

01

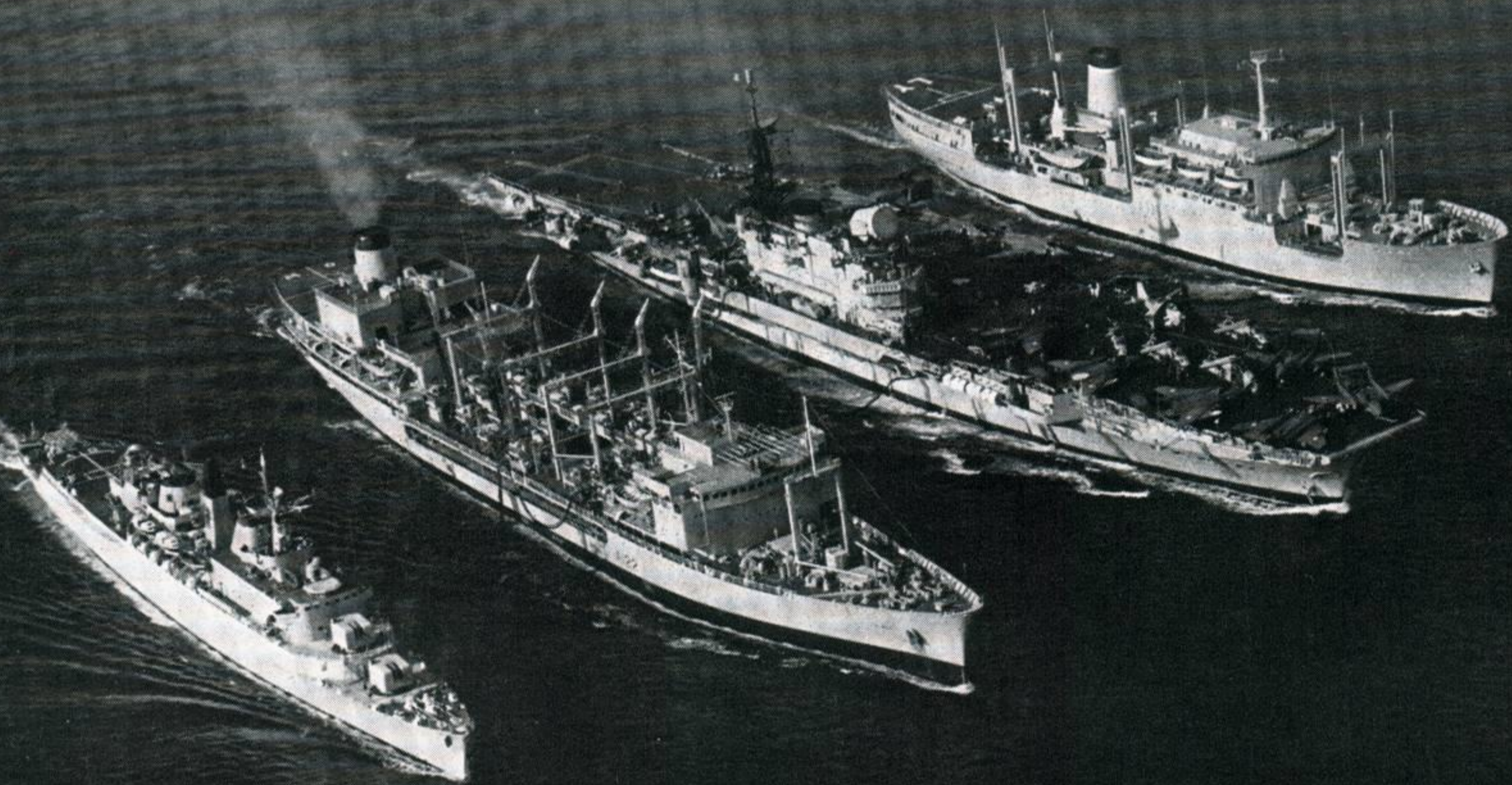


JOINT

SERVICES

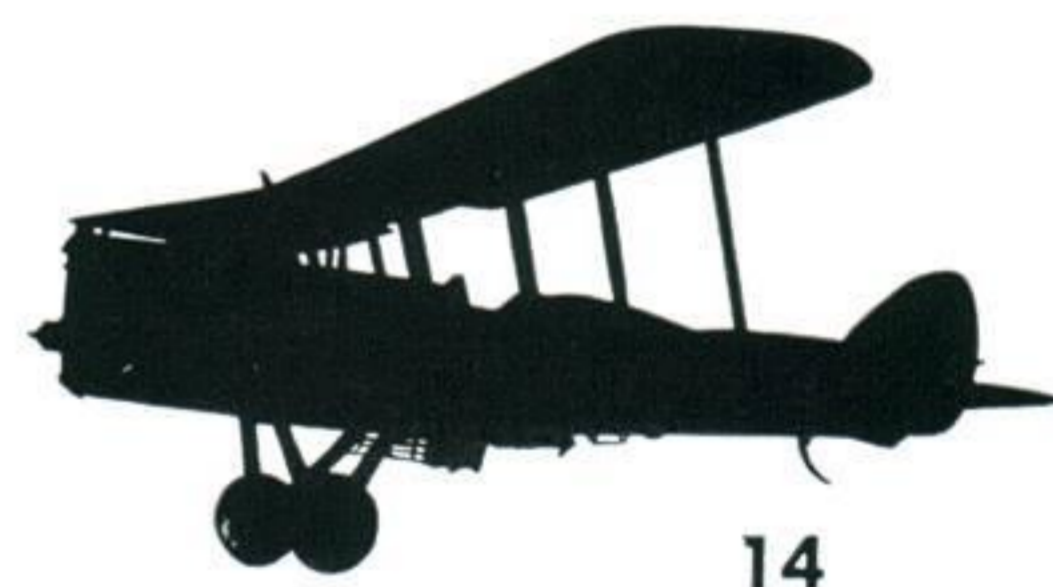
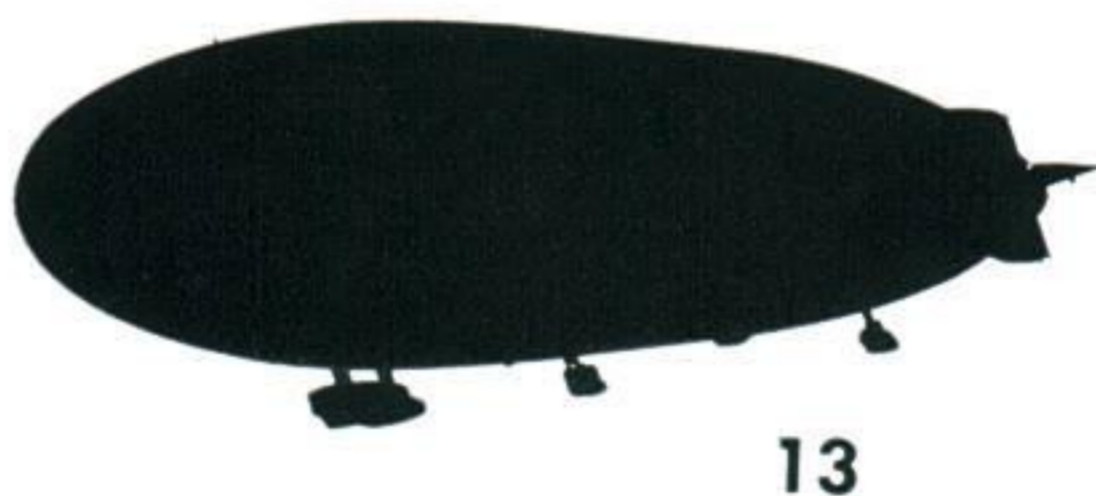
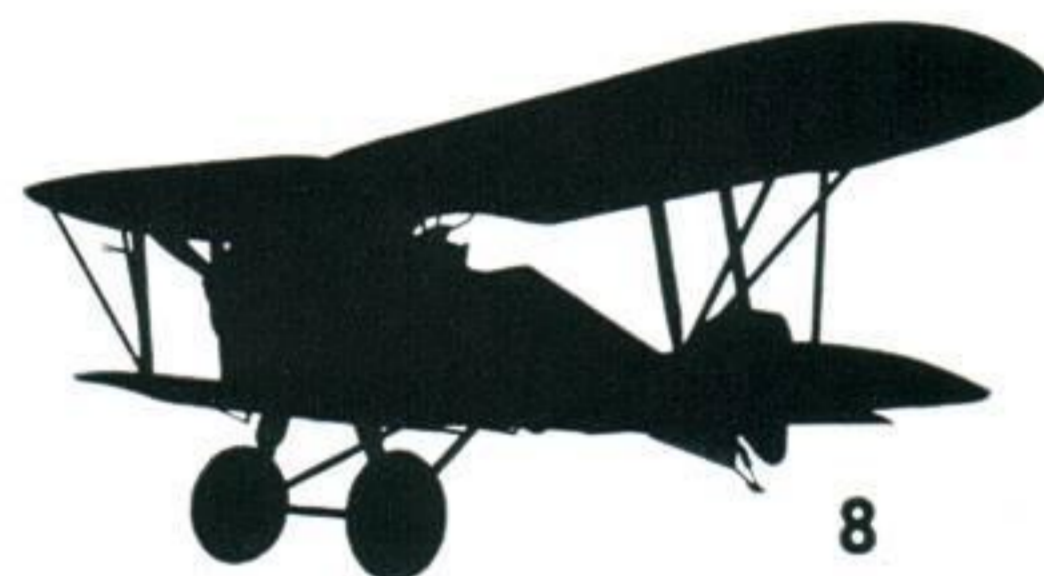
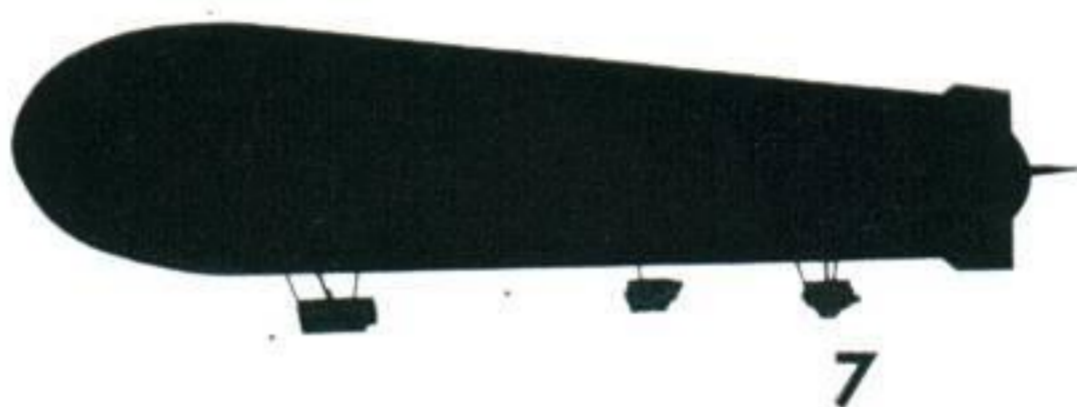
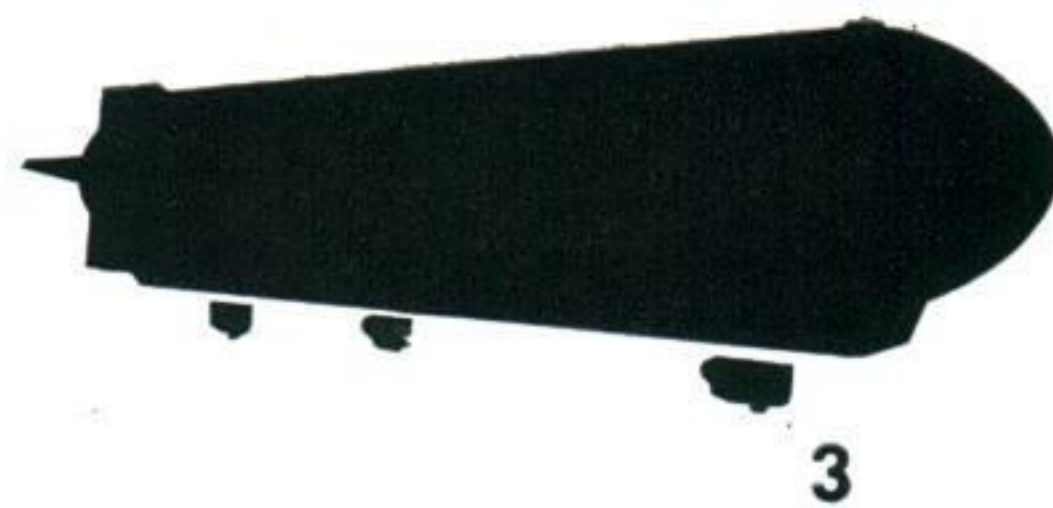
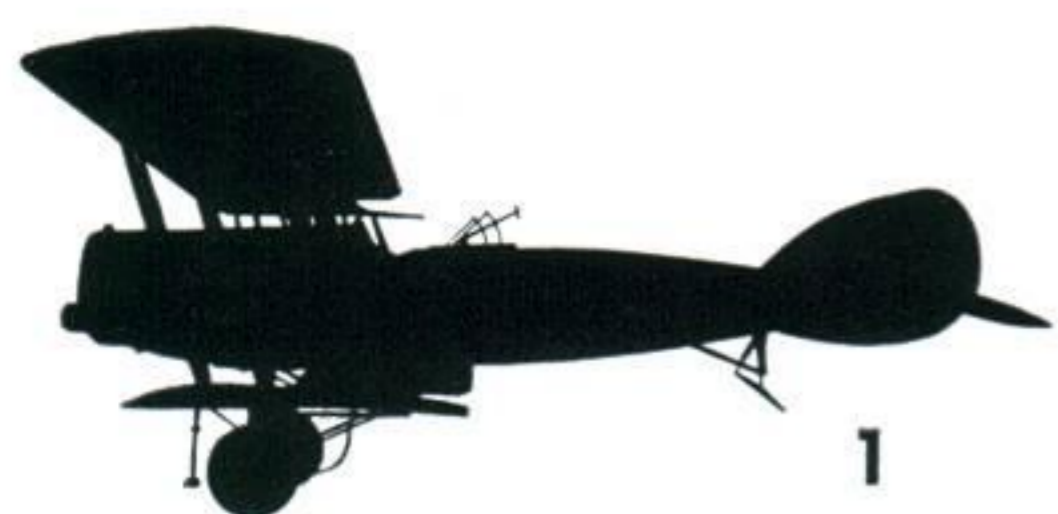
# RECOGNITION

*Journal*



Vol. 23 OCTOBER 1968 No. 10

# THE TEST OF TIME — 2



*Solutions on the cover*

*The R.A.F.'s Fiftieth Anniversary Year is a fitting time to round out current training with a glimpse of the machines on which the R.A.F.'s reputation is founded. They should not go unrecognised.*

# TEST PAPERS

Something to show you how good you are  
—or are not— at identifying these tanks.

## M41 US LIGHT TANK?



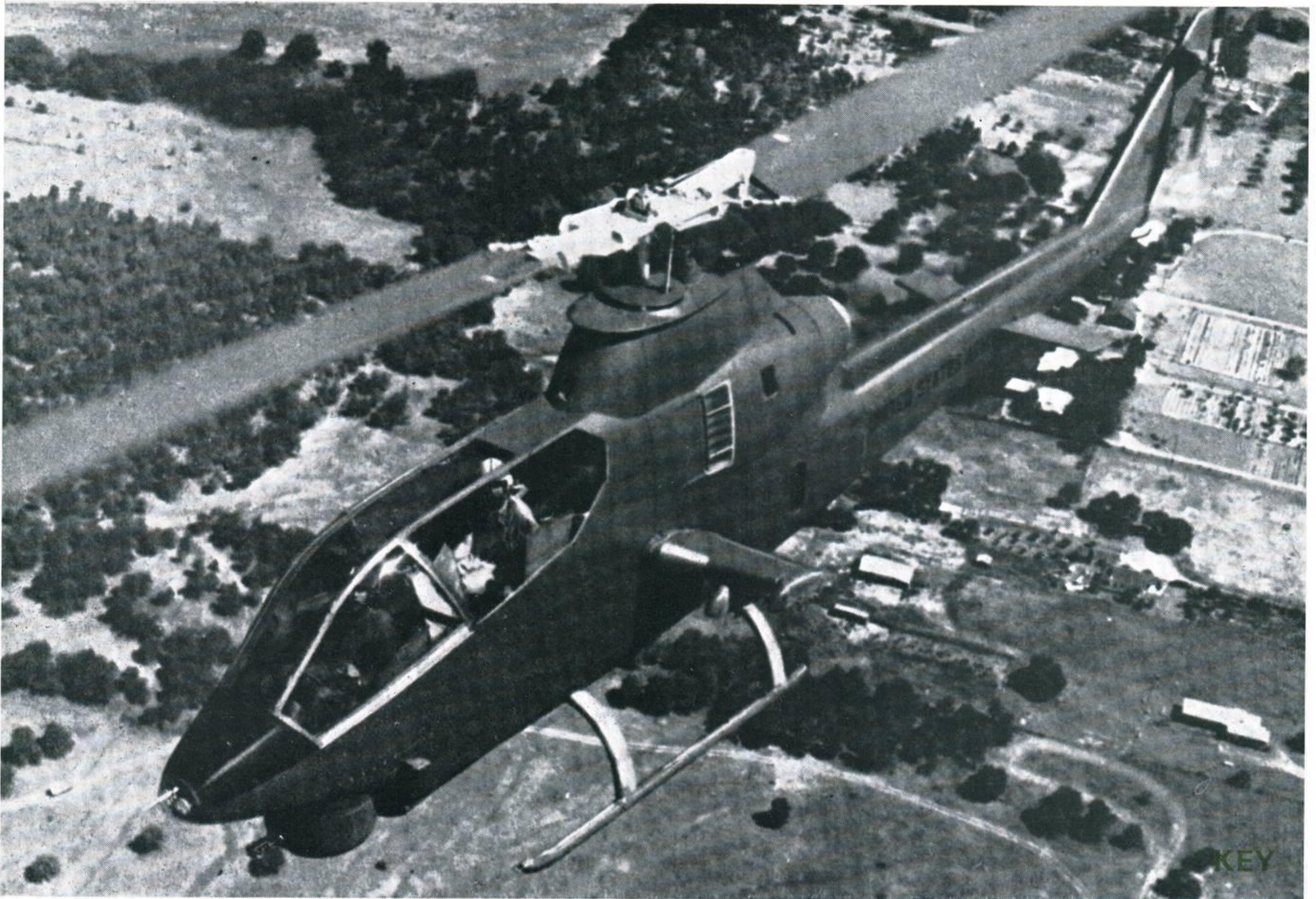
## M48A2 MEDIUM TANK?

*Solutions on the cover*



**Lesson Instructions** The ability to identify is a skill and therefore a matter of "doing", not of gathering information. Submit to the instructions given below in every lesson and the 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 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 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.



## HUEYCOBRA

The Bell Model 209, or AH-1G HueyCobra, is a two-seat attack helicopter armed with a nose turret-mounted 7.62-mm. Minigun with 8,000 rounds, plus such other weapons as four packs of 19 70-mm. rockets, four packs of seven 70-mm. rockets, two gun pods each with one Minigun, or six TOW wire-guided missiles. It is currently in U.S. Army service—and in action in Vietnam—and to date 838 AH-1Gs have been ordered for that Service. Recently 49 examples of a

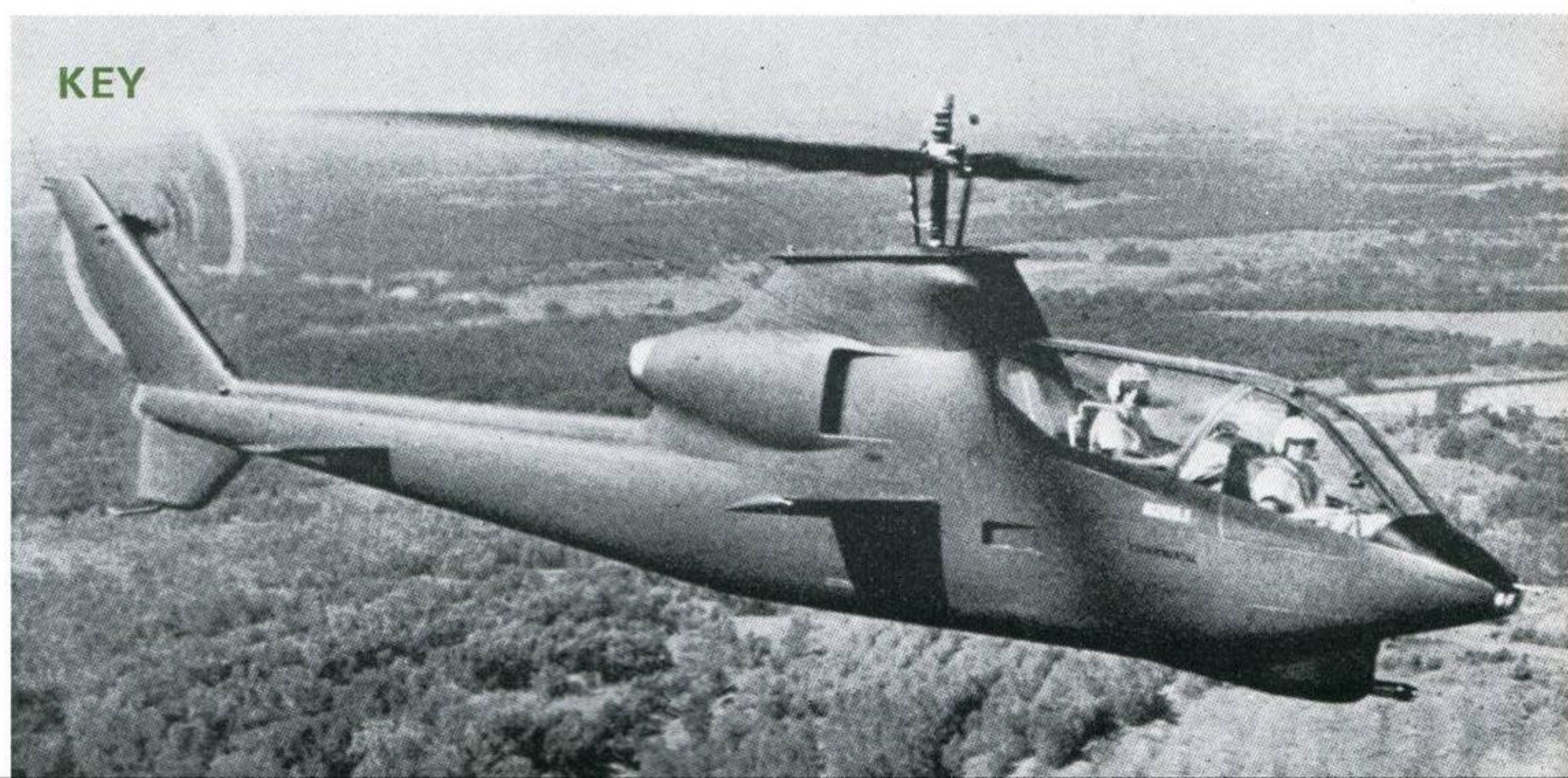
version known as the AH-1J were ordered for the U.S. Marines.

Although fairly distinctive in shape the HueyCobra needs to be learned properly and to do this work to the lesson instructions on page 257. Ignore the ventral fin and the absence of skids in some of the photographs as these differences were apparently of a temporary nature during prototype testing. Fuselage length 44 feet 4  $\frac{3}{4}$  inches.



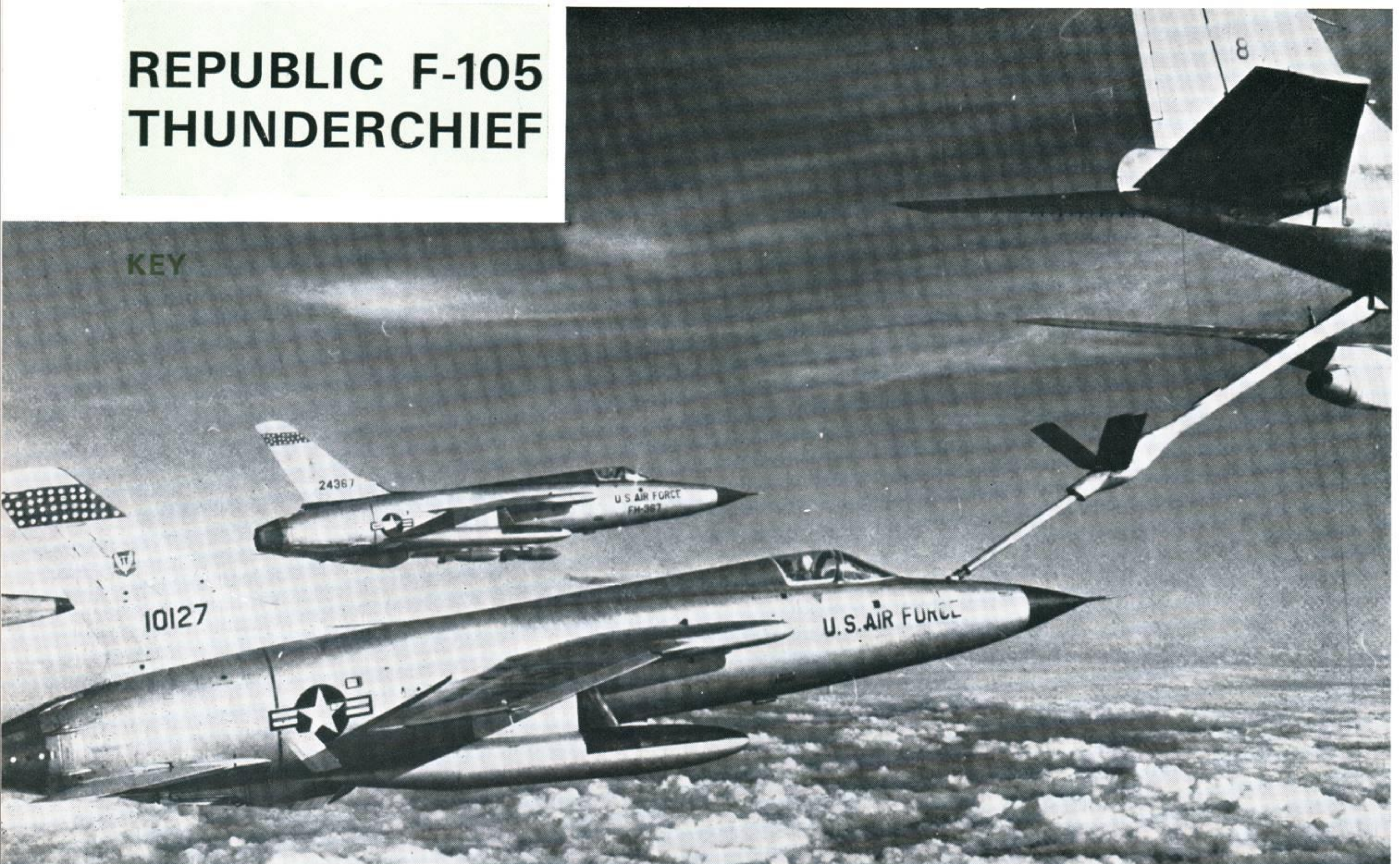


*Solutions on the back cover*



# REPUBLIC F-105 THUNDERCHIEF

KEY



First prototype of the F-105 Thunderchief flew in October 1955 and between 1958 and 1964 a total of 833 were built, mostly the F-105D single-seat tactical strike and reconnaissance fighter version. In 1967 the F-105D equipped 21 U.S.A.F. squadrons, and in Vietnam this machine, together with smaller numbers of the F-105F two-seater version, was until quite recently the main tactical strike aircraft.

