JOINT SERVICES

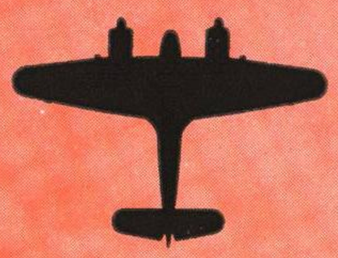
RECOGNITION *Journal*



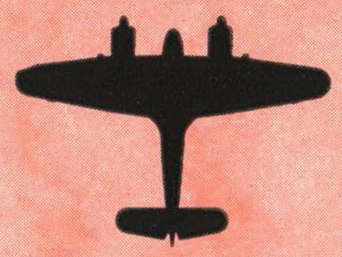
Vol. 20 OCTOBER 1965 No. 10

THE COST OF MIS-IDENTIFICATION ON ONE TYPE OF SERVICE AIRCRAFT ONLY

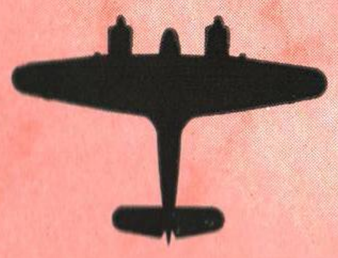
THE BEAUFIGHTER



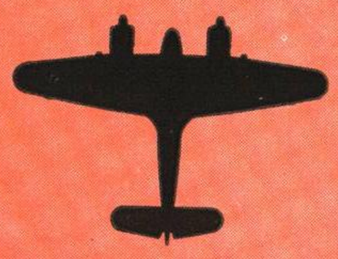
R2071 13.11.40
Shot down by own defences.
2 killed



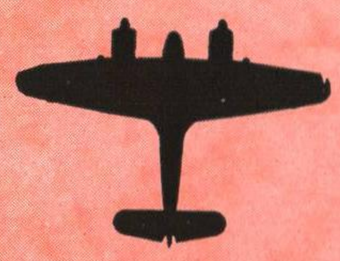
V8264 17/18.1.42
Crew baled out after hit by own A.A. defences.



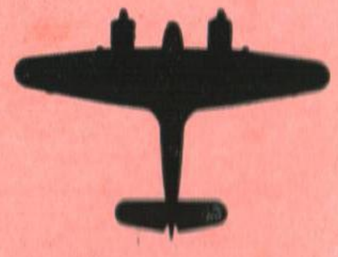
T4884 14.6.42
Shot down by another Beaufighter. 2 killed



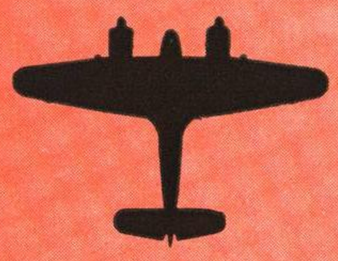
T4919 27.5.42
Shot down by a Spitfire.
1 killed



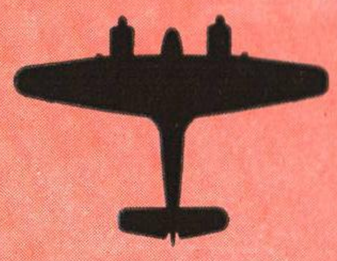
X7556 14.6.42
Shot down by another Beaufighter. 1 injured



R2254 24.7.42
Shot down by another Beaufighter. 1 killed, 1 wounded



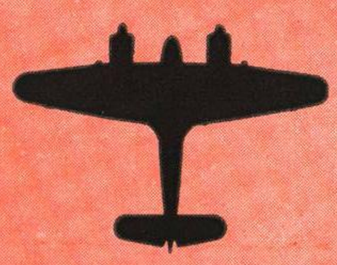
X8162 8.8.42
Shot down by Mosquito.
2 killed



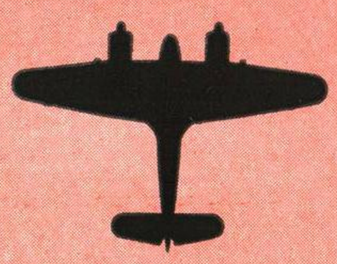
V8229 21.10.42
Shot down by A.A. Command.
2 killed



V8387 23.12.42
Shot down by Spitfires.
2 killed



V8564 18/19.2.43
Shot down by Wellington.
1 killed



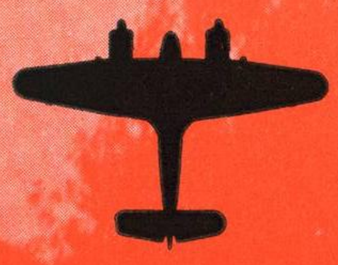
X7826 5.6.43
Shot down by Mosquito.



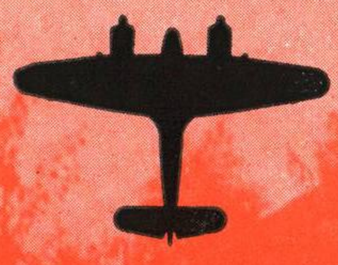
MM869 21.10.43
Shot down by Bofors gun nr. Littlehampton.
2 killed



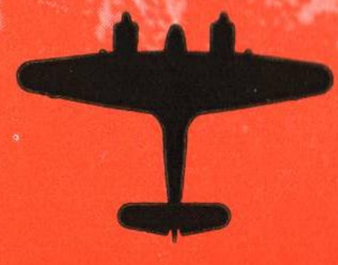
V8594 28.5.44
Shot down by friendly aircraft.



KV974 27.6.44
Shot down by Liberator.
1 injured



NE644 16.11.44
Shot down by Lightnings.
1 killed



KW416 16.11.44
Shot down by Lightnings.
2 killed

In addition to those depicted, 13 Beaufighters were damaged in varying degrees through errors of identification. The total number of aircrew killed and injured on this one type of aircraft alone is represented below :

5 Injured



19 Killed



OCTOBER 1965 Vol. 20 No. 10

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 Aviation (Air Technical Publications). 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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CONTENTS

Feature	Page
F-101 Voodoos *(cover)*	253
The Cost of Mis-identification on One Type of Service Aircraft Only—The Beaufighter	254
Beaufighter Blunders *(editorial)*	255
* Sea Vixen	256
United States Service Aircraft Designations (amendments)	259
* Mallow	260
* Heron	262
In Passing	265
Pipers	266
Paris Internationale	268
Britain at Paris	269
* Merchantmen of the U S S R—No. 14, Ugleuralsk, Poltava and Pekin Classes	270
* Russian W Class Submarines	273
Ship Recognition—Initial Training System	274
Classifying and Sizing of Merchantmen	275
* M113 United States Armoured Personnel Carrier	276
Solutions to Tests and Exercises	280

* *Identification Lessons*

BEAUFIGHTER BLUNDERS

The Bristol Beaufighter came into service during 1940 and by the end of the war 5,565 had been built in Britain and 364 in Australia. It was used in night flying, ground strafing, coastal strike, torpedo-bombing and intruder roles. Unfortunately it had a configuration not unlike that of the Junkers Ju88 for which it was often mistaken by those only partially trained in aircraft identification.

The first blunder came on November 13th, 1940, when R2071 fell at Edenbridge to our own defences, and apart from those shot down and represented opposite, many others were damaged quite unnecessarily. Beaufighter X7550 of No. 29 Squadron, approaching a Wellington to identify it in clear moonlight, was fired upon and damaged. Next night, under similar conditions, R2240 of the same squadron was damaged and a crew member injured. On December 27th, 1941, T4759 was hit by a shell from a "friendly" destroyer.

An appalling error of mis-identification occurred on May 27th, 1942 as a Beaufighter, returning from an operational patrol in broad daylight, was investigated by two Spitfires. The leading Spitfire pilot, making a direct approach to achieve visual recognition, banked away on identifying it as friendly, but the following pilot assumed an attack was intended and opened fire and shot it down to fall at Gisleham near Lowestoft. The Court of Inquiry blamed the pilot for faulty recognition, taking note that the pilot had received little recognition training and, as a result, his Station Commander was warned of his responsibilities to provide regular recognition training periods.

June 14th, 1942, was a black day for Beaufighters and particularly for No. 272 Squadron which, on that day and the day following, lost seven Beaufighters in protecting a Malta convoy. Apart from one lost running out of fuel and another shot down by an Me109, a third was shot down in error by another Beaufighter, and of those lost in circumstances not known, evidence suggests that two fell to the guns of the convoy. That same night of June 14th a Beaufighter of No. 604 Squadron shot another of the Squadron's aircraft down at night having wrongly identified it as a Ju88.

The dangers of convoy protection was brought home to a No. 600 Squadron crew member who was rushed to Truro hospital on July 9th, 1942, with shrapnel in his arm. Having taken off from Predannack in X7928 and given the usual recognition signal to the convoy he was detailed to protect, he found that its escort did not accept a Beaufighter for what it was.

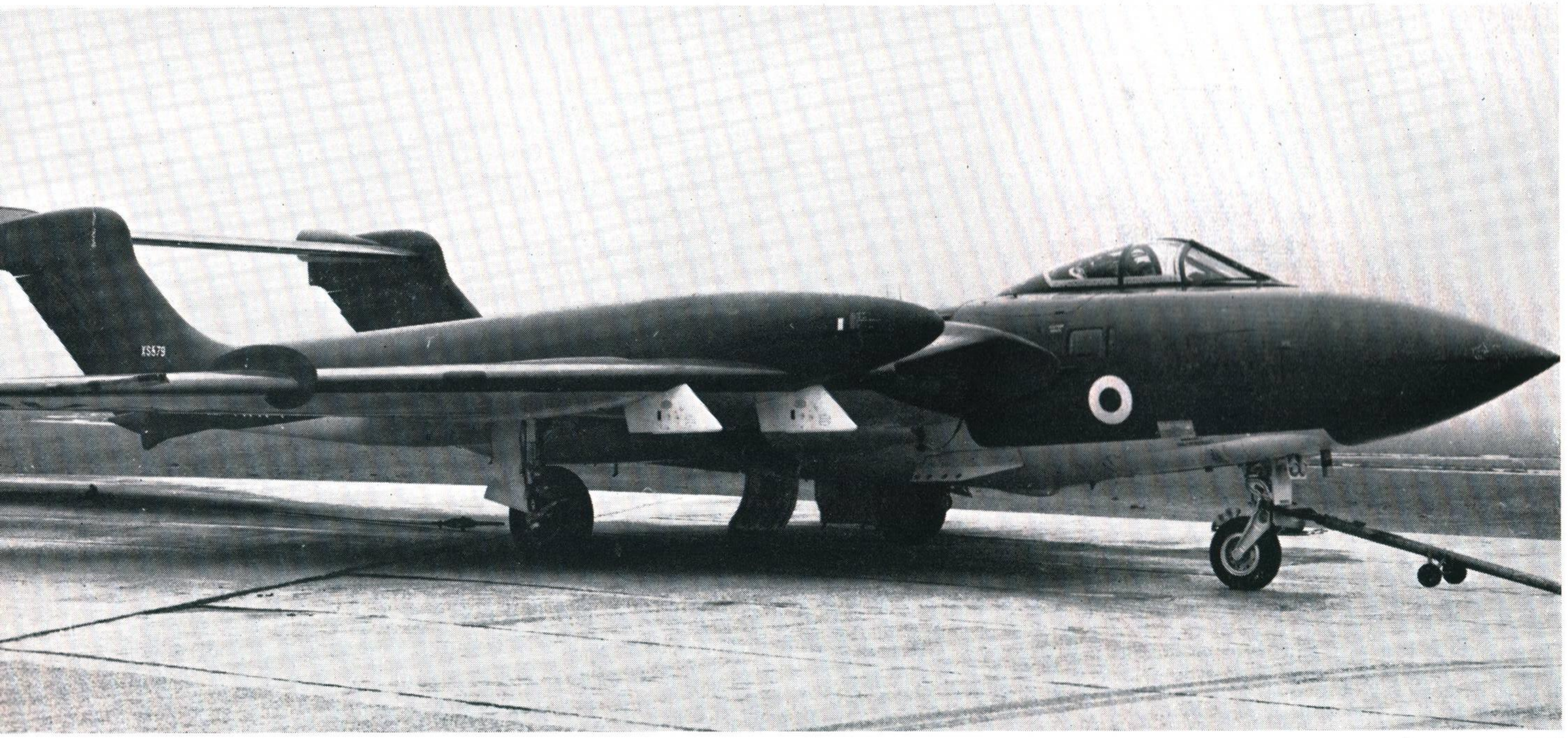
The pilot of Mosquito W4097, vectored on to a reported aircraft, failed to recognise X8162, painted in the new grey nightfighter camouflage, as a Beaufighter and so shot it down into the sea 25 miles off North Coates.

On October 1st, 1942, an aircraftman in R2088 was killed flying over England by a rifle bullet fired from the ground. The chances against a bullet accidentally discharged hitting an aircraft are several million to one, but the chances of it being mis-identified are, taking into account these other instances, most likely.

It was ironical that on October 21st, 1942, the very day that an officer from Anti-Aircraft Command came to lecture No. 29 Squadron personnel on co-operation with the guns, the Command should shoot down one of the squadron's Beaufighters.

Another tragedy occurred two days before Christmas 1942. Two Beaufighters on an airborne interception experimental trial investigated as "bogies" by two Spitfires, were attacked; V8387 of the Telecommunications Flying Unit fell into the sea $3\frac{1}{2}$ miles north-east of Cromer and X7583 was damaged.

Continued on page 265



F(AW) 2

SEA VIXEN

Since the Sea Vixen F(AW) 1 lesson in the February 1963 edition of the *Journal*, the Sea Vixen F(AW) 2 has been introduced. This lesson which supplements, rather than supersedes, the earlier lesson covers the two versions.

The F(AW) 2, as the key views show, has deepened tail booms extended forward of the wings which contain, incidentally, additional fuel. It also has provision for carrying Red Top missiles instead of the F(AW) 1's Firestreaks, additional to the various stores carried by the F(AW) 1.

Normally there is no need to discriminate between the F(AW) 1 and F(AW) 2 for reporting purposes but for this lesson, to ensure attention to detail, report these targets, in accordance with instructions on page 265, as Sea Vixen F(AW) 1, Sea Vixen F(AW) 2—or otherwise if "jokers". F(AW), incidentally, stands for Fighter (all weather).

