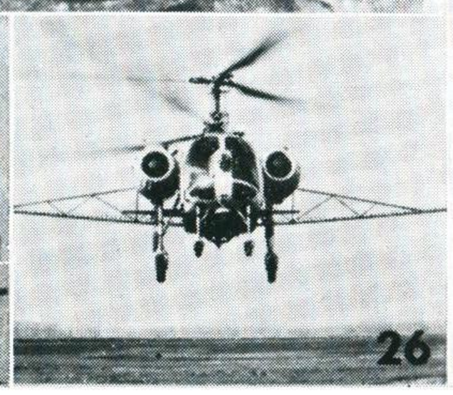

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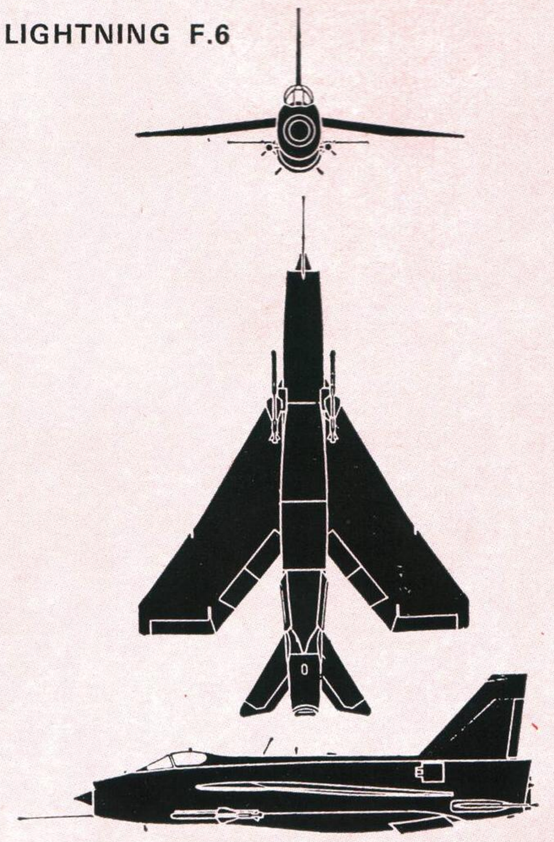

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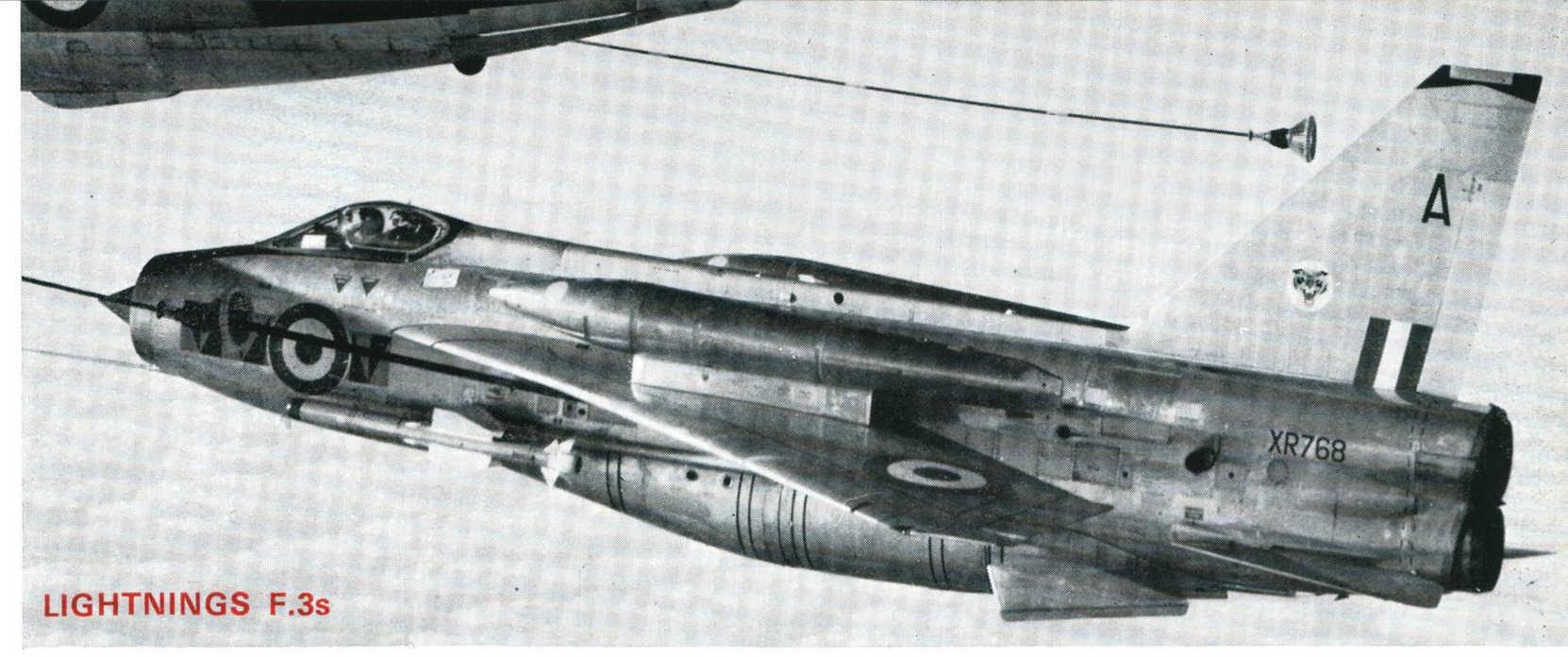

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Lightning

LIGHTNING F.6



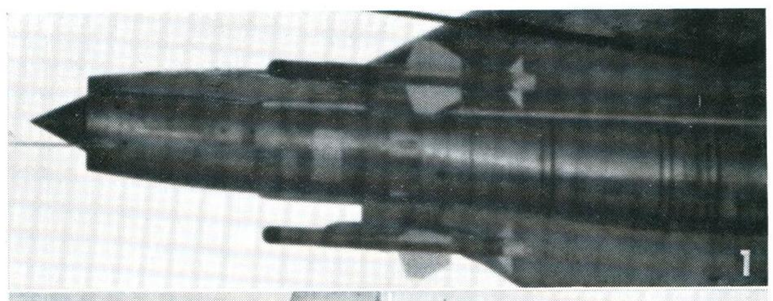


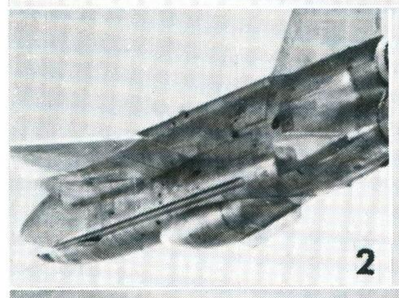
LIGHTNINGS F.3s

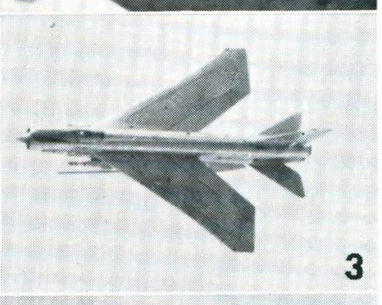
Lightnings

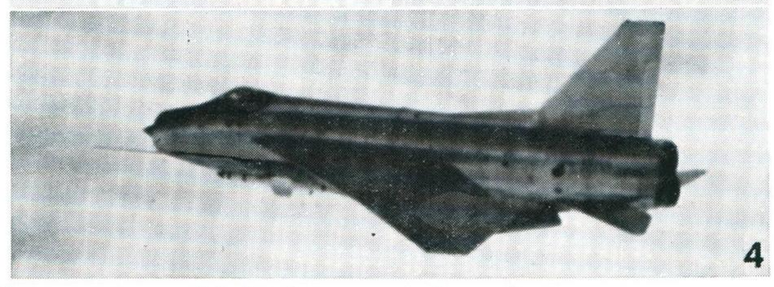


Final R.A.F. production version of the Lightning single-seat fighter is the F.6 long-range interceptor with extended ventral fuel tank, flight refuelling probe and modified wing incorporating camber and an outboard leading edge extension. An export version (F.53) is on order for Kuwait and Saudi Arabia. The earlier F.3 version—the first to feature a square-cut fin—is still in R.A.F. squadron service but is now being converted to F.6 standard. All Lightning F.3s and F.6s are now fitted with arrester hooks for emergency landings and examples of both marks may be seen with over-wing ferry tanks. The operational two-seat trainer versions, T.4 and T.5, are complementary to the original T.1 and the T.3. An export version of the T.5 is being supplied to Kuwait and Saudi Arabia as the T.55.


1


2

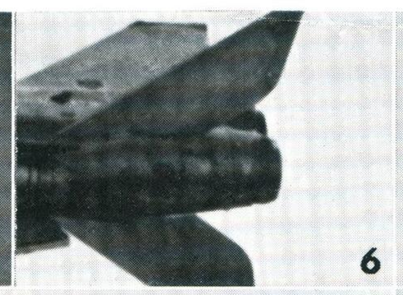

3


4

Read the instructions on page 252 and classify targets as Lightnings or otherwise.




5

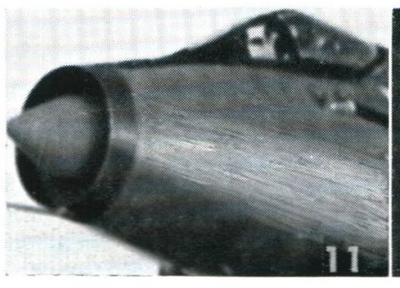

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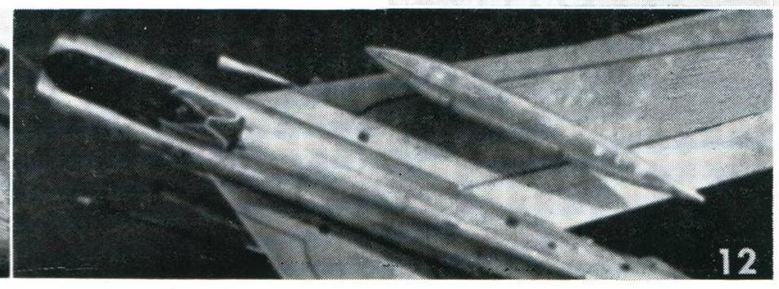

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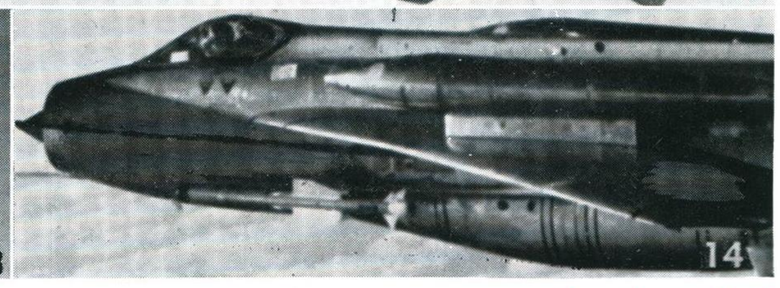

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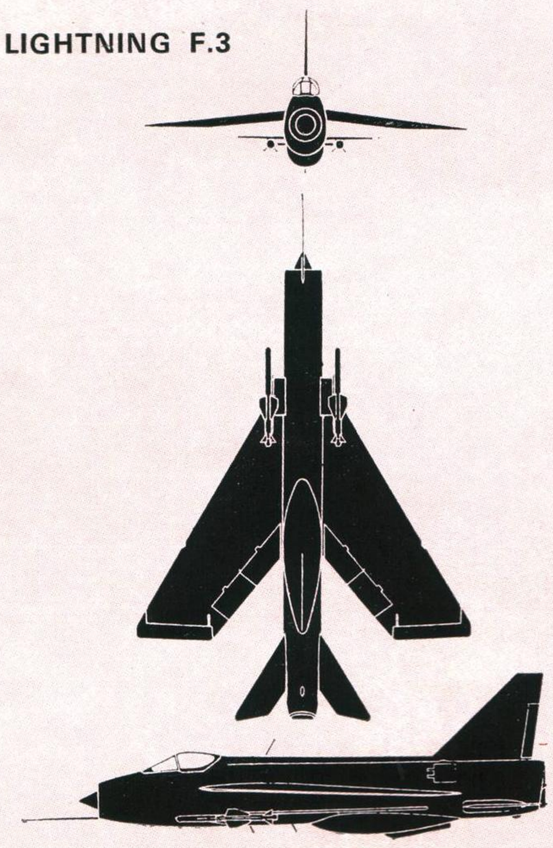

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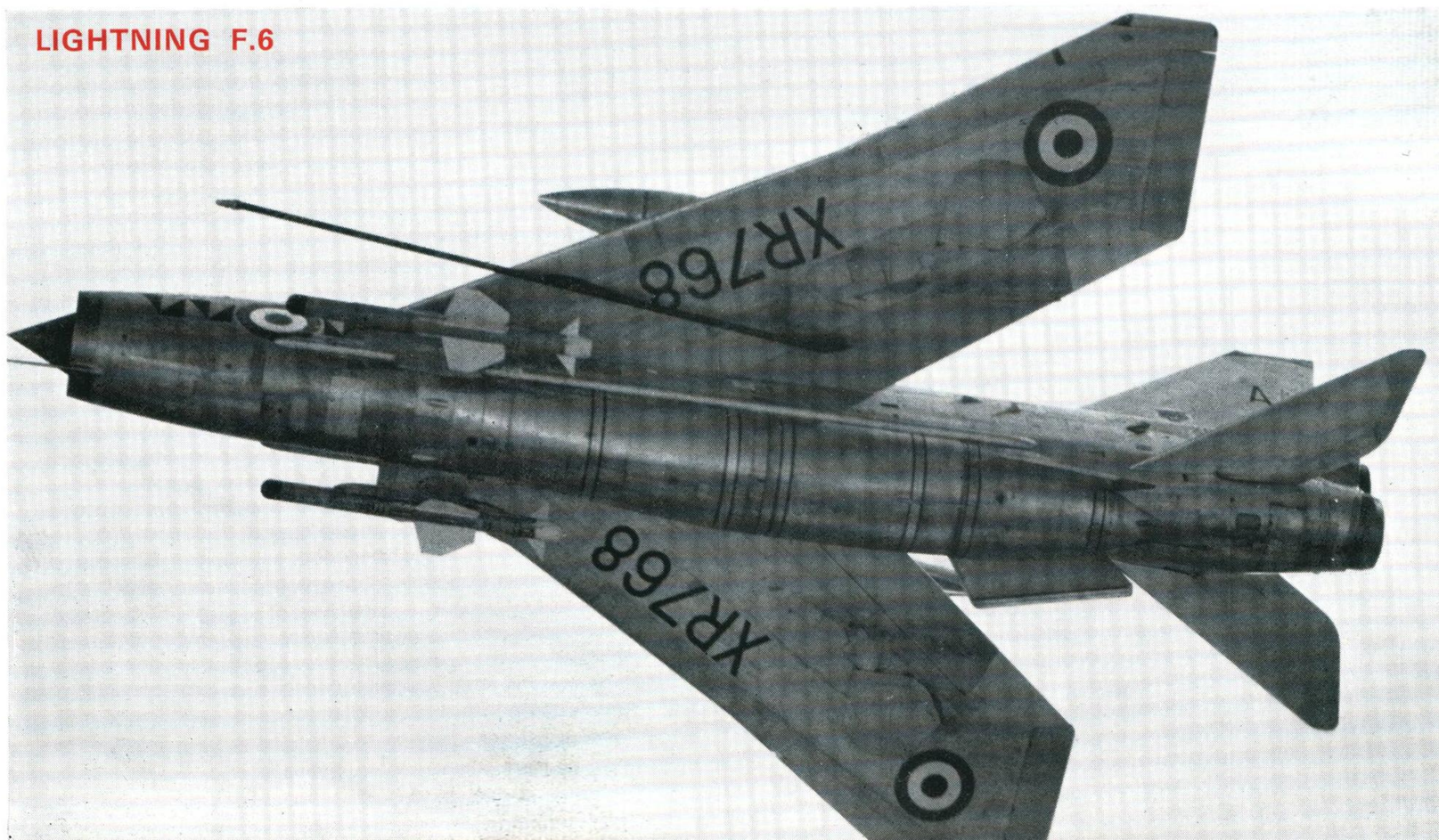
continued overleaf