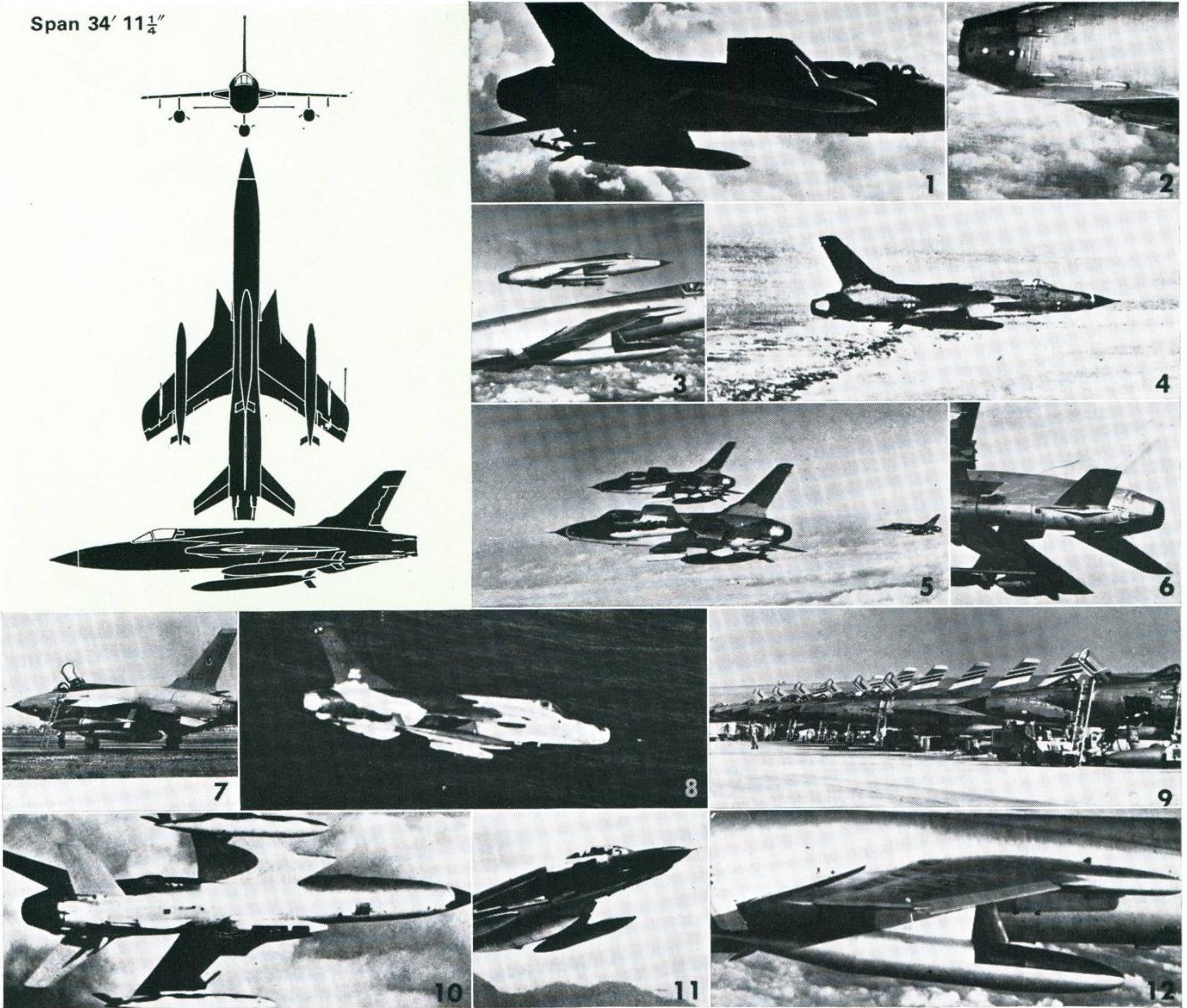
Of the 833 aircraft built, only about 400 were on U.S.A.F. strength by August 1967 and more than 250 had already been lost in Vietnam.

The F-105 is armed with a 20-mm. M-61 rotary cannon and can carry up to 13,000 lb. (F-105D) or 12,000 lb. (F-105F) of ordnance internally and externally, although it cannot carry such a load very far.

*continued overleaf*



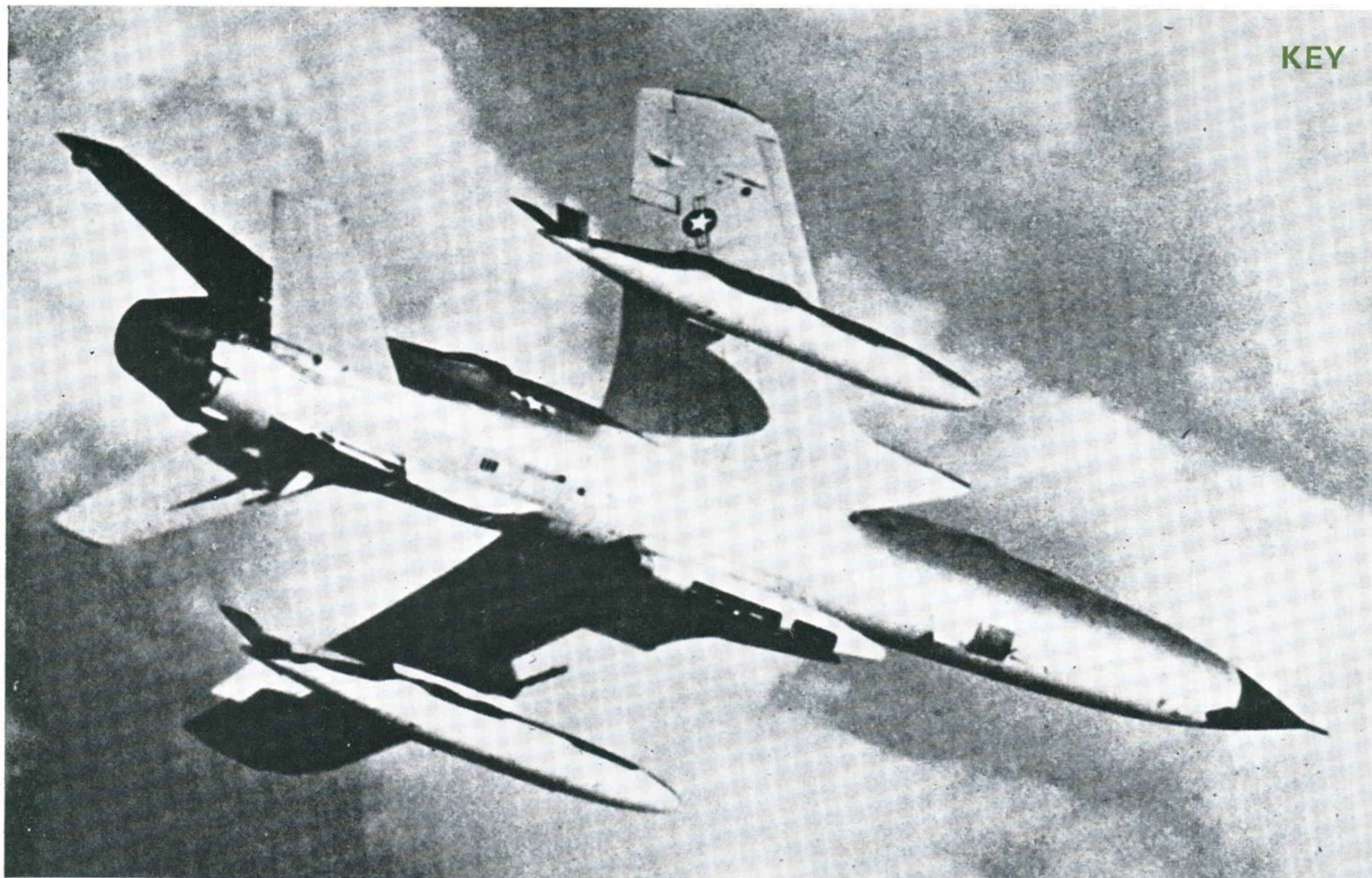
Span 34' 11 $\frac{1}{4}$ "



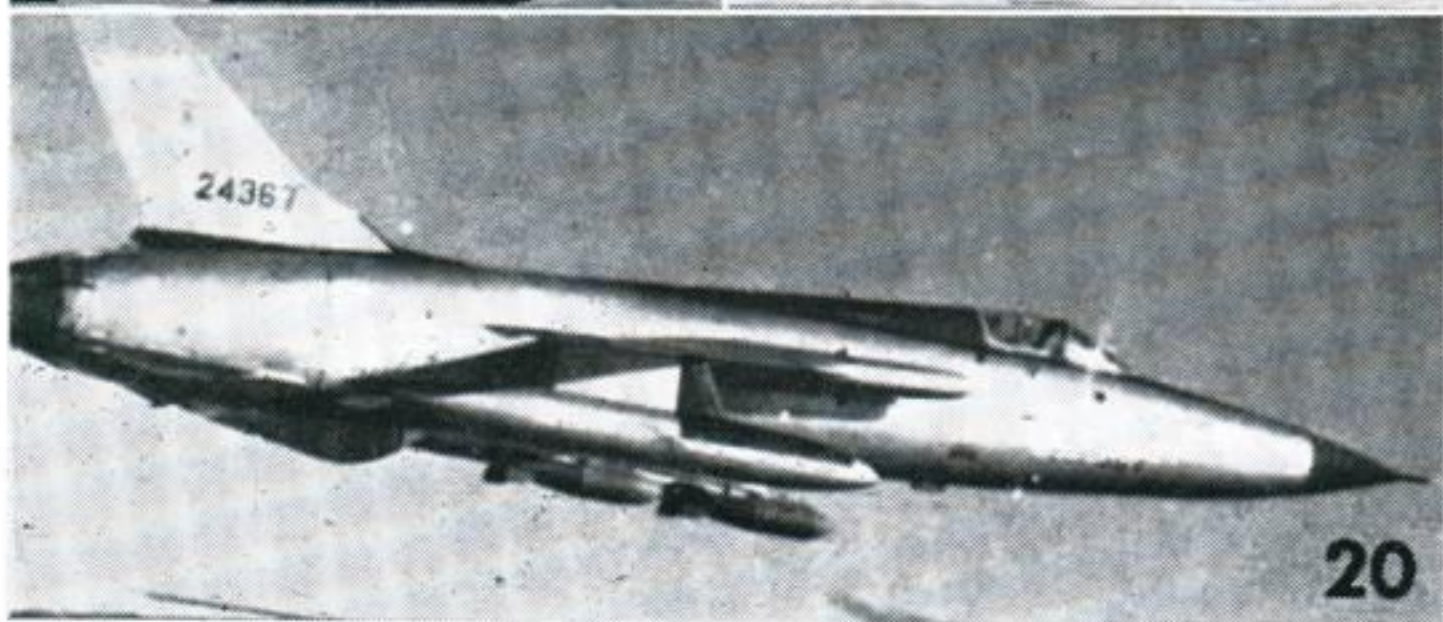
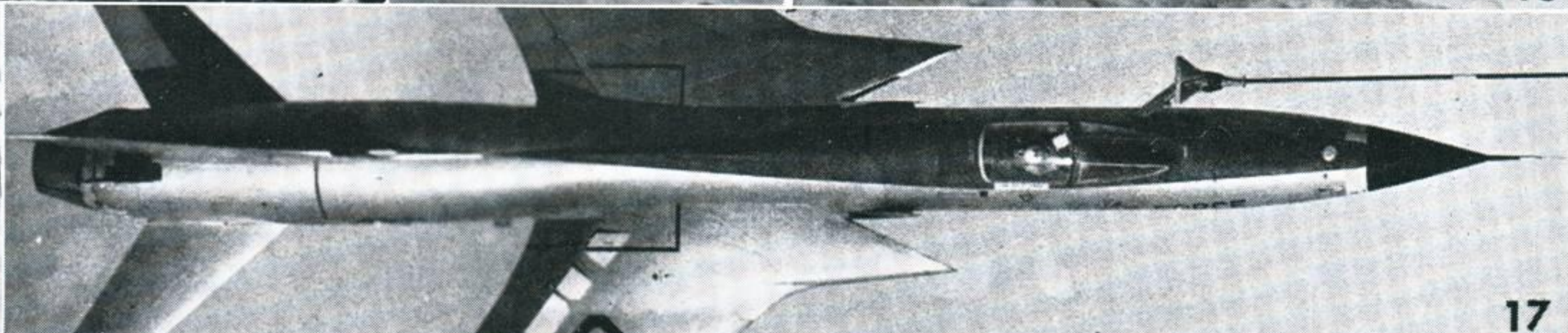
Lesson instructions on page 257 Solutions on the back cover



KEY

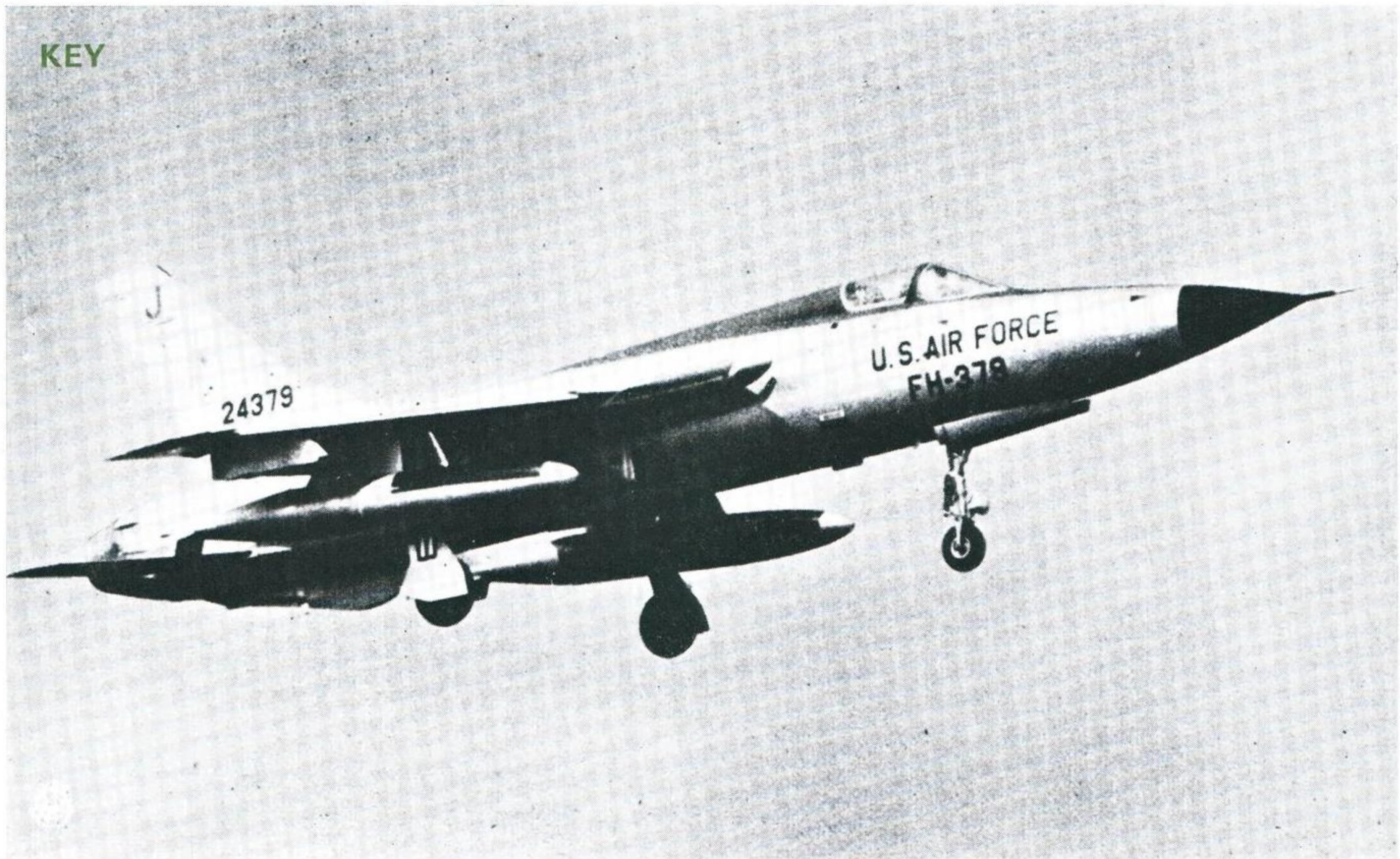
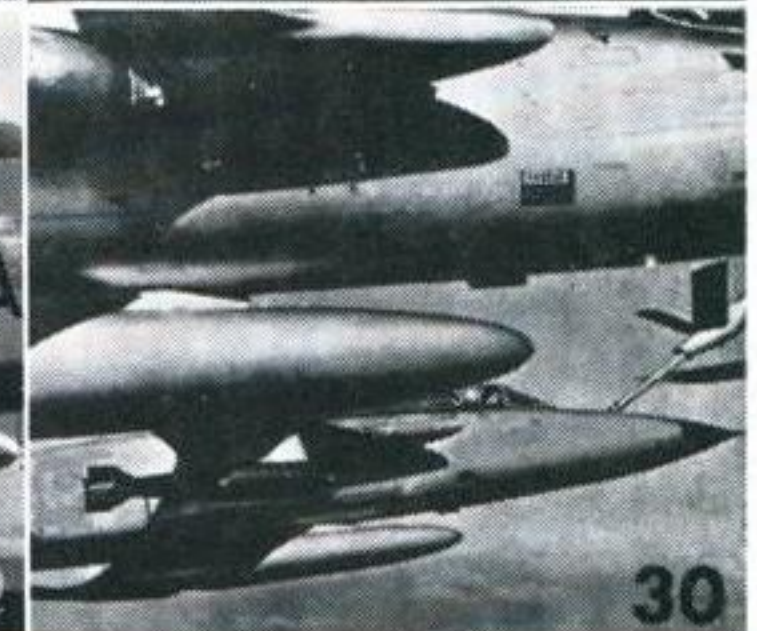
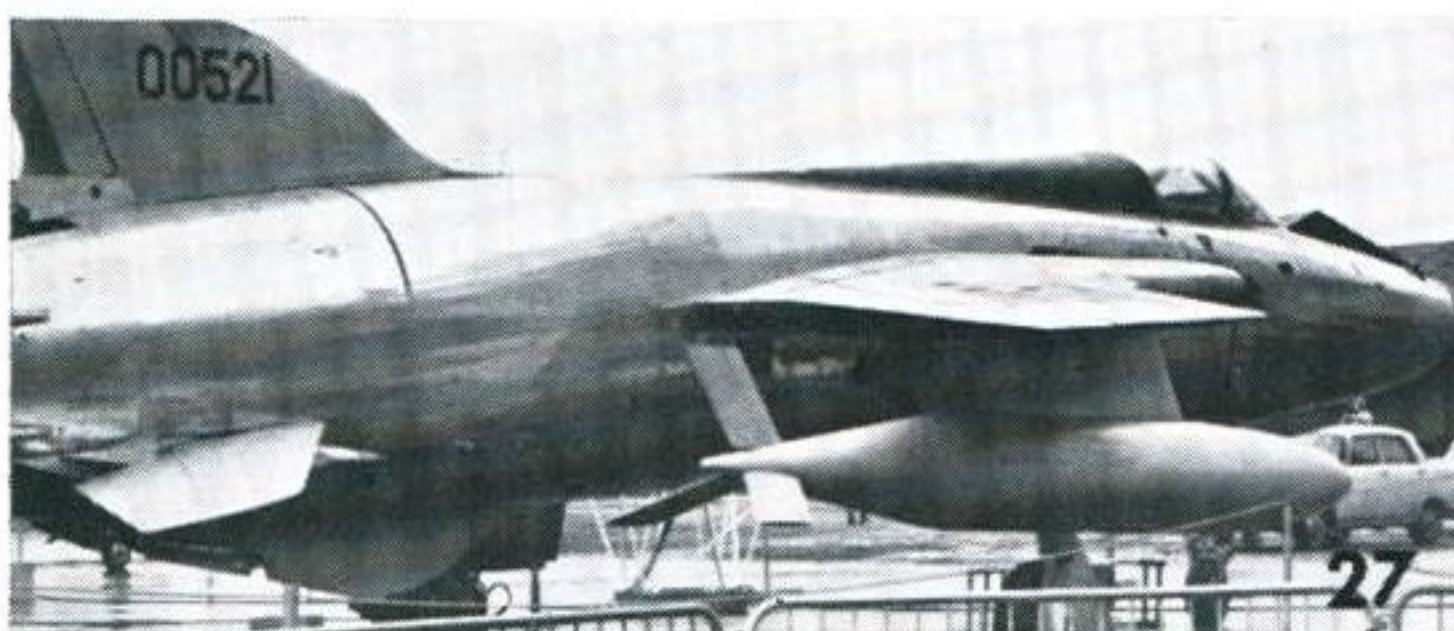
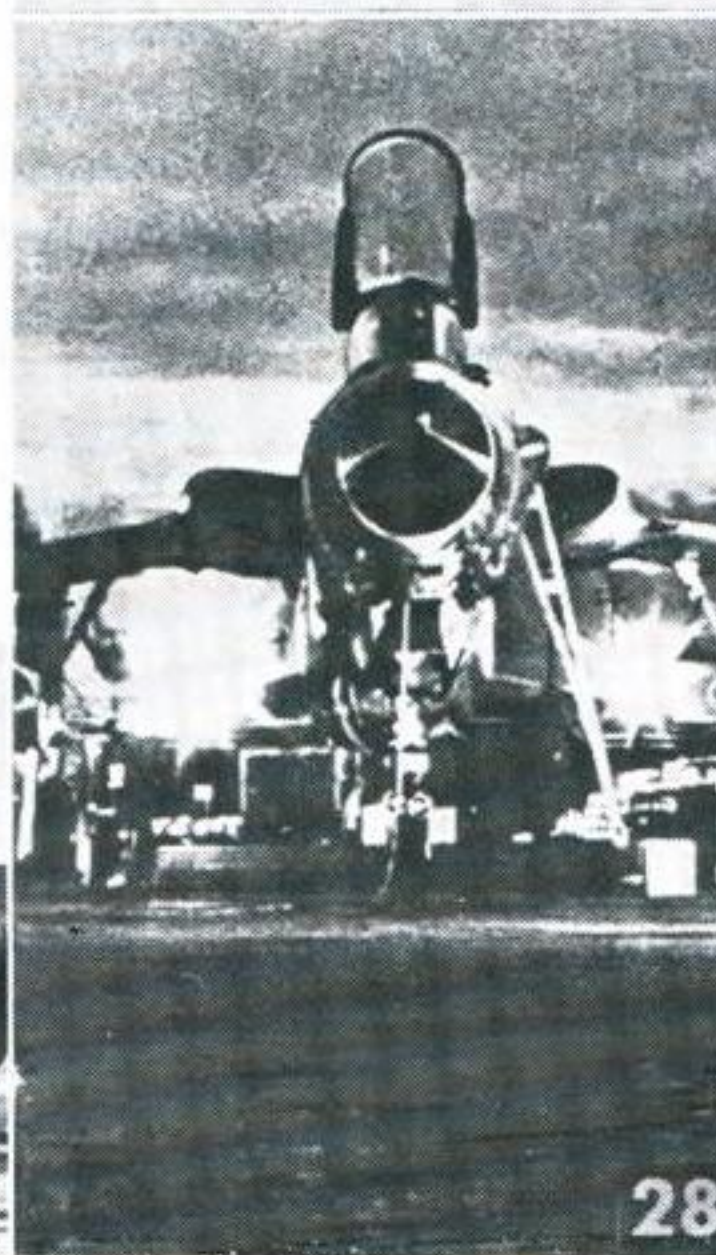


REPUBLIC F-105 THUNDERCHIEF *continued*



The Thunderchief, when seen in plan view, is easily recognised by its distinctive, sharply raked-forward wing root air intakes, but from other angles it can easily be confused with many other aircraft so it needs to be learned properly. To do this work to the lesson instructions on page 257 and report all targets as Thunderchief—or otherwise, if jokers—and check your answers with the solutions on the cover.

Span 34' 11 1/4"





## RINALDO PIAGGIO PD-808

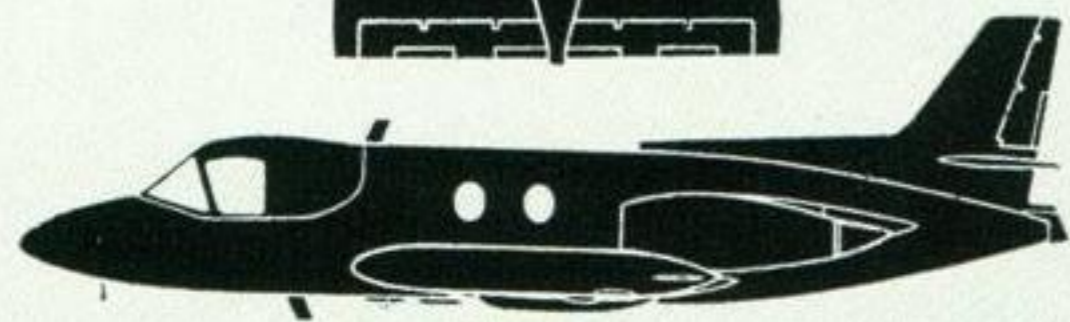
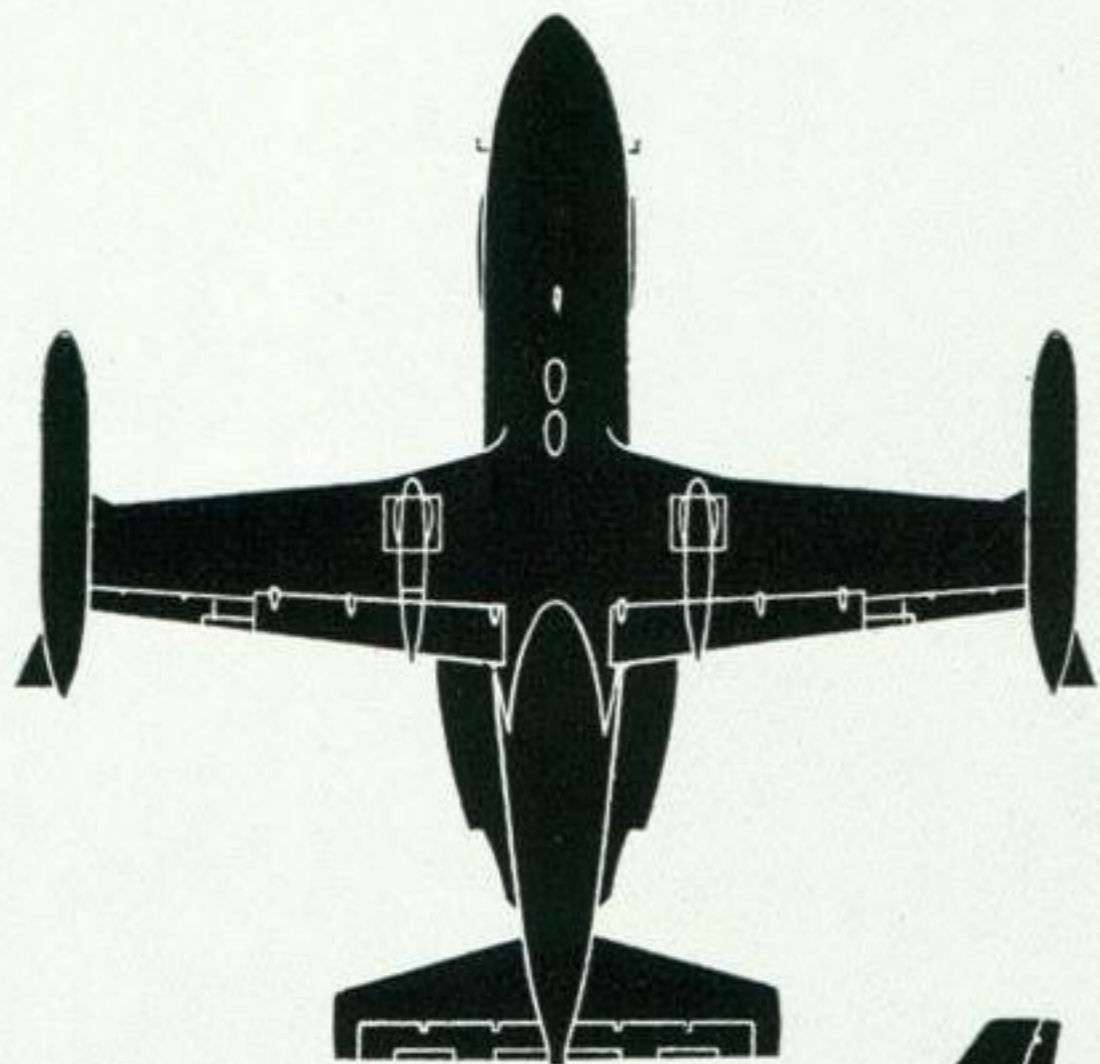
Built to an original design by Douglas but entirely engineered by Rinaldo Piaggio of Italy, the PD-808 is an 8–13 seat utility/executive jet (two Viper 526s) which can also be adapted as a navigational trainer. The first prototype flew in August 1964 and four more have since been completed. The Italian Air Force has signed a letter of intent to buy twenty-five aircraft for

liaison missions but at time of writing no civil order had been received.