Solutions on the cover

Span 50 feet



F(AW) 1







2



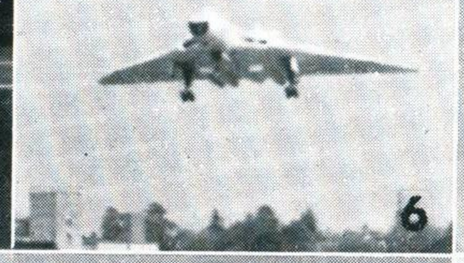
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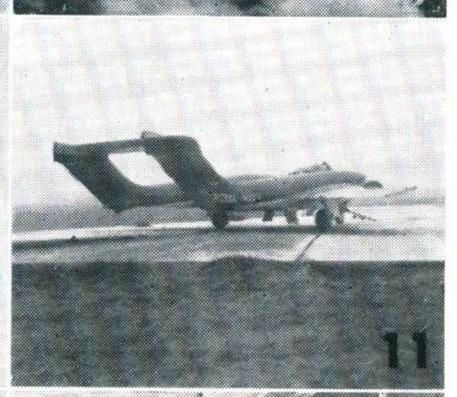
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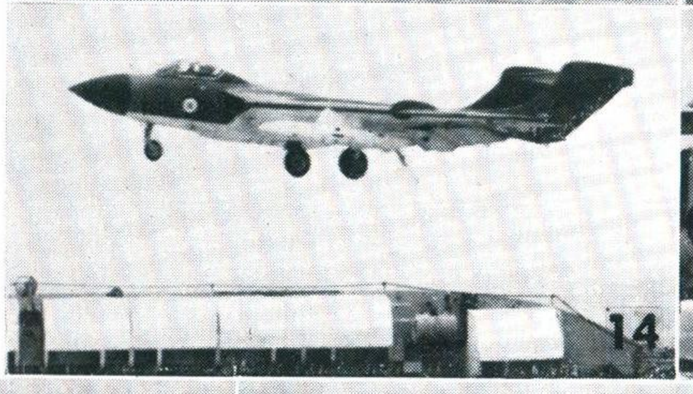
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12



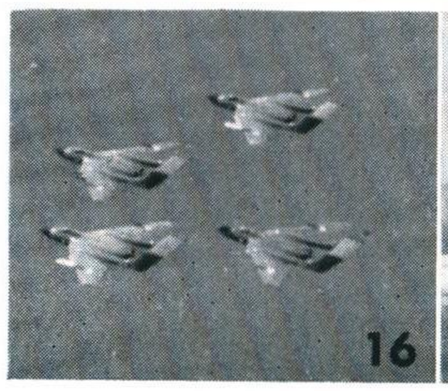
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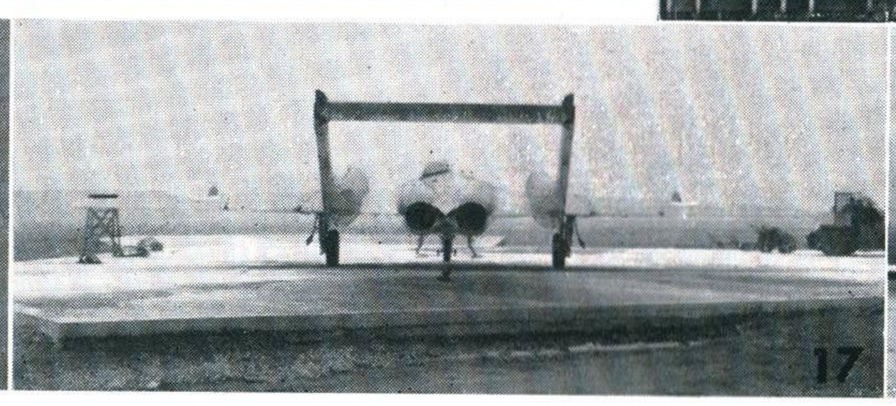
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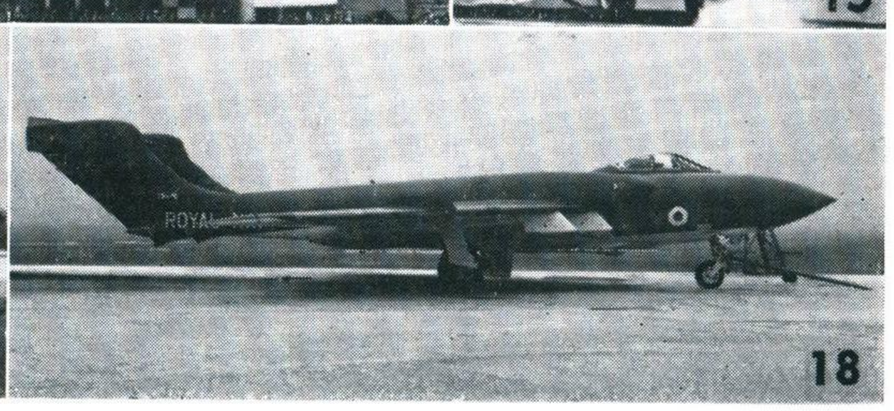
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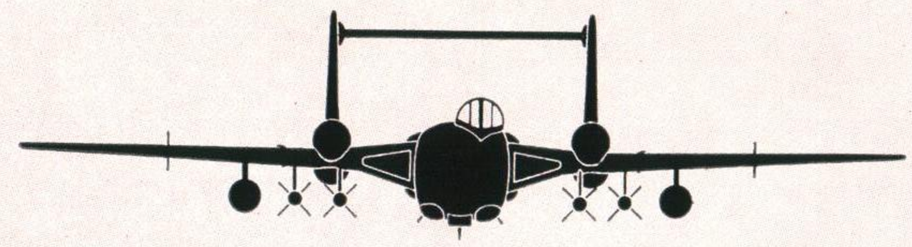
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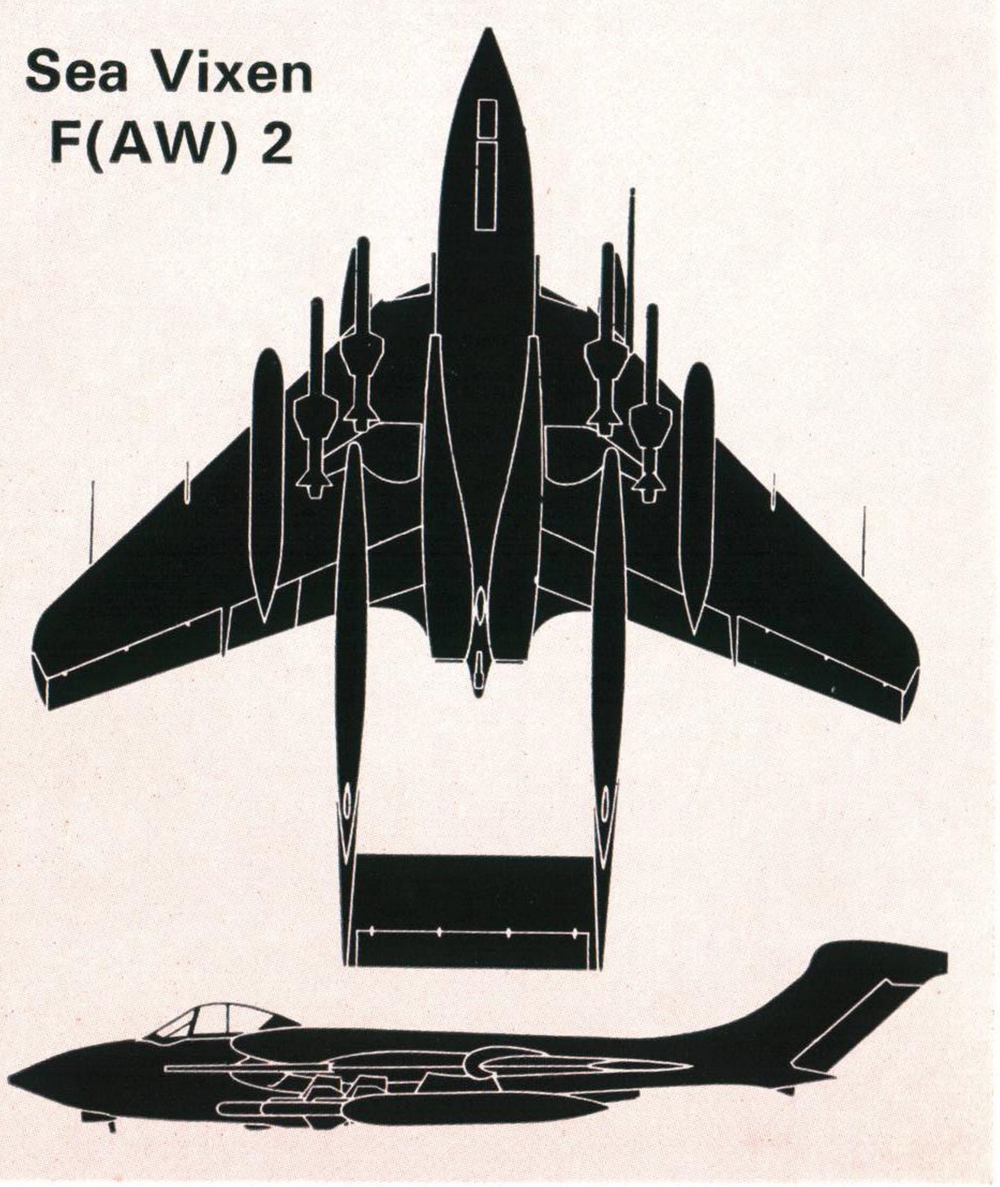
17



18



Sea Vixen F(AW) 2



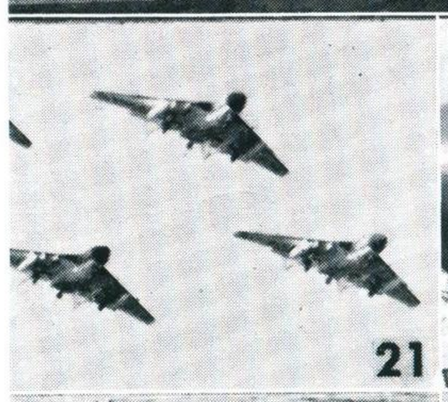
Continued overleaf



Sea Vixen F(AW) 2

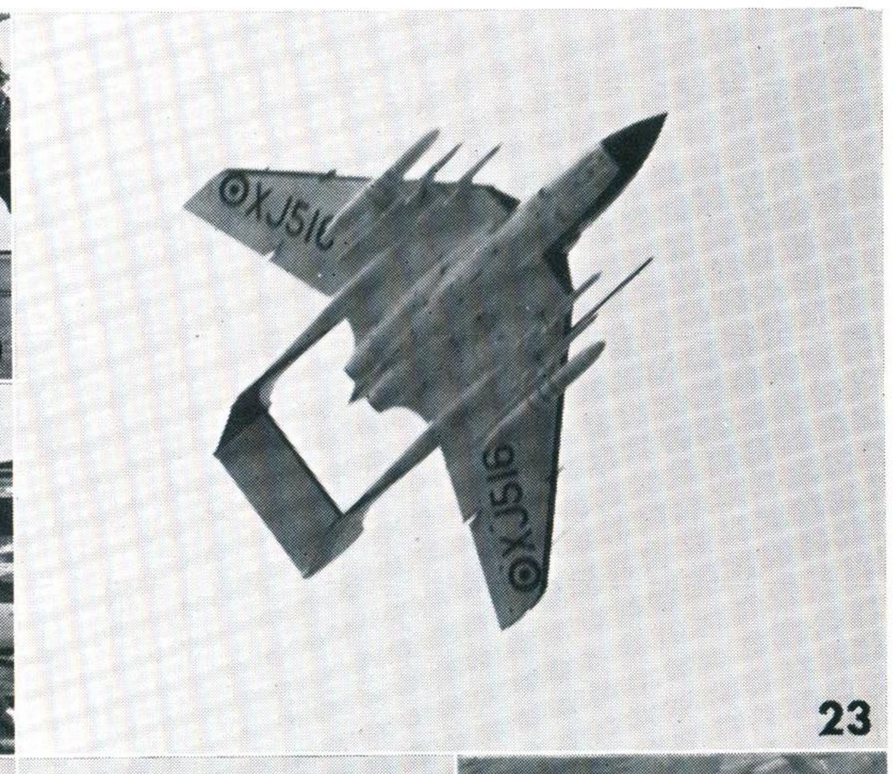

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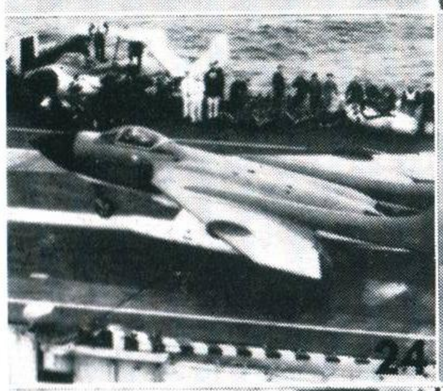

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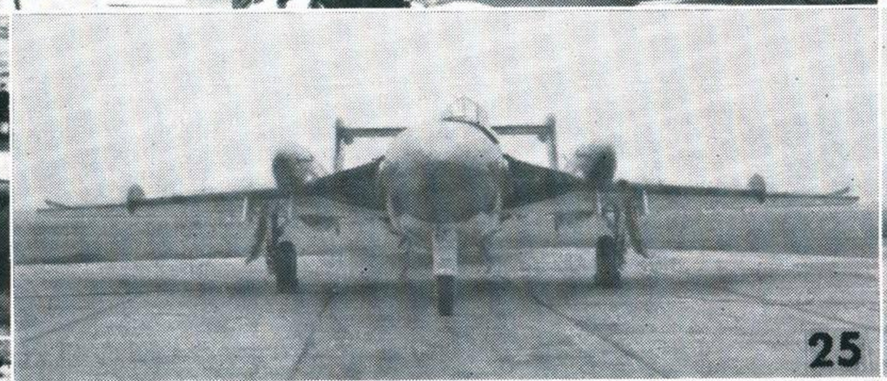