September 1967

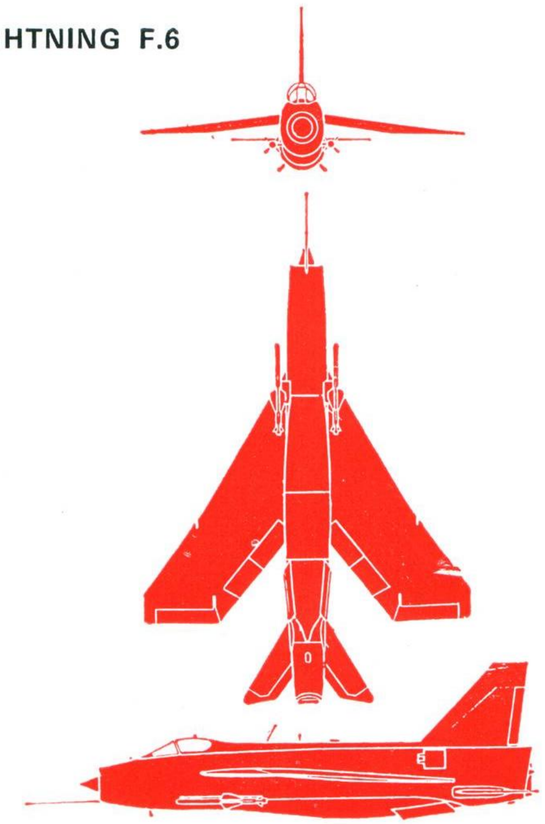
LIGHTNING F.3



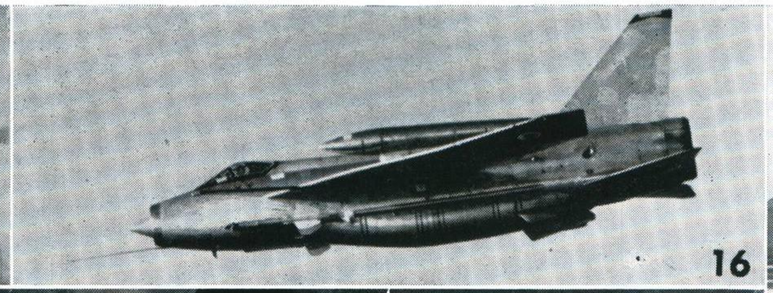
LIGHTNING F.6

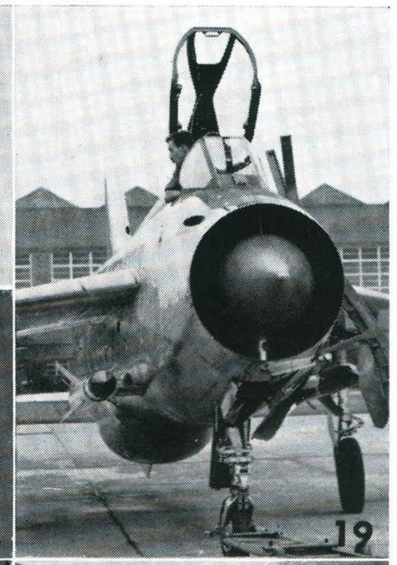


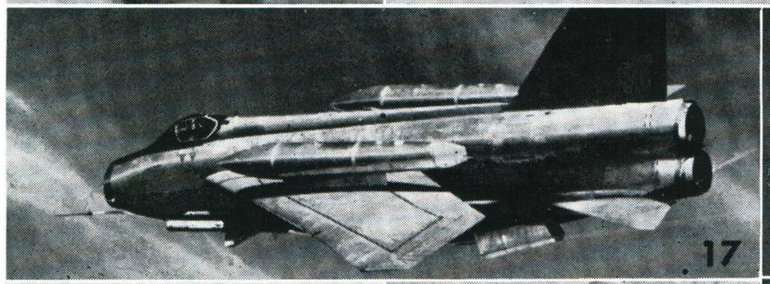
LIGHTNING F.6




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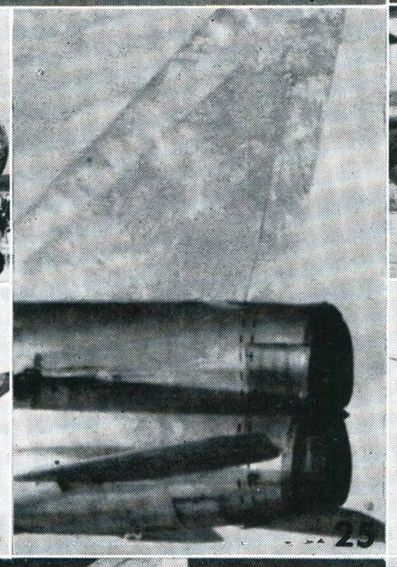

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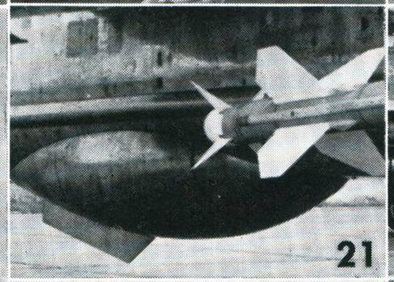

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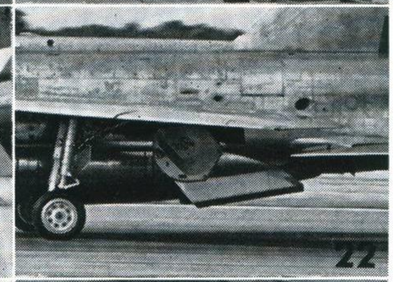

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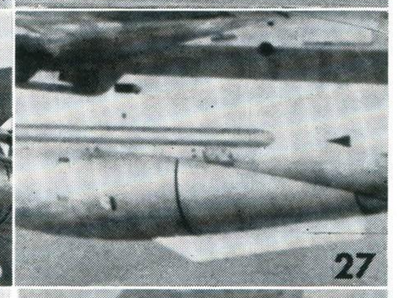



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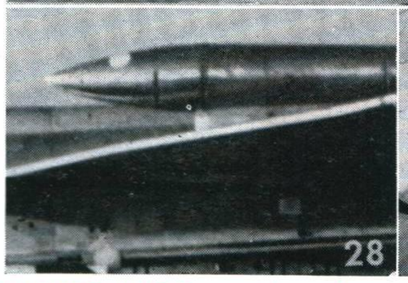

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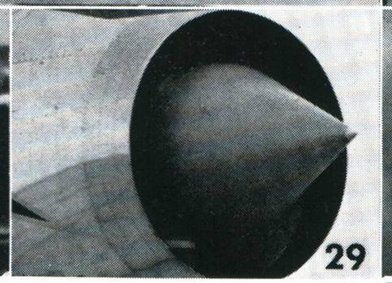

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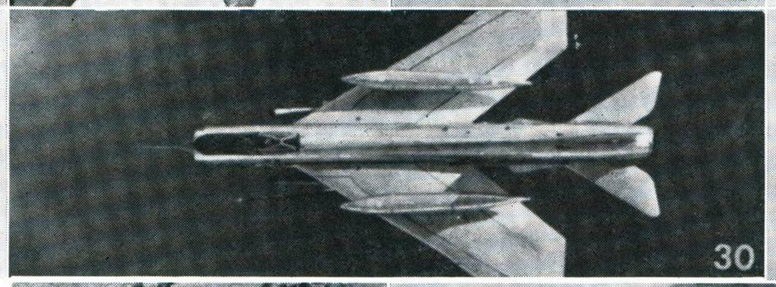

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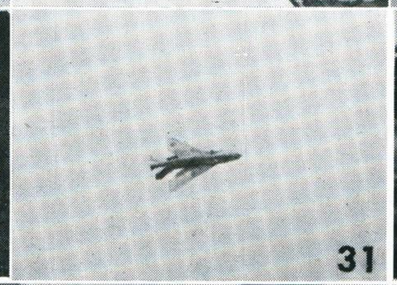

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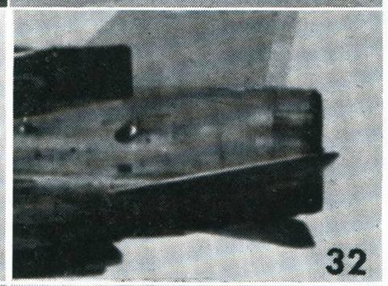

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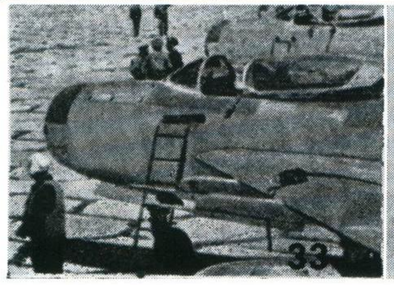

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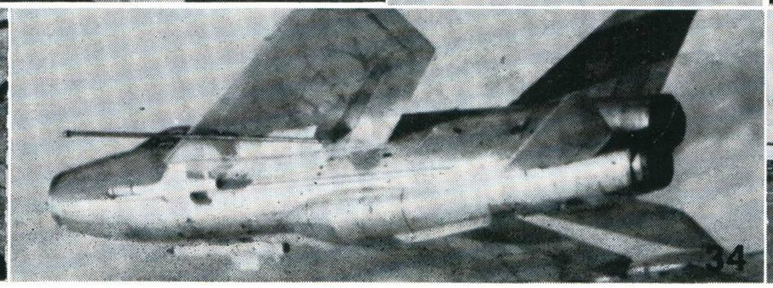

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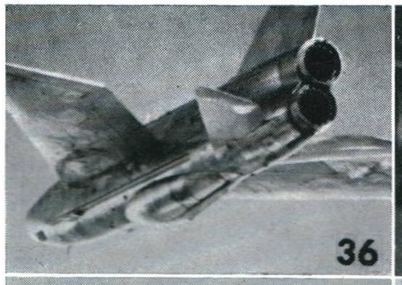

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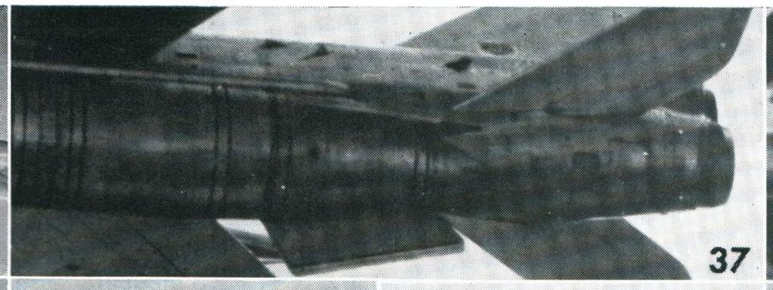

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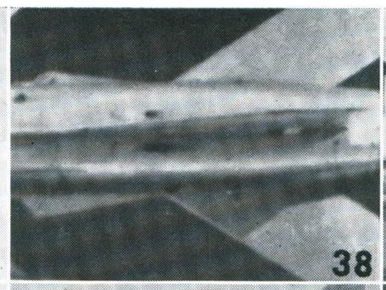
LIGHTNINGS continued

The Lightning F.6, deliveries of which have now been completed, is generally accepted to be the fastest-climbing service interceptor extant. Armament comprises two Red Top or Firestreak AAMs, or 44 Mk.I 2-inch rockets.