The PD-808 is quite distinctive in general configuration, but it nevertheless needs to be learned properly. To do this work to the lesson instructions on page 257 and report all targets as PD-808—or otherwise if jokers. Solutions on the cover.



Span 43' 3 $\frac{3}{4}$ "



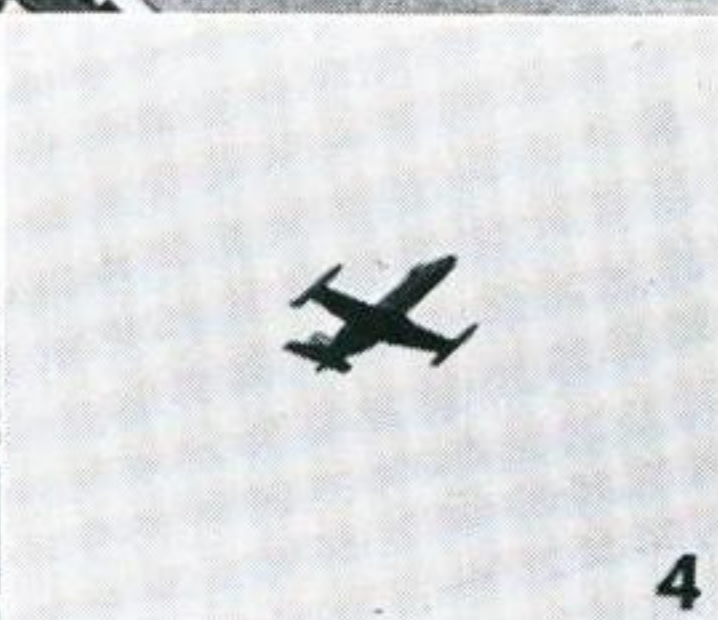
1



2



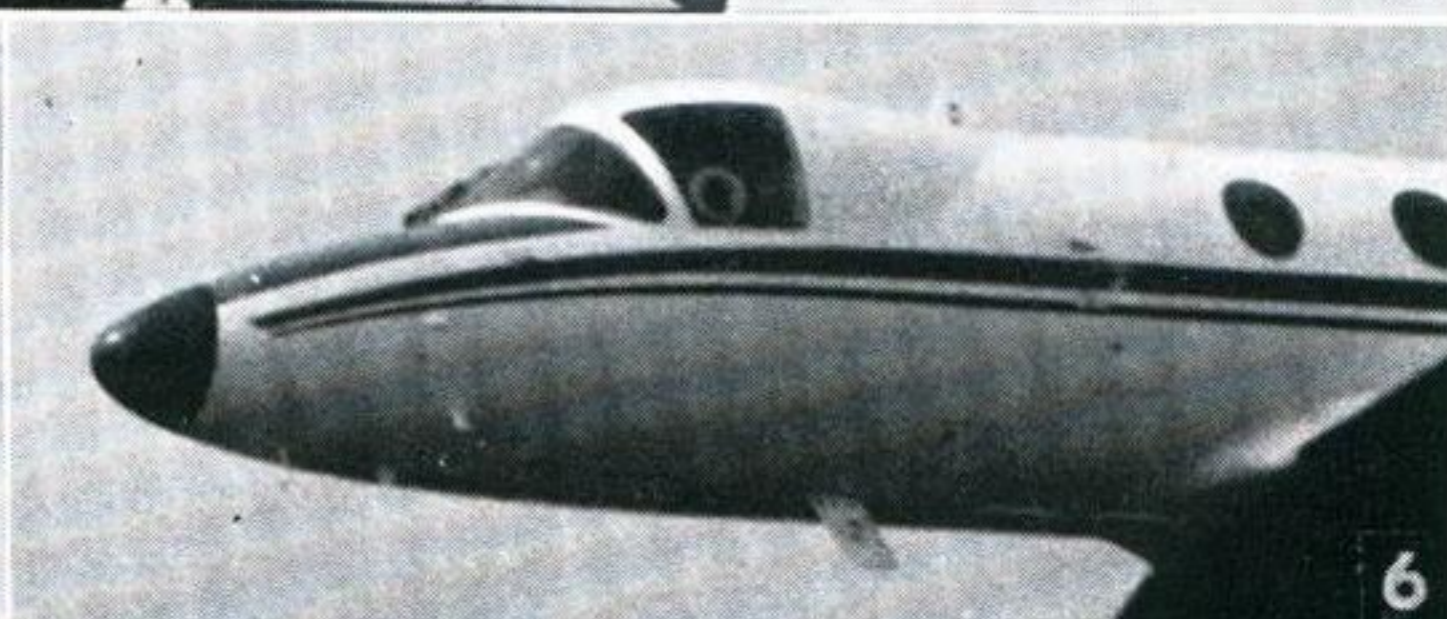
3



4



5



6



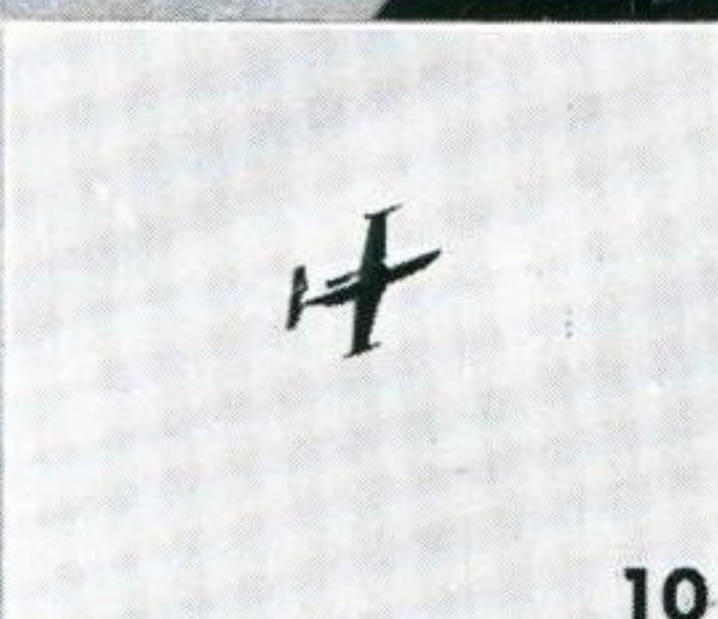
7



8



9



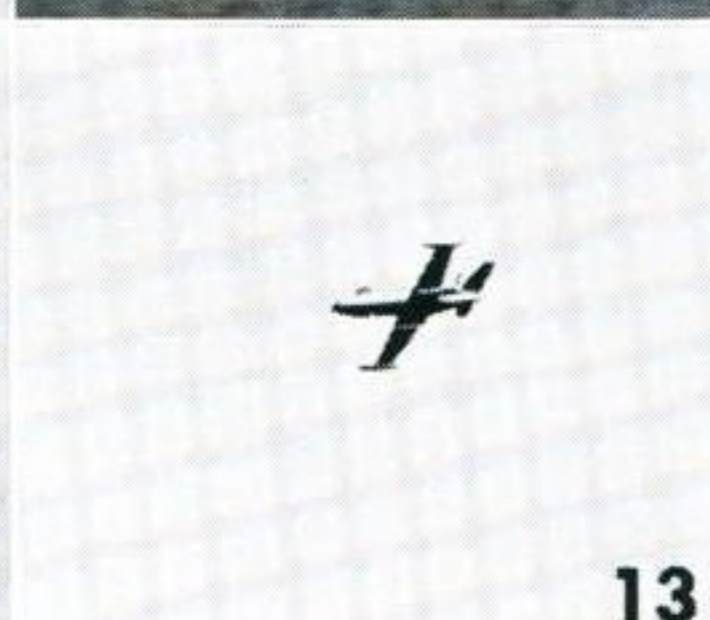
10



12



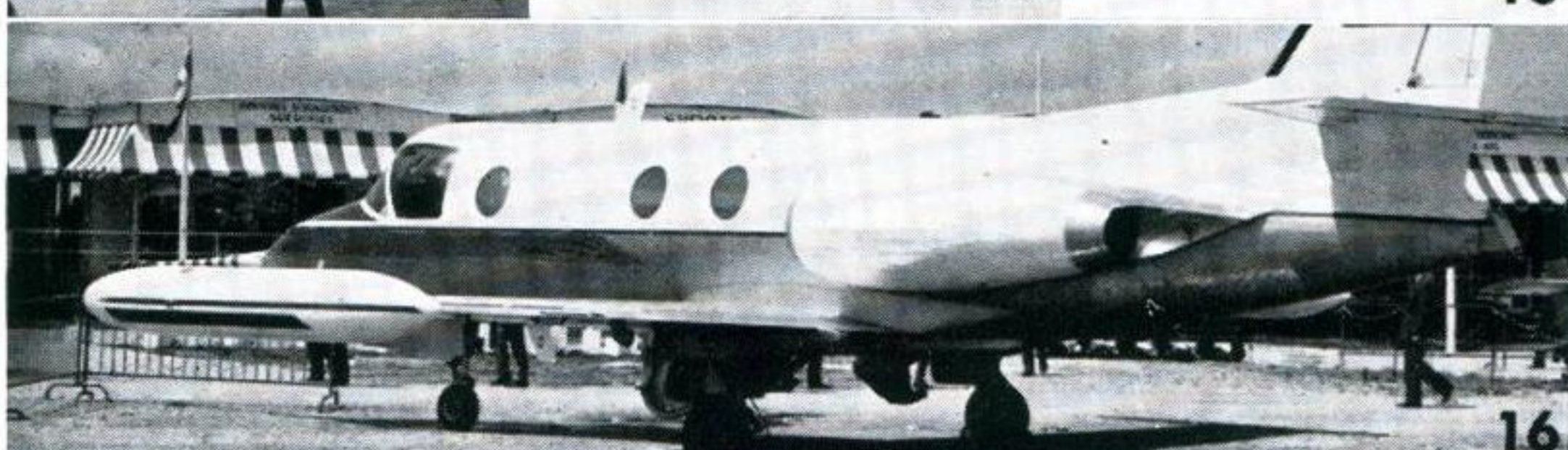
13



13



14



16



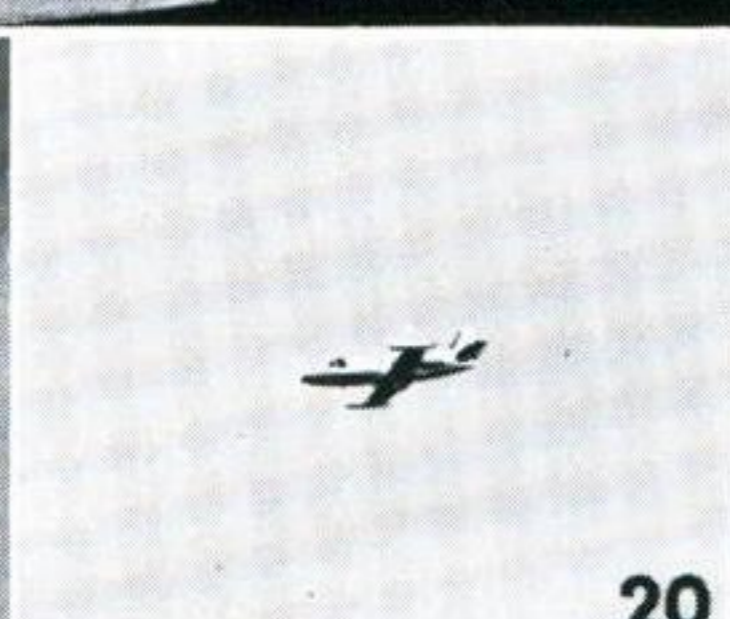
17



18



19



20



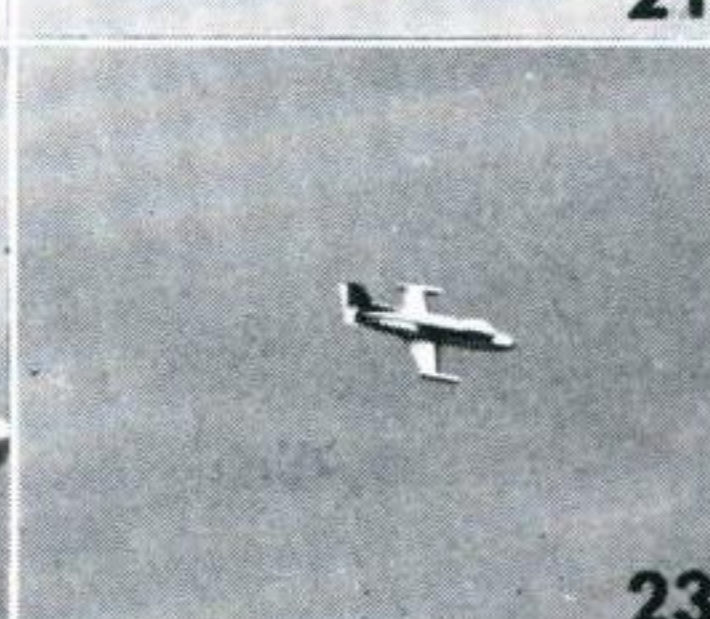
21



24



22



23

KEY



Span 114' 8"



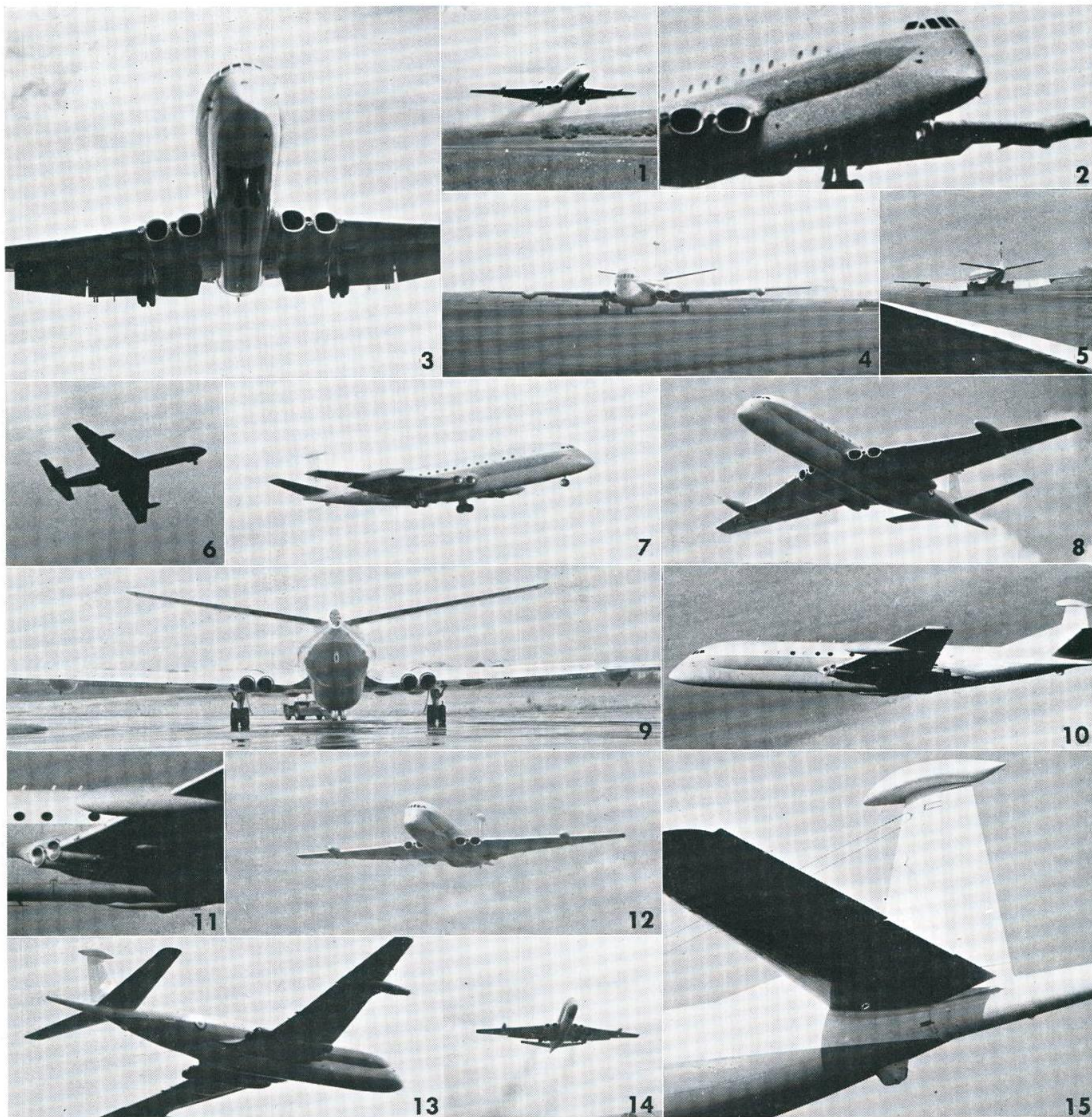
## NIMROD MR.1

Derived from the Comet 4C jet airliner, the Hawker Siddeley Nimrod MR.1 is a long-range maritime reconnaissance aircraft powered by four Rolls-Royce Spey turbofans. Principal change is the addition of a panner to house the weapons bay; in the head-on view this gives the fuselage a distinctive "double-bubble" appearance. Other key recognition features include the dorsal fin, the ECM aerial fairing atop the fin and—but not seen in all our photographs of the two prototypes—the long tail "sting" for the MAD long-range sonar system's aerial.

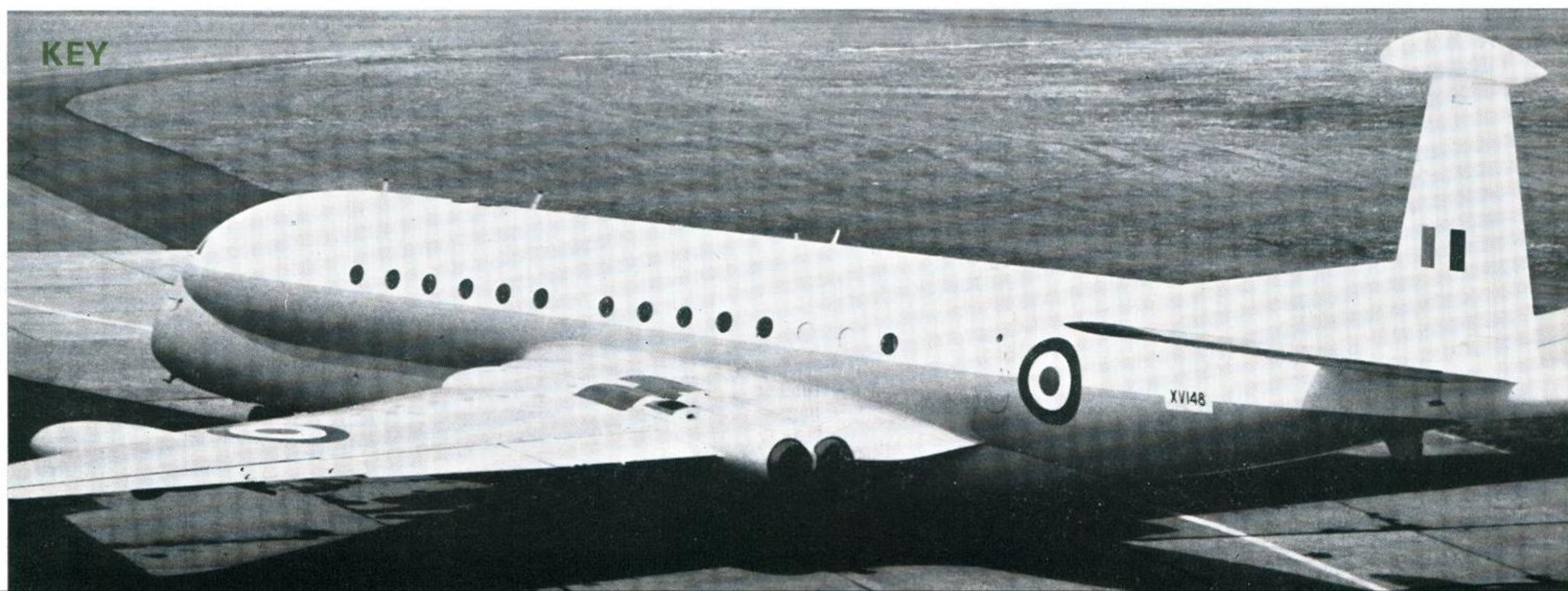
A total of 38 Nimrods are on order and the type is scheduled to replace the Shackleton MR.2 (but not the MR.3 initially) in R.A.F. service from early 1969.

KEY

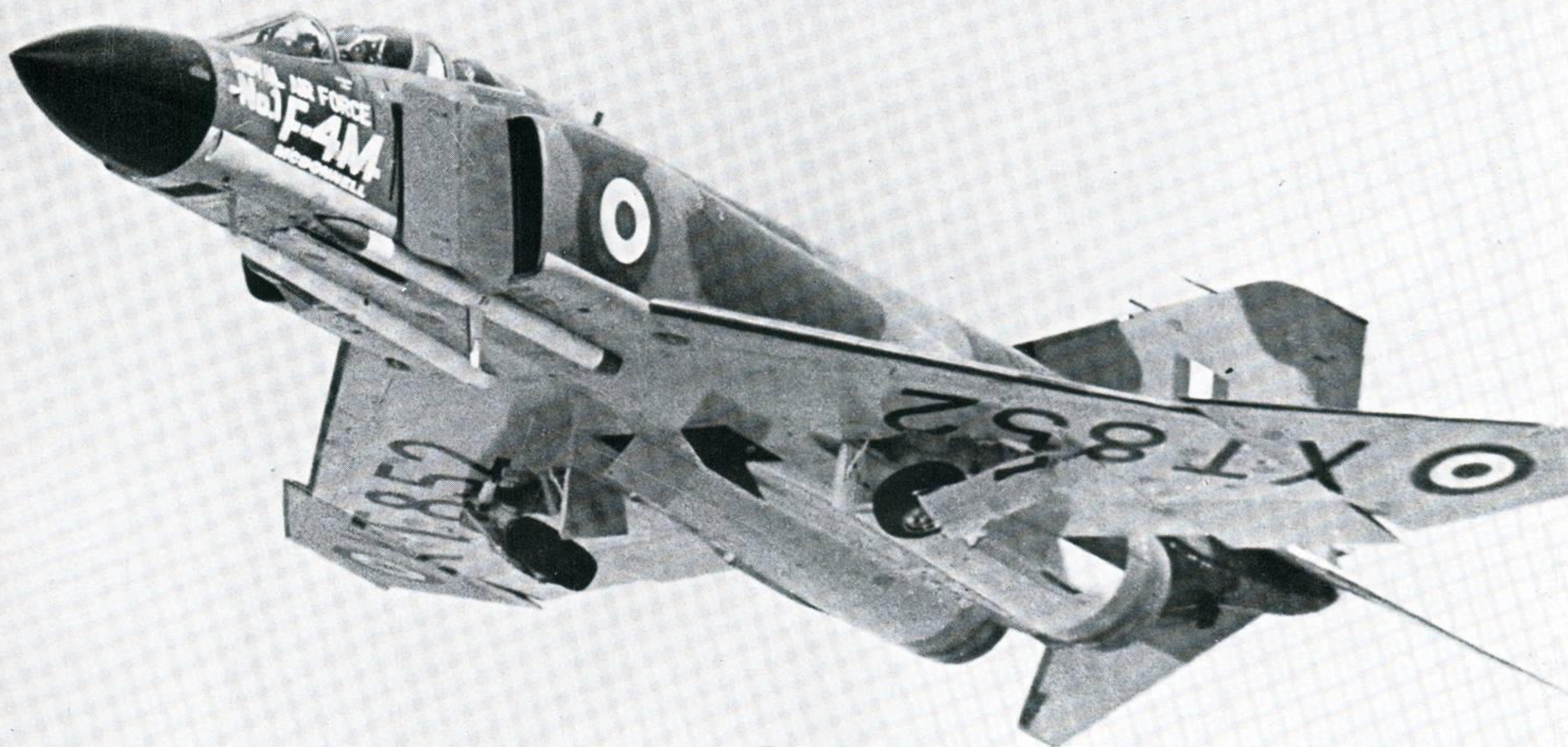




*Lesson instructions on page 257 Solutions on the back cover*



F-4M



## MCDONNELL F-4 PHANTOM II

Currently the most important of the U.S.A.F. Tactical Air Command's fighter-bombers and tactical-reconnaissance aircraft, the two-seat McDonnell F-4 Phantom II exists in many versions and also equips most of the U.S. Navy's 30 Fleet Fighter squadrons and the U.S. Marine Corp's Fighter and Fighter-Attack squadrons, latest Navy version to enter service being the F-4J. An Anglicised equivalent of the latter, the F-4K, is now entering service with the Royal Navy (48 aircraft)

while another Anglicised version, the shore-based F-4M, is entering service with the R.A.F. (98 aircraft).

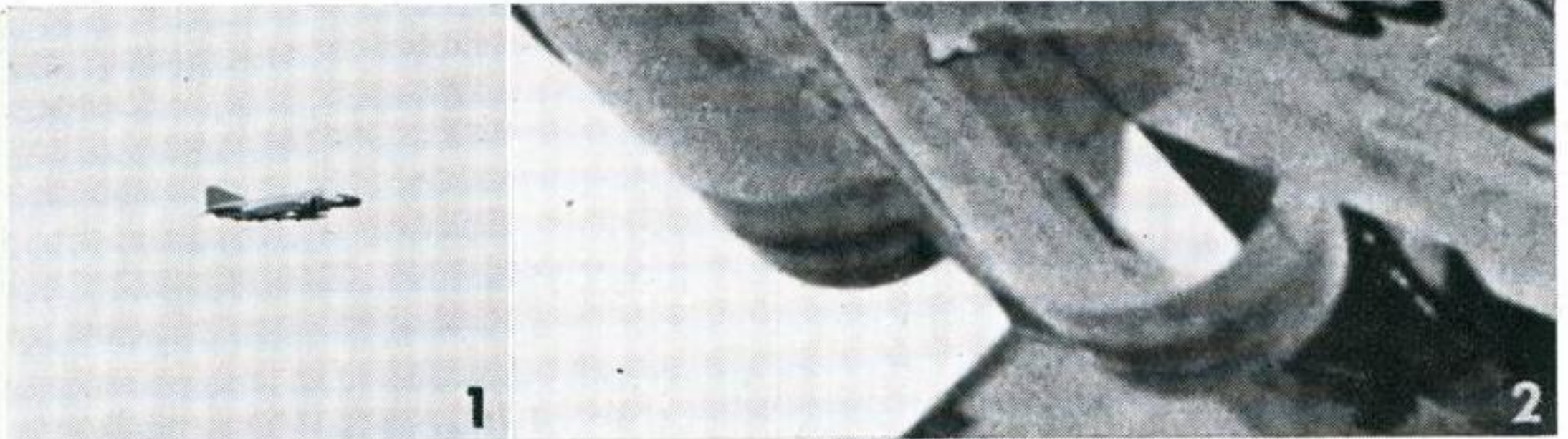
Phantoms can carry a wide range of pylon-mounted underwing stores including, in the strike role, bombs and combinations of missiles such as the AS.37 and AJ.168 Martel, AGM-12 Bullpup, etc., and may also be seen fitted with a reconnaissance pod—shaped like the standard 600-U.S.-gal. centreline drop tank—beneath the centre fuselage.