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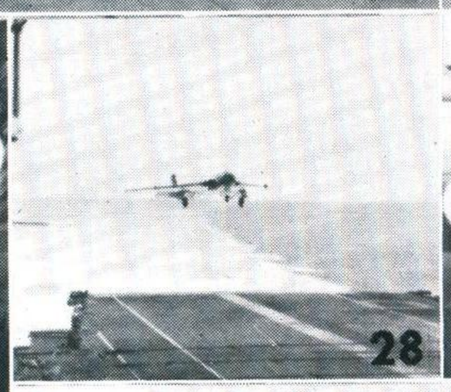

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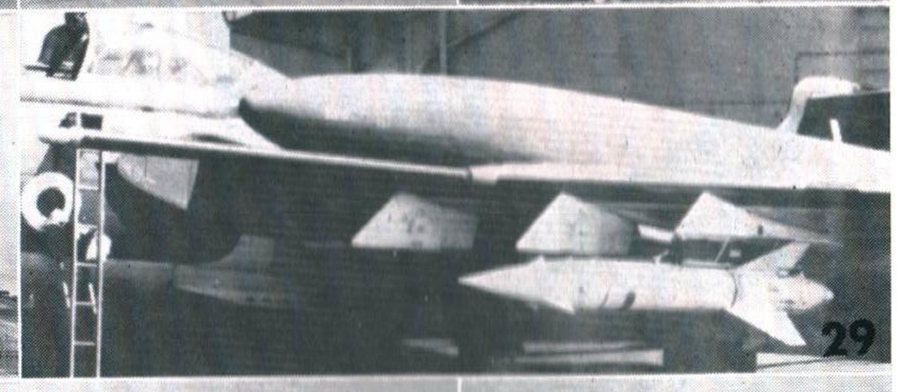

25


26


27

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28


29


31


32

United States Service Aircraft Designations

To keep the May 1964 edition up-to-date, the following changes are notified additional to those given in the September edition:

Page 116

Aerogyro *Add* XH-51N One XH-51A for NASA
Boeing 707 *Amend* VC-137A *to read* VC-137B (These aircraft have had more powerful engines installed, hence the the change in designation)

Page 117

Constellation *Amend* C-121G 32 ex-U.S. Navy for U.S.A.F. *to read* C-121G Air National Guard aeromedical evacuation
Courier *Add under* "Cougar":

Courier U-10A, U-10B, U-10C } 4-6 seat utility transports for Tactical Air Command and Air National Guard

Crusader *Add at end* RF-8G Re-equipped RF-8A. 53 ordered

Page 118

Demon *Delete all reference except for* F-3B.
Hercules *Add* DC-130A Drone control version *Amend* HC-130H U.S.A.F. rescue aircraft project *to read* HC-130H Special capsule recovery version
Invader *Delete all detail under* "Designation" *and* "Remarks" *headings Insert* B-26K 80 ordered for COIN role
Kestrel *Add under* "Jetstar"
Kestrel XV-6A Hawker Siddeley P.1127 for evaluation
Liftmaster *Add following* "Kestrel":
Liftmaster See DC-6
Lockheed A-11 *Add after* "Liftmaster":
Lockheed A-11 SR-71 Experimental strategic reconnaissance aircraft
YF-12A Air defence interceptor

Page 119

Martin B-57 *Add below* "TB-57E":
RB-57F High altitude, special reconnaissance version with extended wingspan



C-2A version of Hawkeye

Page 120

Sea Stallion *Add after* "Seasprite":
Sea Stallion C-53A U.S. Marine Corps. 160 ordered
Sioux *Delete* "U.S. Army name for Bell 47G Trooper q.v." *Insert*
OH-13E Bell 47G for U.S. Army
OH-13G U.S. Army (improved stability)
OH-13H U.S. Army (metal rotor blades)
UH-13H U.S.A.F. version of OH-13H
OH-13K U.S. Army Turbo-supercharged version
OH-13S Bell 47G-3B for U.S. Army
Skyhawk *Insert under* "A-4E":
TA-4E Two-seat trainer version

Page 121

Stratofreighter *Add under* "C-97J":
KC-97L KC-97G modified for Air National Guard
Super Courier *Add under* "U-10A":
U-10B Long range version
Trojan *Add* T-28D Also called Nomad
Trooper *Delete all detail and insert in lieu* Trooper Civil name of Sioux q.v.
Voodoo *Amend* CF-101 *to read* CF-101B

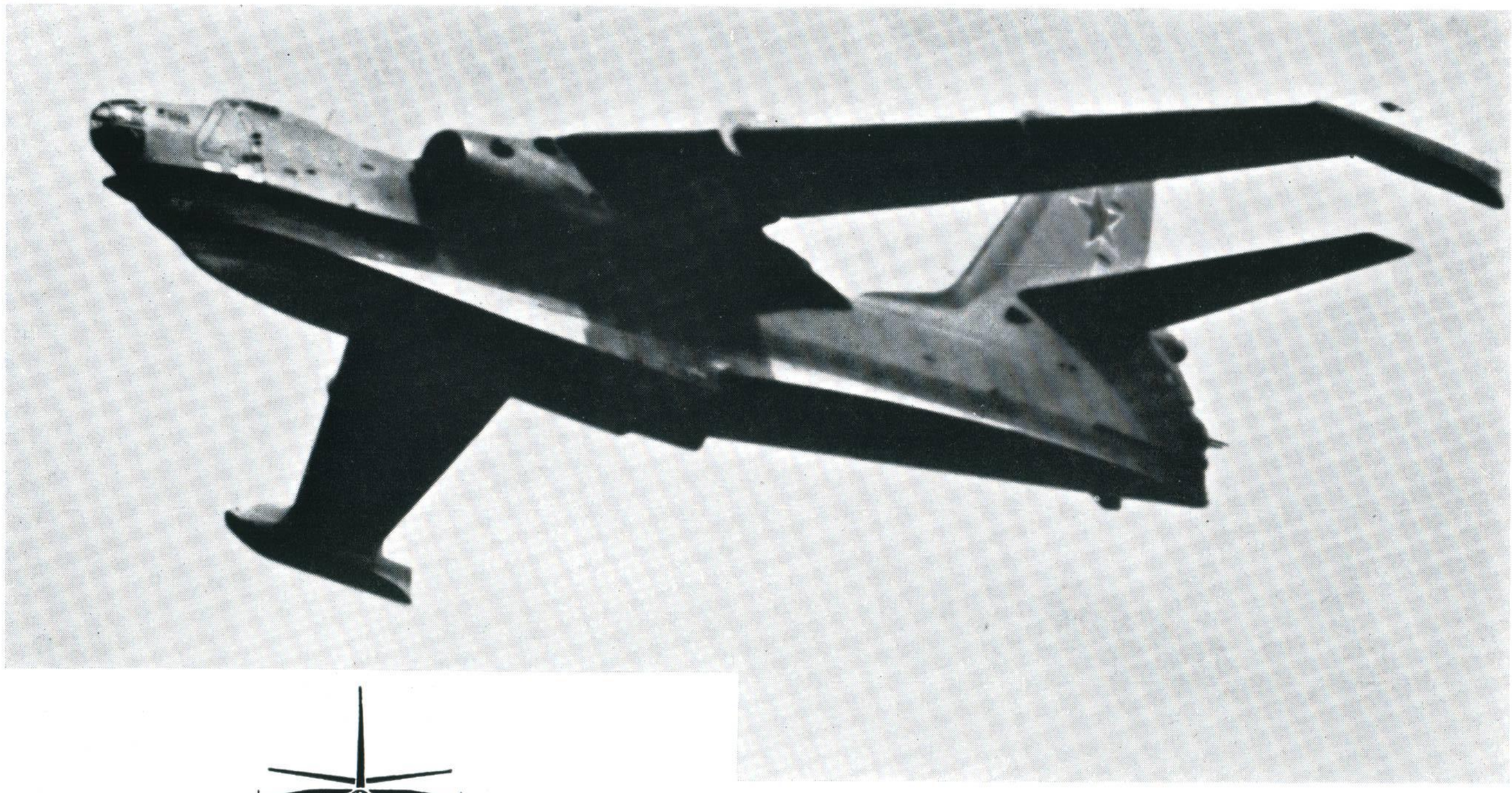
Gebrauchsanweisung für die Typenlehre

Um den größten Nutzen aus den Übungsbildern, die in diesem Heft veröffentlicht werden, zu ziehen, sollte wie folgt verfahren werden.

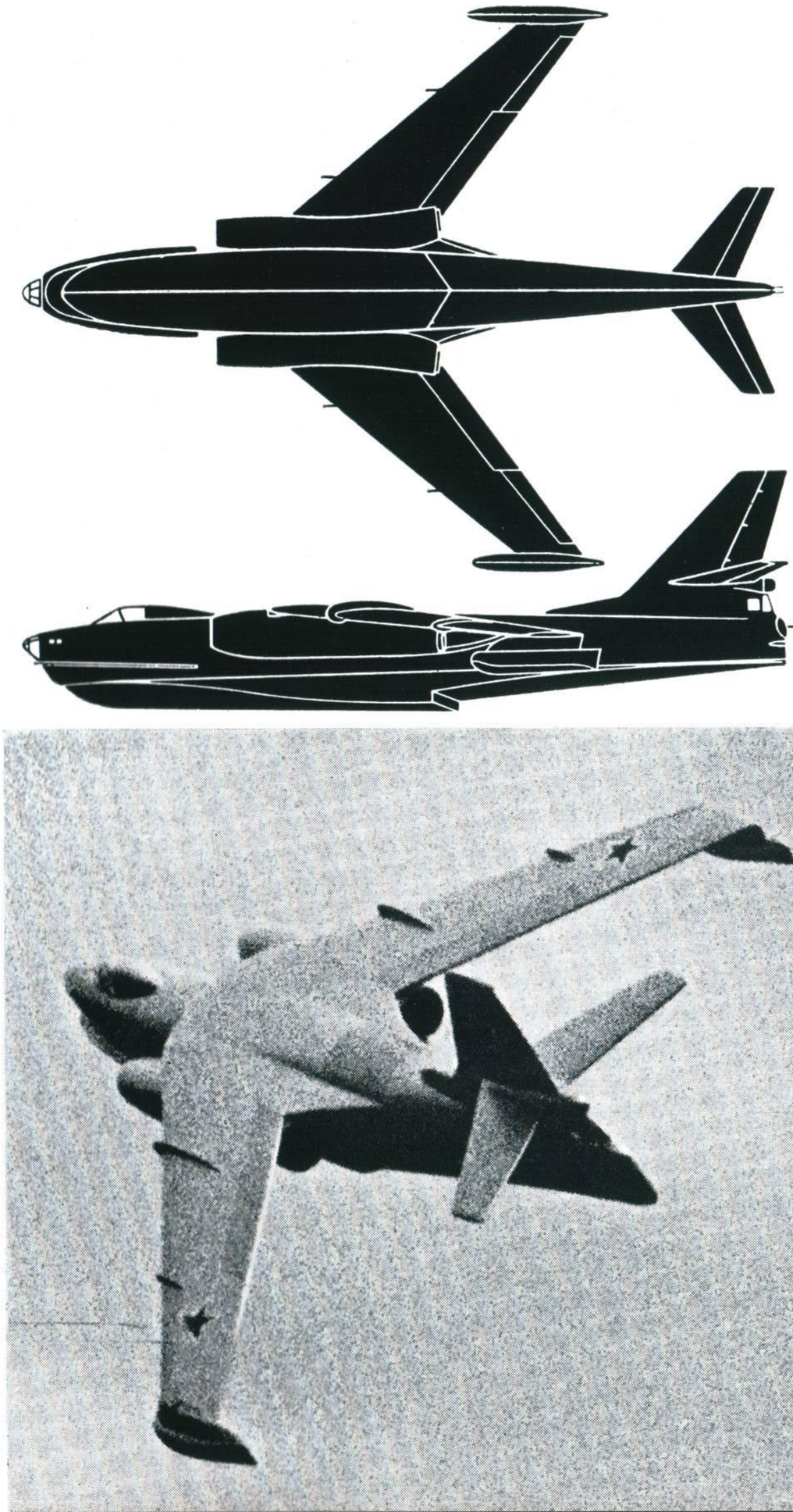
1. **Den zur Lehre gehörigen Text lesen.**
2. **Eine numerierte Typenliste vorbereiten, in der angesprochene Typen in eine gewisse Ordnung gebracht werden können.**
3. **Typen ansprechen durch Vergleich mit den Hauptansichten (von oben, von unten, von vorne, von hinten und von der Seite). Anfangen mit 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.**

Conduite des leçons

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.**





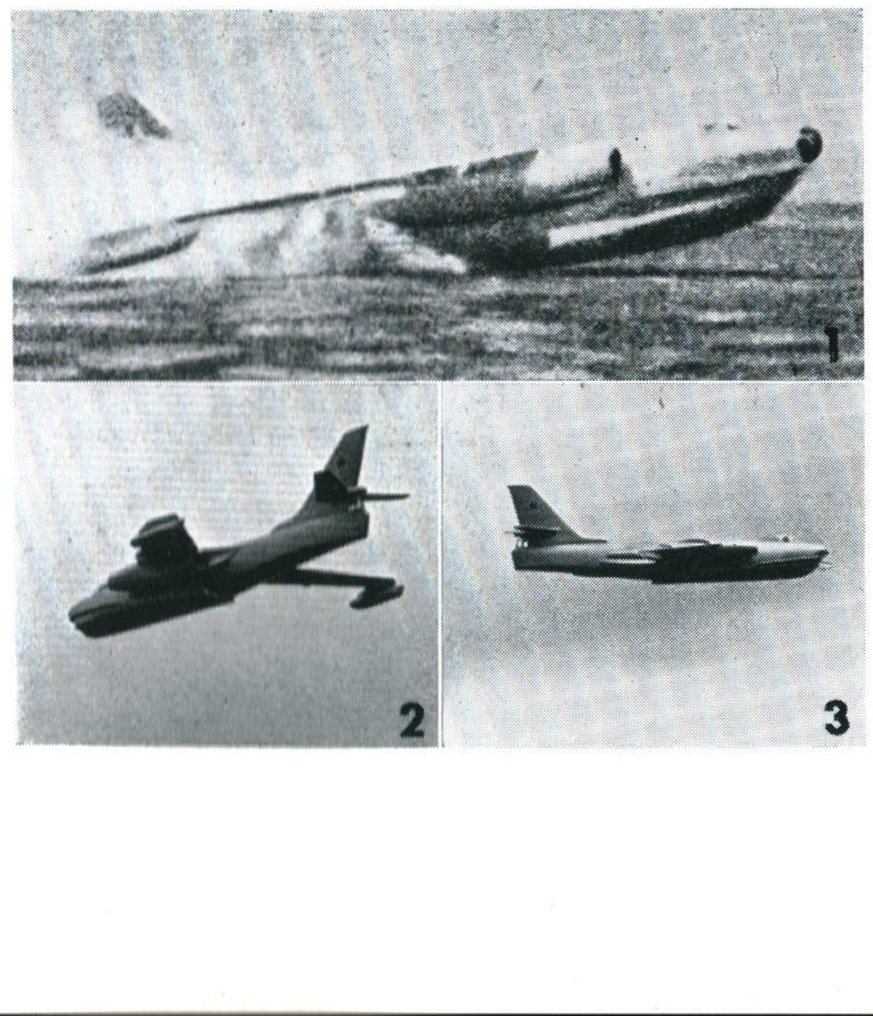


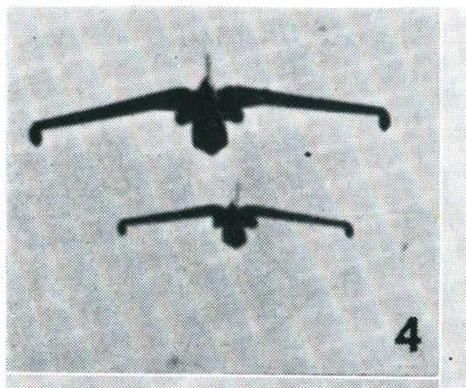
MALLOW

The only service jet flying boat in the world is operated by the Russian Navy for maritime reconnaissance as their M-10 (Tripartite name Mallow). With non-retracting floats and no apparent provision for underwing stores, its shape is almost unique. But do not be fooled into thinking that because you know its shape you will know its name and to be sure of *identifying* it—i.e., being able to name it—comply with instructions on page 265. Watch out for an intruder in the targets.