Solutions on the cover


36


37

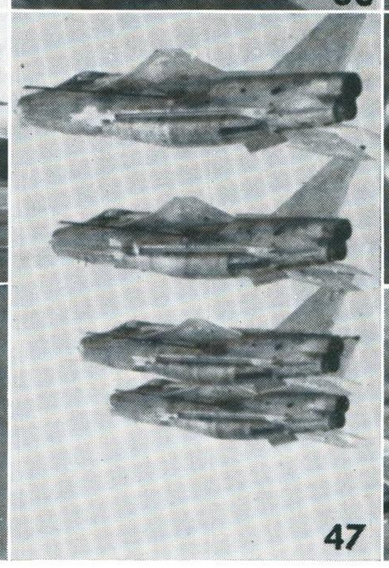

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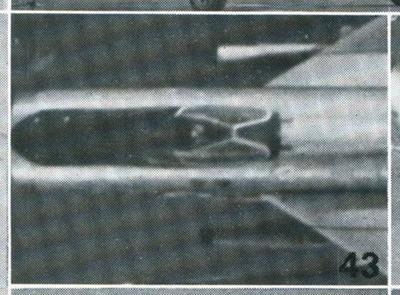

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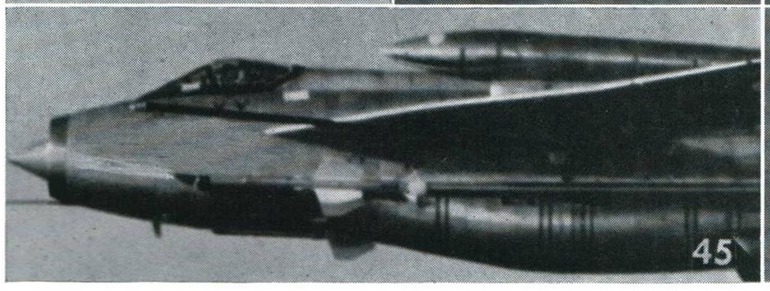

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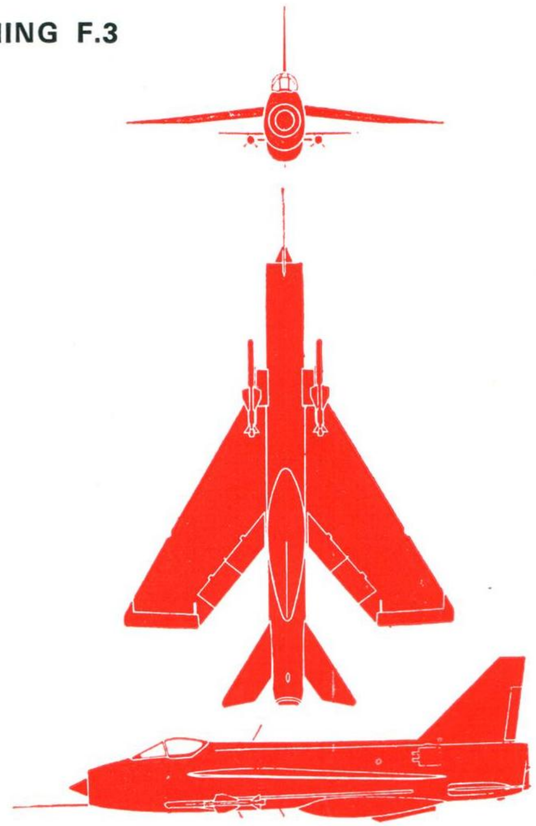

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September 1967

LIGHTNING F.3

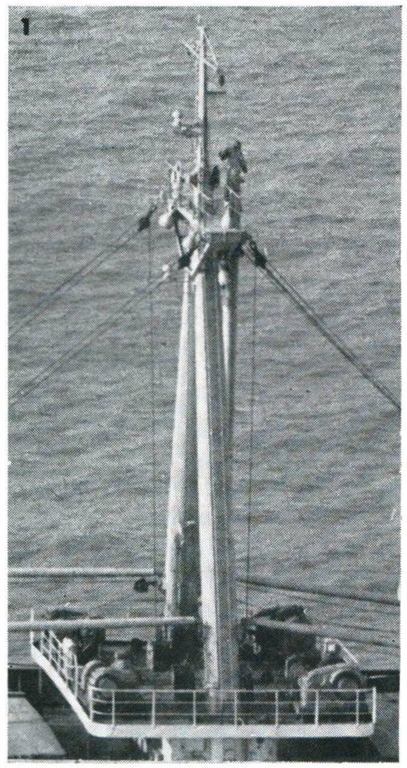


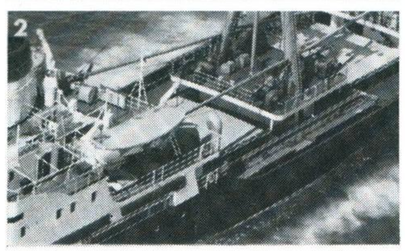
LIGHTNINGS F.3s



MERCHANTMEN OF THE USSR

LEVANT CLASS





The outstanding characteristic of this vessel is a pair of openings in the side of the poop (or after-castle) which is, naturally, not seen in silhouette. There are minor differences, such as ventilators, but these are not really important. There are four different funnels/masts combinations as will be found in this lesson. They are listed here:

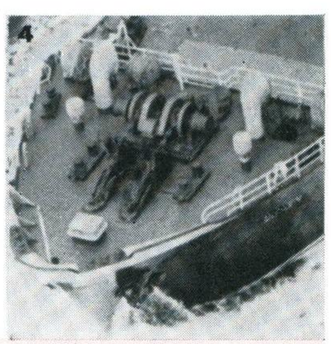
Type 1. Tall funnel and light two-piece masts.
Type 2. Same as above but with slightly shorter funnel.
Type 3. Tall funnel with a very tall heavier one-piece mast.
Type 4. Shorter funnel with thick medium sized mast.

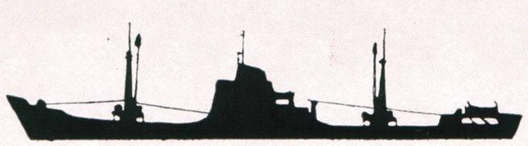
They do not affect the visual character of the vessel as a whole. In all cases the mast is set on the bridge structure rising abreast the funnel on the starboard side. In some angles the mast *appears* to be *in front of the funnel* but this is not actually the case.

Lesson rules and solutions are on back cover

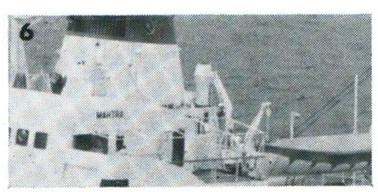


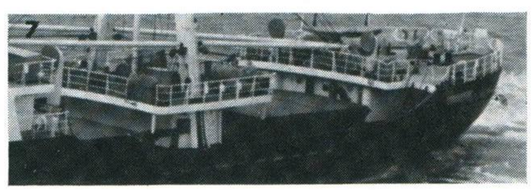


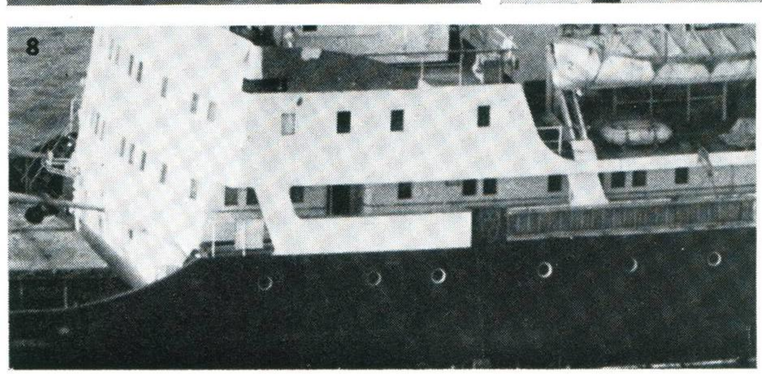




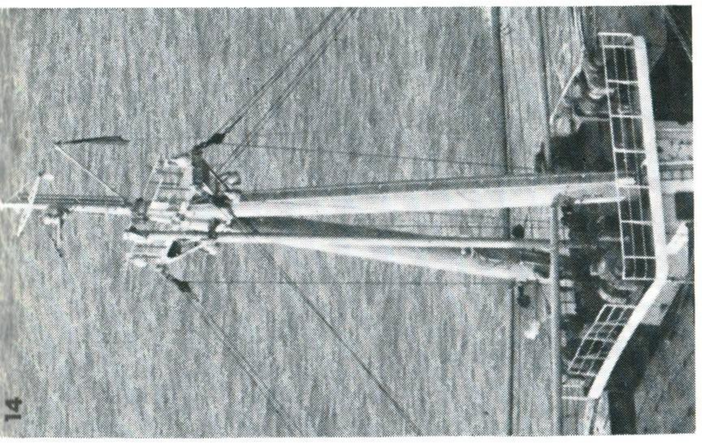


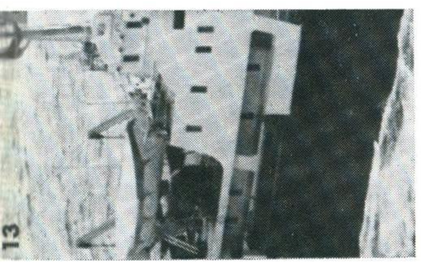


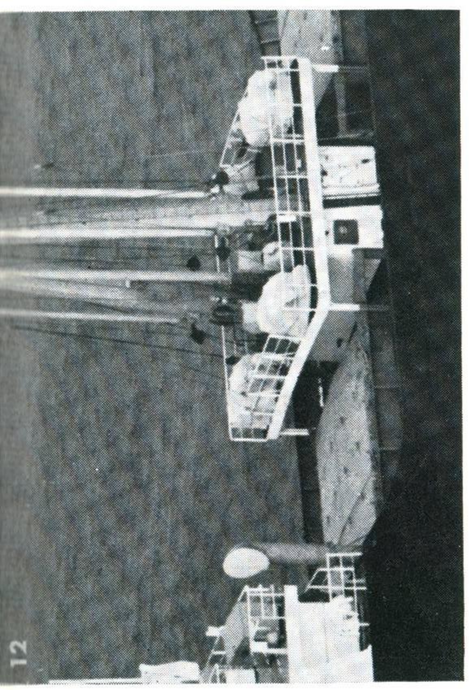




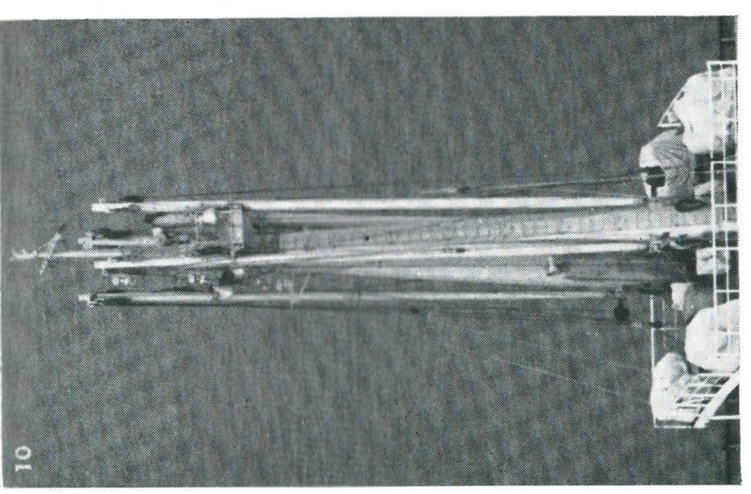


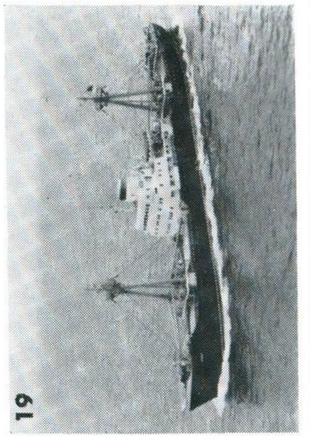

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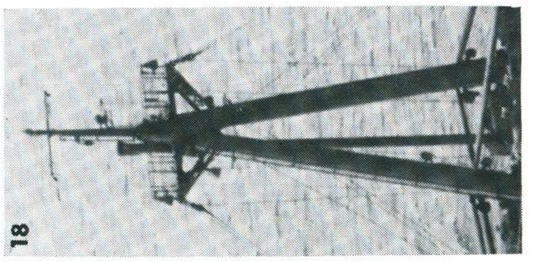

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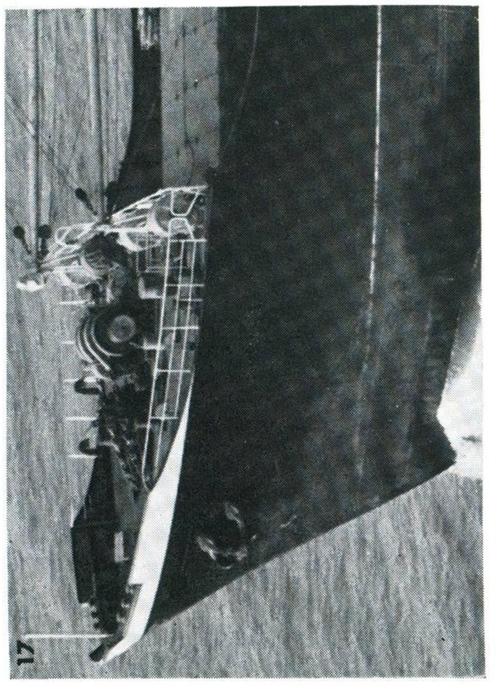

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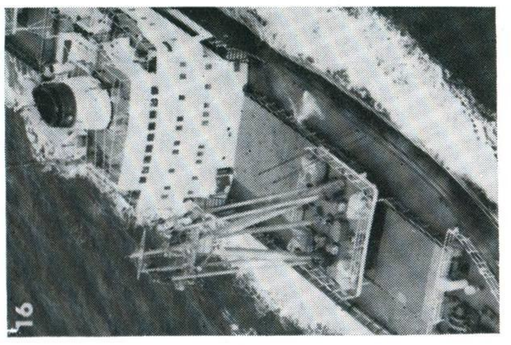

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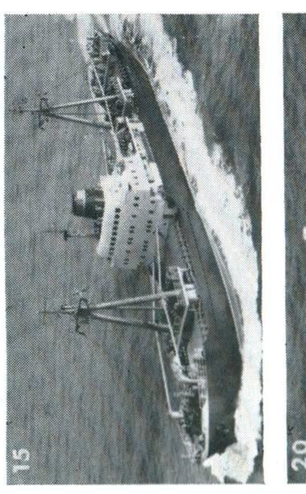

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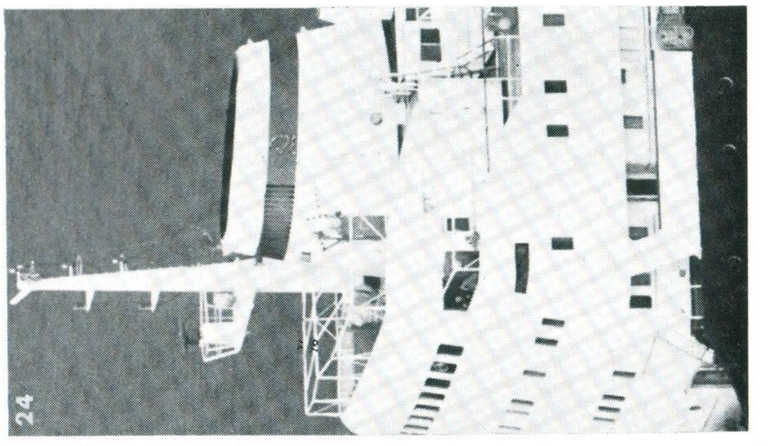