RF-4B

F-4M

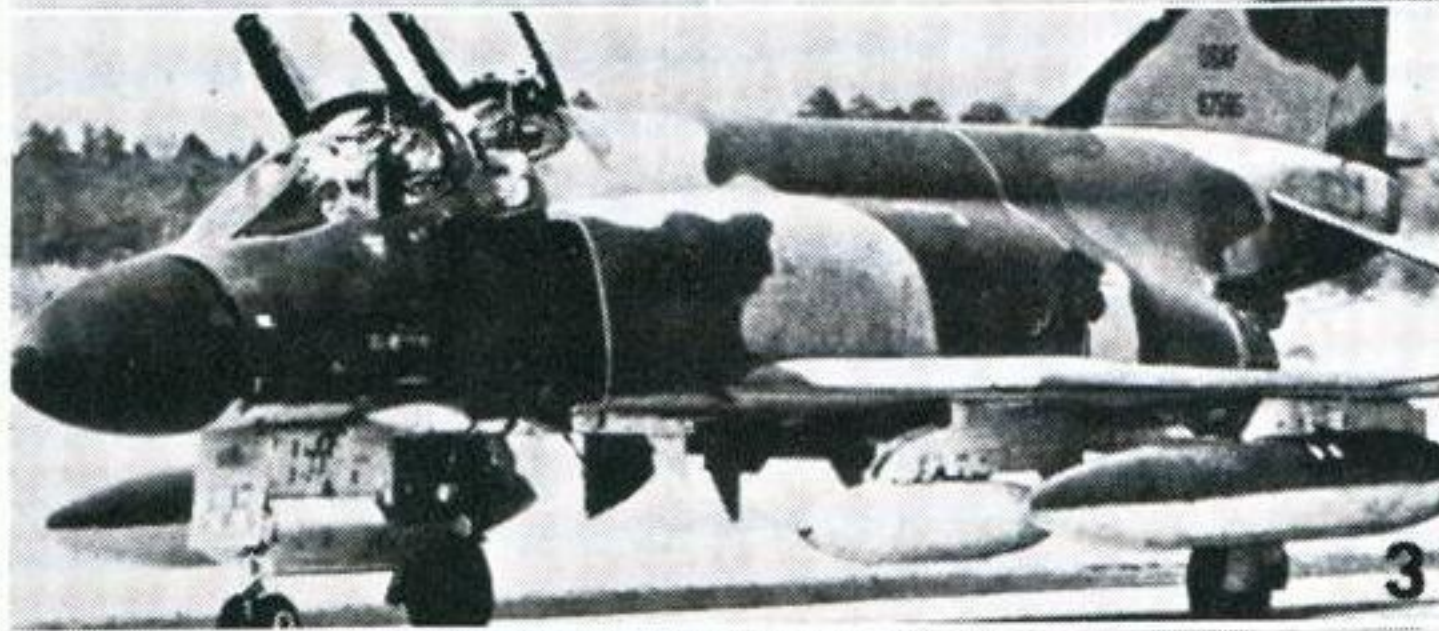
Span 38' 4"



1



2



3



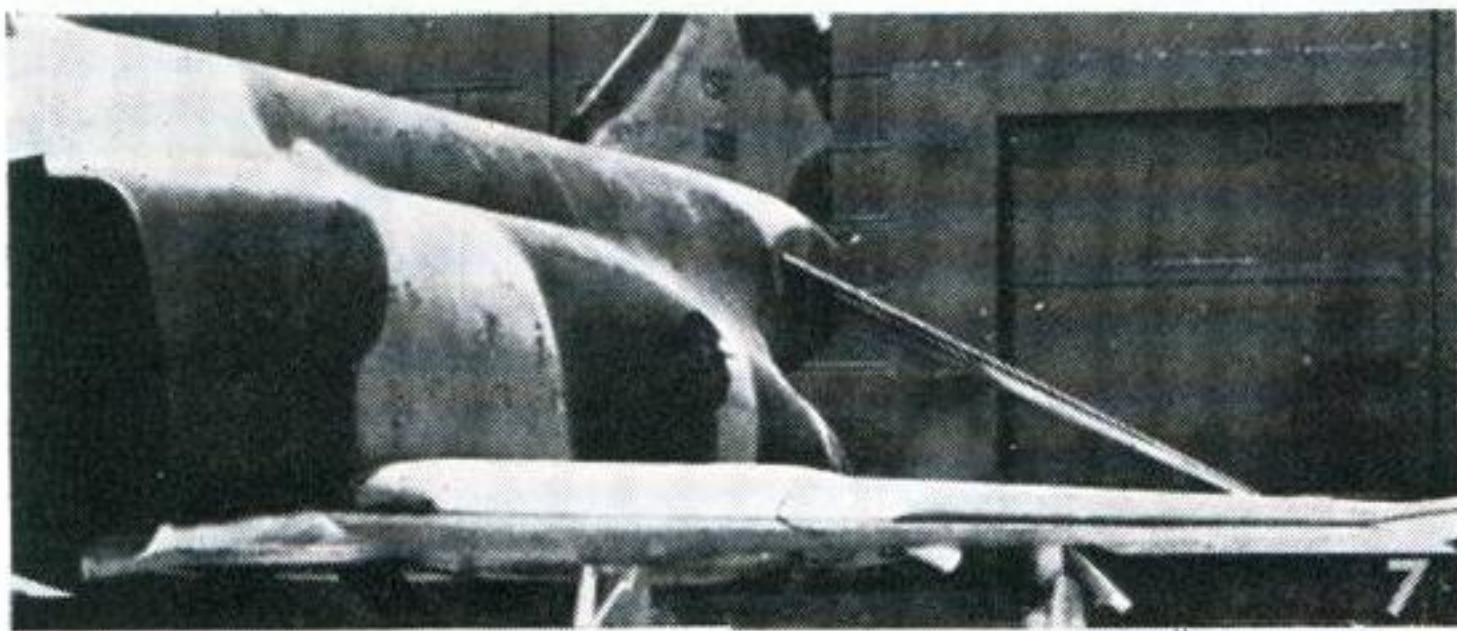
4



5



6



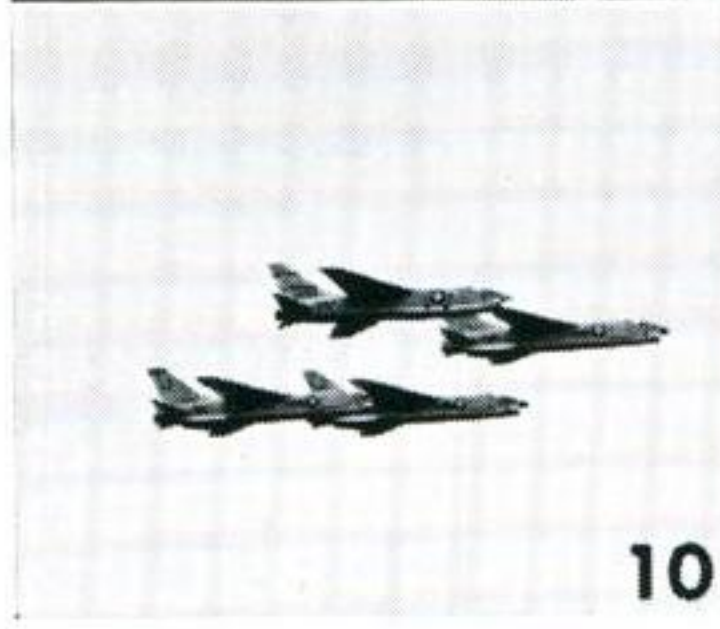
7



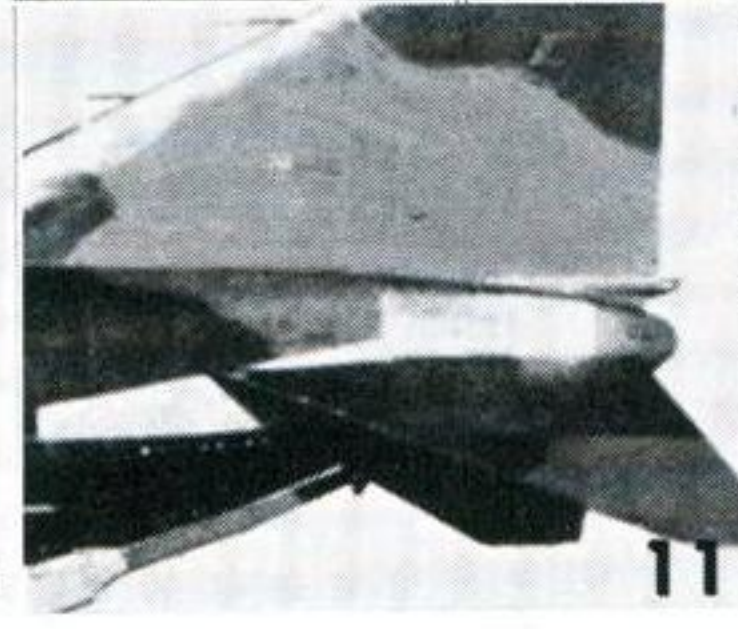
8



9



10



11



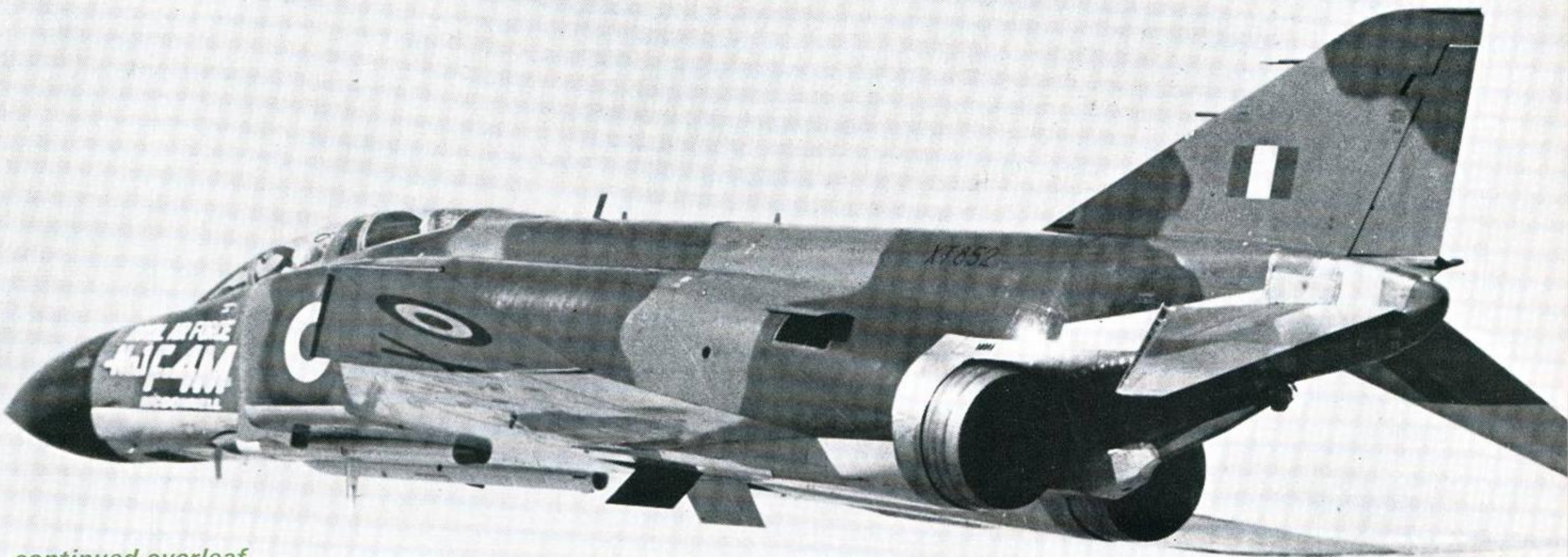
12



13

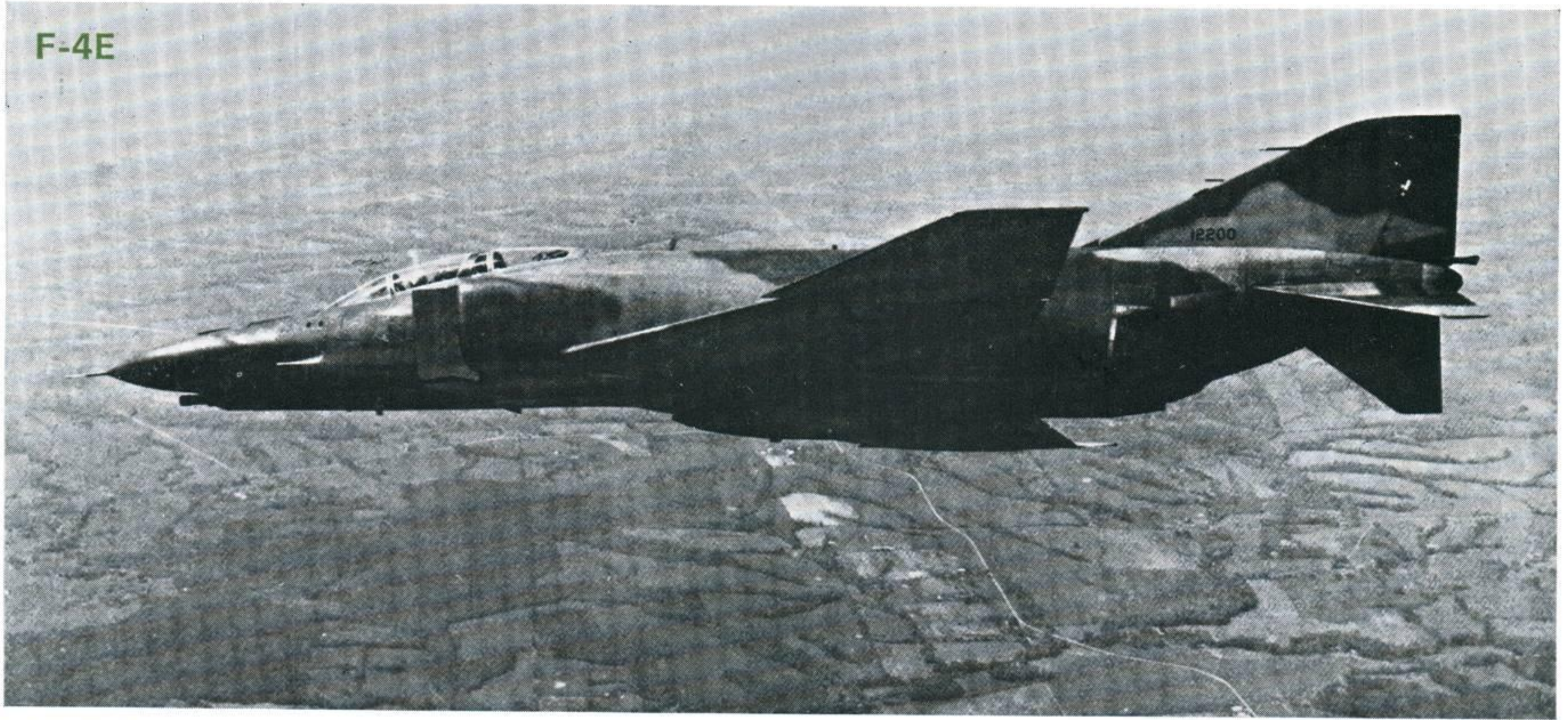
Lesson instructions are on page 257 Solutions on the back cover

F-4M

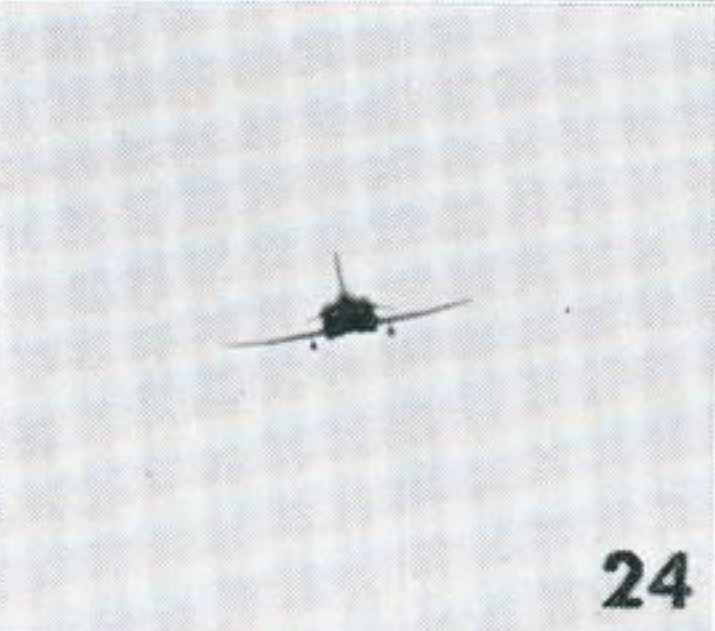
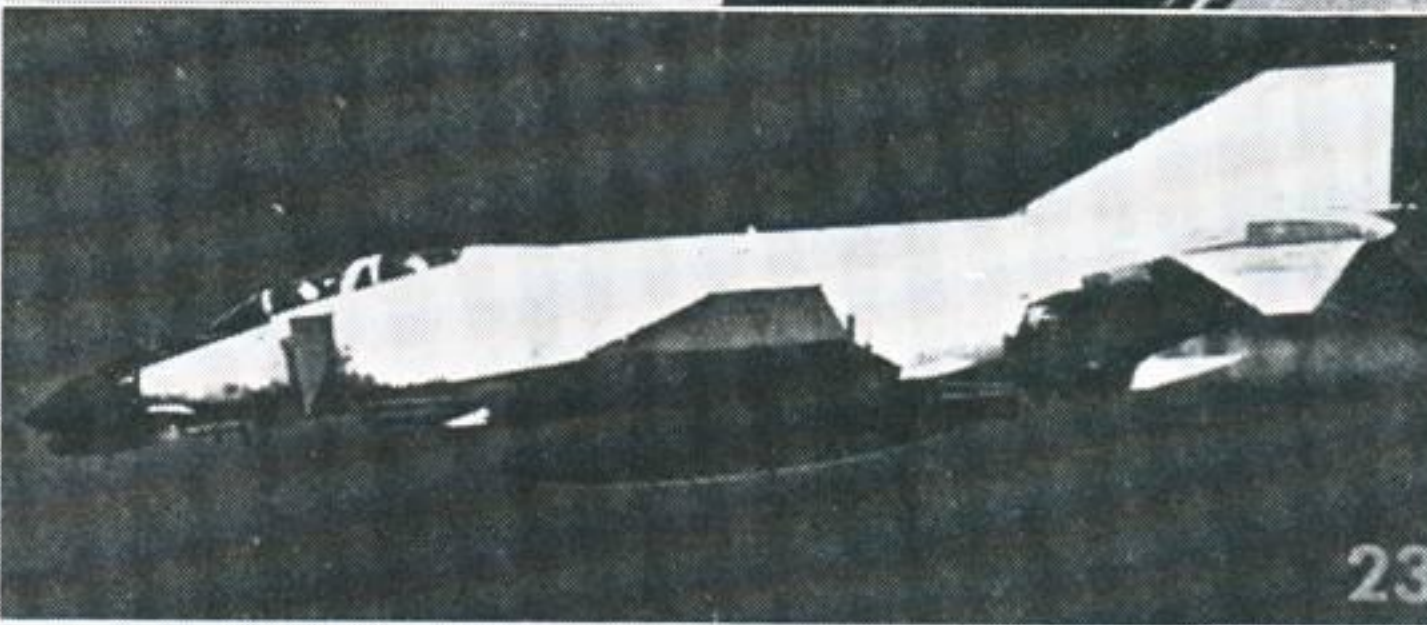
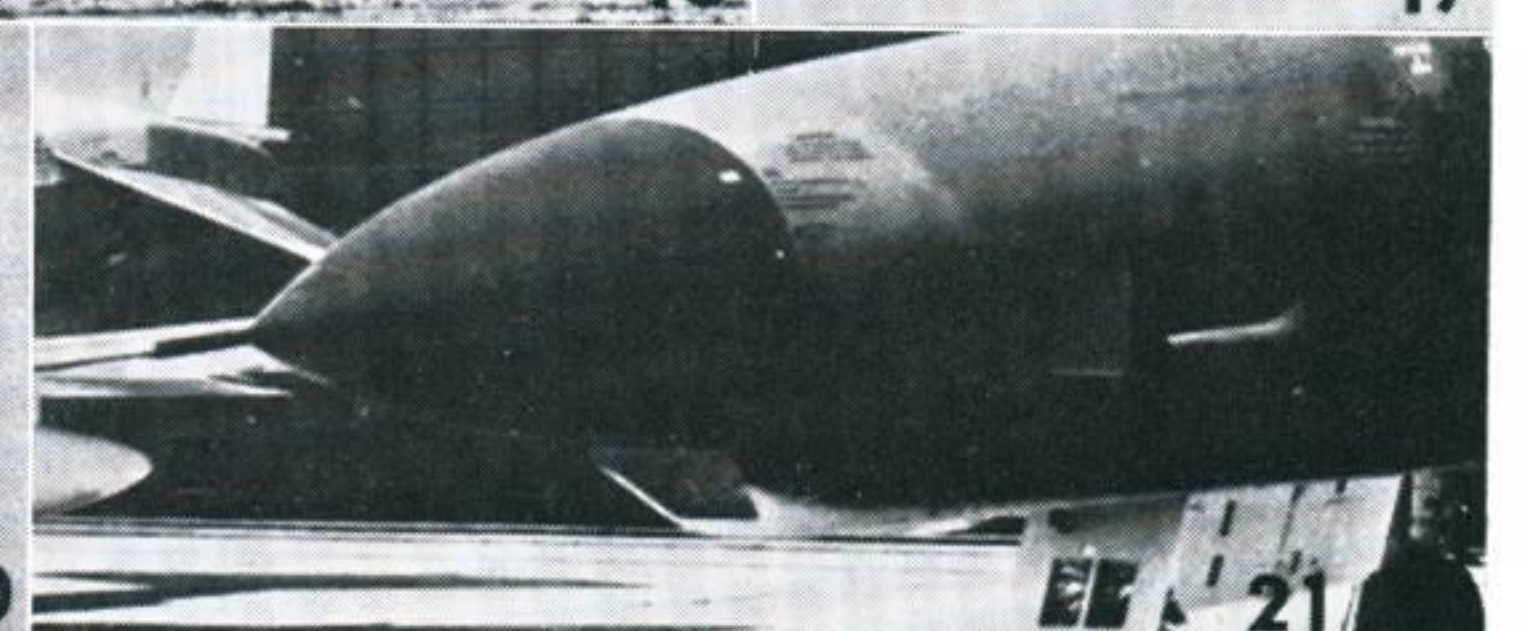
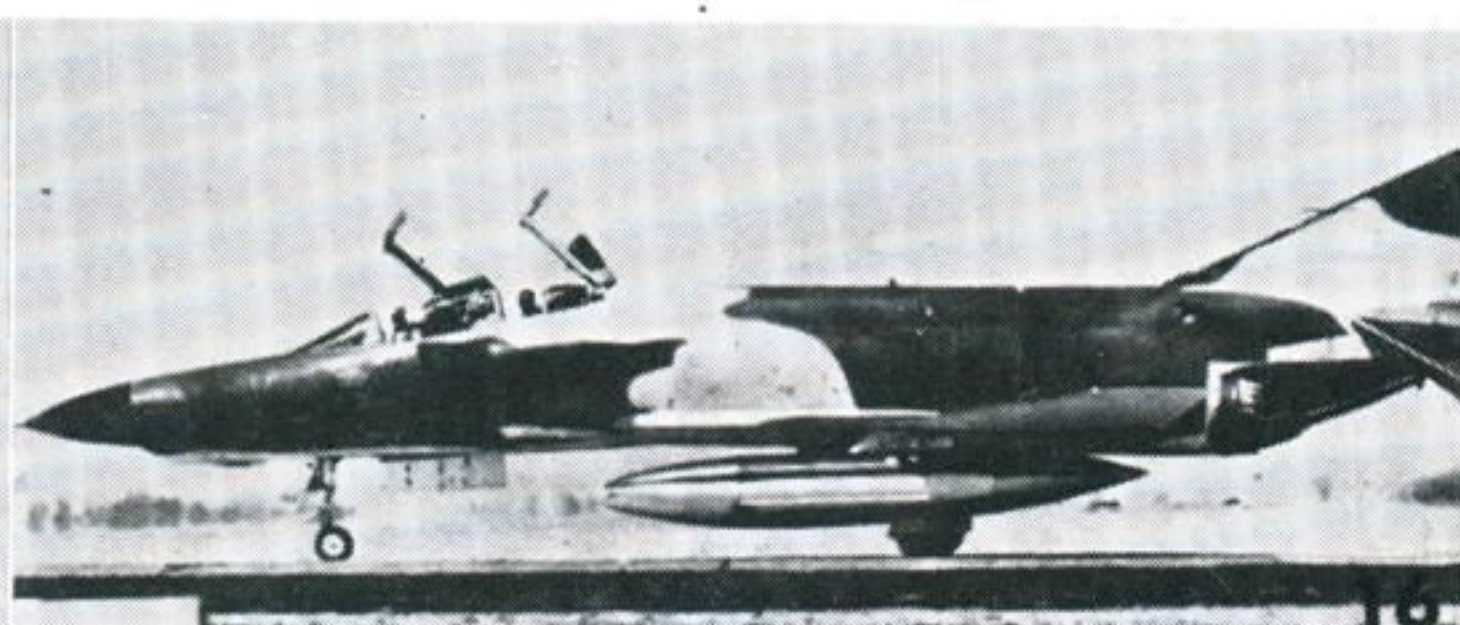