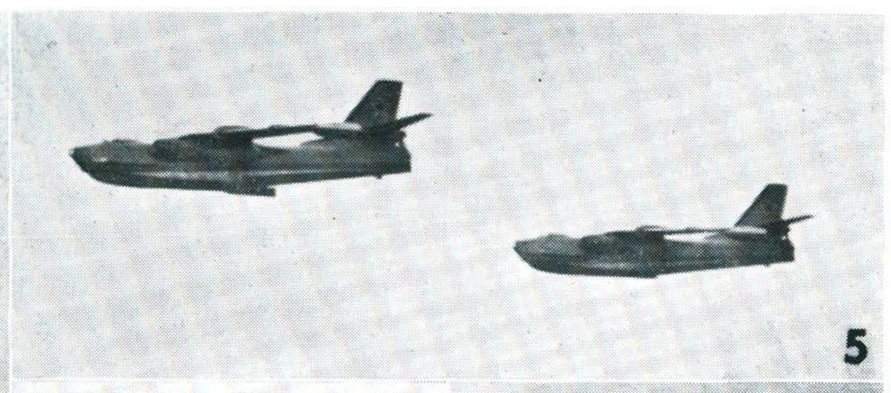
This type holds several world records for seaplanes including a speed record of 566 m.p.h. and an altitude record of 49,088 feet. An unusual visual feature is the 'fence' round the nose of the hull to protect the intakes of the turbojets from spray.

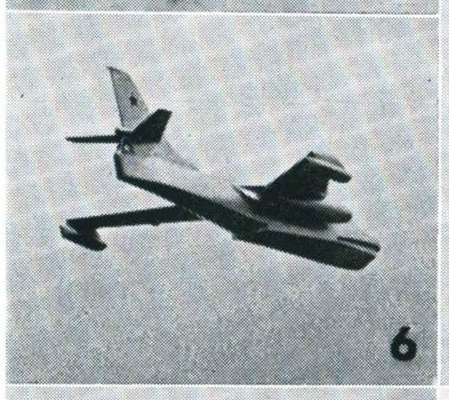
Solutions on the cover.




4


KEY


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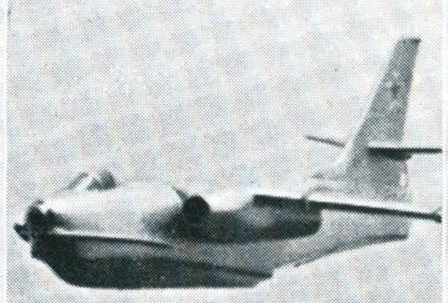

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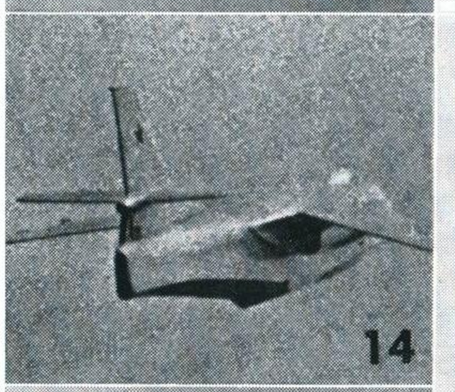

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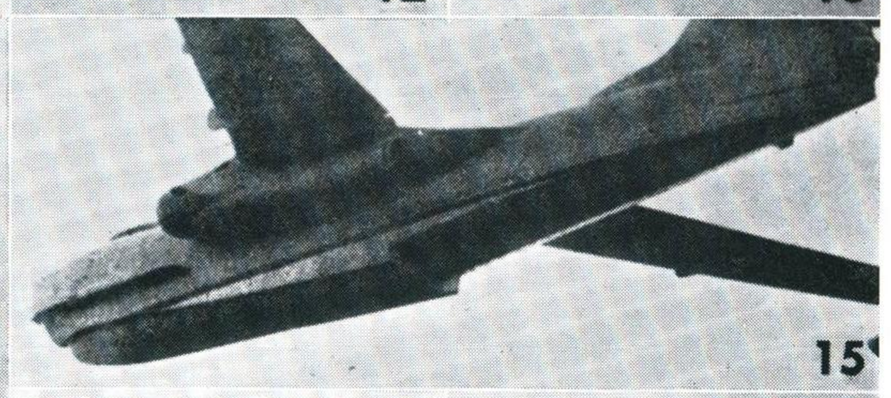

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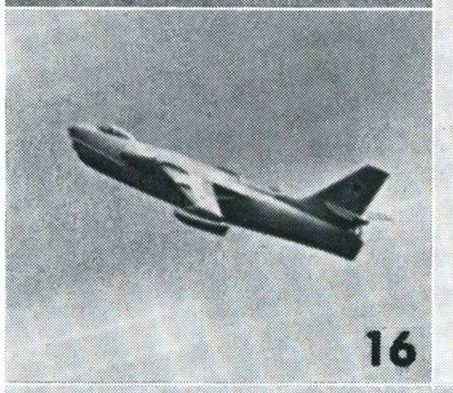

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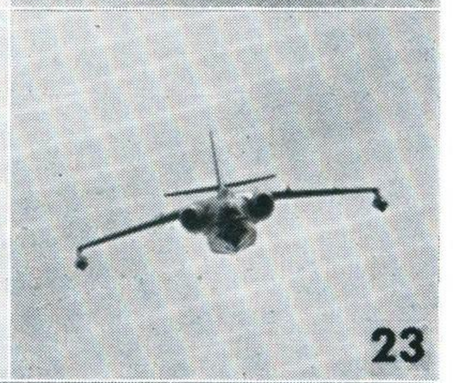

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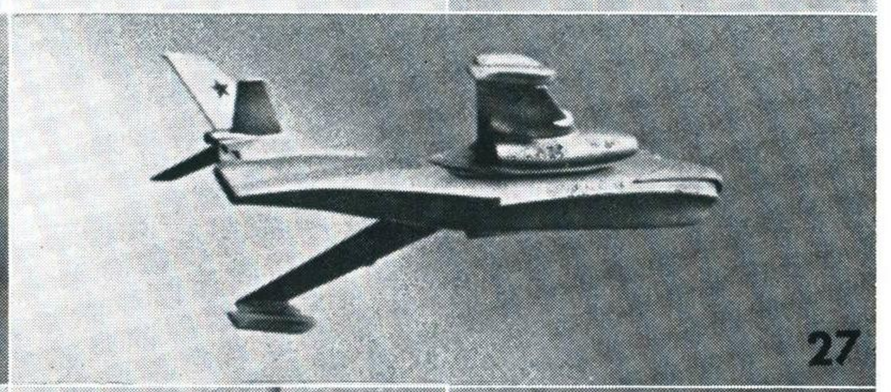

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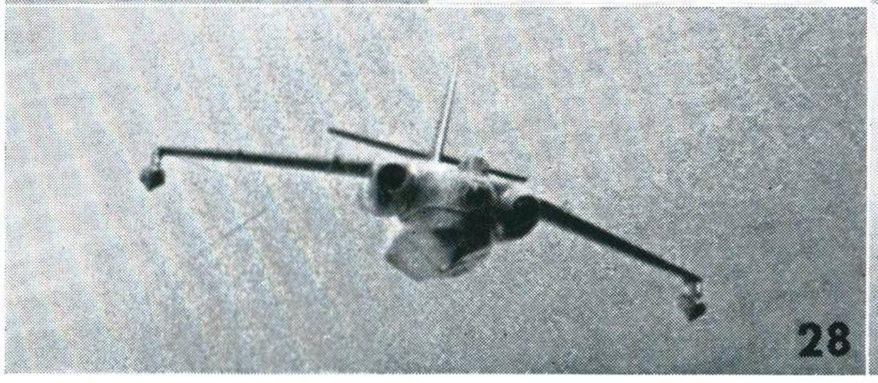

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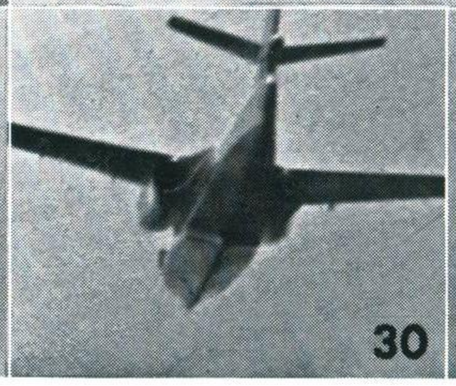

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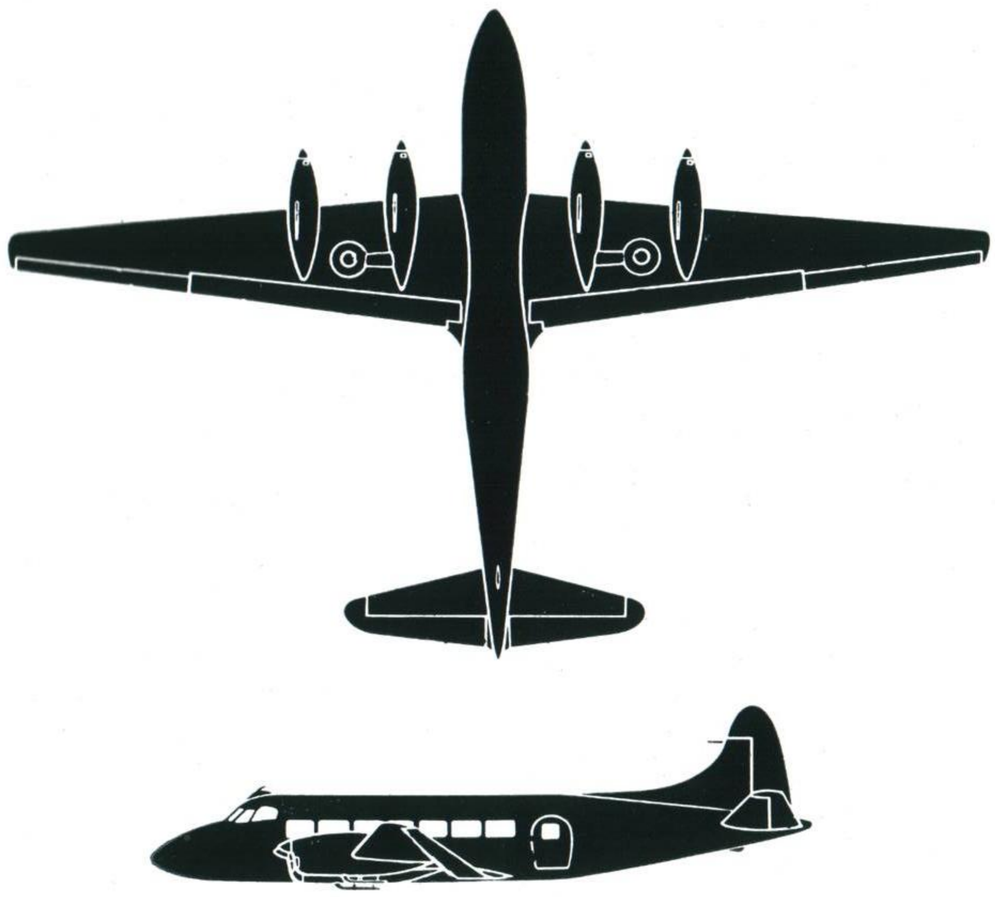

30


31





Span 71 feet



HERON

Some 150 Herons have been built for service in thirty different countries of the World, in military liaison, civil executive or feeder-line service.

Built in two main versions, the Series I had a fixed undercarriage and the Series 2, as shown above, a retractable undercarriage.

Heron is the acceptable reporting name for all versions : full designations appear overleaf and lesson instructions are on page 265.