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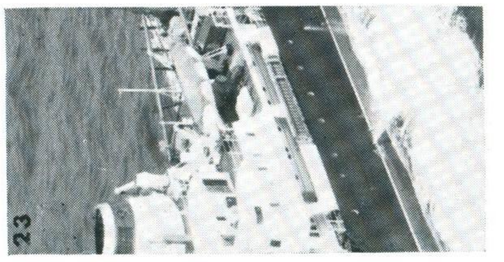

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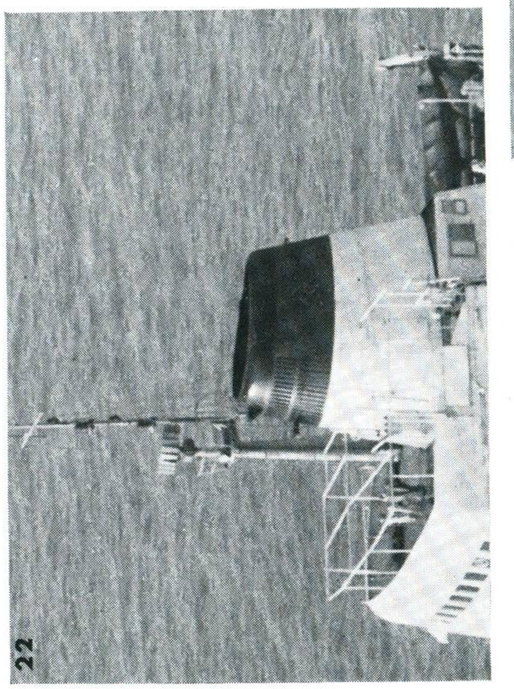

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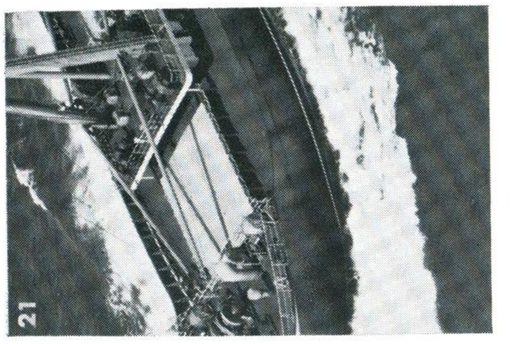

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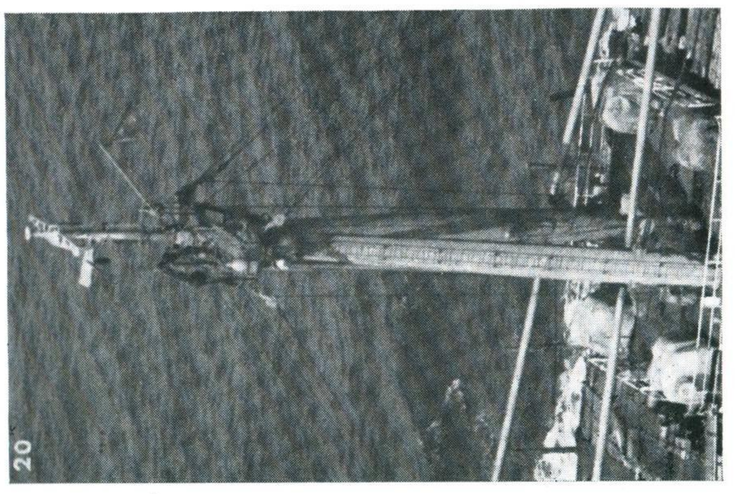

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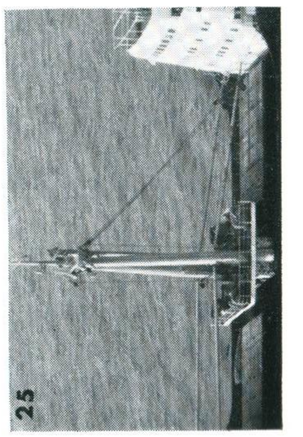

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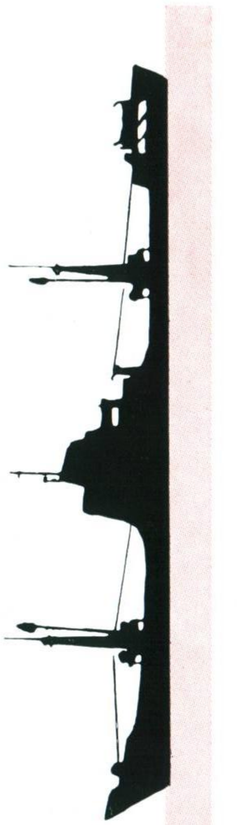

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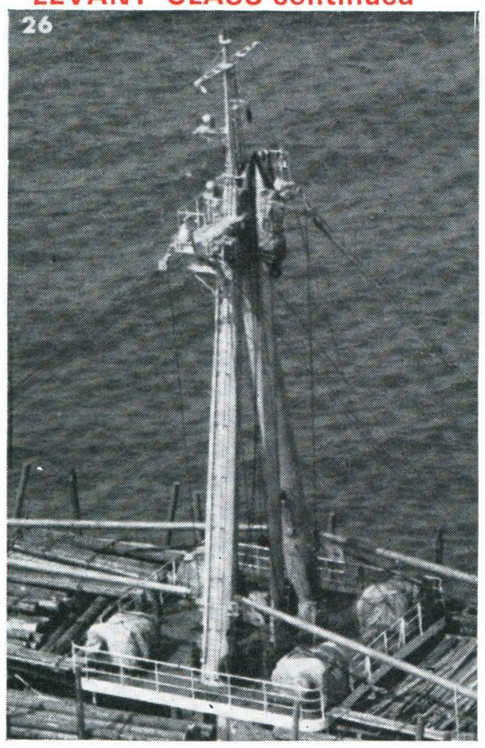

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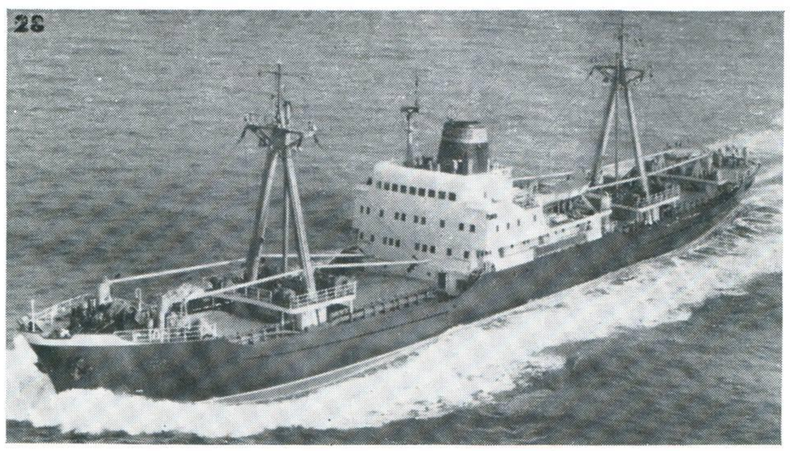

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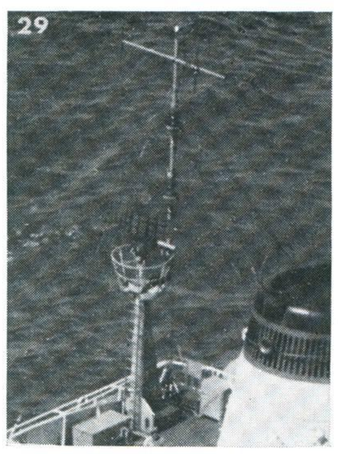


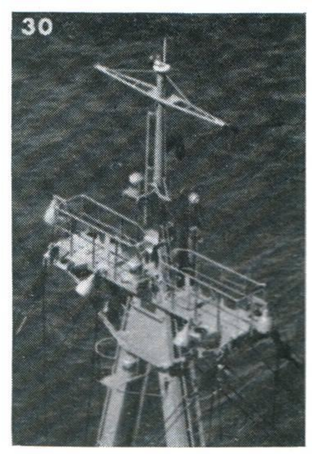
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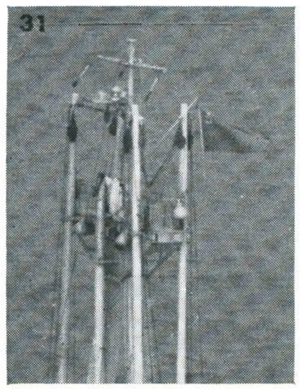

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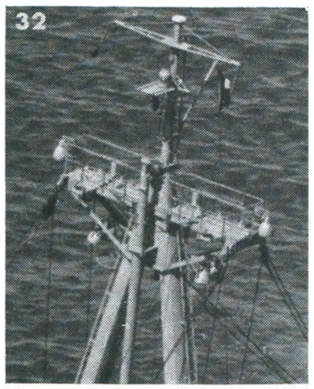

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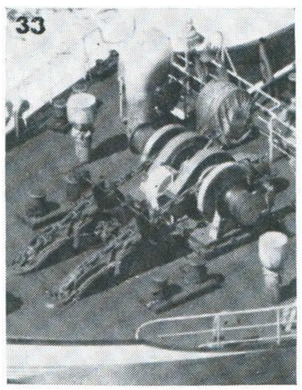

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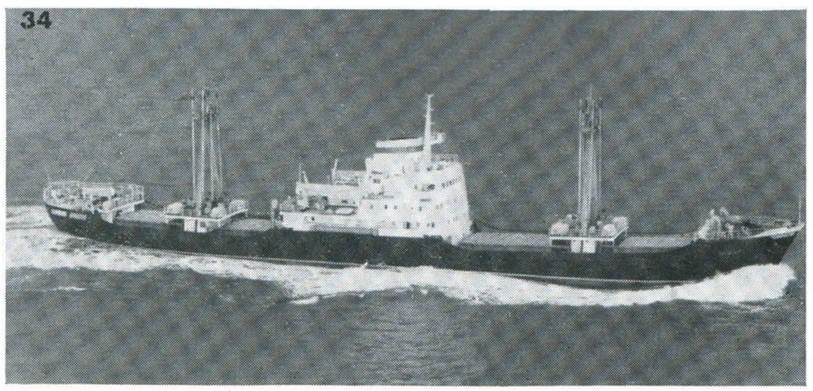

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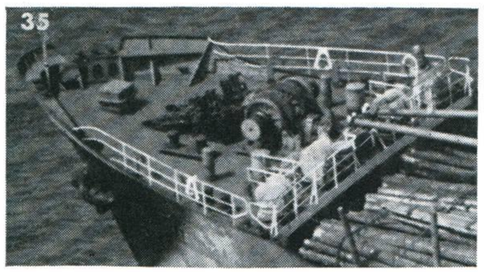

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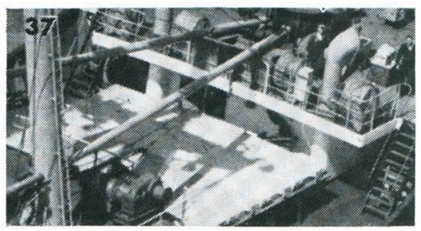

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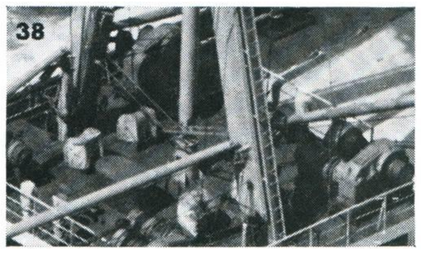

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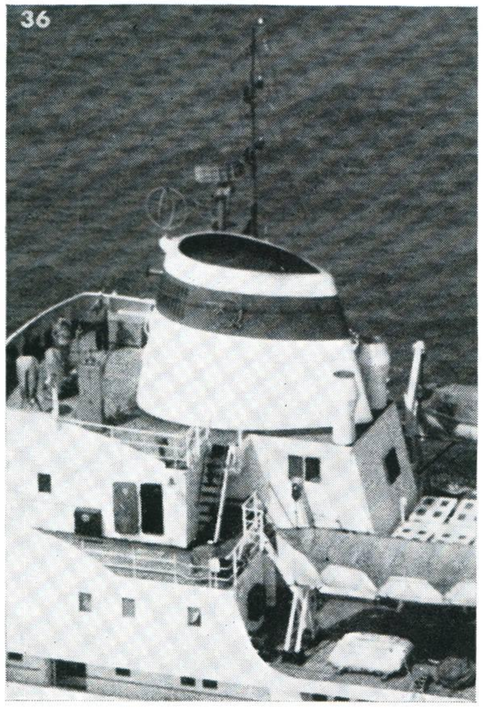

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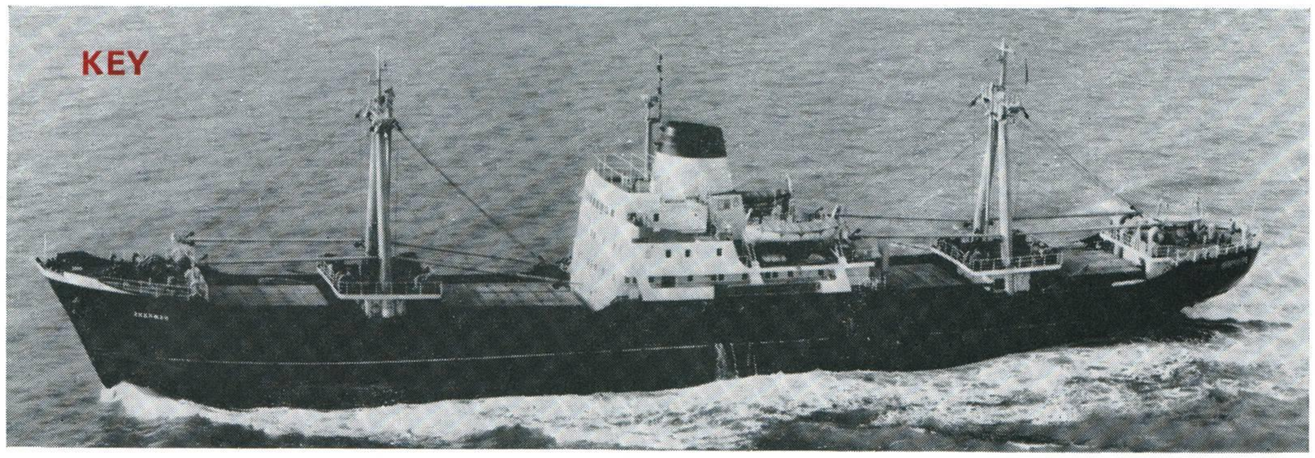