continued overleaf

F-4E



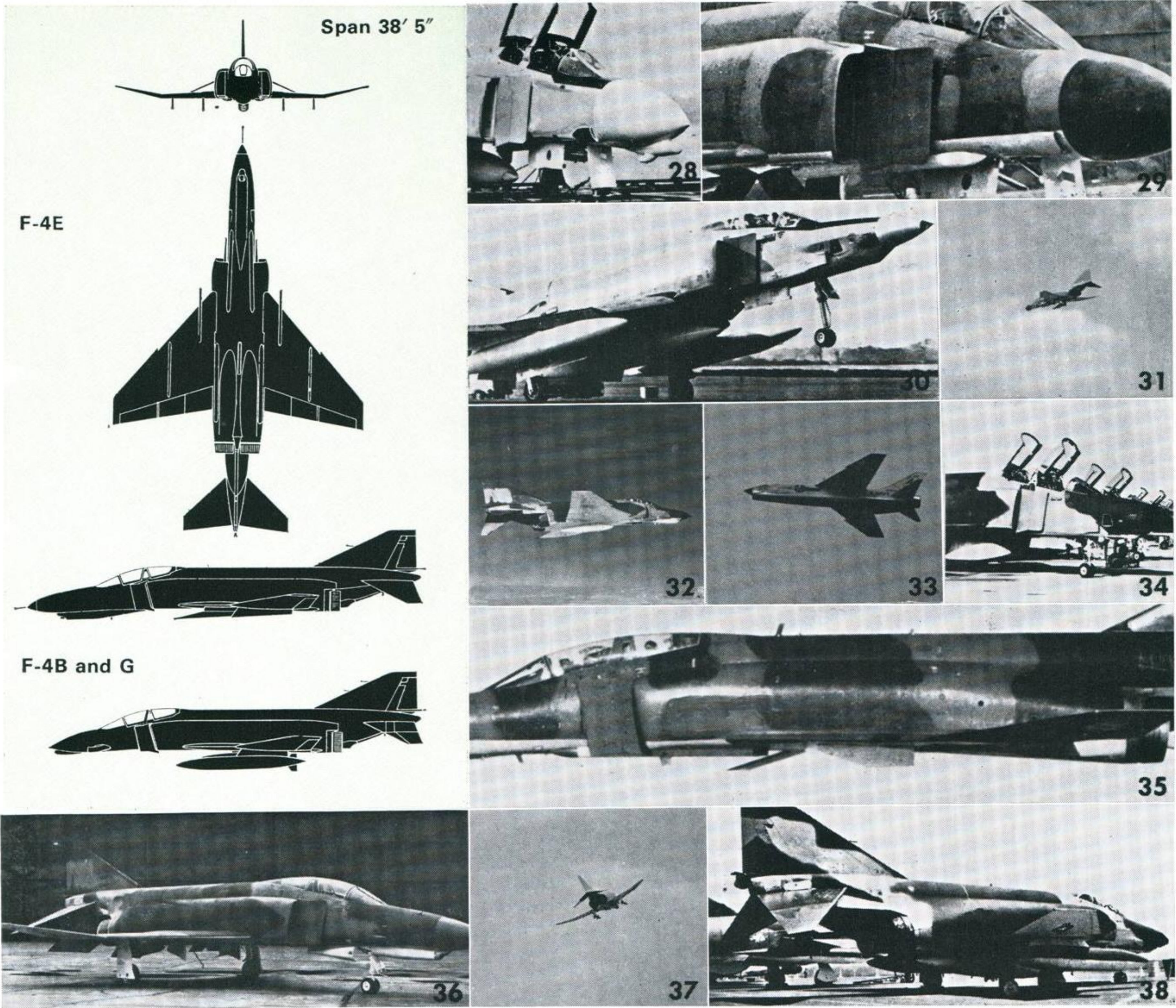
MCDONNELL F-4 PHANTOM II *continued*



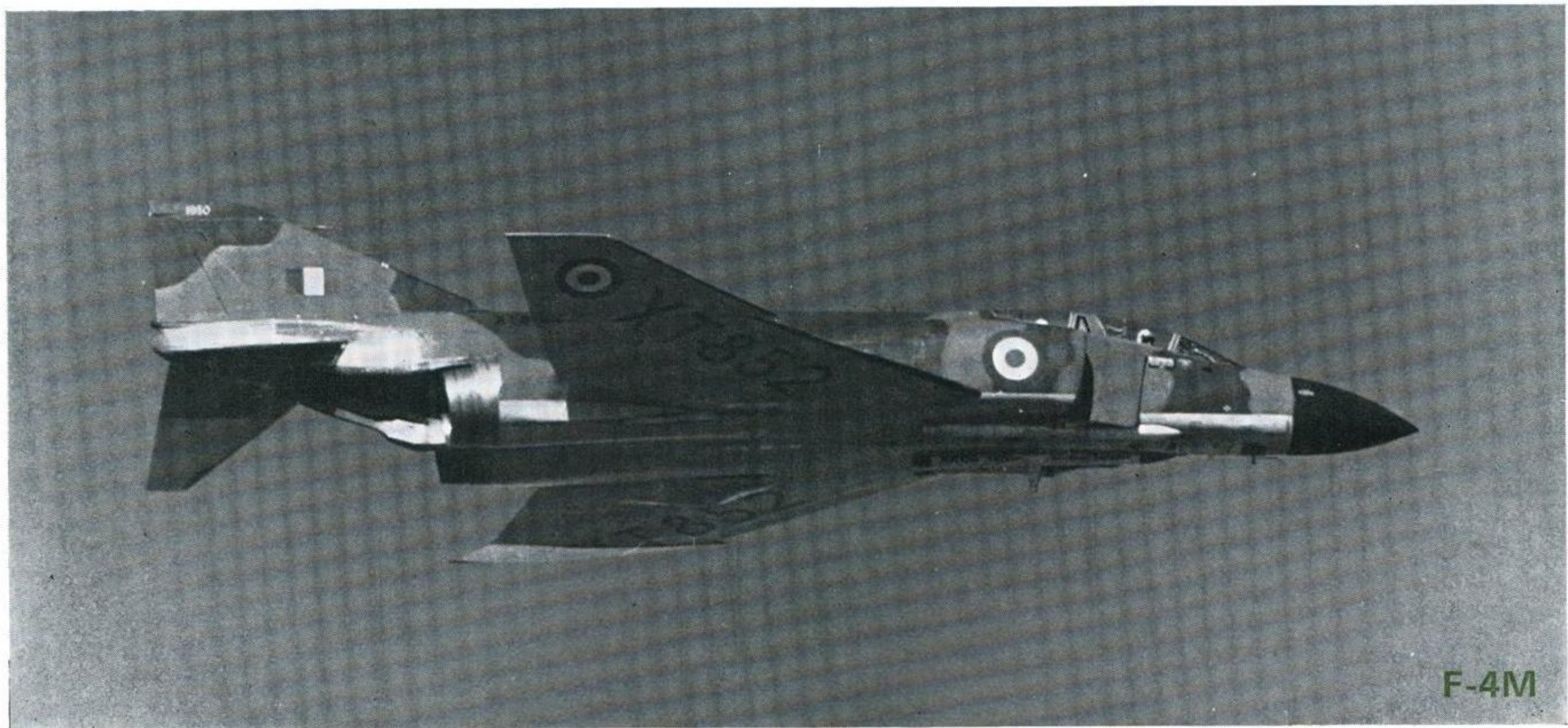
RF-4B

Span 38' 5"



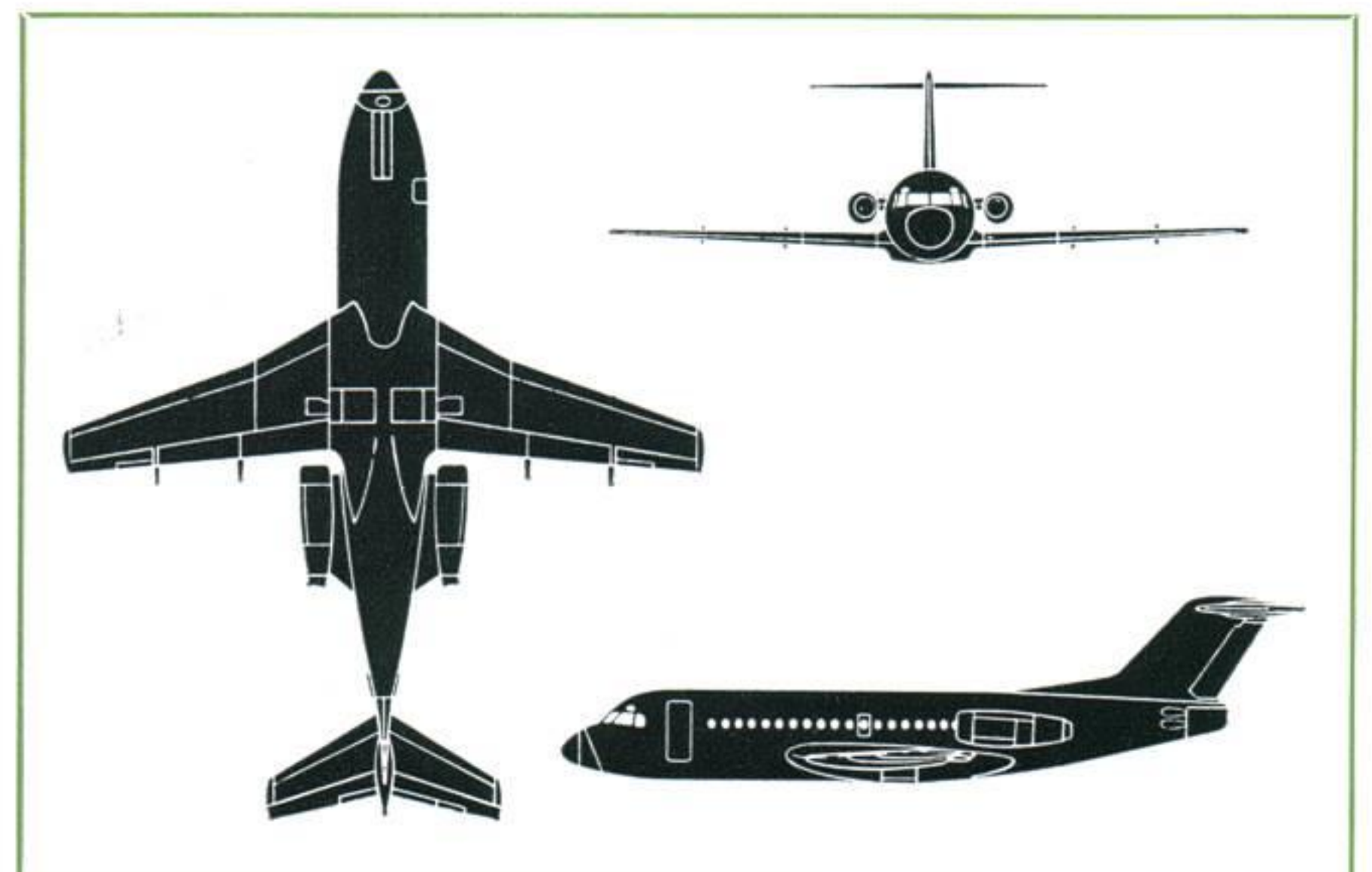
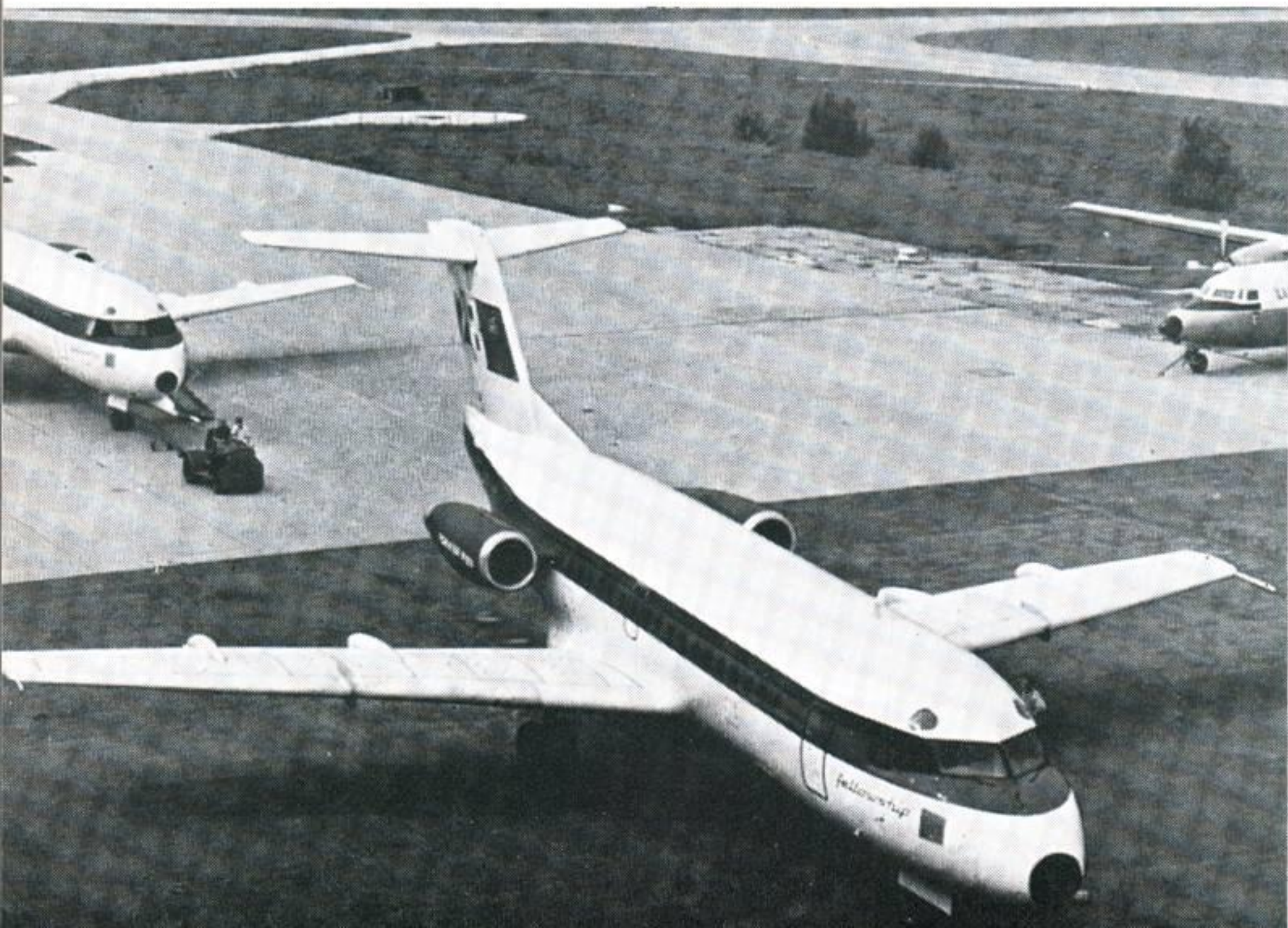


*Lesson instructions are on page 257 Solutions on the back cover*



# FELLOWSHIP

First flown in May 1967, the Fokker F.28 Fellowship is a short-range jet airliner carrying a crew of two and up to 65 passengers. Short Bros. and Harland and two German firms, Hamburger and V.F.W. are participating in the production programme, and the first series production machine is due to be delivered to L.T.U. in Germany in November of this year. Span of the Fellowship is 77 feet 4 inches, length 89 feet 11 inches, and maximum cruising speed 527 m.p.h. Fairchild was to have marketed a variant known as the F-228, with a shorter fuselage, in the U.S.A. but this scheme has now been abandoned.





## SWEDISH S-TANK

In 1967 the Swedish Army began to take delivery of the production version of the controversial, turretless S-tank, or Strv 103. The new model is illustrated here and differs in several important respects from the pre-production version which was the subject of a lesson in the November 1966 issue of the *Journal*.

In particular, the production version of the S-tank has a new, stabilised commander's cupola and a novel form of ribbed armour. Its principal armament remains a

105-mm. gun, similar to that of the Centurion and several other tanks but with a longer barrel and an automatic loading mechanism which provides for a high rate of fire. However, the .5-inch ranging machine gun which was mounted in the pre-production vehicle has been eliminated. The first batch of production vehicles retain the earlier engine installation consisting of a Rolls-Royce 240 b.h.p. diesel and a 330 b.h.p. Boeing gas turbine but later vehicles will have a more powerful, 490 b.h.p. F.N.-Boeing turbine.



KEY



## FERRET Mk. 4 SCOUT CAR

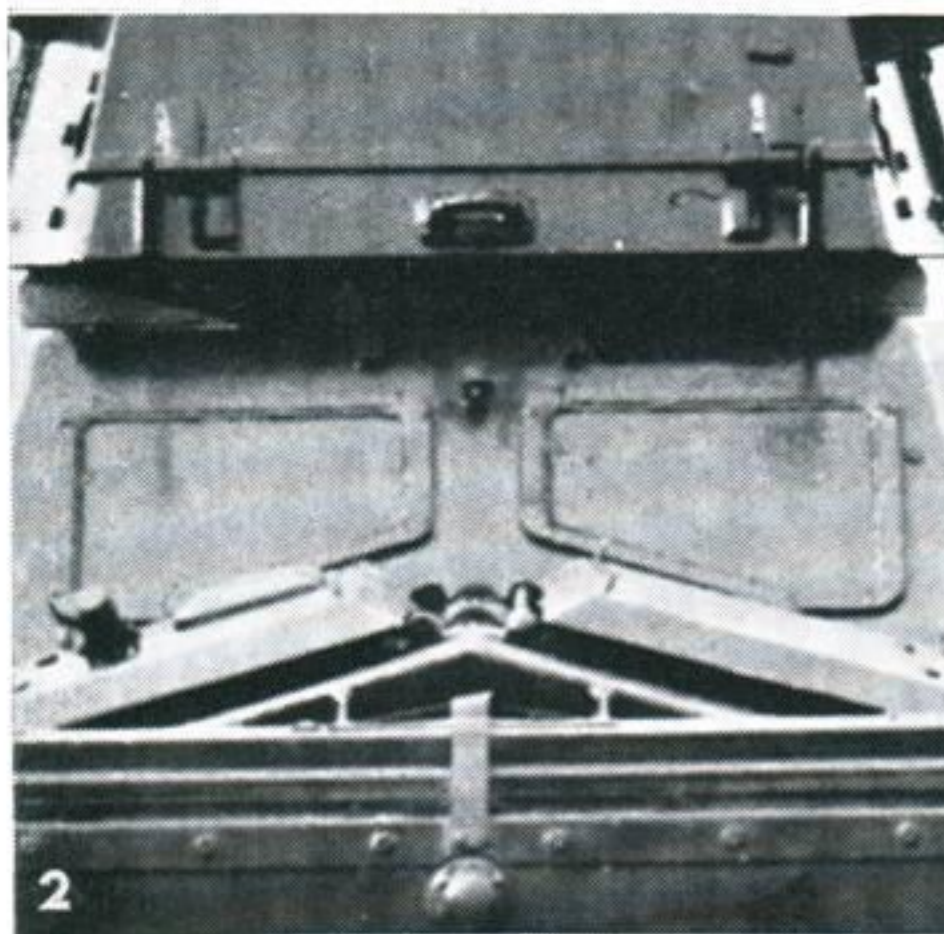
The Scout Reconnaissance Car Mk. 4 is an improved version of the Ferret Mk. 2, which has been used so successfully by the British Army and the armed forces of several other nationalities.

The principal differences between the Mk. 4 and the Mk. 2 are automotive. Thus, the Mk. 4 has stronger suspension units, disc brakes and larger wheels and tyres, which give it an increased load capacity and better off-the-road mobility. What is more, the wings and stowage

*Lesson instructions are on page 257*

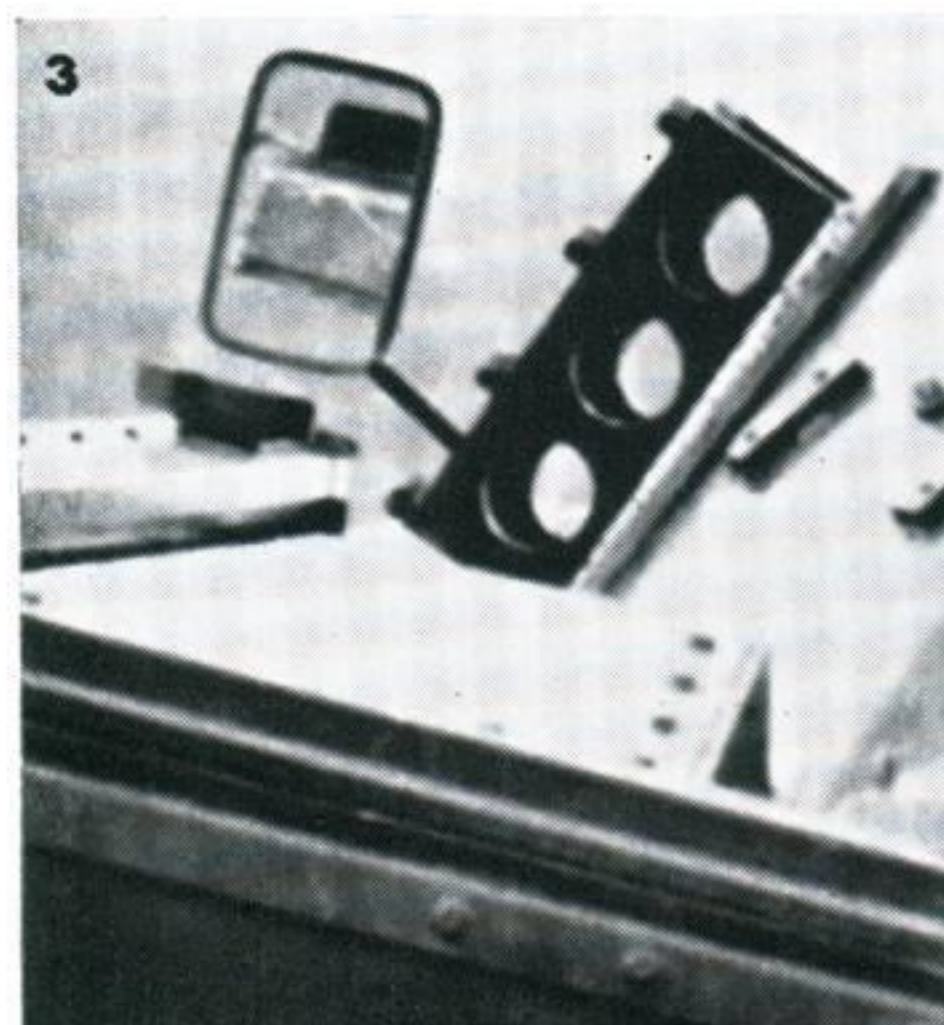


1



2

KEY



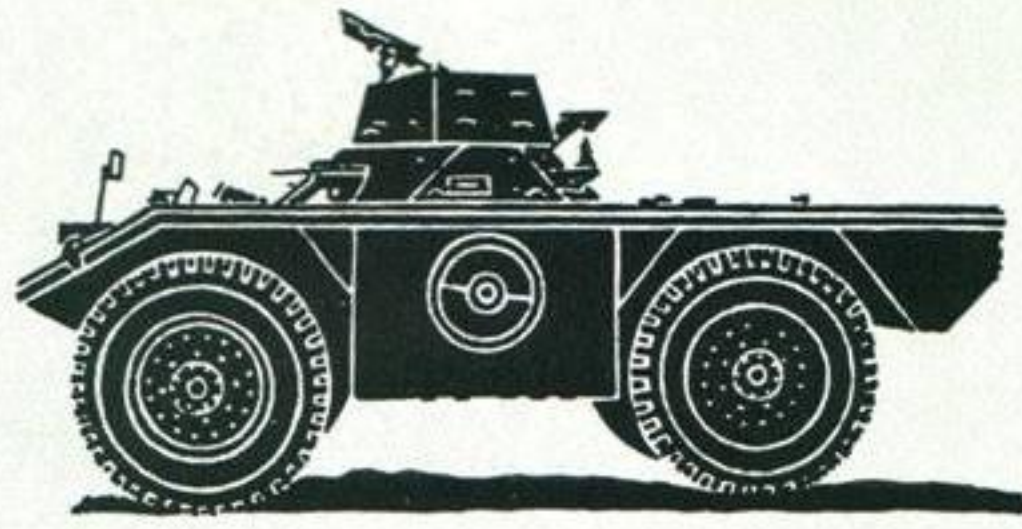
3



4



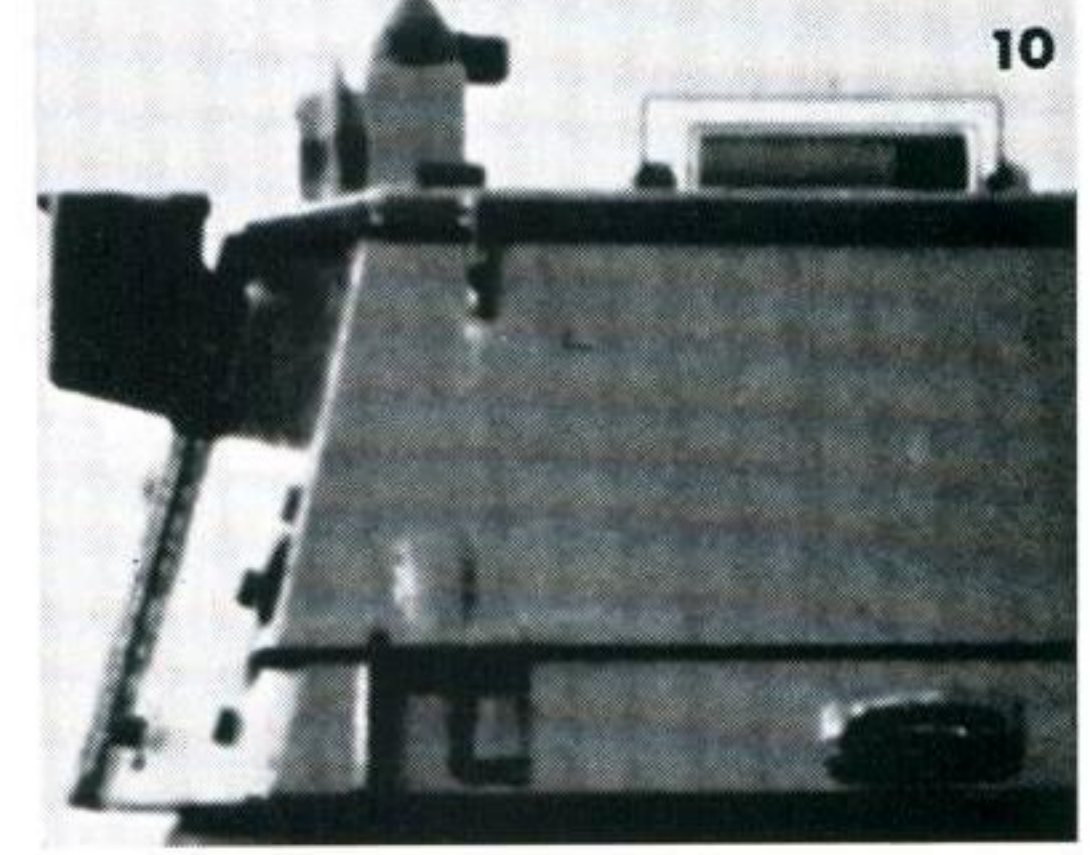
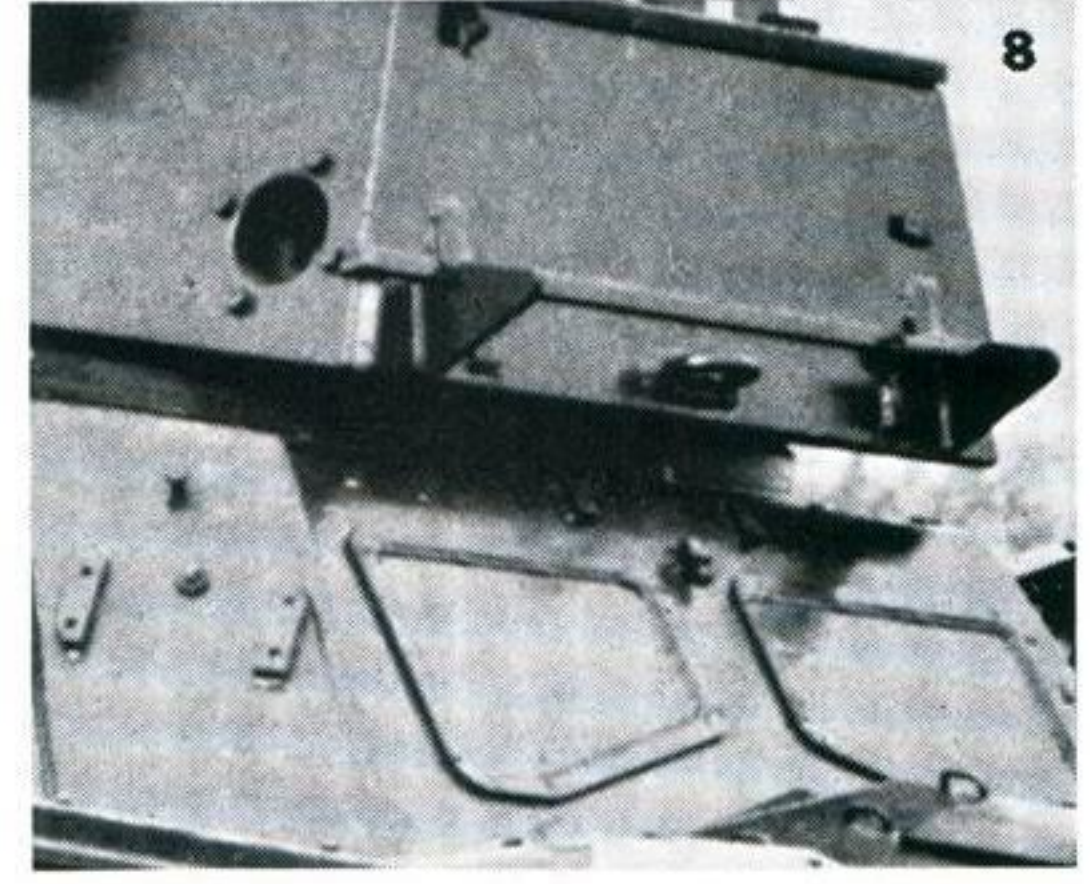
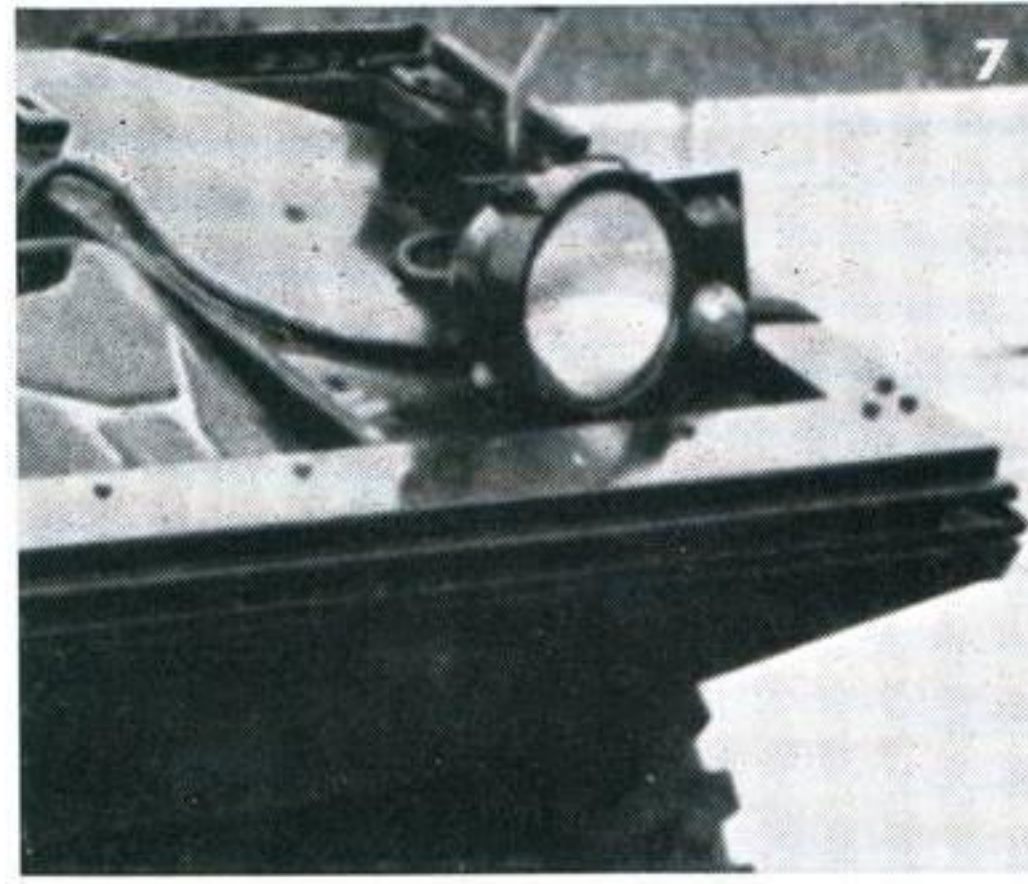
5