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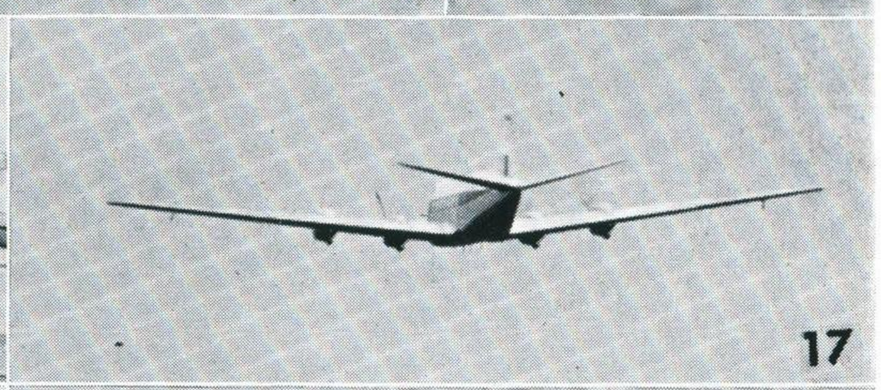
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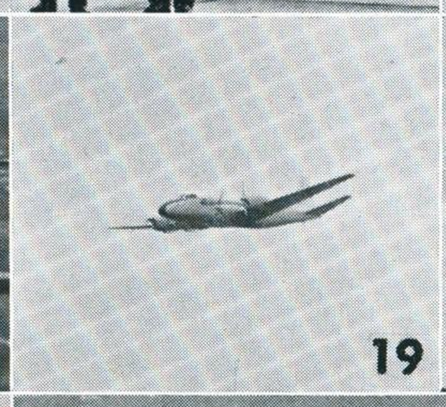

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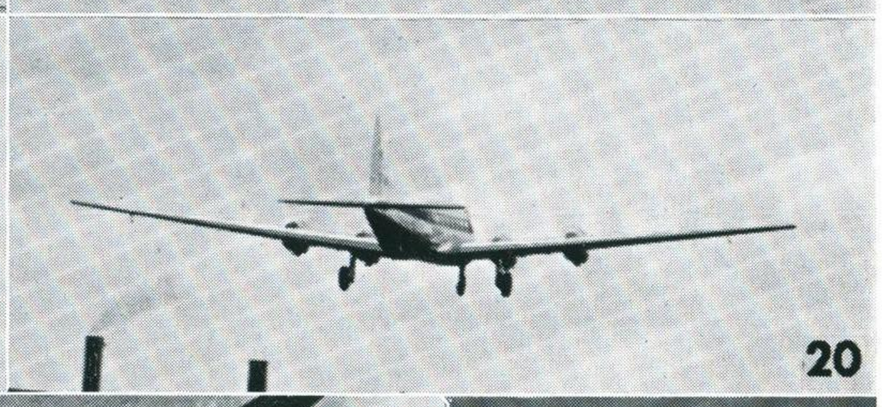

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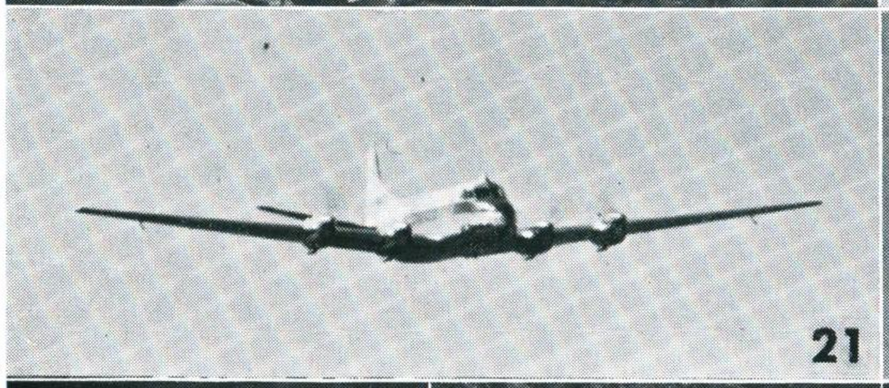

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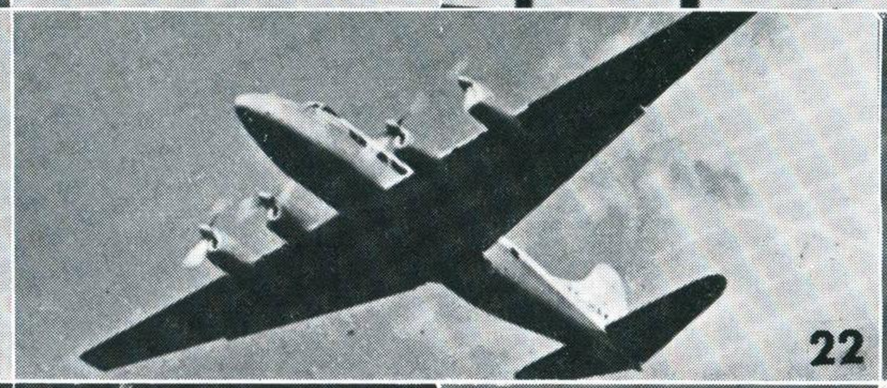


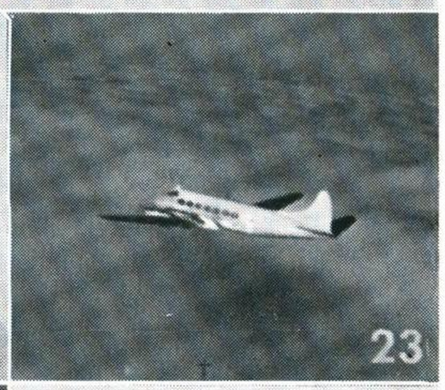
18

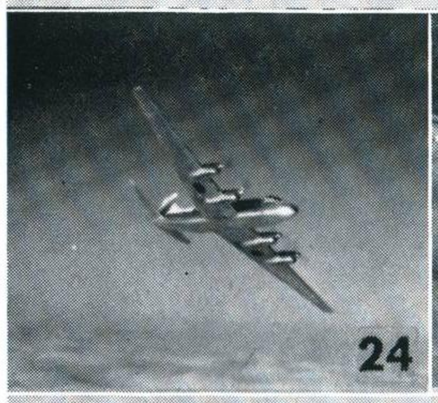

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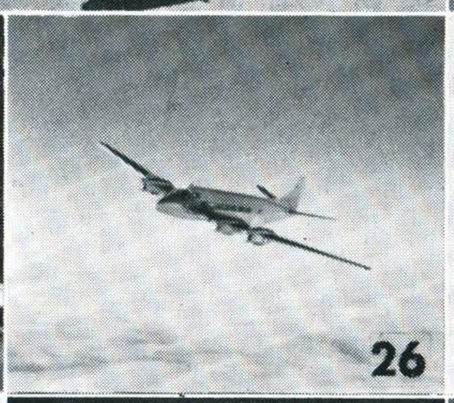

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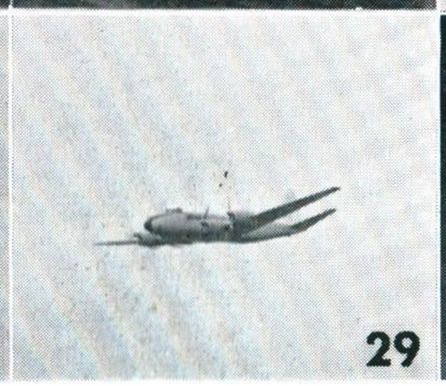


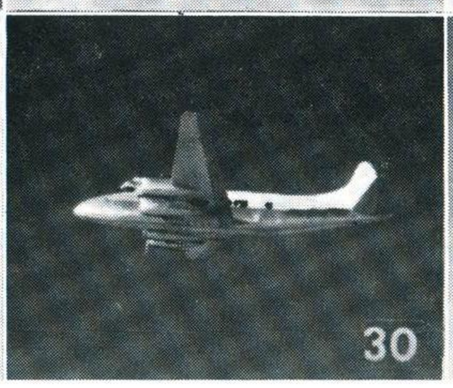
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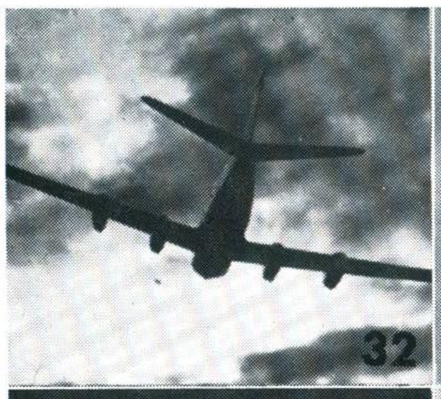

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Continued overleaf


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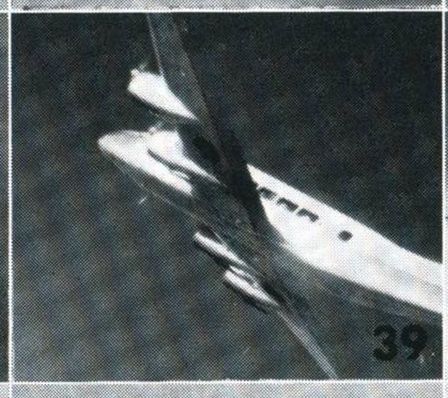

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HERON DESIGNATIONS

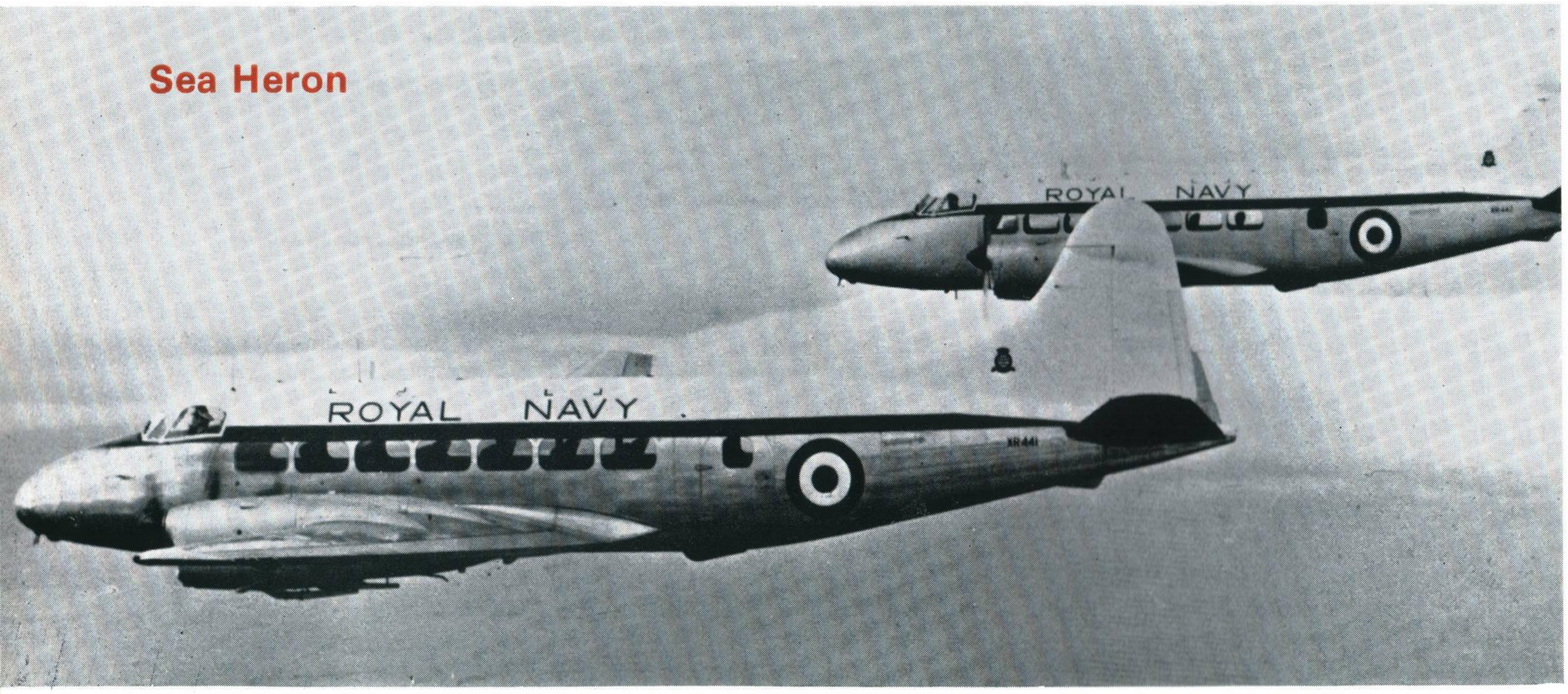
The Heron, a four-engined development of the DH104 Dove, bore the de Havilland design number DH114 which now, under the Hawker Siddeley grouping, becomes HS114.

Commercial versions are designated Series 1 or 2 according to fixed or retractable undercarriage respectively.

British service aircraft designations have been allotted as follows :

Heron C.1	Reservations for Series 1 Heron.
Heron C.2	One purchased for British Defence Staffs, Washington, U.S.A., now back in Britain.
Heron C.3	First Heron for Queen's Flight (XH375)
Heron C.4	Herons XM295, XM296 and XR391 of Queen's Flight to revised interior standard.
Sea Heron C.1	Heron Series 2 for Royal Navy.

Sea Heron





IN PASSING

BEAUFIGHTER BLUNDERS

Continued from page 255

That visual recognition at night is more difficult than by day cannot be denied; but accurate identification is just as necessary and, if training is correctly carried out, will not fail. On the night of February 18th, 1943, Beaufighters went to war with Wellingtons. V8564 was shot down by Wellington BK467 and in turn Wellington BK160 was shot down by another Beaufighter. Additionally, that night, X8023 was damaged.

Shortly before being shot down by a Bofors gun near Littlehampton, the pilot of MM869 from the Fighter Interception Unit had complained of the light-fingeredness of the A.A. defences.

A No. 68 Squadron nightfighter flying on a day test was shot down in broad daylight by a Liberator on which A.I. interception was being practised. The navigator was able to bail out while the pilot, a Czech, kept with the aircraft for a crash landing in which he was injured.

No. 27 Squadron lost two Beaufighters over enemy territory in one day, both being shot down by P-38 Lightnings of the U.S.A.A.F. There were frequent reports from the Mediterranean Area of British and Allied warships firing upon friend and foe alike, and Fleet Air Arm fighters attacked and damaged at least one Beaufighter.

These lessons from the past emphasise the dangers to be encountered in any future operations. Not only do our own forces need to be adequately trained in identification, but assurances that our NATO Allies are similarly trained is of importance. It is reassuring at this time to find that the French are considering our own methods of training and have asked for demonstrations of the Sargeant System of Identity Training.

Royal Aircraft. Whirlwind H.C.C.12s of The Queen's Flight; are basic Gnome-engined H.A.R.10s prepared to V.I.P. standard. They will replace the earlier H.C.C.8s which will be modified and re-engined to H.A.R.10 standard. Aircraft in the background are Argosy C.1s (top photo) and a Pembroke C.1 (bottom photo).