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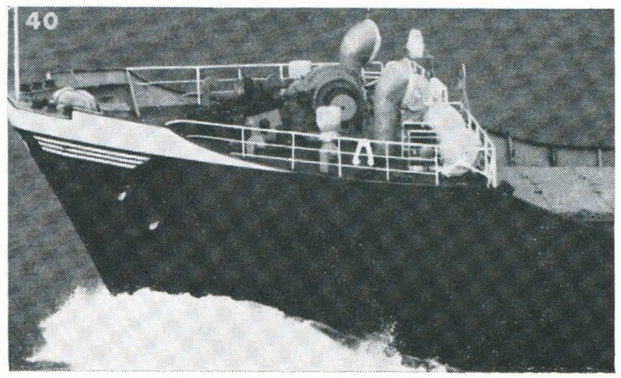

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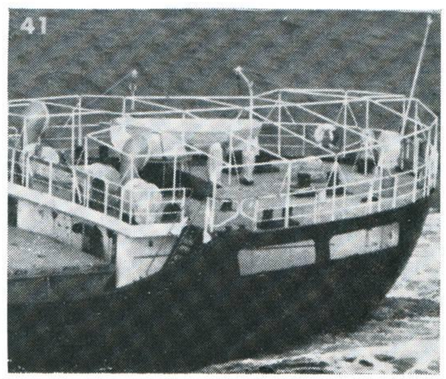

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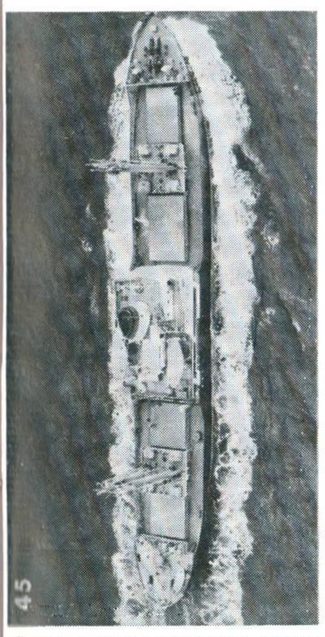
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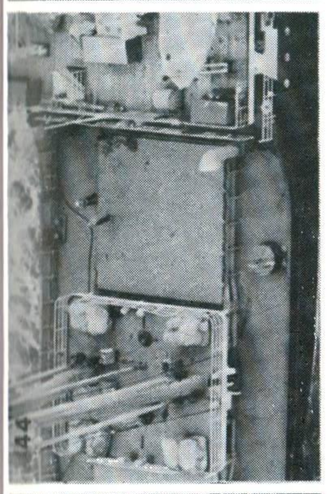


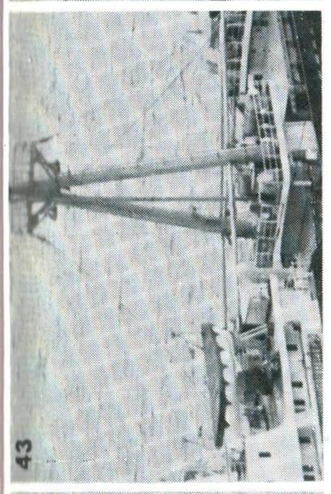

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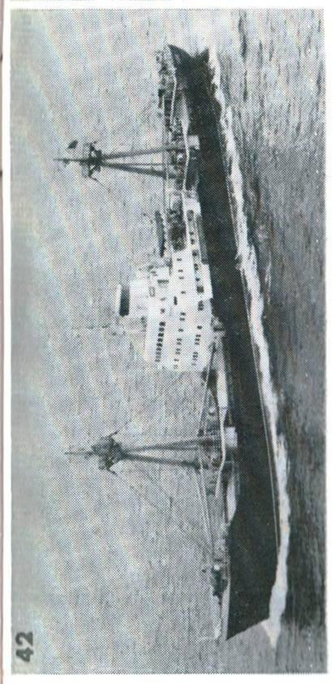

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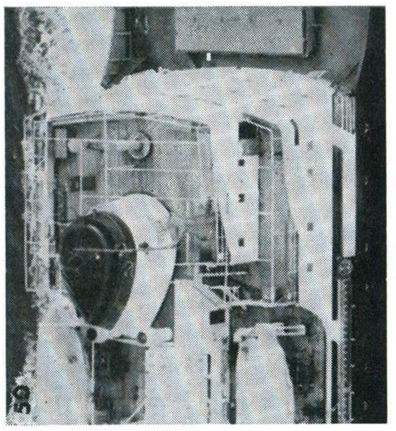

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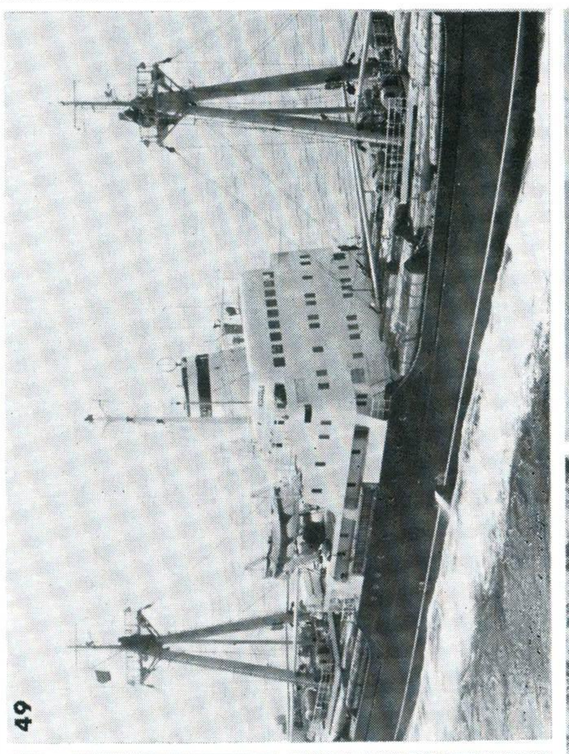

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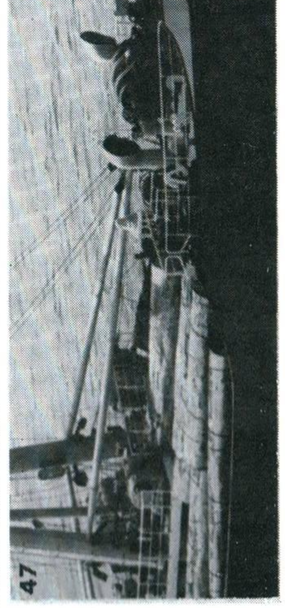

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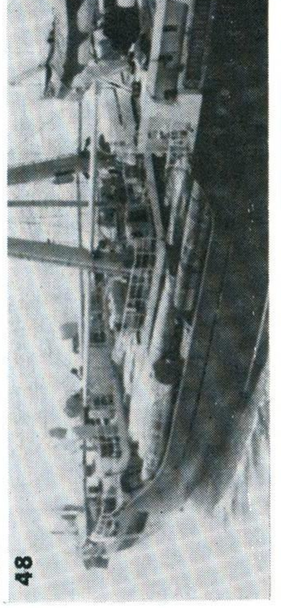

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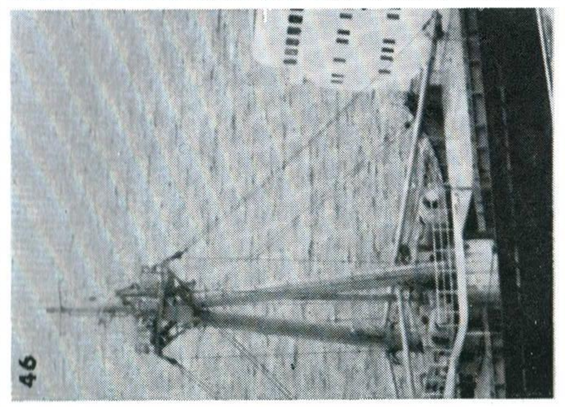

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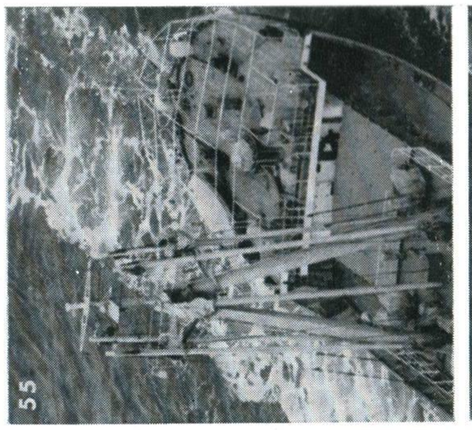

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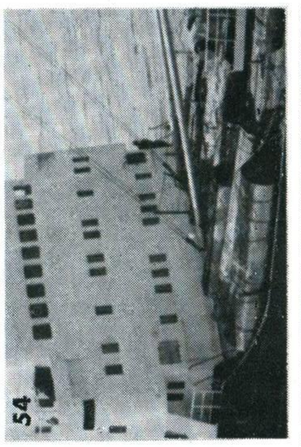

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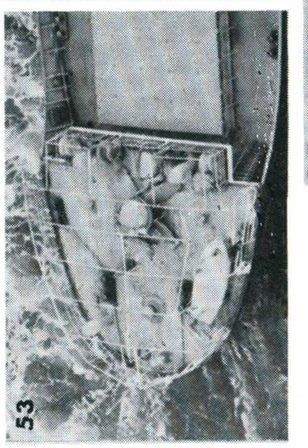

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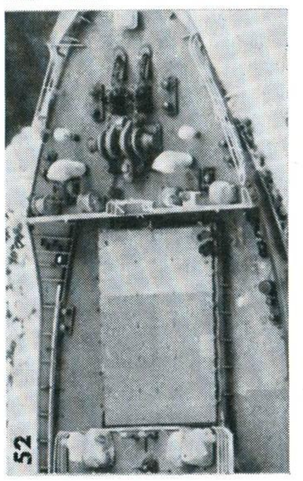

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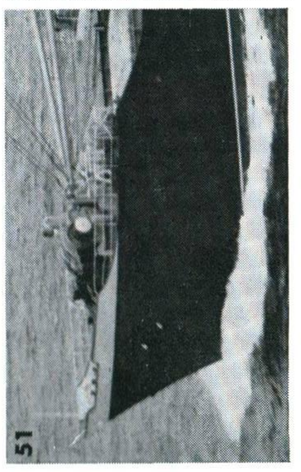

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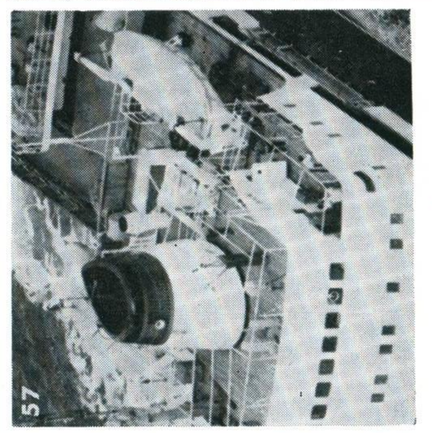

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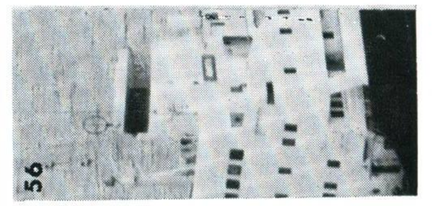

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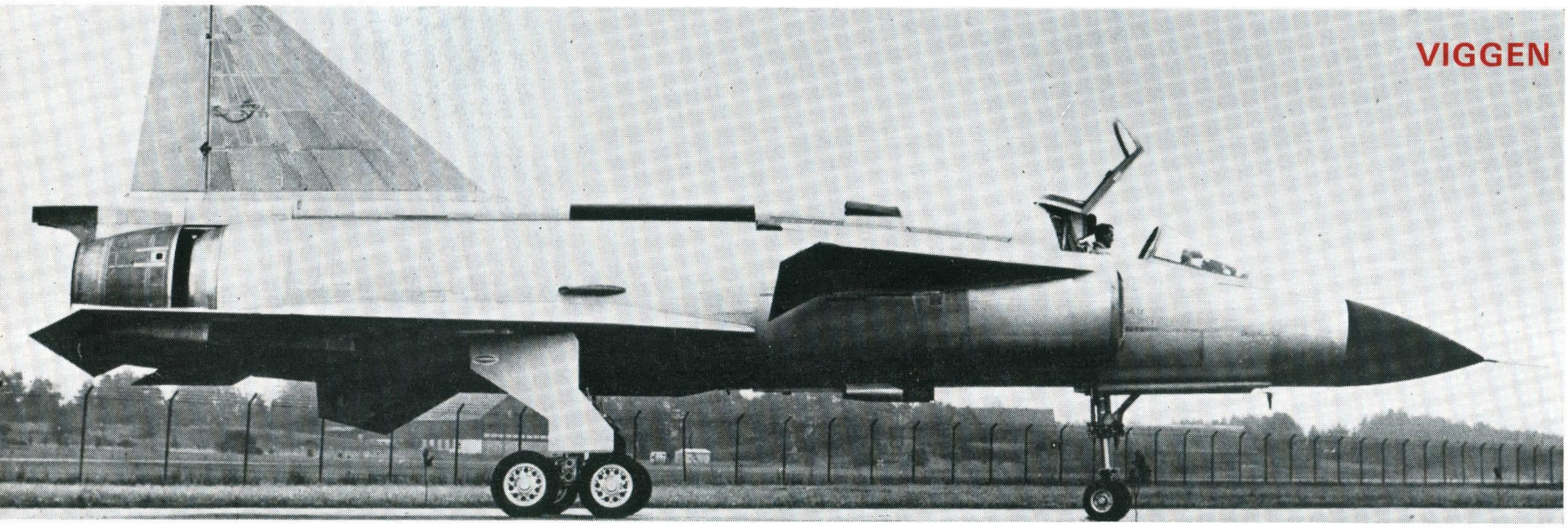