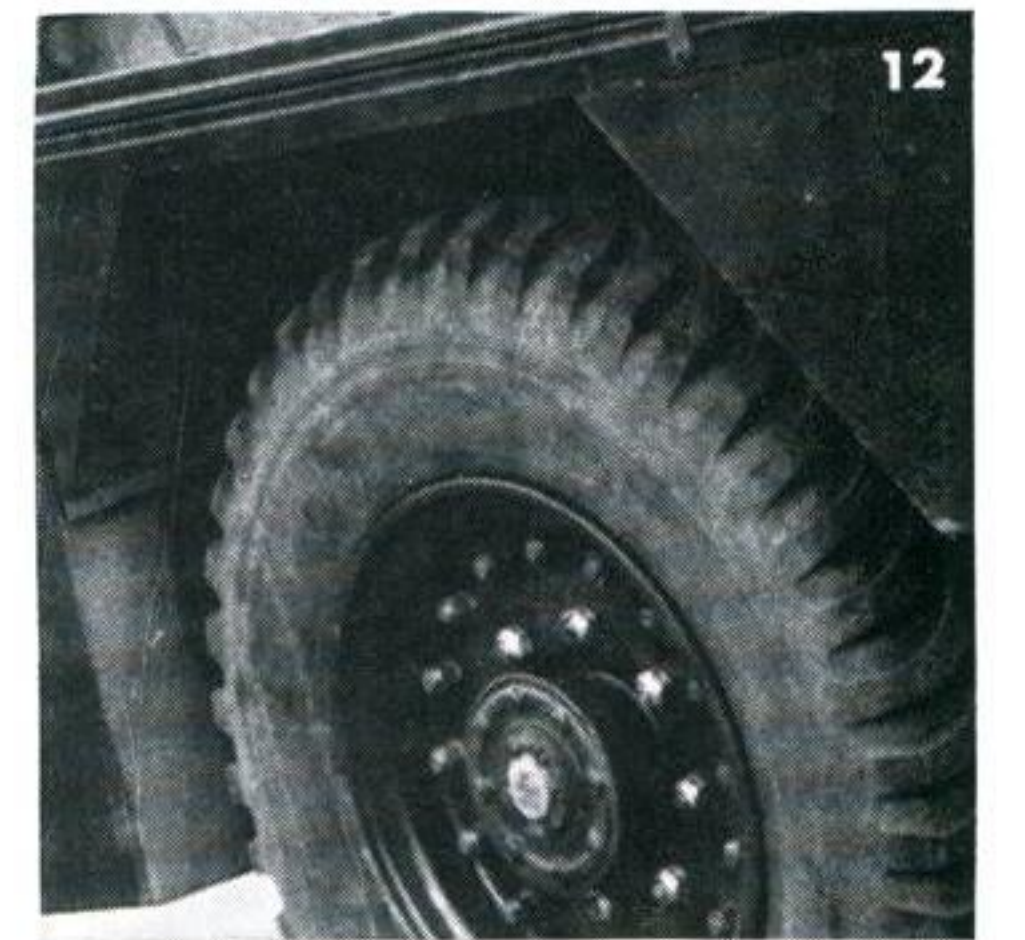
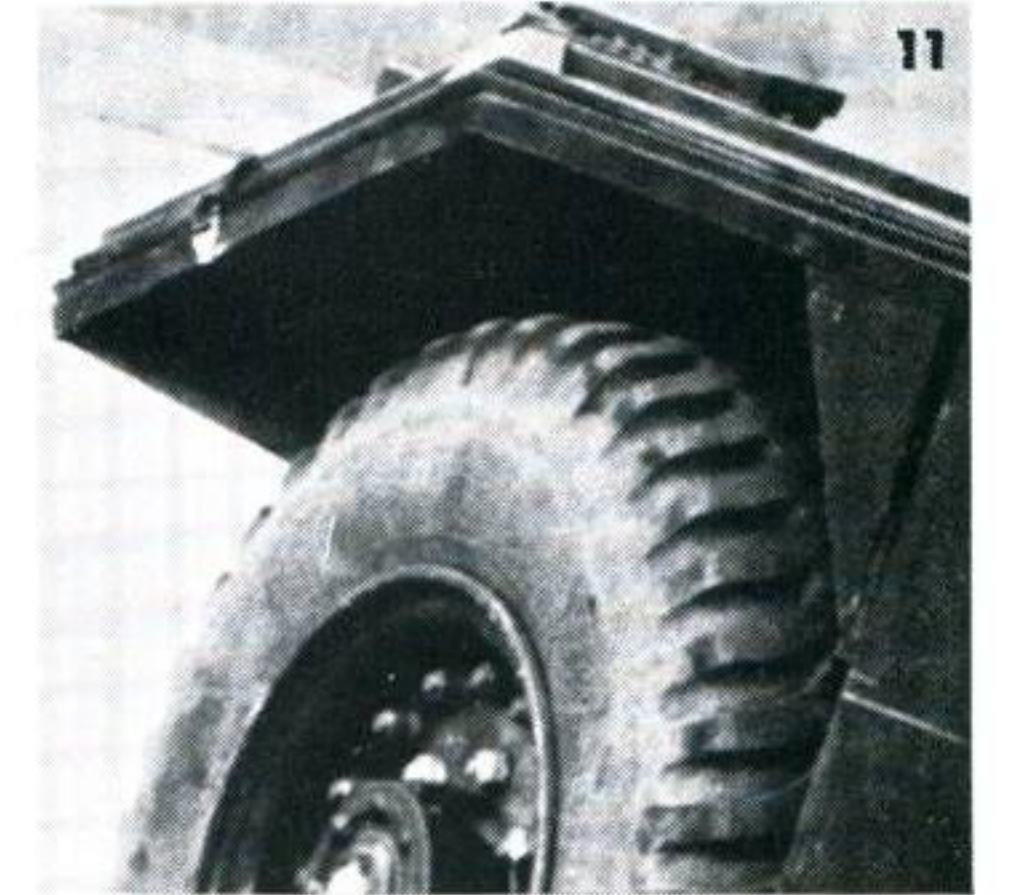
boxes have been redesigned to accept a flotation screen, so that the Mk. 4 can swim across inland waterways when the screen is erected—a very important advantage for a reconnaissance vehicle. As on land, the Mk. 4 propels itself in water by means of its wheels.

Another advantage of the Mk. 4 over the Mk. 2 is that it has fewer servicing points, which reduces the maintenance work load. But the various improve-

*continued overleaf*



*Solutions on the back cover*



KEY



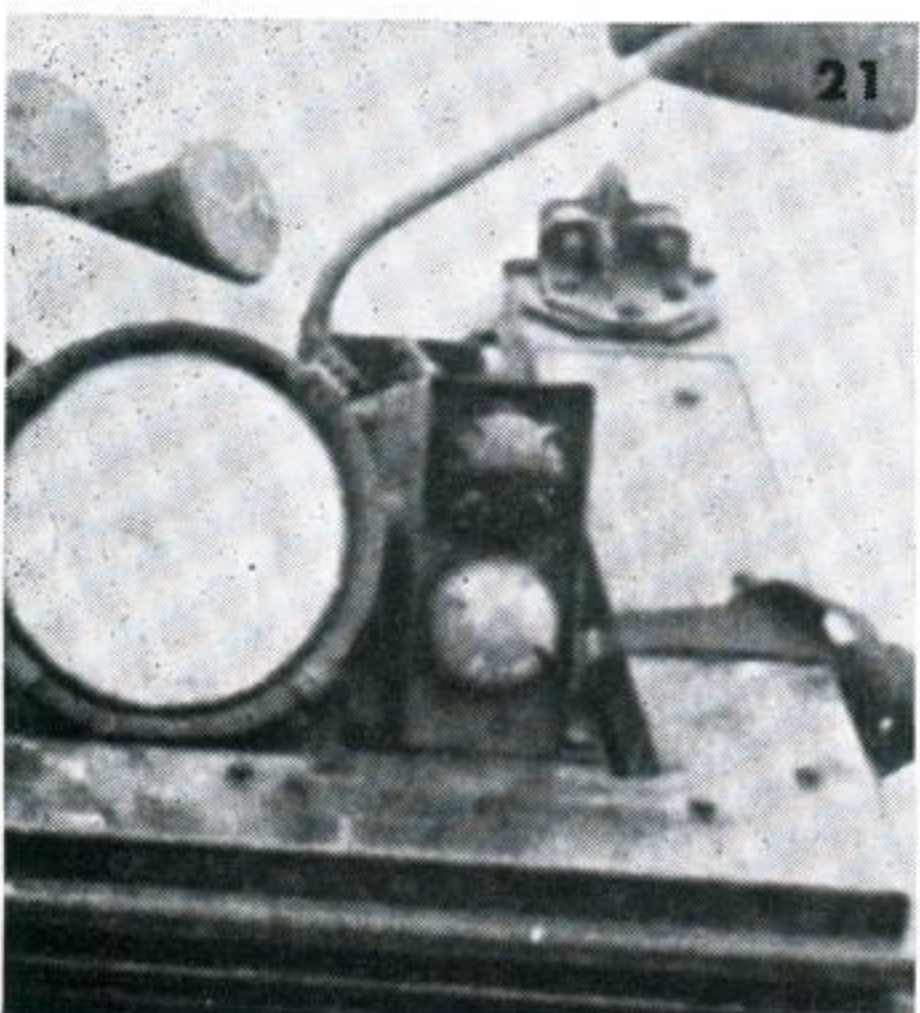
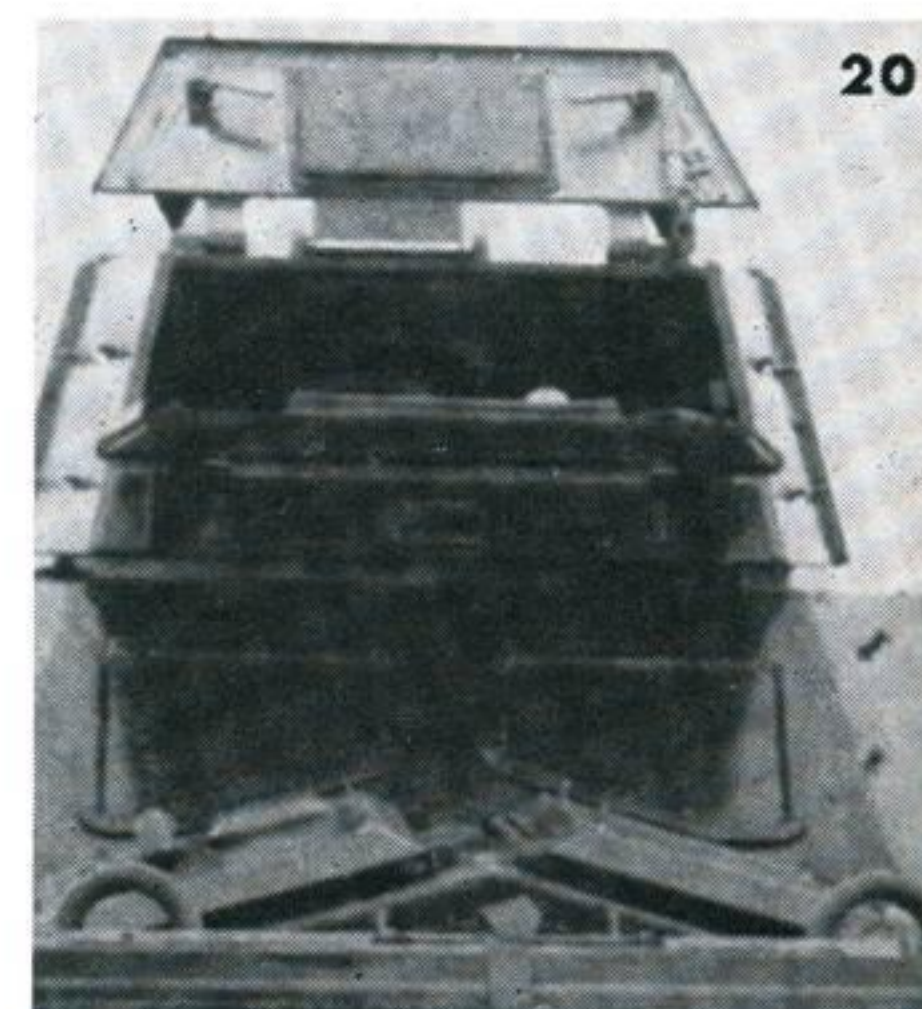
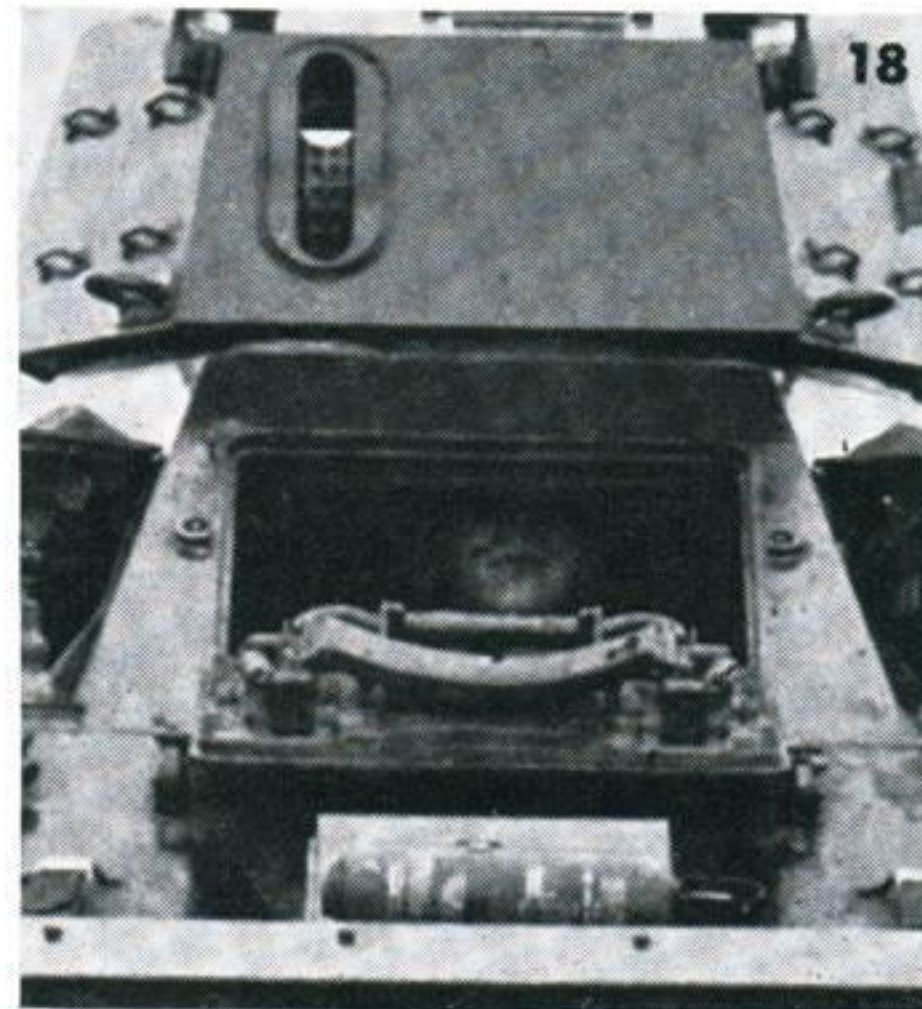
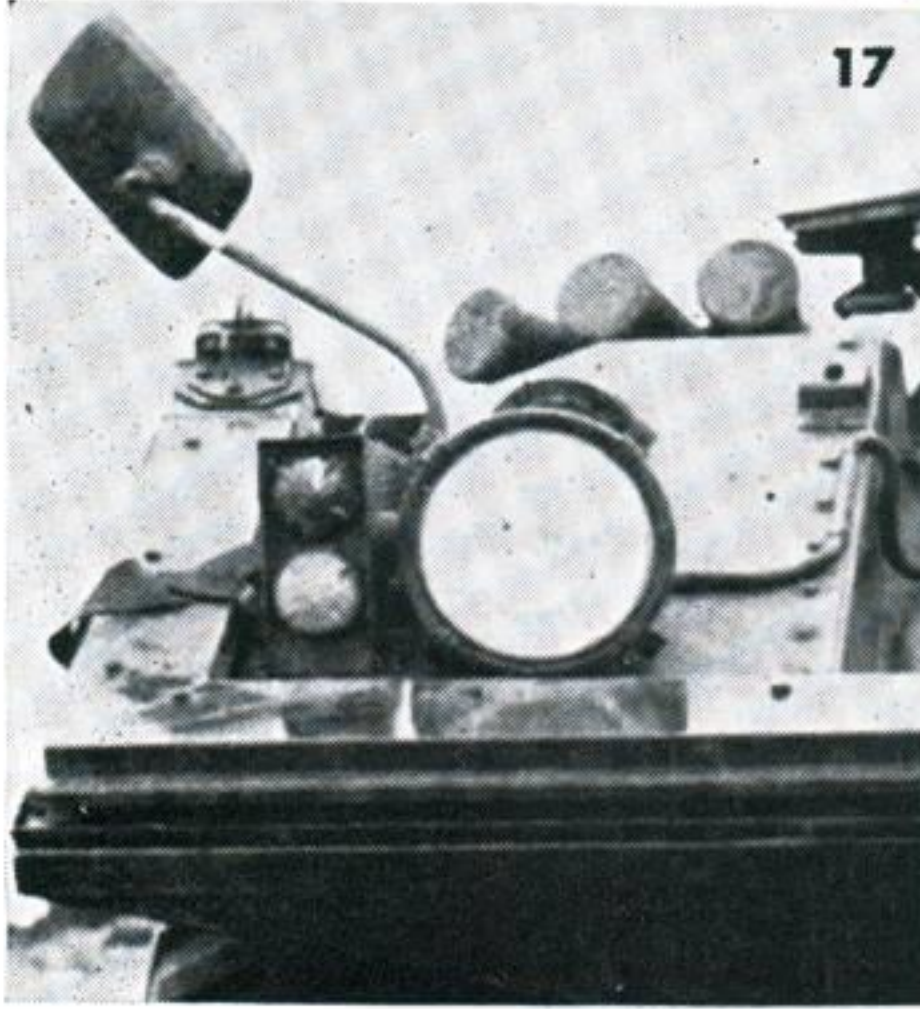
## FERRET Mk. 4 *continued*

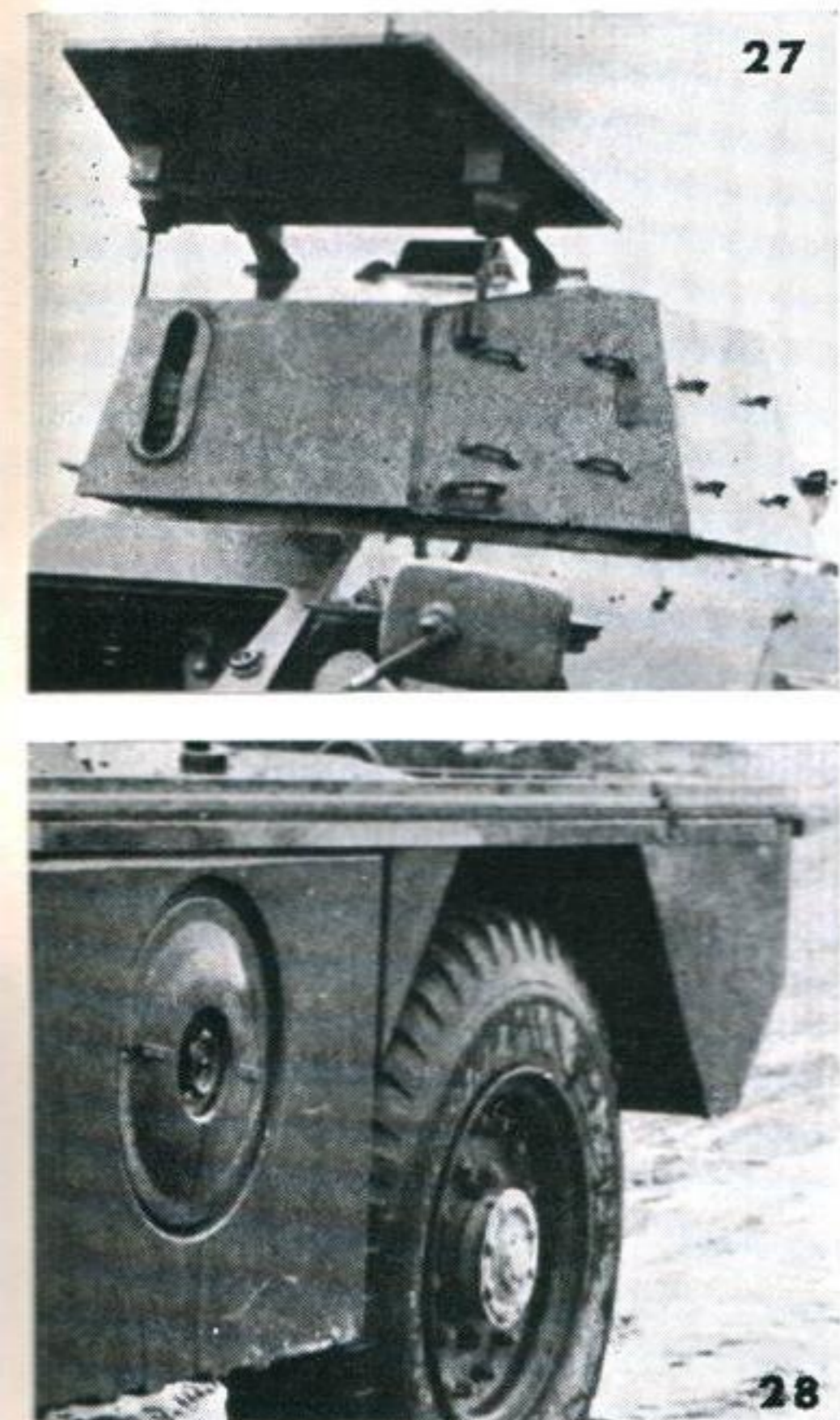
ments have inevitably increased the weight of the Mk. 4 to 12,000 lb., compared with 9,700 lb. of the Mk. 2/3.

In other respects the Mk. 4 is similar to the Mk. 2. In particular, it has much the same welded hull and turret. Consequently its crew of two is the same as that of its predecessor and so is its turret armed with a single .30-inch machine gun.