Lesson Instructions

To obtain the maximum benefit from the training devices published in this *Journal*, the following procedure should be adopted.

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.**
7. **French and German readers, see page 259.**



PIPERS

Following earlier features on Beechcraft and Cessna types, representative Piper types are depicted of which most have been produced in their thousands. It should be noted that the American firm's name is used as part of the reporting name in the case of Colt to avoid confusion with the Russian aircraft so named. The famous Piper Cub is not included as this was the subject of a recent lesson.

APACHE



AZTEC



CHEROKEE



TWIN COMANCHE



PIPER COLT



TRI-PACER



COMANCHE 180



COMANCHE 400



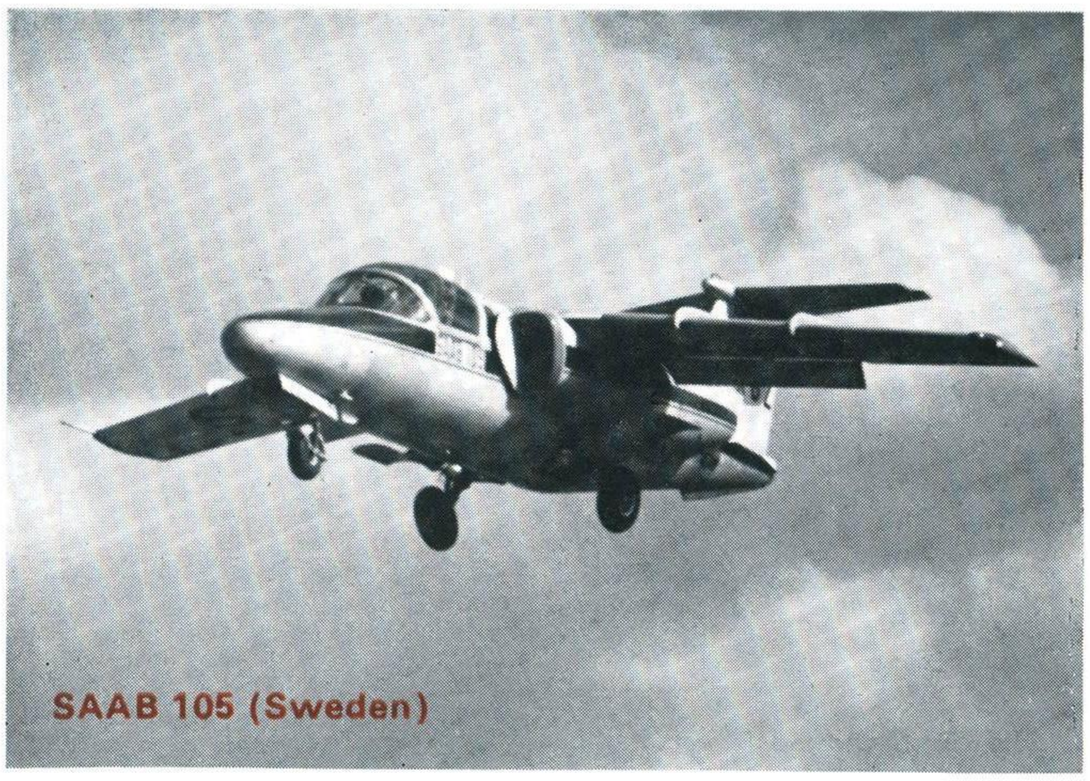
SUPER CUB



PAWNEE



PARIS INTERNATIONALE



SAAB 105 (Sweden)



PIAGGIO PD808 (Italy)



DELFIN (Czech)



CMELAK (Czech)



GUARANI II (Argentina)



SAETA (Spain)



HANSA (Germany)



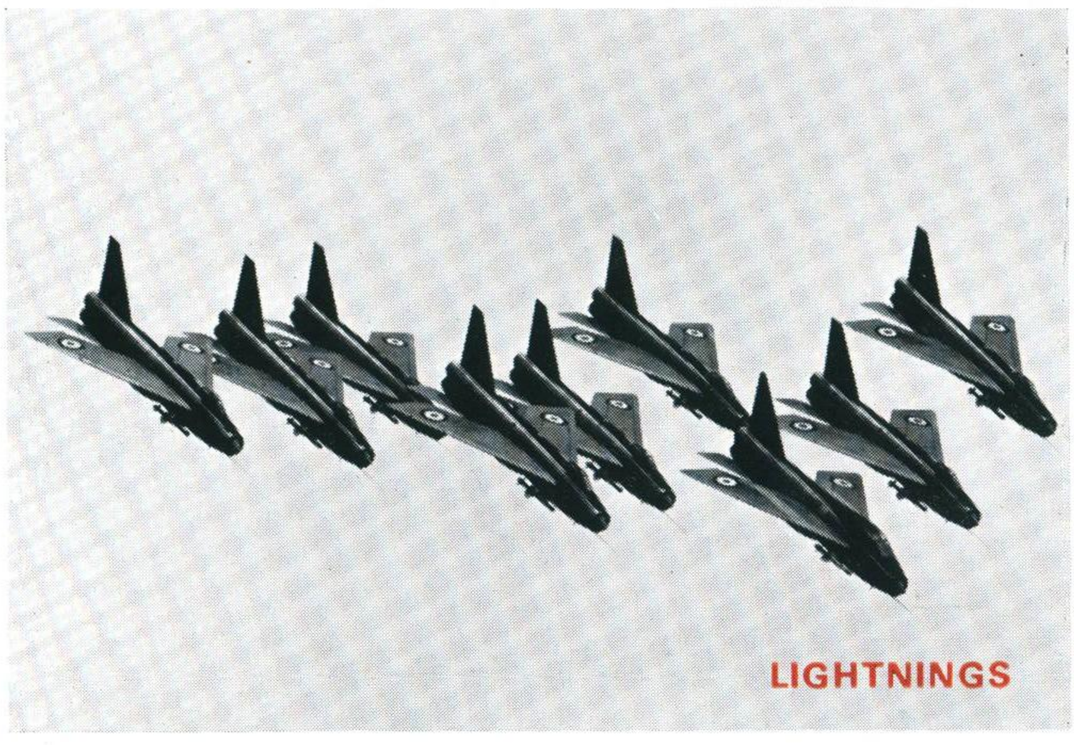
TURBO-PORTER (Switzerland)

BRITAIN AT PARIS

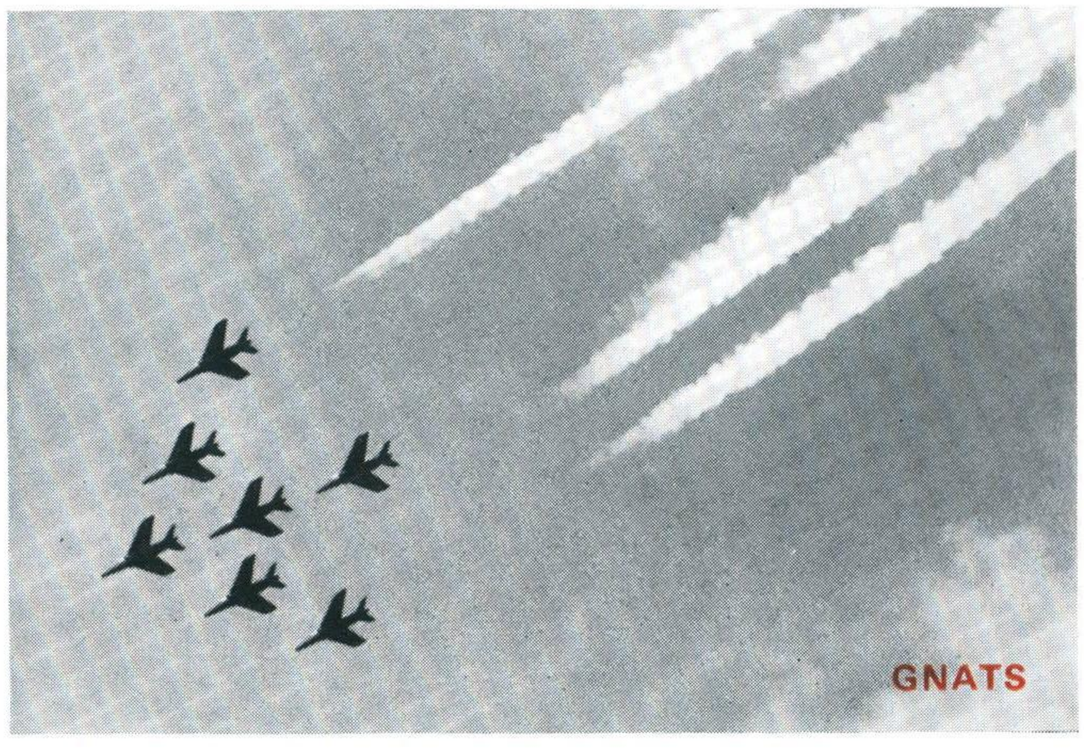
Britain was well represented at the 1965 Salon by the R.A.F. and R.N., but there were some surprising omissions by the industry. Displays were given by No. 111 Squadron's Lightning F.3s and single F.4 (distinguishable in the photo below) and by Gnats of the Central Flying School, famous as "The Red Arrows". Altogether, some twenty different types of British aircraft were displayed at Paris of which this is but a representative selection.



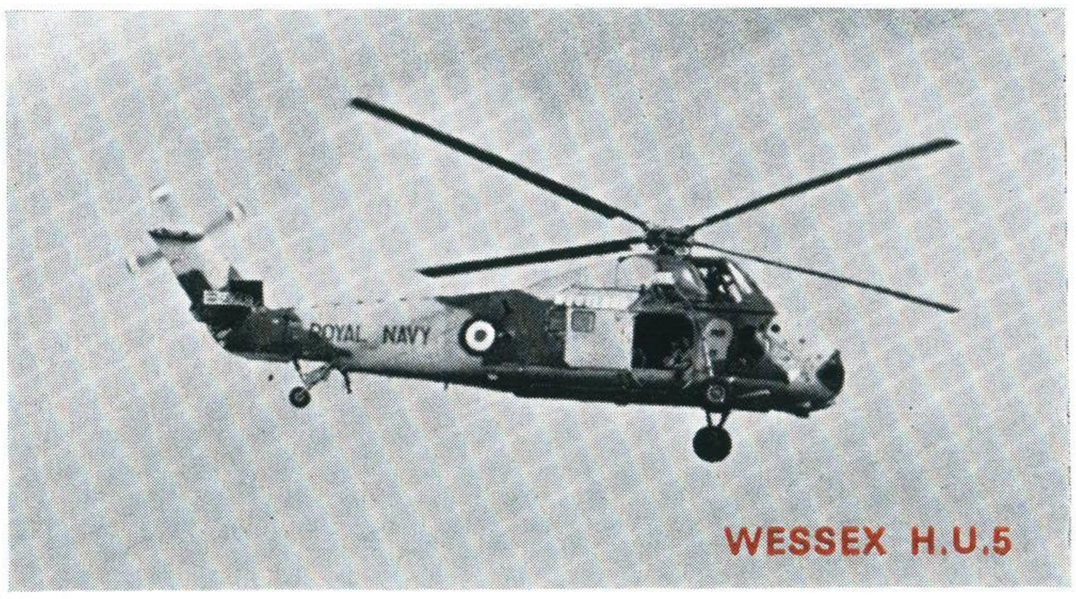
ANDOVER



LIGHTNINGS



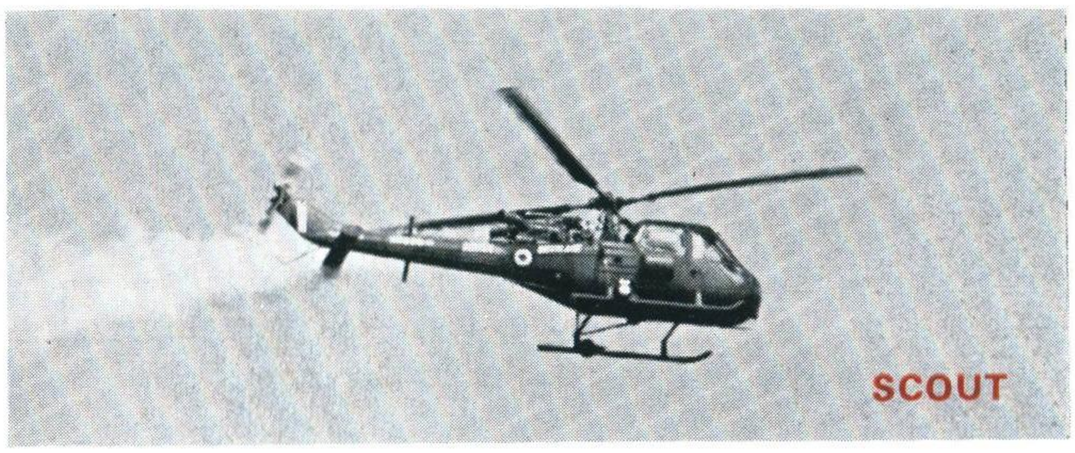
GNATS



WESSEX H.U.5



WESSEX H.A.S.3



SCOUT



WASP



BASSET (BEAGLE B.206)



BEAGLE 242

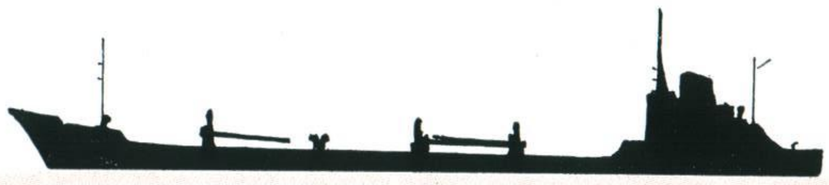
Ugleuralsk, Poltava and Pekin Classes

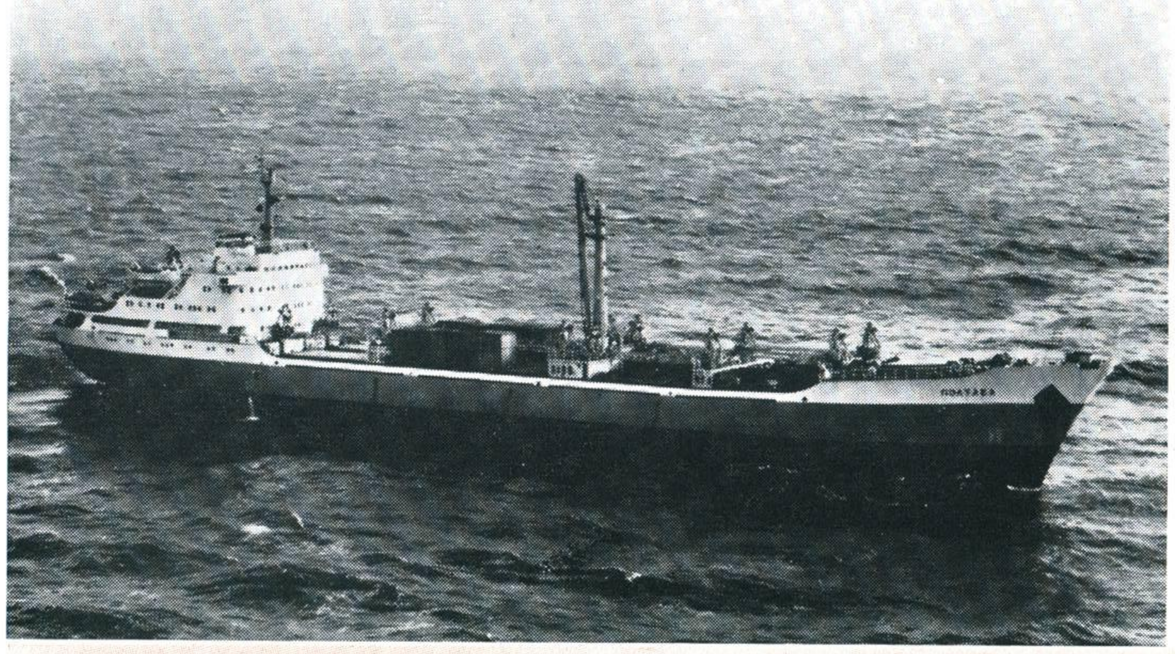
Use the lesson instructions on page 265 as a guide to learning the identity of these three classes of Russian Merchant Ships. Beginners are advised to do one class at a time. Solutions on the cover.