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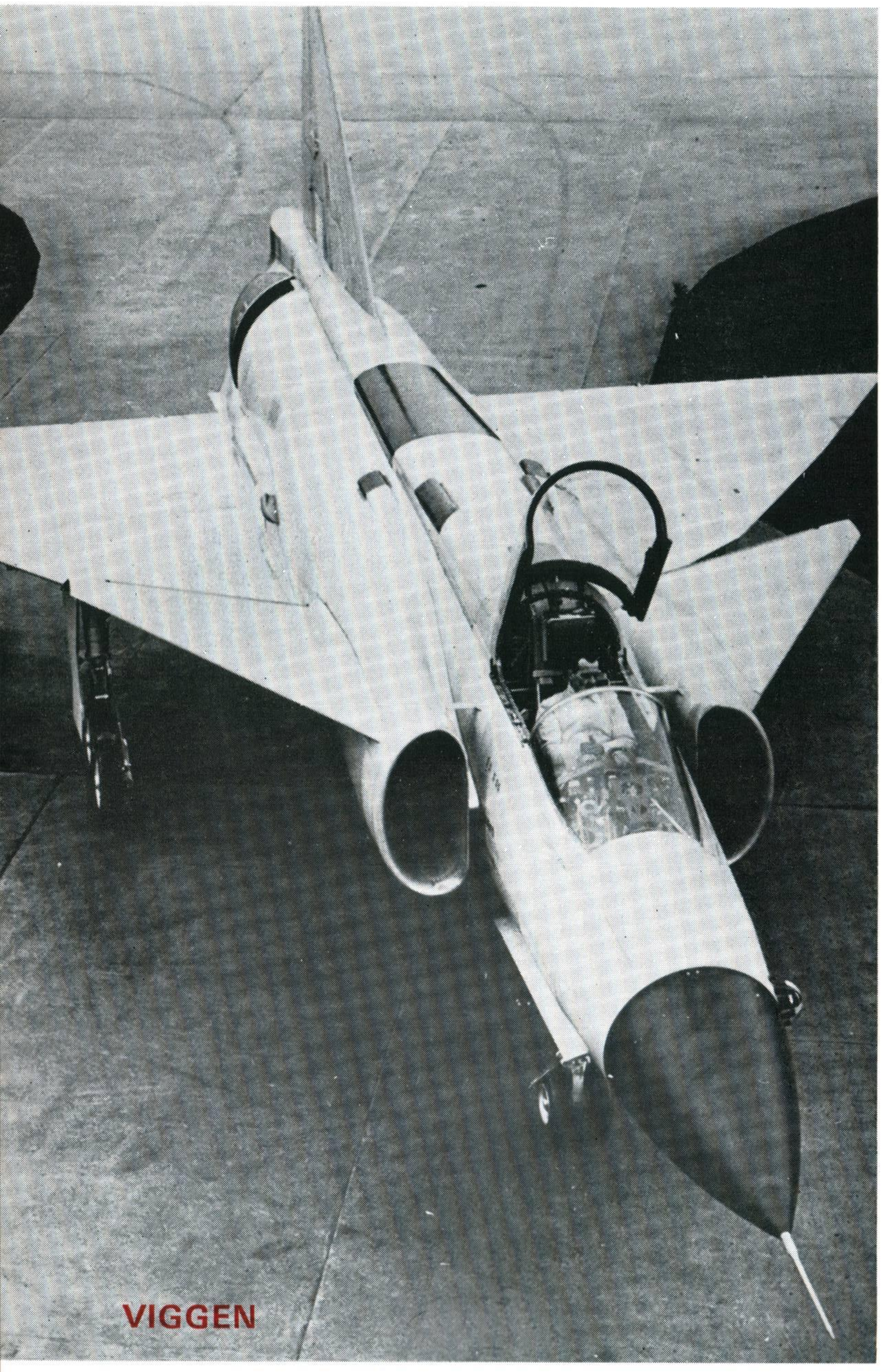

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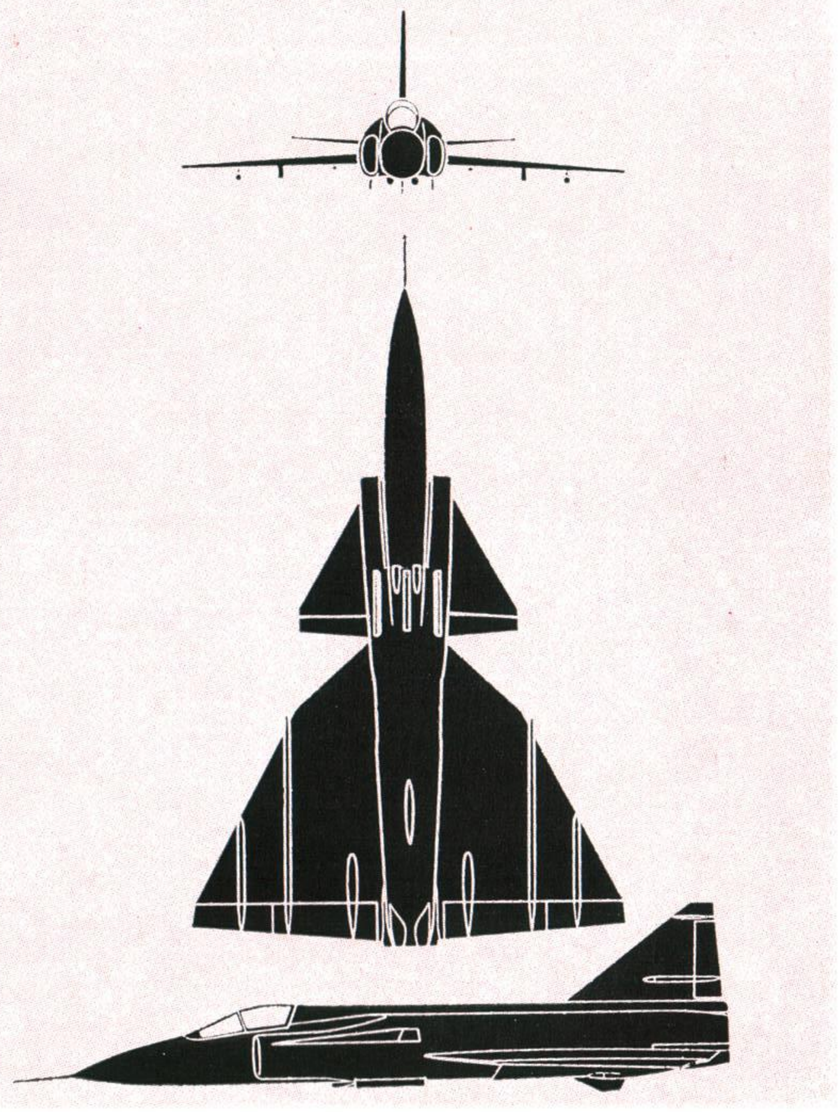


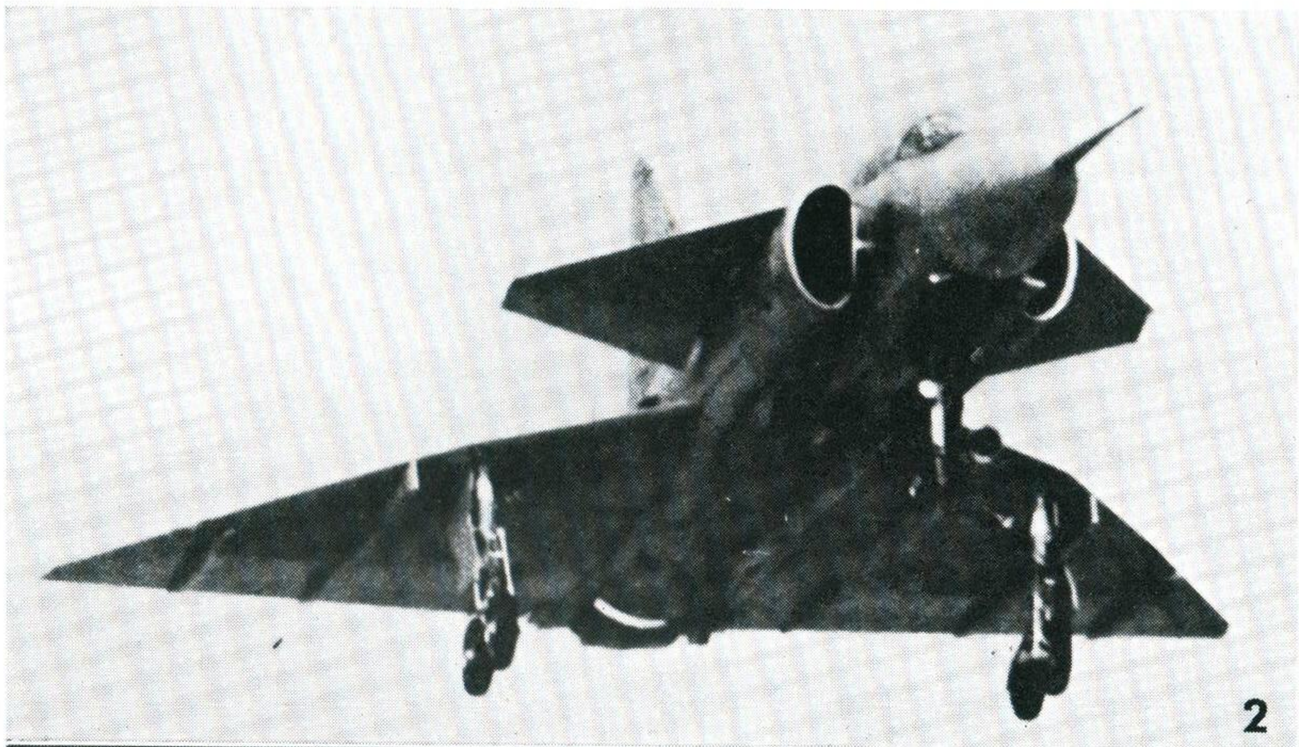
VIGGEN

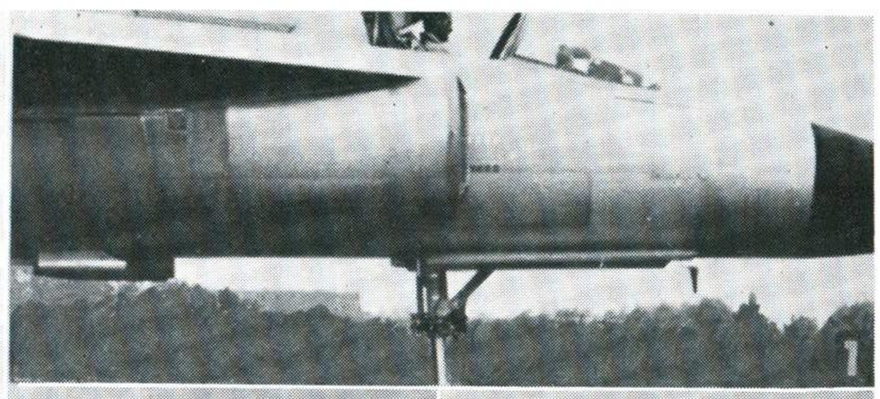
Sweden's SAAB S37 Viggen (Thunderbolt) single seat multi-purpose interceptor is built on the canard layout which makes the task of identifying it relatively simple at times, although the aircraft can easily be confused with such types as the Draken, the Mirage III and the Delta Dart when viewed from certain angles. Main reason for the radical choice of the canard layout was Sweden's decision to develop a STOL air force capable of operating from infinitely dispersed, short (1,650 feet) stretches of motorway.

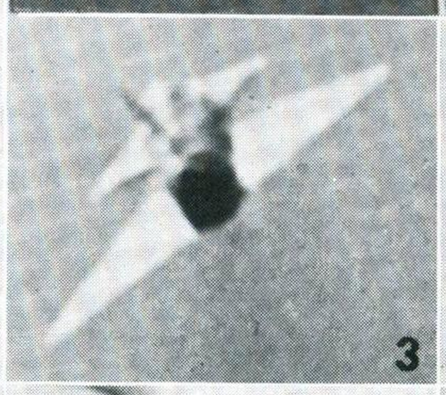
The Viggen, the first prototype of which flew in February, 1967, is intended for single-type re-equipment of the RSAF in the 1970s and will be produced as the AJ37 for strike, the JA37 interceptor, the Sk37 trainer and the S37 for reconnaissance.

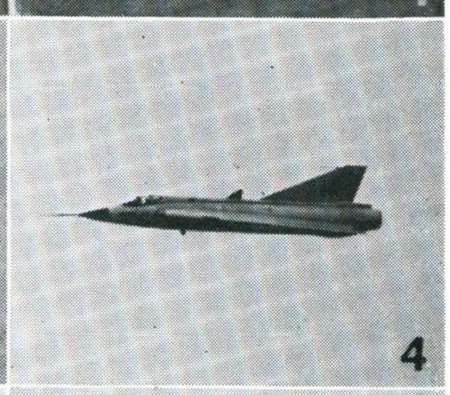
Span 34 feet 9 inches; max. speed 1,320+m.p.h.