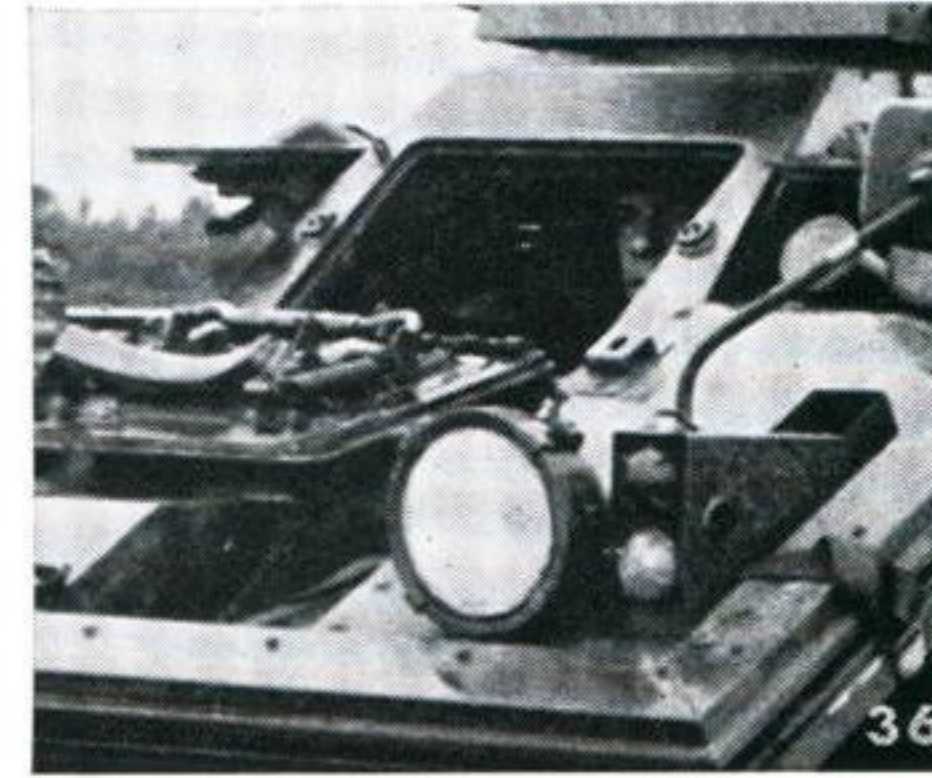
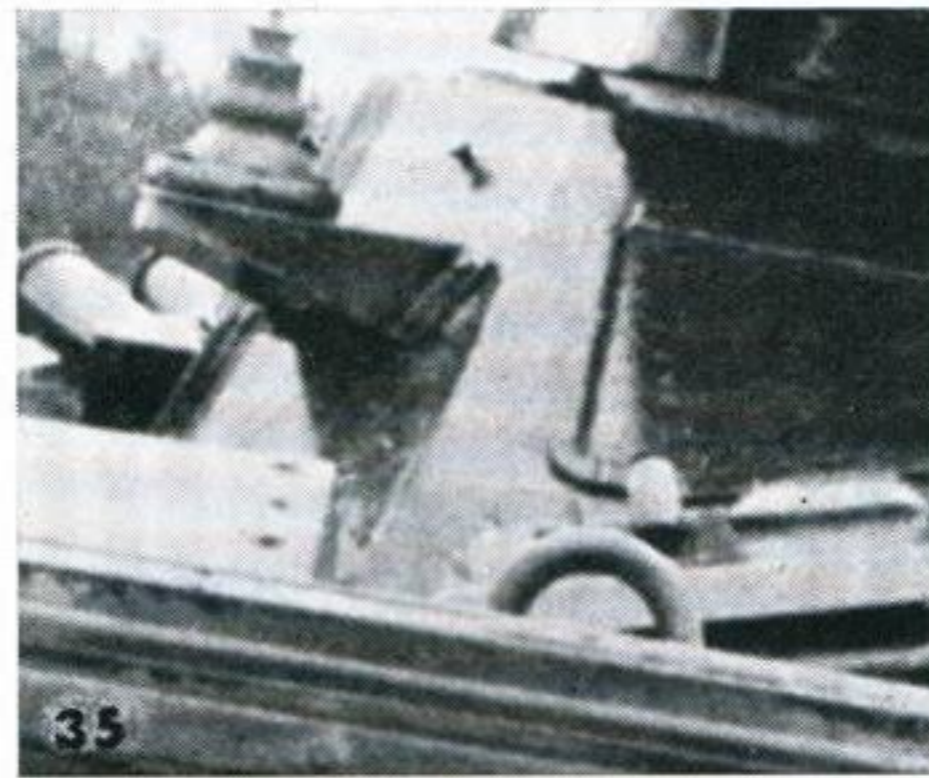
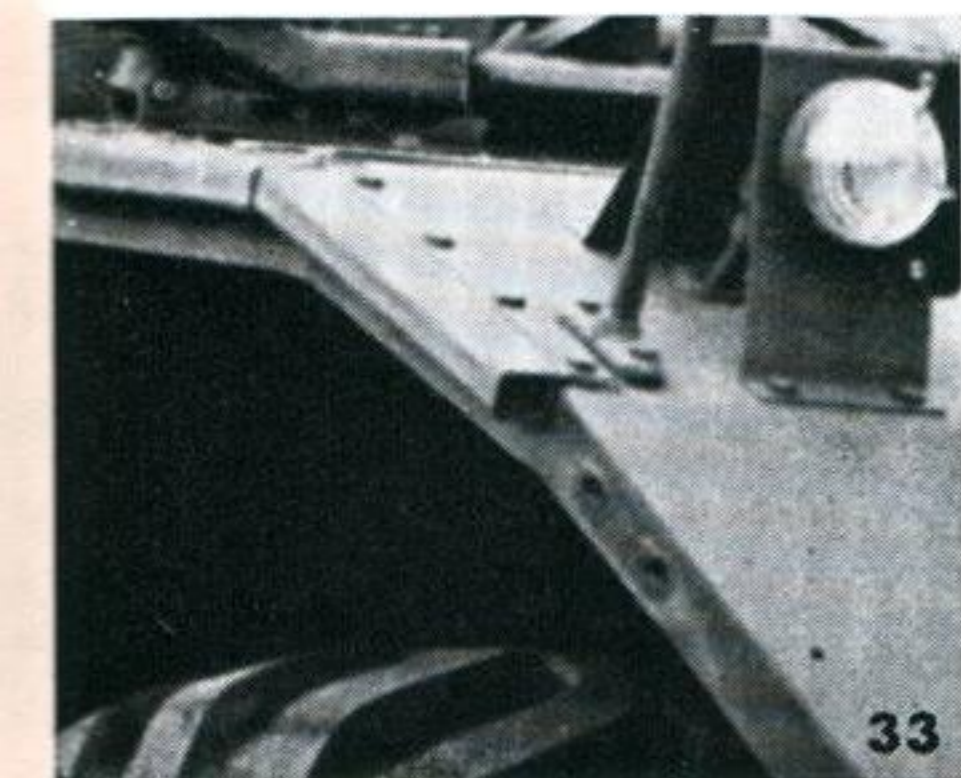
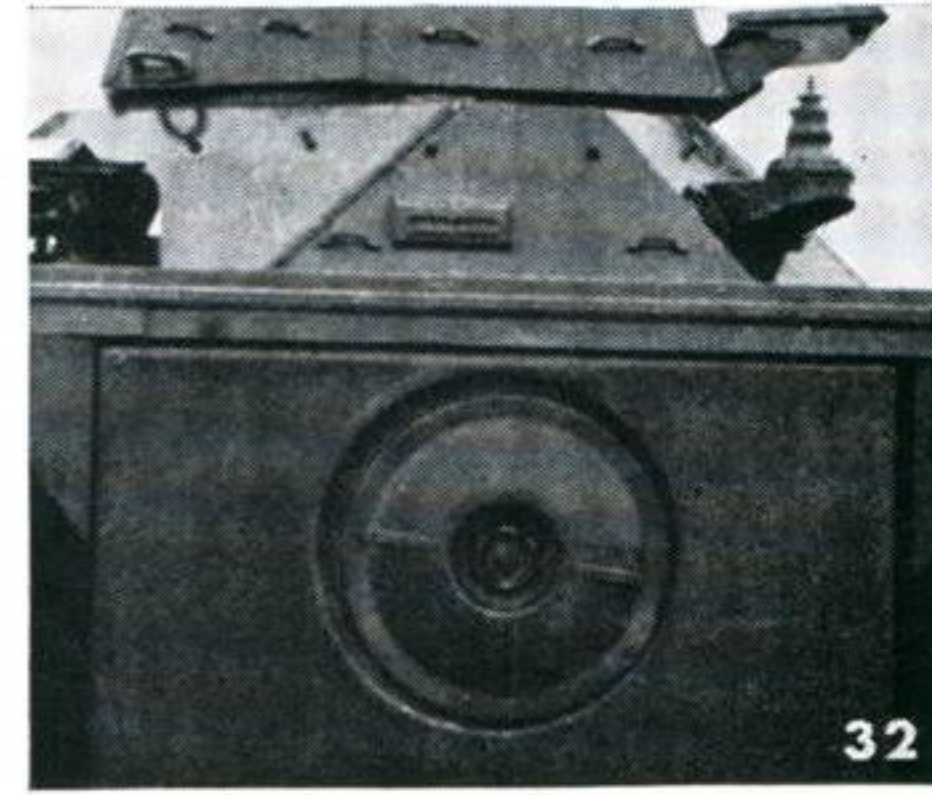
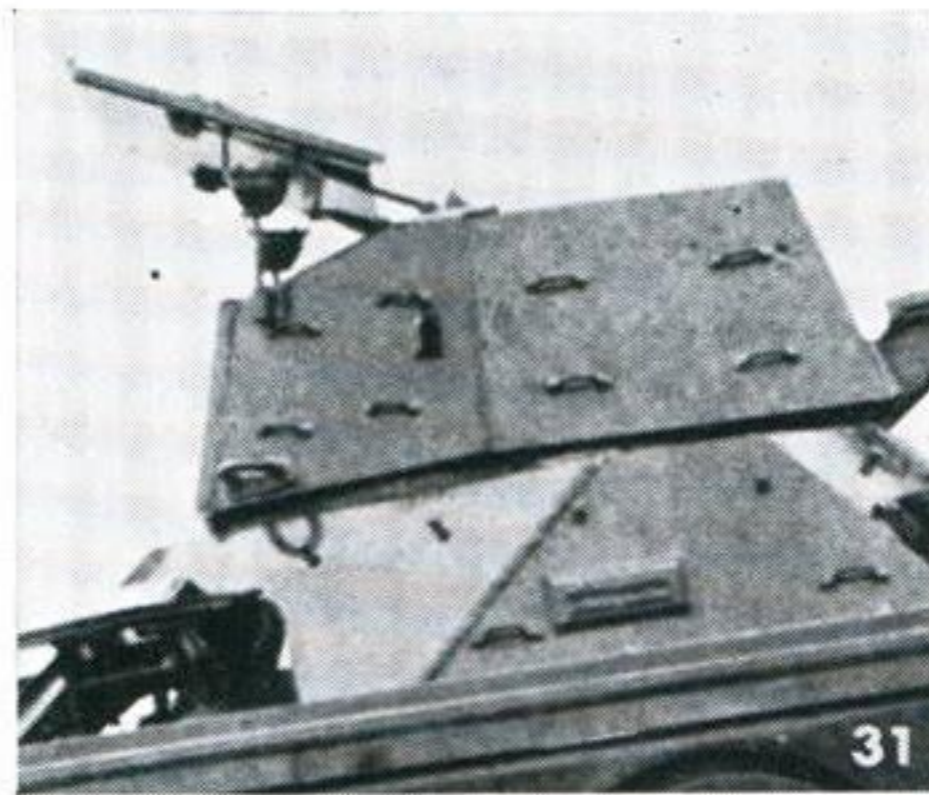
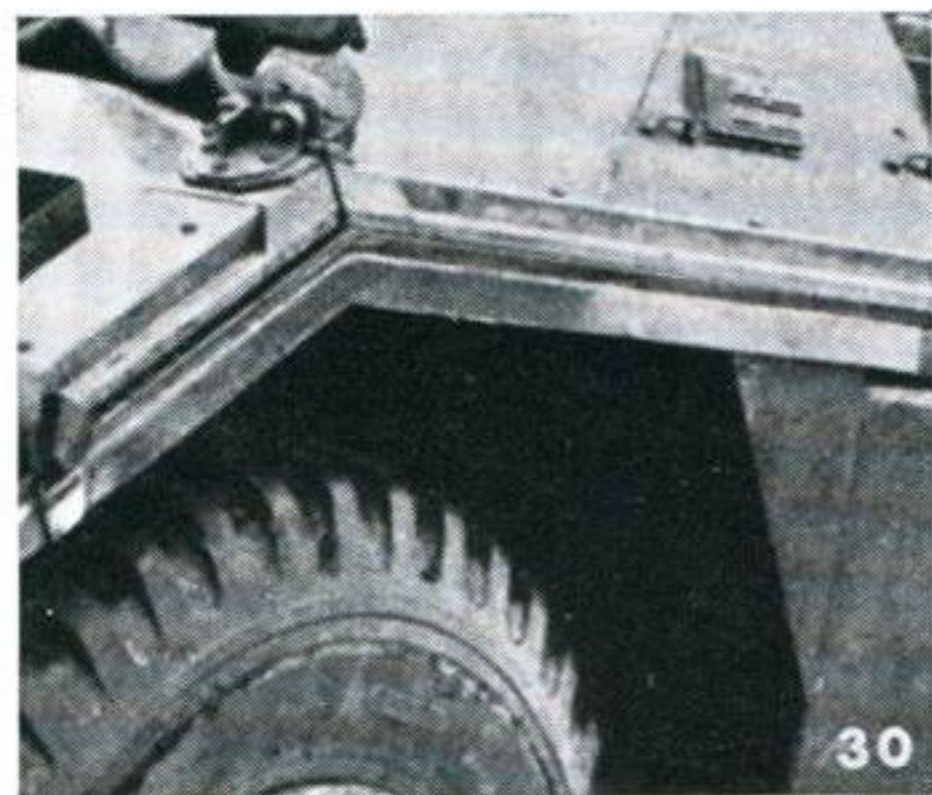
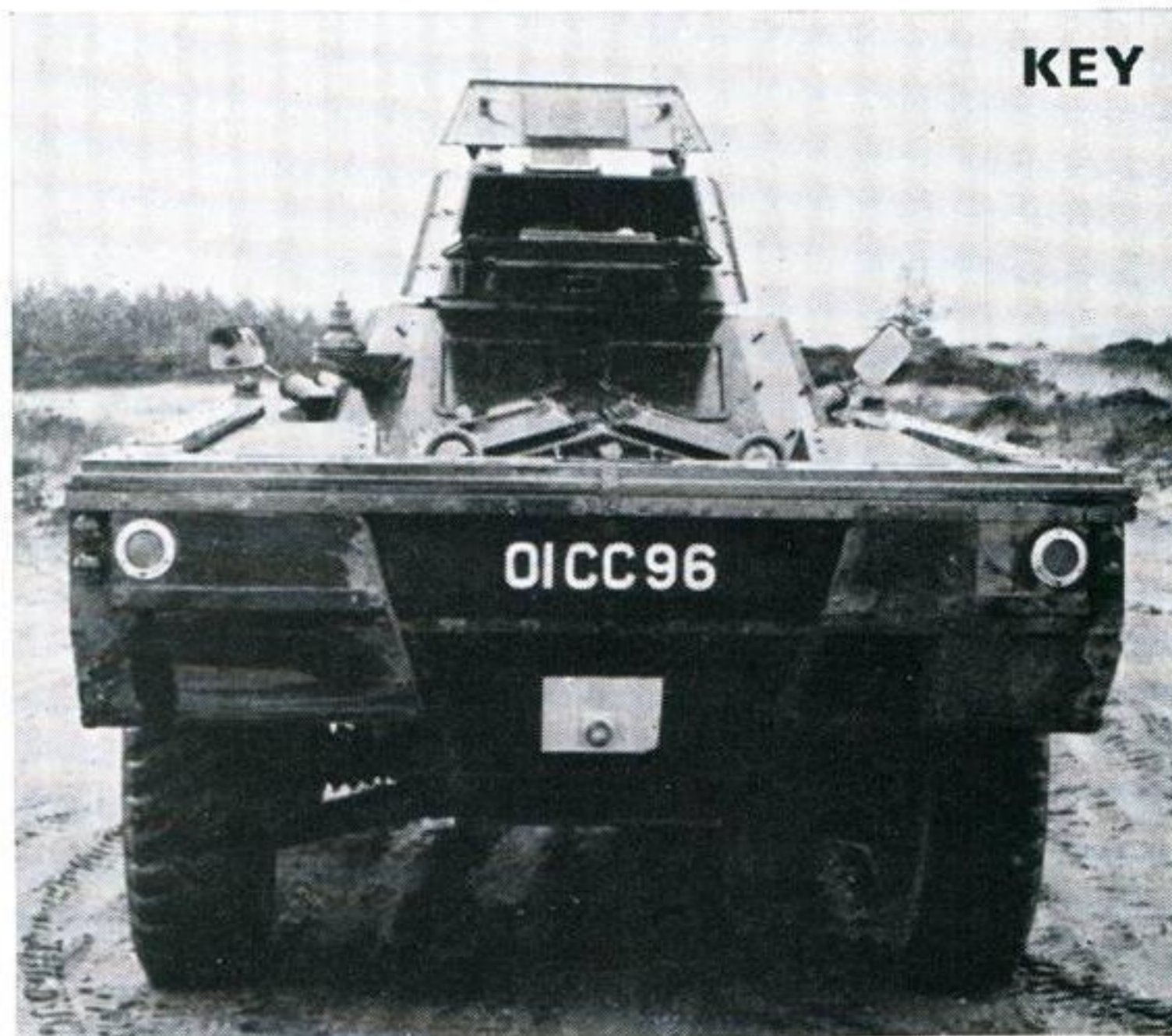
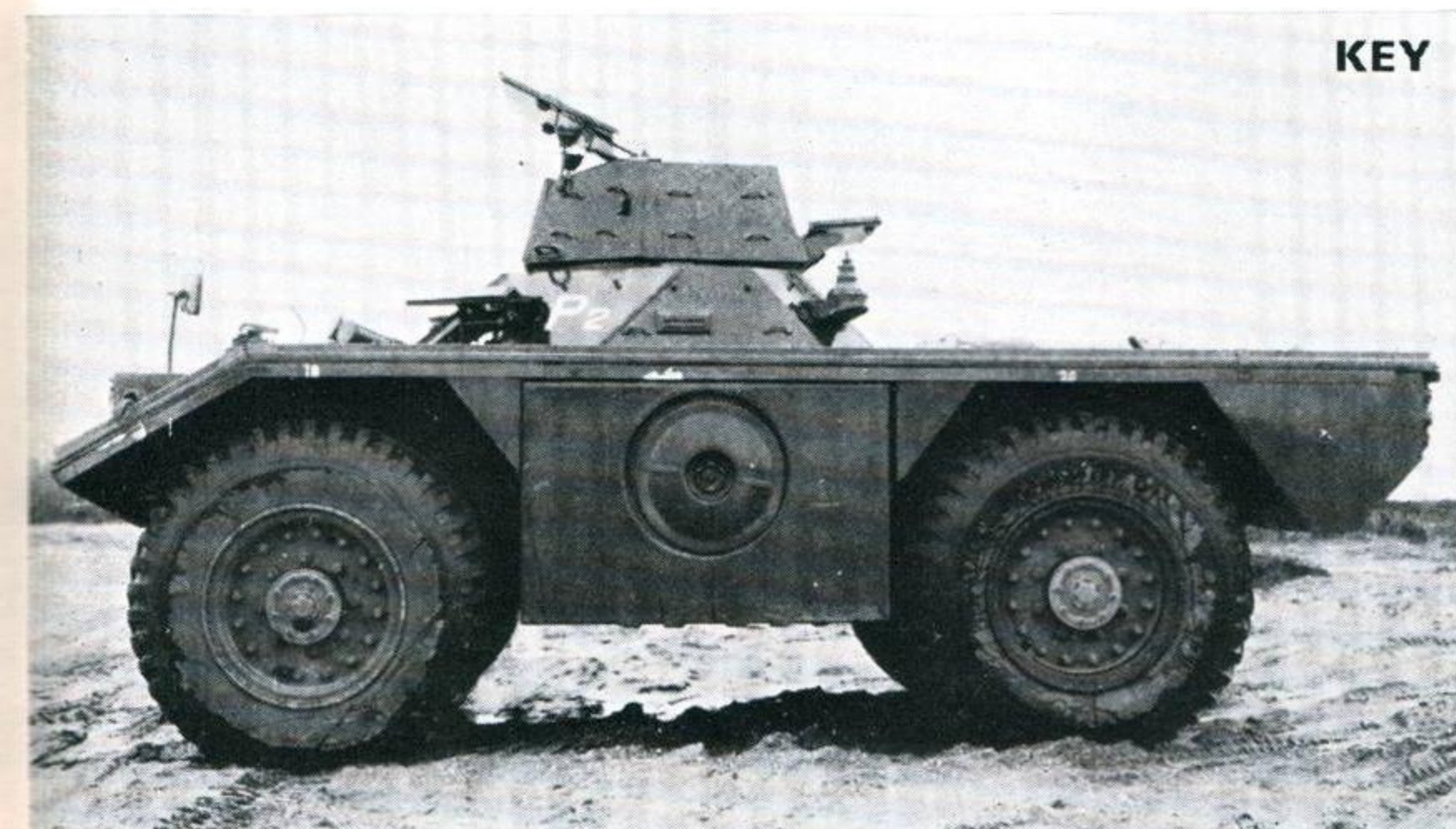
The principal recognition feature of the Mk. 4 is the frame on which the collapsible flotation screen is mounted. Otherwise it looks very much like its predecessor, the Mk. 2, which was the subject of a lesson in the June 1962 issue of the *Journal*.