UGLEURALSK CLASS (Class name ship depicted)

A sub-class of the "U" Class with variations mainly in the number of cranes, this modern type has a gross registered tonnage of 5,600 and an overall length of 438 feet.

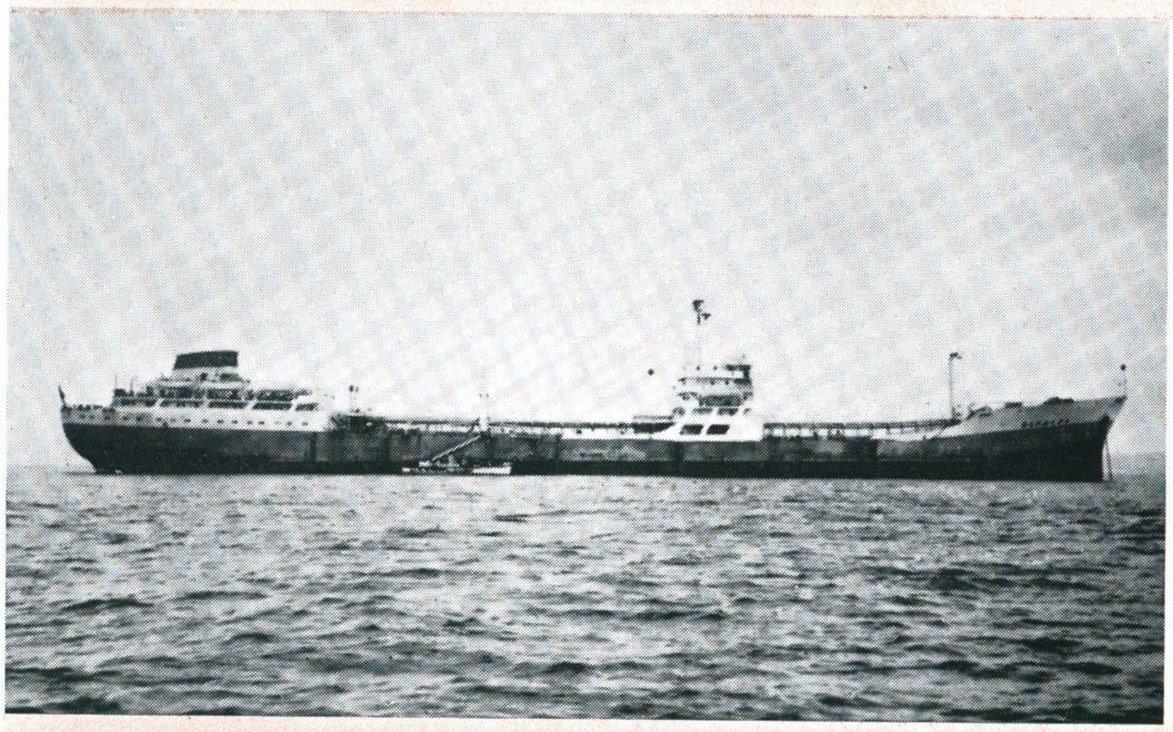




POLTAVA CLASS (Class name ship depicted)

A modern freighter introduced in the last few years, this class has an overall length of 510 feet and a gross registered tonnage of 9,600.





PEKIN CLASS (Varsava [Warsaw] depicted)

Named after capital cities of Communist countries this class was designed principally for Black Sea–Far East routes. About 665 feet overall, they have a gross registered tonnage of 21,300.





















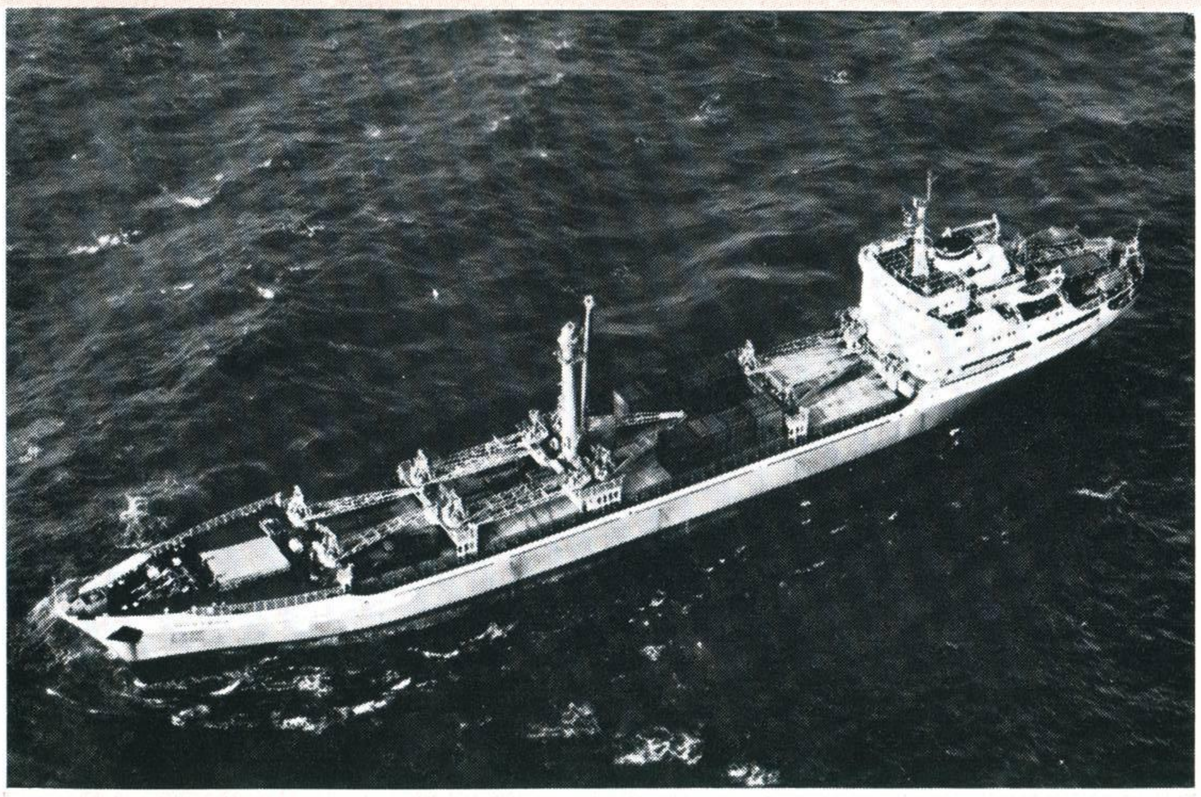








Continued overleaf



POLTAVA CLASS



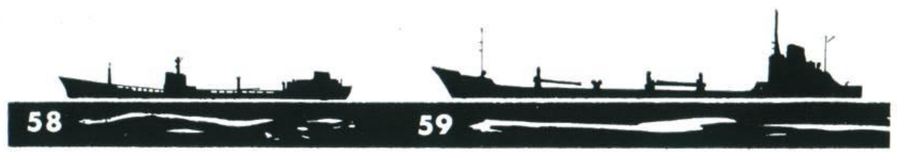
PEKIN CLASS



UGLEURALSK CLASS





























RUSSIAN W CLASS SUBMARINES

There were about 180 W Class submarines built in Russia between 1950 and 1957. The class is sub-divided into several groups and of these, some went into service with satellite countries.

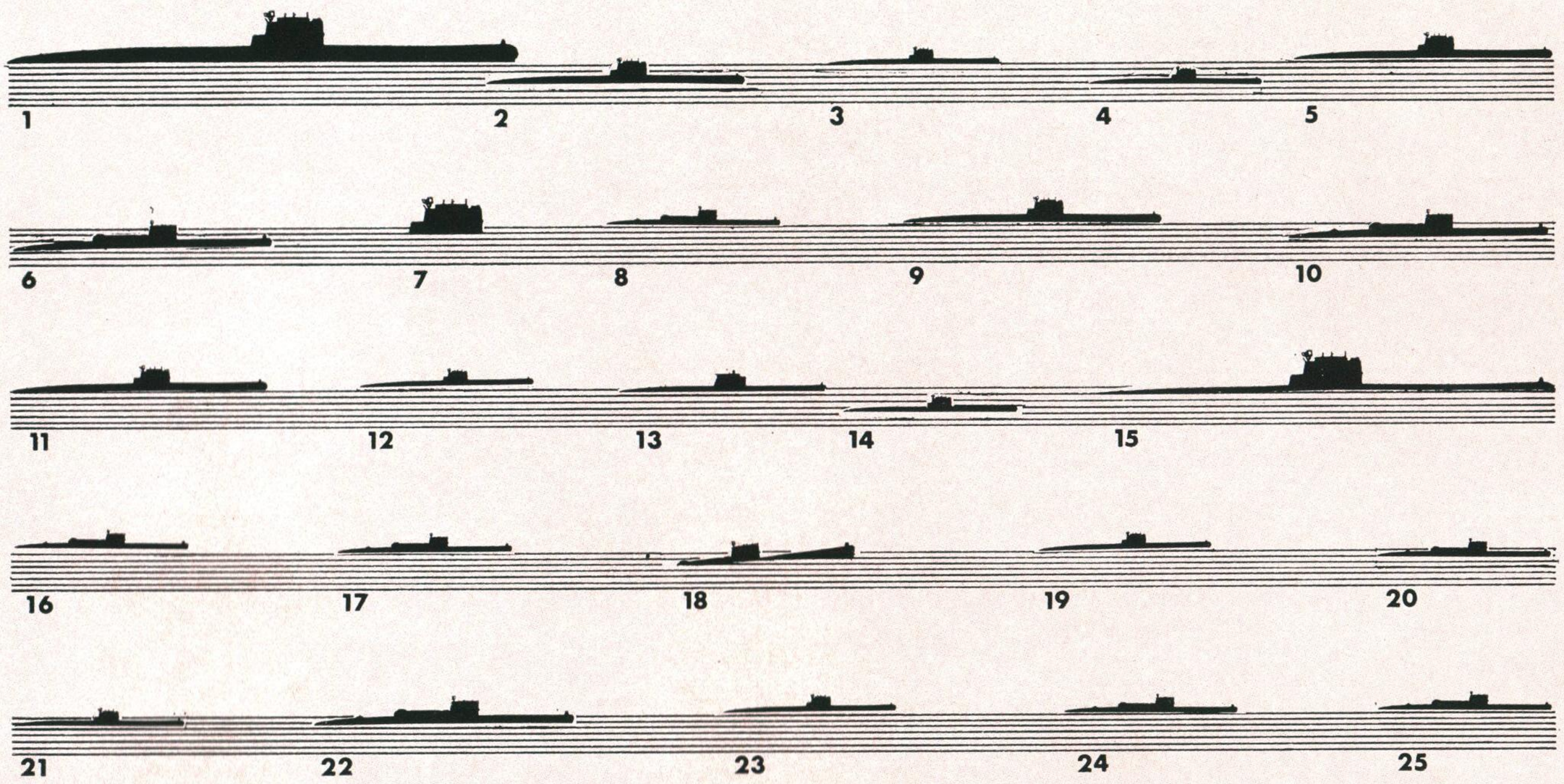
Of the two versions shown, the W/FK is a guided missile carrier with missiles on deck. All are long-range craft fitted for mine-laying. Report these 25 as W Class, W/FK Class or otherwise.



KEY W CLASS



KEY W/FK CLASS



SHIP RECOGNITION

INITIAL TRAINING SYSTEM

The Merchant Ship Initial Training System enables beginners to classify ships at the outset of training: at the same time providing a lead into the more difficult task of estimating ship sizes—particularly when seen from the air.

The System is based on the Reporting Code, devised by Lt. Cdr. E. C. Talbot-Booth, R.D., R.N.R., used successfully during World War II; it is carried out by observing certain features of ships and reporting them.