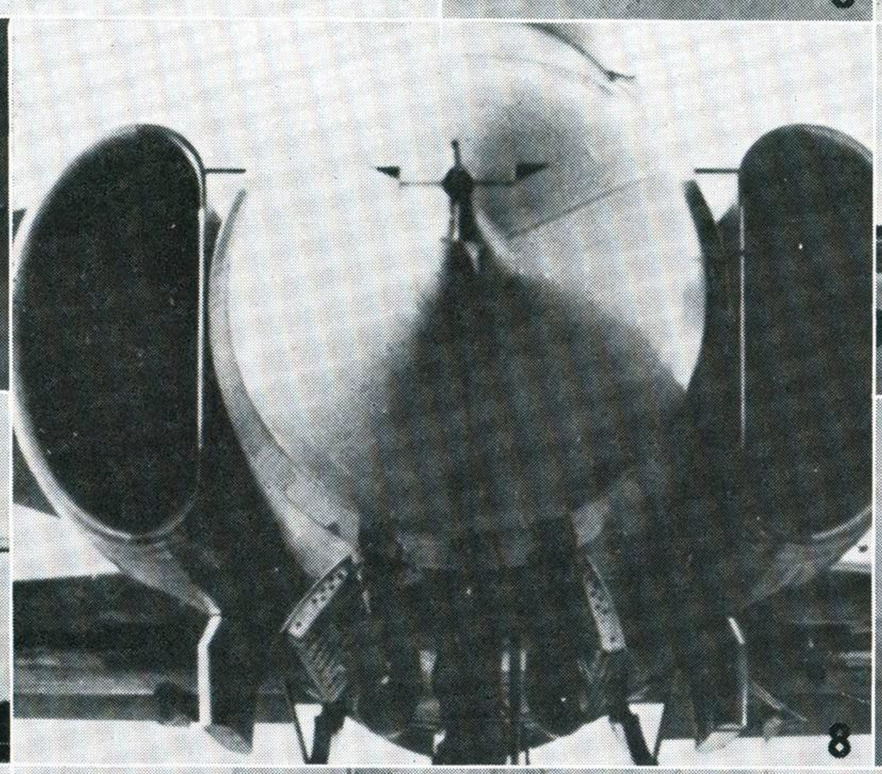

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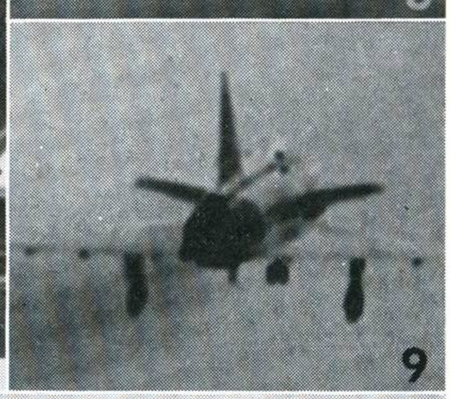

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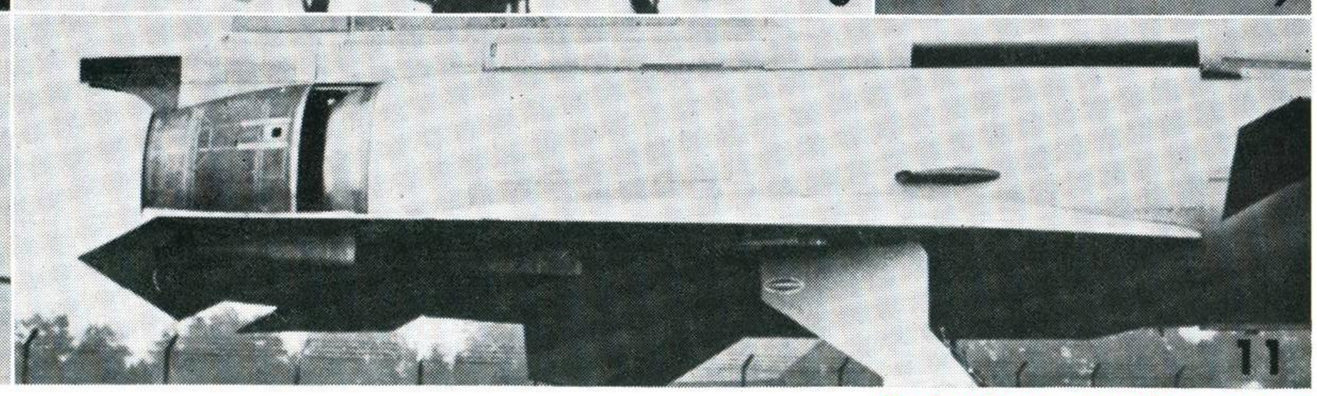

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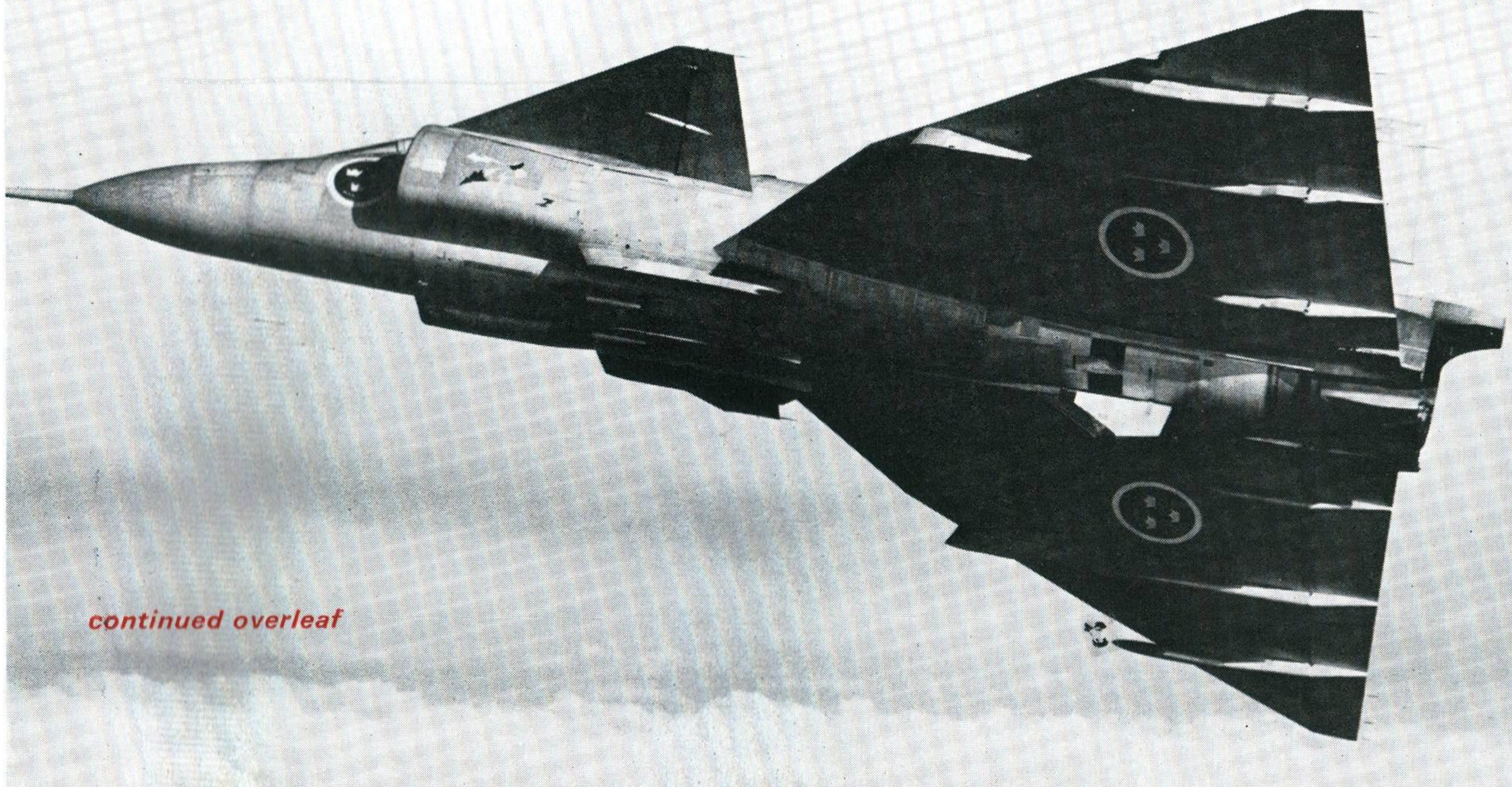

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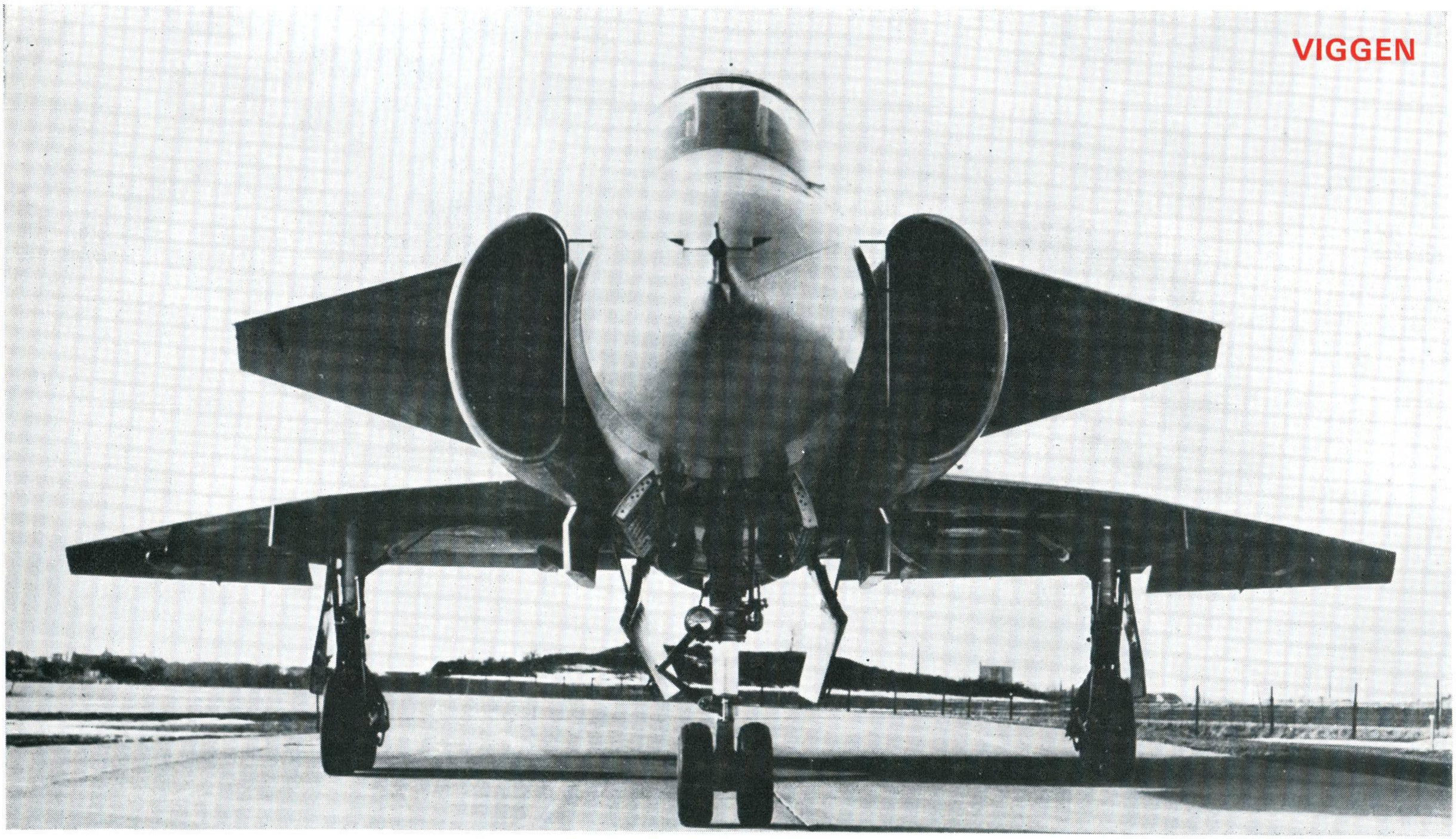
Lesson rules are on page 252

Solutions on the cover

VIGGEN



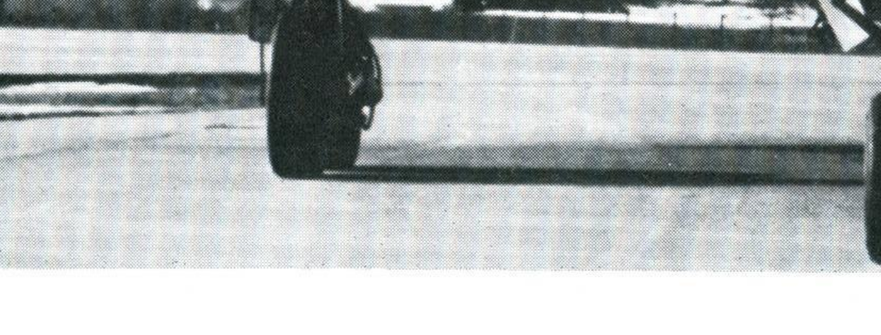
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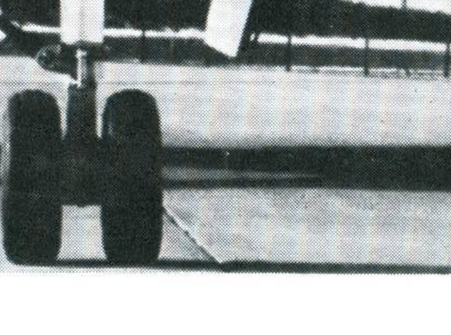
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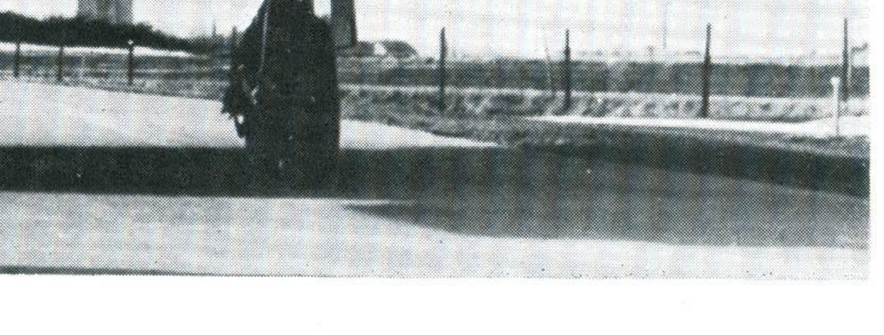
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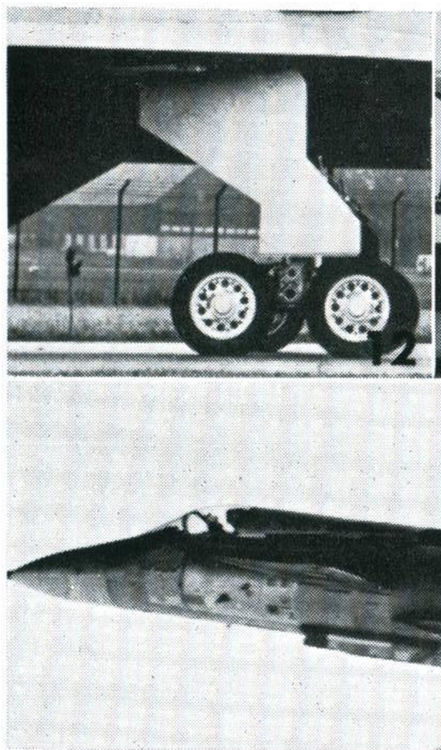
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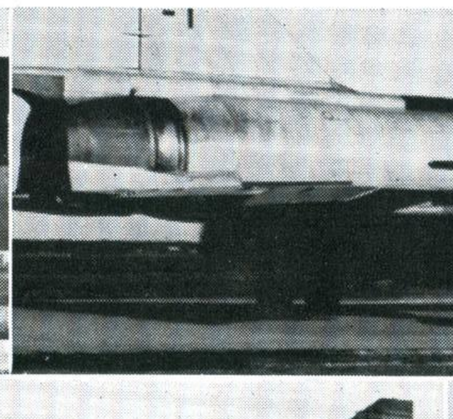