*Lesson instructions are on page 257*





*Solutions are on the back cover*



*continued overleaf*



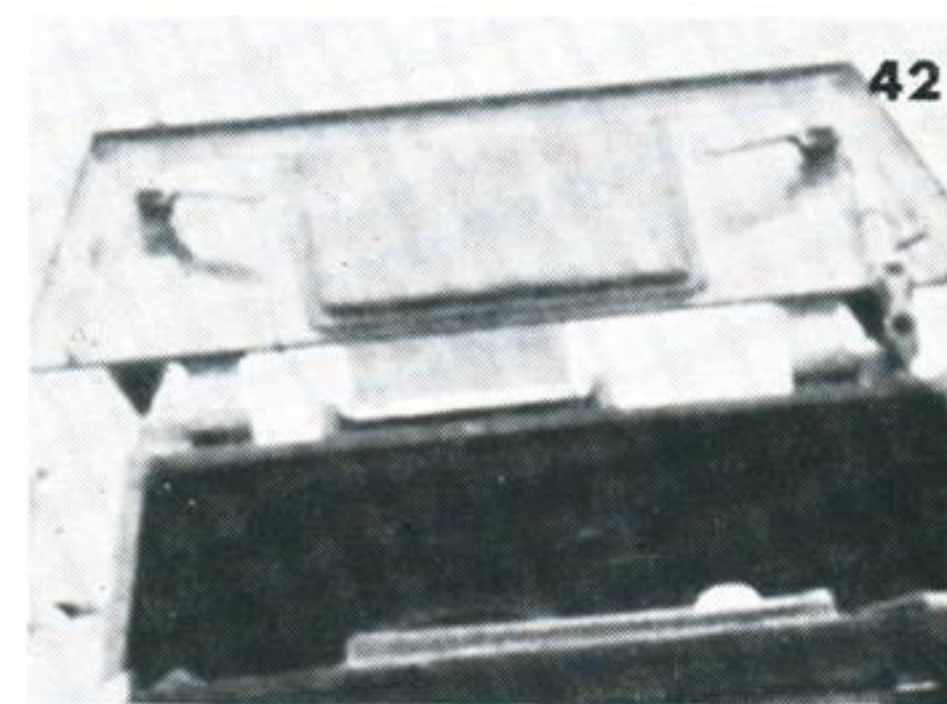
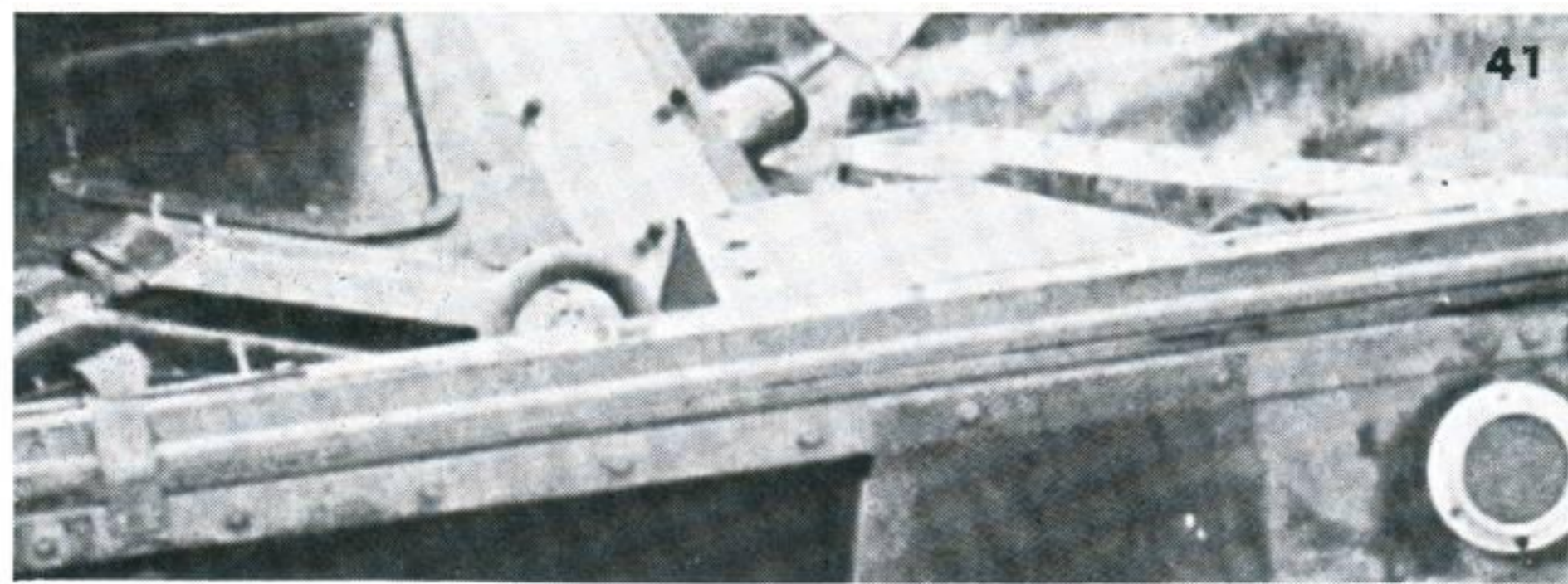
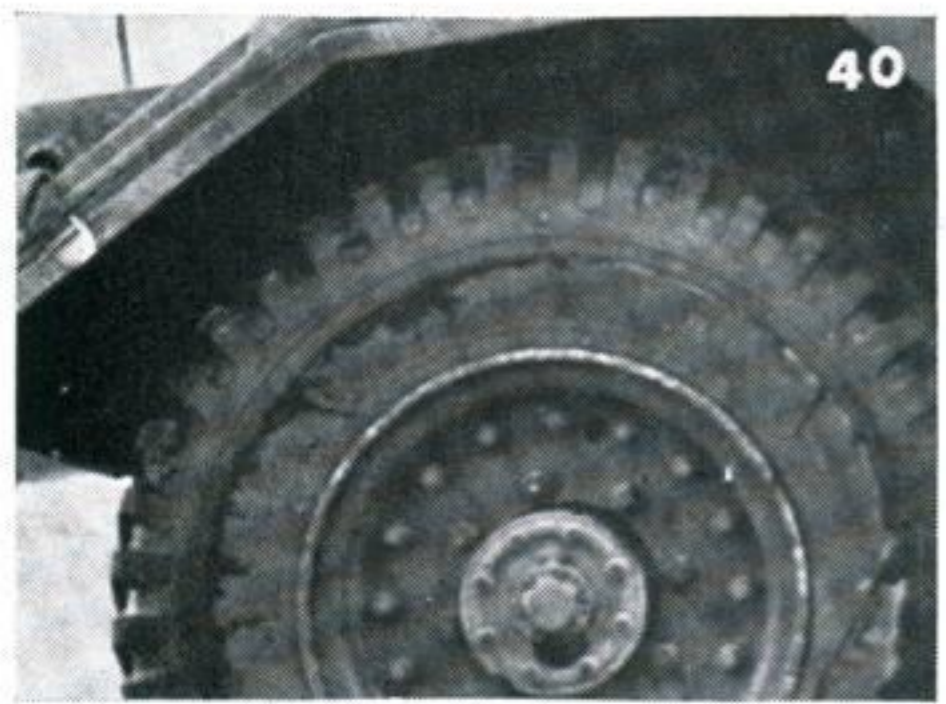
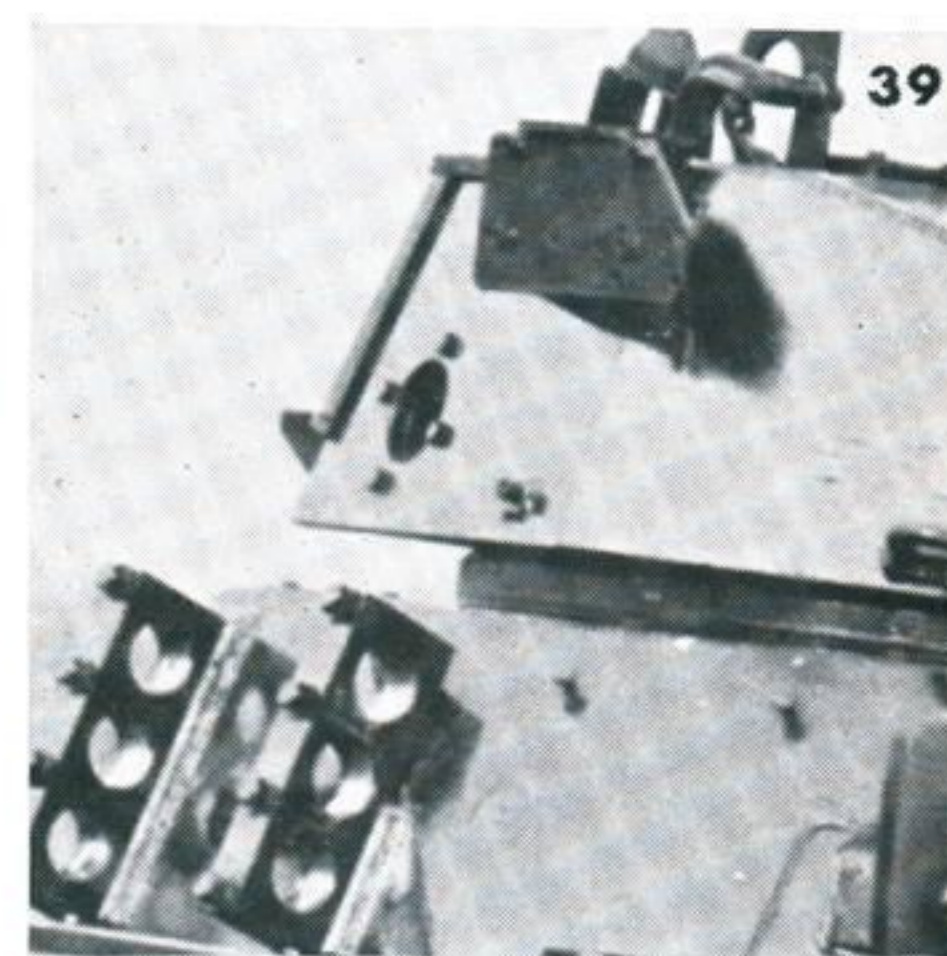
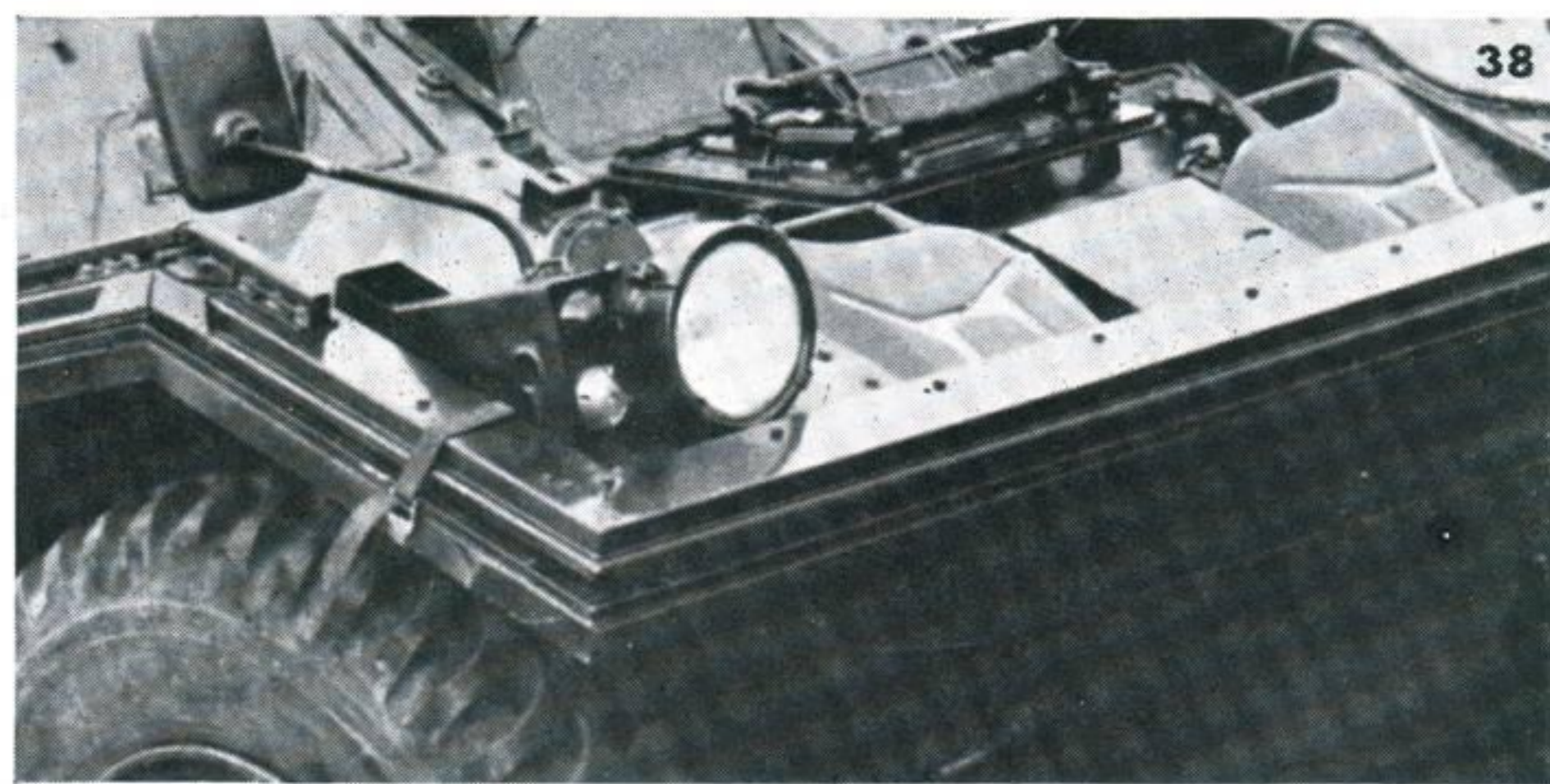
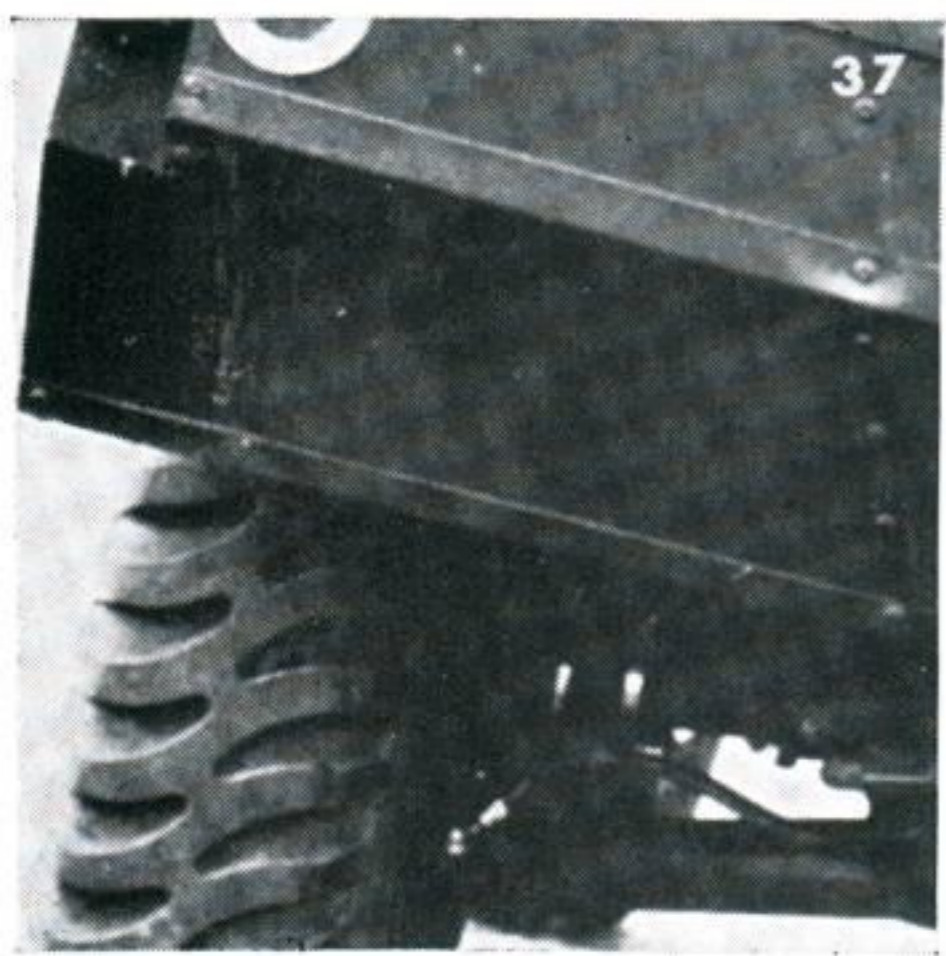
KEY

*Lesson instructions are on page 257*

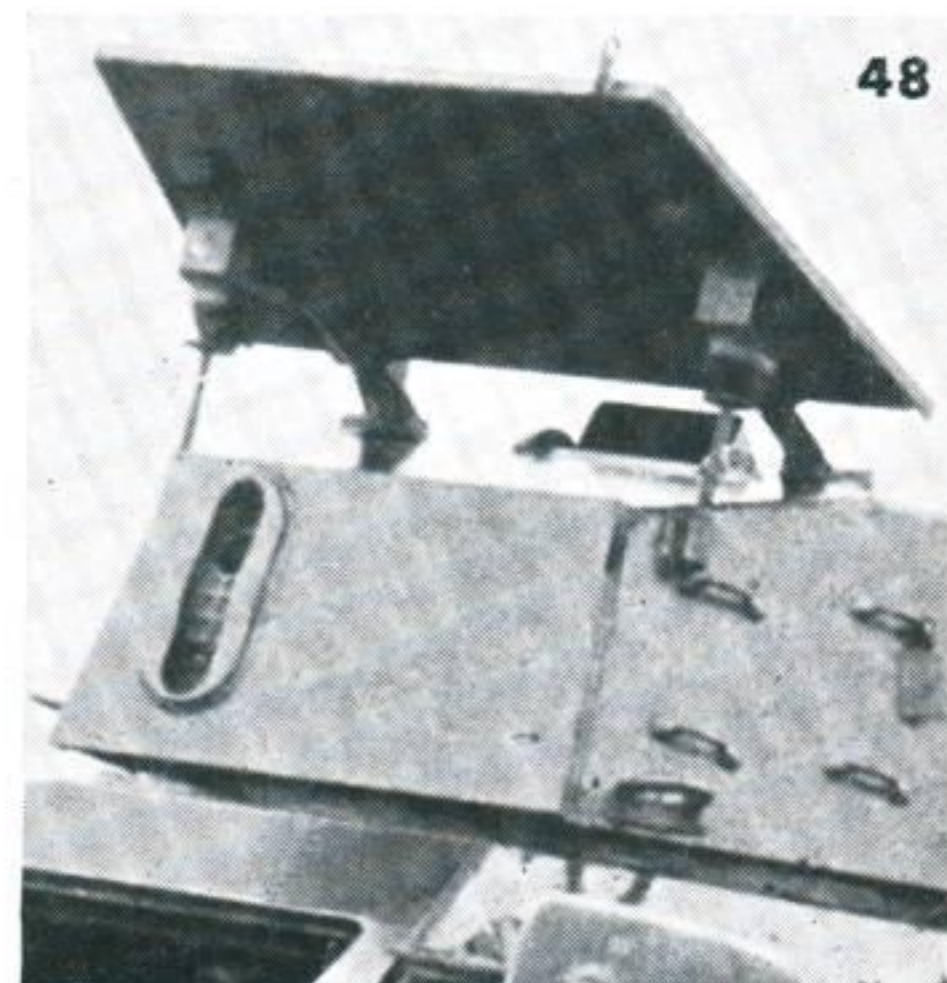
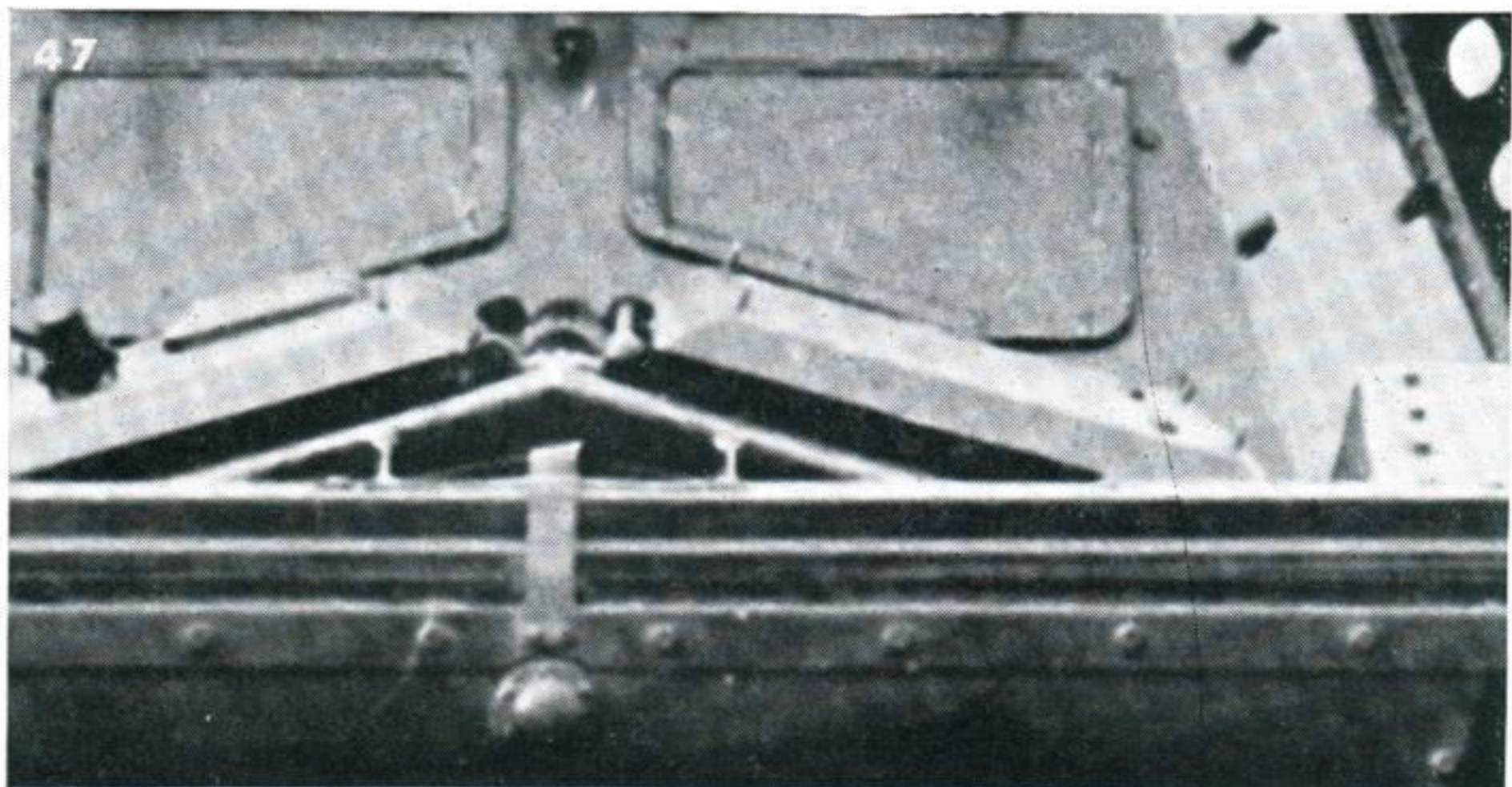
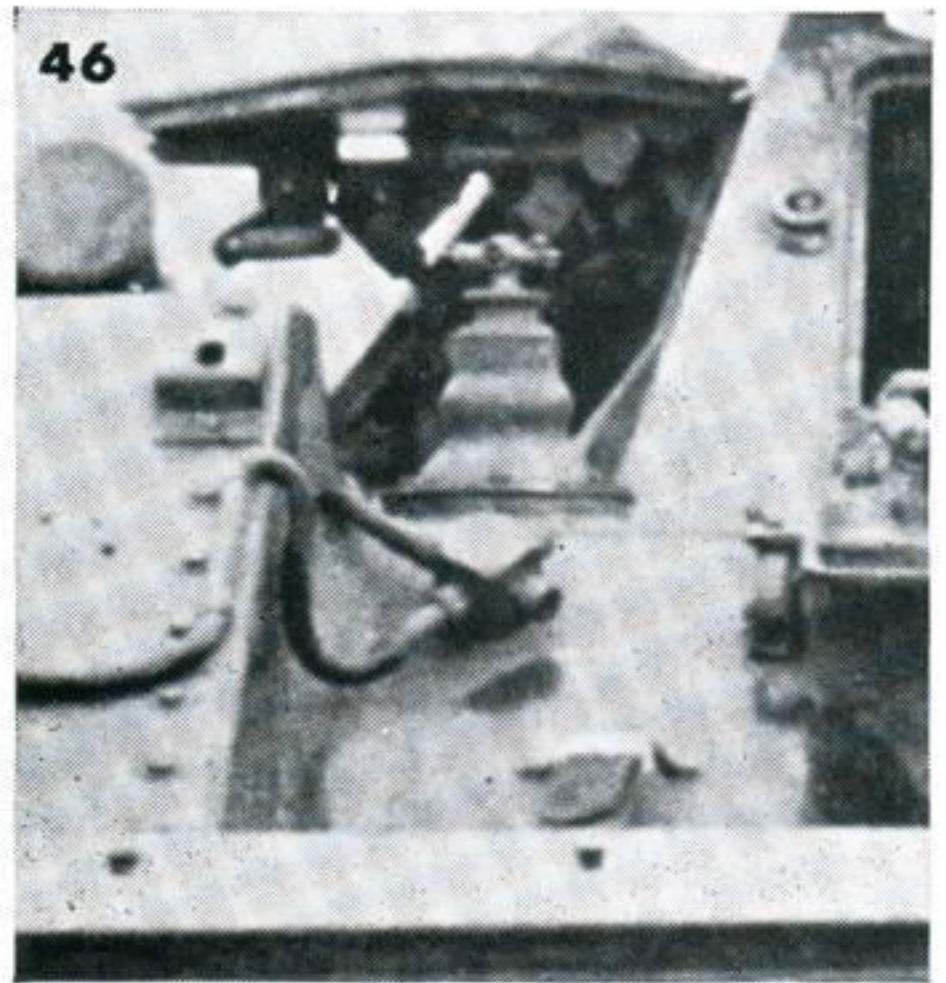


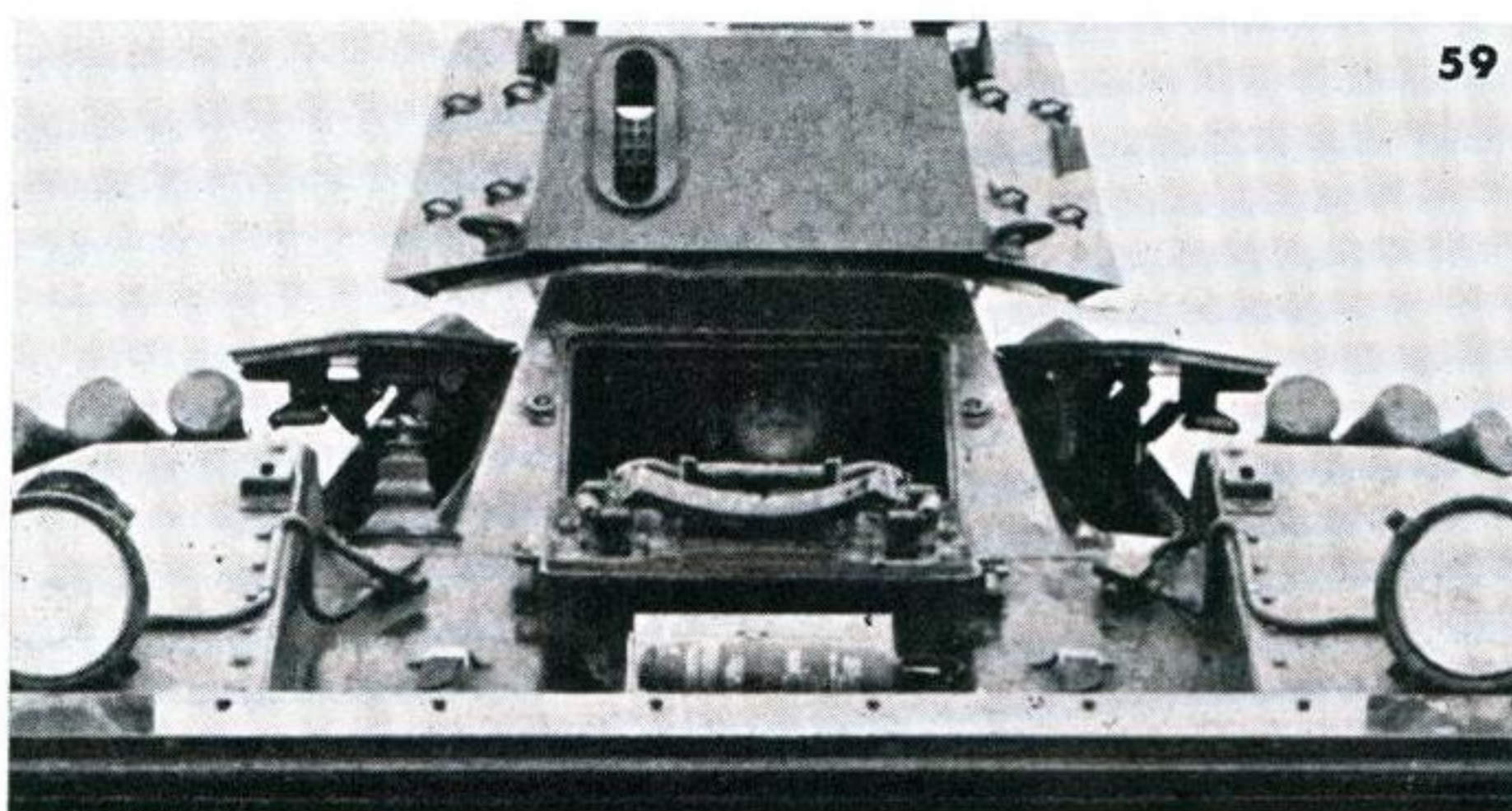
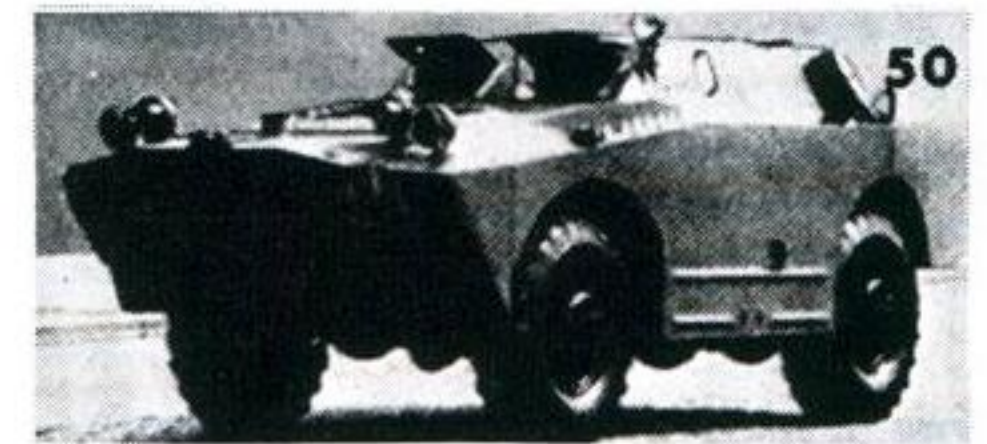
KEY

*Solutions are on the back cover*



**FERRET Mk. 4** *continued*







**Cover Photo:** Two of the Royal Navy's modern supply ships—the life-line at sea—delivering fuel and stores to the guided missile destroyer H.M.S. *Devonshire* (left) and the aircraft carrier H.M.S. *Hermes*. The two helicopter-carrying Fleet replenishment ships, the tanker *Olwen* (second from the left) and the stores support ship *Lyness* (right) include cafeteria-style dining rooms for the crews, are air conditioned and include television and cinema shows among the many amenities aboard. The identified aircraft on H.M.S. *Hermes* are 5 Sea Vixens, 4 Wessex helicopters, 4 Buccaneers and 1 Gannet.

**AMENDMENT**

May 1968 Issue—MI07 Lesson

Page 122 9th line ... "the sixth road wheel" ... should read ... "the fifth road wheel" ...

Page 274

**FERRET Mk. 4**

All targets are of **Ferret** except Nos. 25, 33, 44, 50 and 54.

**SOLUTIONS TO TESTS AND EXERCISES**

Page 257

**TEST PAPERS**

**M41 U.S. Light Tank:** Joker is second line 2nd picture.  
**M48A2 Medium Tank:** Jokers are second line 2nd and 5th pictures.

Page 280

**TEST PAPER**

**CHIEFTAIN TANK:** Jokers are second line 3rd picture and third line 2nd and 4th picture.

Page 256

**THE TEST OF TIME — 2**

- |                       |                        |
|-----------------------|------------------------|
| 1 Bristol F2B Mk. II  | 11 R.25                |
| 2 H.P. Heyford III    | 12 Westland Wapiti IIA |
| 3 R.24                | 13 R.33                |
| 4 Sopwith Snipe       | 14 DH 9A               |
| 5 R.E.8               | 15 Hawker Hart         |
| 6 H.P. O/400          | 16 Vildebeest III      |
| 7 R.29                | 17 R.31                |
| 8 Gloster Grebe III   | 18 H.P. Hyderabad      |
| 9 Vickers Valentia    | 19 Hawker Tomtit       |
| 10 Fairey III F Mk. I | 20 H.P. Hinaidi        |

Page 258

**HUEYCOBRA**

All targets are of **HueyCobra** except No. 18 **Agusta A106** and No. 20 **Cheyenne**.

Page 260

**REPUBLIC F-105 THUNDERCHIEF**

All targets are of **Thunderchief** except No. 11 **Phantom**, No. 26 **F-84F** and No. 29 **RF-84F**.

Page 264

**PIAGGIO**

All targets are of the **PD-808** except No. 9 which is a **Fan Jet Falcon** and No. 18 which is an **HS125**.

Page 266

**NIMROD MR.I**

All targets are of **Nimrod** except Nos. 5 and 6 **Comet**.

Page 268

**MCDONNELL F-4 PHANTOM II**

All targets are of **Phantom** except Nos. 10, 15 and 33 **Crusader**.

**TEST PAPER**

**CHIEFTAIN?**

*solution above*