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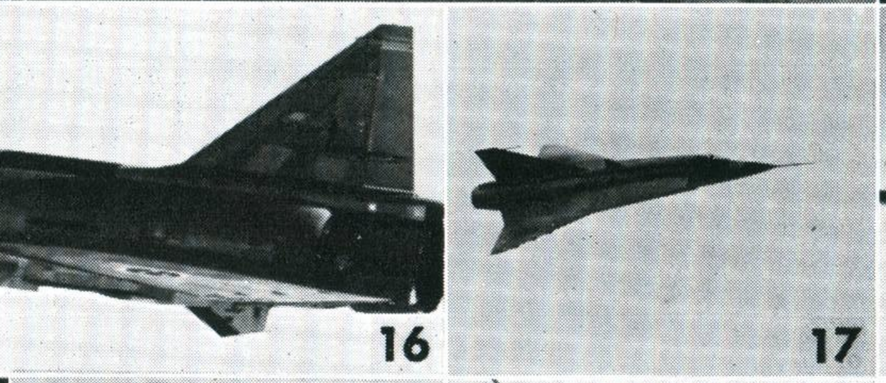


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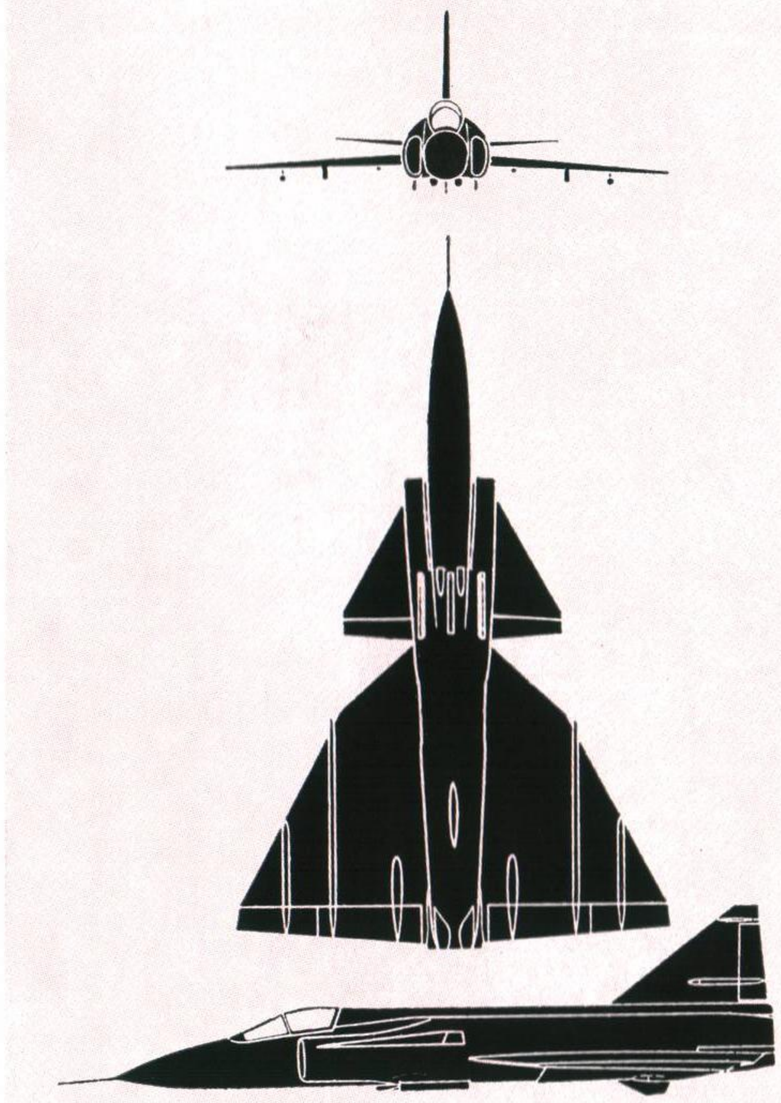
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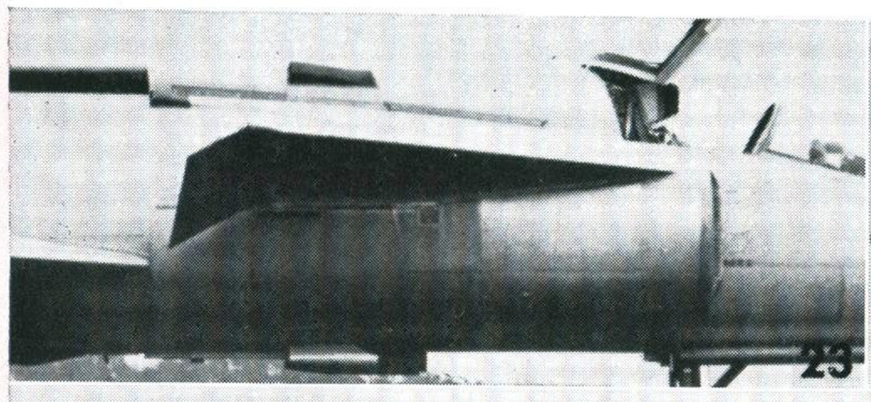


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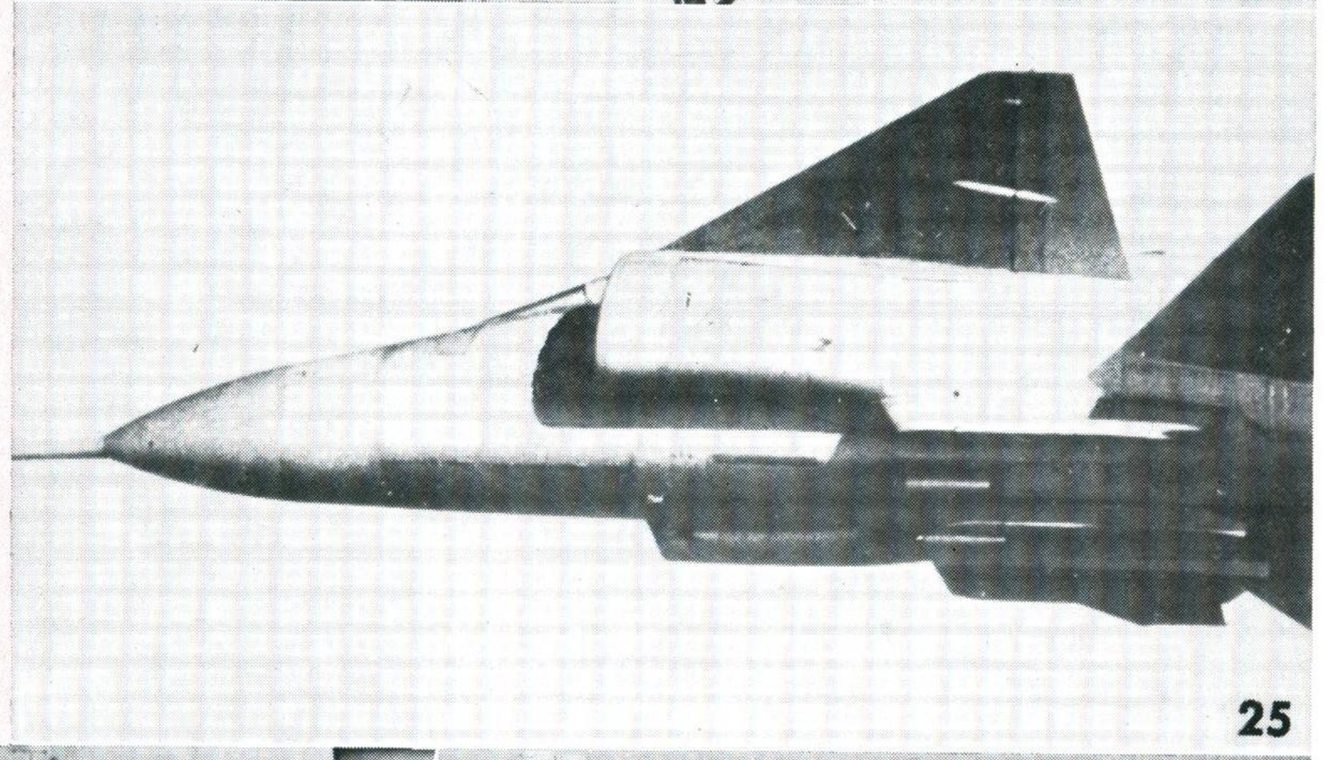
VIGGEN continued

So far 83 AJ37s and 17 Sk37s have been ordered but total production is estimated at about 400. Helpful as the Viggen's unique canard layout may seem to be on some occasions, it is not on that aspect alone that identification must be made, for the aircraft can assume so many different attitudes in which its foreplane is not seen and one must learn to identify it as a whole. This is not difficult if the lesson rules on page 252 are carefully carried out.

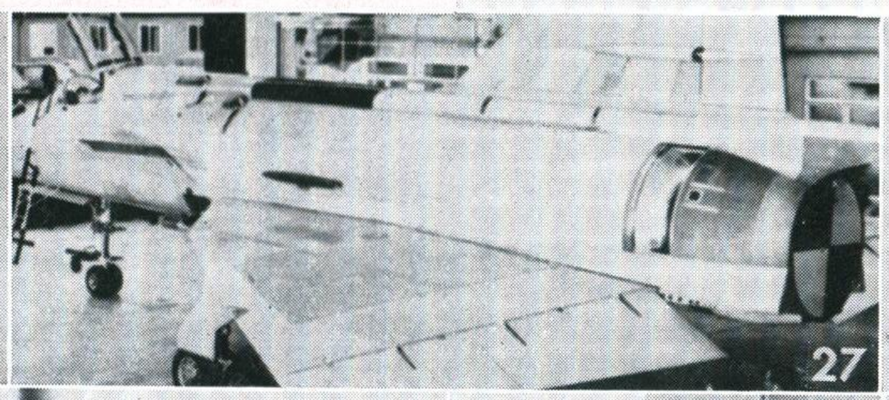


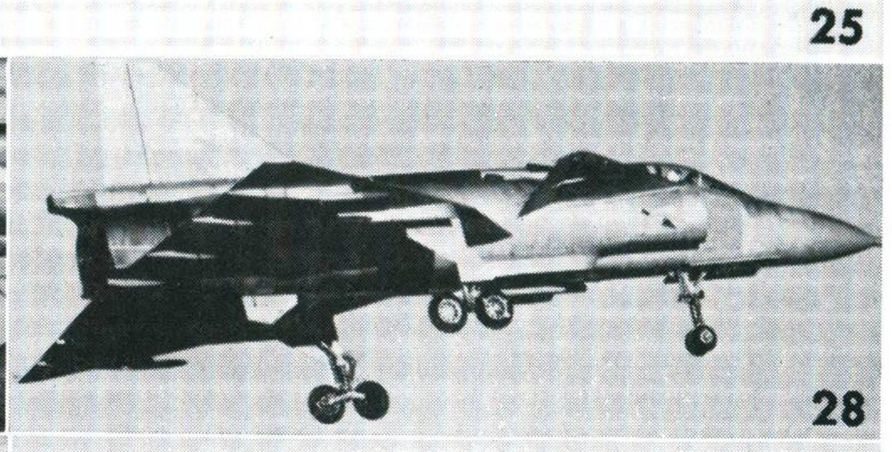

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Solutions on the cover

VIGGEN





Cover Photo: Three Royal Navy Buccaneer strike aircraft of 809 Squadron from H.M.S. *Hermes* over Aden. H.M.S. *Hermes* (27,800 tons) was carrying out exercises off Aden whilst on passage to the Far East.

SOLUTIONS TO TESTS AND EXERCISES

Page 223

VC-10

All targets are of **VC-10s** (including **Supers**) except Nos. 10 **Classic**, 28 **Boeing 727**, 37 **Trident** and 45 **Trident**.

Page 232

TWIN OTTER

All targets are **Twin Otter** except Nos. 9 (**Turbo-Beaver**) and 37 (**Caribou**).

Page 236

HOODLUM

All targets are **Hoodlum** except No. 24, which is a **Ka-25K**.

Page 226

TEST PAPERS

HERCULES: Joker is second line 4th picture.
VC-10: Joker is second line 1st picture.
HERALD: Joker is third line 3rd picture.

Page 238

LIGHTNING

All targets are **Lightnings** except No. 33 which is a **Fresco** and No. 48 which is a **Farmer**.

1 F.6
2 Lightning
3 F.6
4 F.6
5 F.6
6 F.6
7 F.6
8 F.6
9 F.6
10 F.6
11 Lightning
12 F.6
13 F.6
14 F.6
15 F.6
16 F.6
17 F.6
18 F.6 (and tail of Victor K1A)
19 F.3
20 Lightning
21 F.3
22 F.6
23 F.3
24 F.6
25 F.3
26 F.6
27 Lightning
28 F.6
29 Lightning
30 F.6
31 F.6
32 F.6
33 Joker: Fresco
34 F.3
35 F.3
36 F.3
37 F.6
38 F.6
39 F.3
40 F.6
41 F.6
42 F.3
43 F.6
44 F.3
45 F.6
46 F.6
47 F.6
48 Joker: Farmer
49 F.6

Page 244

LEVANT CLASS

All targets are of the Levant Class.

Page 248

VIGGEN

All targets are of **Viggen** except Nos. 4 and 17 **Draken** and 26 **Mirage III**.

CORRECTION

In the June edition of the *Journal* on page 146 the date 1954 in the caption for the YF-12 should read 1964

Lesson Instructions

Identity Training is a matter of "doing", not of gathering information. Submit to the instructions given below in every lesson and the ability to identify 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 any order.**
3. **Identify the target pictures by comparing them with the key views: start with the easy ones so as to gain experience: also use targets already identified to solve 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 it without the key too soon, wait until it is self-evident.**

1. **Lire le texte correspondant à la leçon.**
2. **Préparer une liste de numéros de cible, de façon à pouvoir prendre les cibles dans n'importe quel ordre.**
3. **Identifier les photos de la cible en les comparant avec les vues-clé: commencer par les plus faciles de manière à gagner de l'expérience: se servir aussi de cibles déjà identifiées pour trouver les plus difficiles.**
4. **Quand vous serez certain de l'identité d'une cible, notez son nom immédiatement en face du numéro correspondant sur votre liste. CECI EST IMPORTANT.**
5. **Les leçons ne devront pas être précipitées ou d'une durée limitée à l'avance. En ce qui concerne les débutants, il est plus important d'identifier avec précision que rapidement.**
6. **Ne pas s'efforcer d'apprendre par cœur les détails, les formes ou les noms.**

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