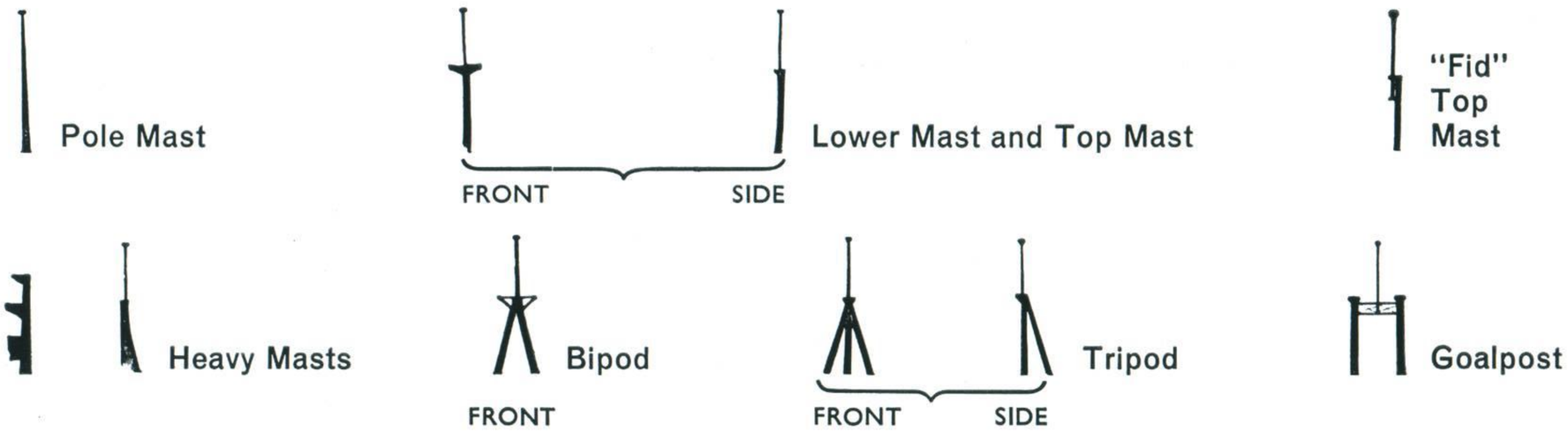
Reporting must be systematically and carefully carried out —as with recognition training procedure in other fields.

The procedure requires the student to report five features of a ship in a simple, standard descriptive form as follows:

SEQUENCE

(Kingposts, Masts, Deck Cranes and Funnels, reading from stem to stern).

TYPES OF MASTS To be reported simply by the letter M

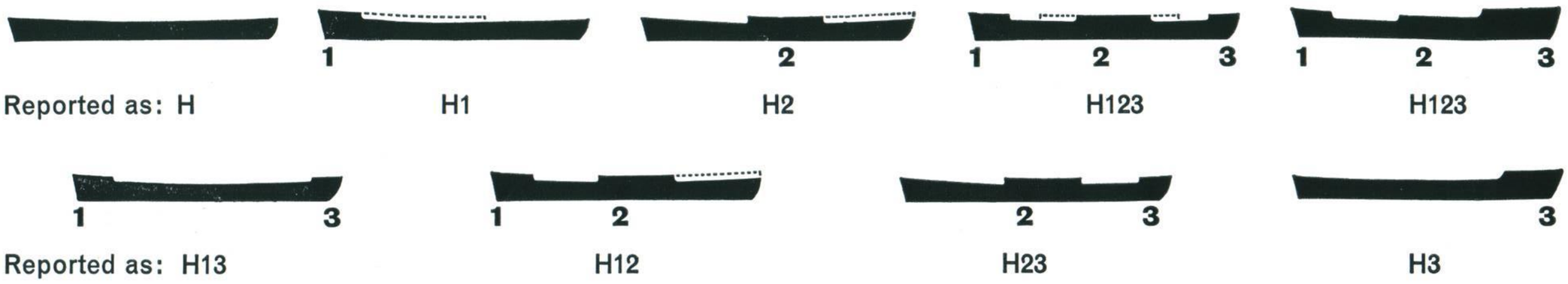


TYPES OF KINGPOSTS (Derricks stowed vertically) To be reported simply by the letter K



Note: Derricks can be stowed vertically, against the Kingpost (or Mast) as shown above, or parallel with the deck, or may be swinging. Kingposts abreast of masts or funnels are not coded. Cranes are reported as **C** if obvious, **K** if doubtful. Very tall radar poles are coded as **M.**

HULL FORMS



Hull forms need careful observing because superstructure may be built straight on to the upper deck and not on to an "island" or midcastle.

PROFILES



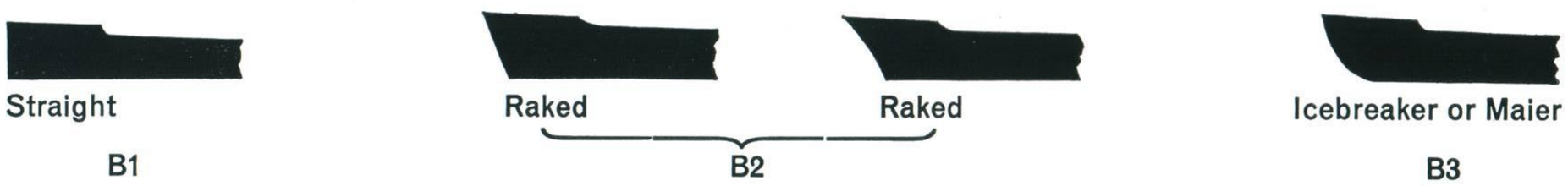
Split Superstructure (a space between bridge and superstructure) — Reported as: P1

Composite Superstructure (bridge, funnel and superstructure combined in one) — P2

Bridge Amidships (or thereabouts) (Funnel Aft vessels) — P3

Bridge Aft (integral with aftercastle) (Funnel Aft vessels) — P4

STEMS



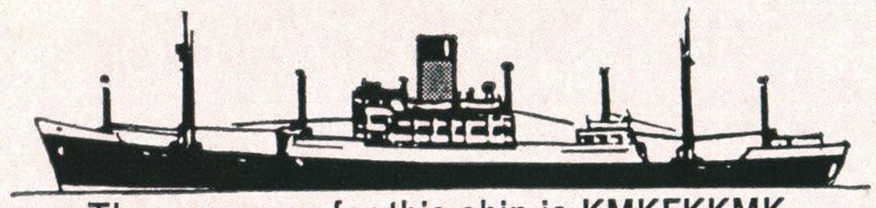
Reported as: B1 — B2 — B3

STERNS



Reported as: S1 — S2 — S3

Classifying and Sizing of Merchantmen

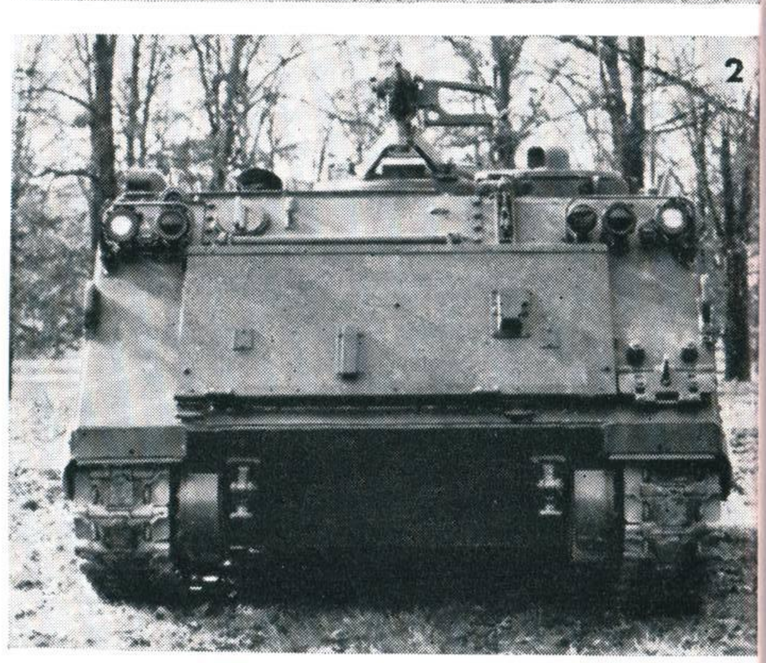


The sequence for this ship is KMKFKKMK

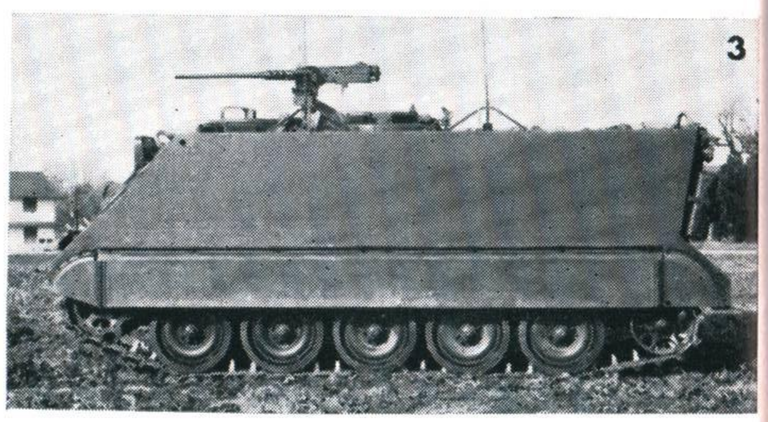
Using the Merchant Ship Initial Training System explained in full in previous editions and which is presented in abbreviated form opposite, report these ships in the following order: Sequence of Kingposts, Masts, Deck Cranes and Funnels; Hull Form, Profiles, Stem and Stern. Additionally, estimate the Gross Registered Tonnage and Length, give the type of vessel and, if known, its name. Solutions on the cover are in this order for the 48 targets presented.

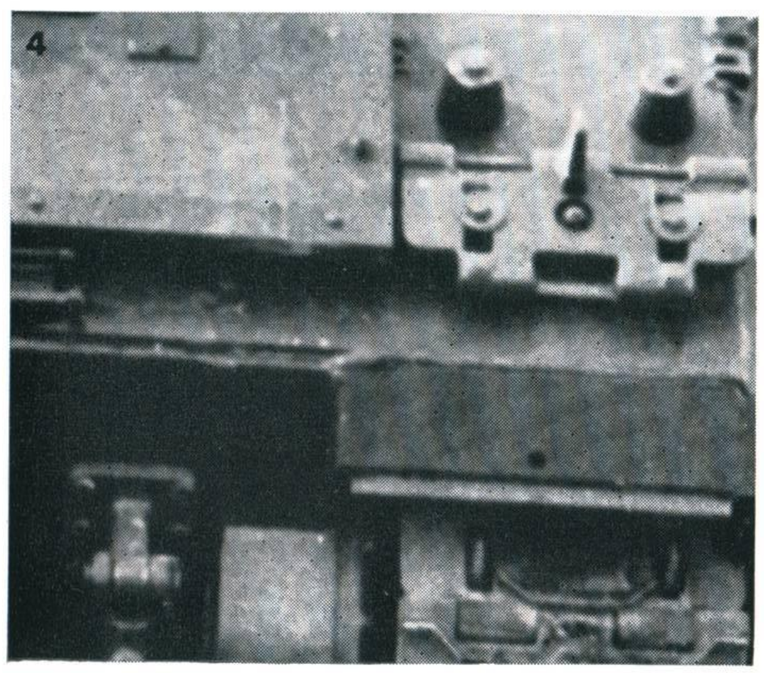


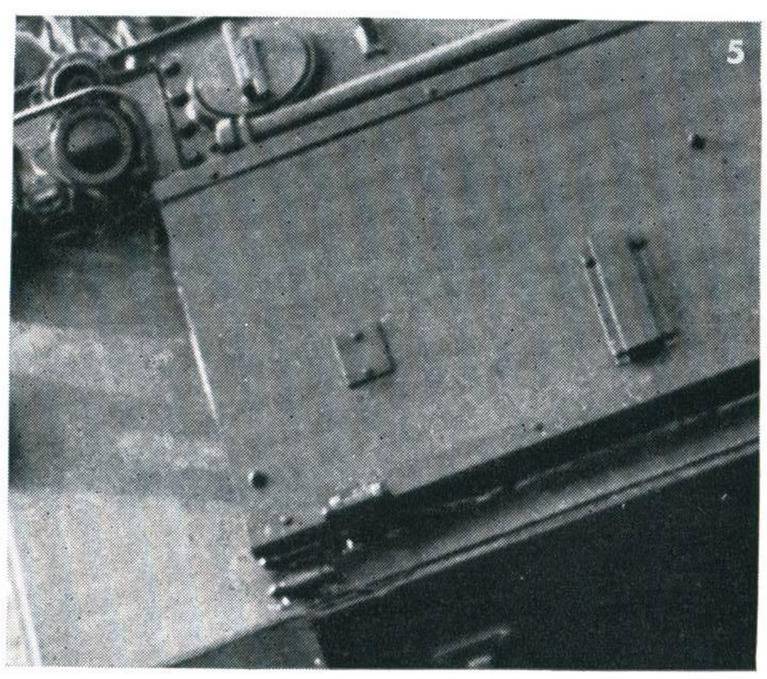


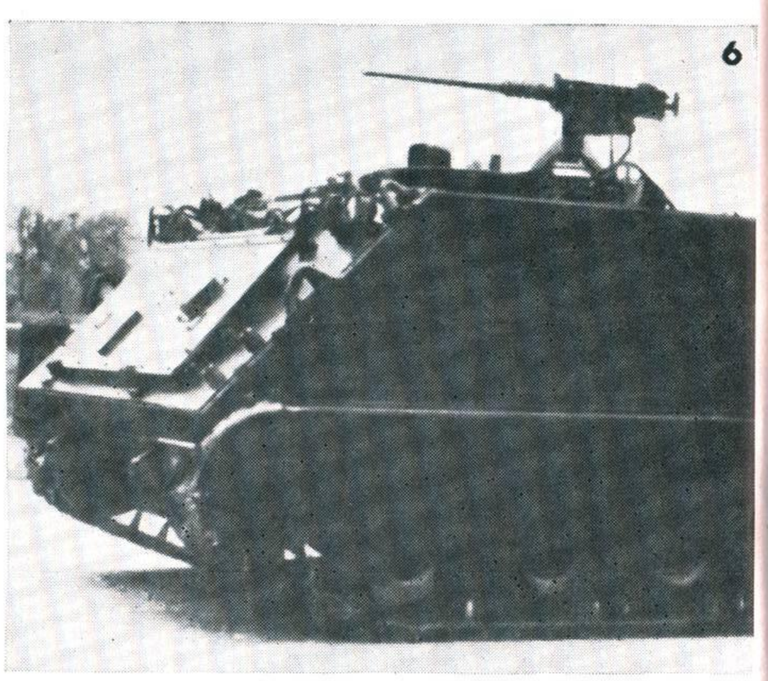


M113 UNITED STATES ARMOURED PERSONNEL CARRIER

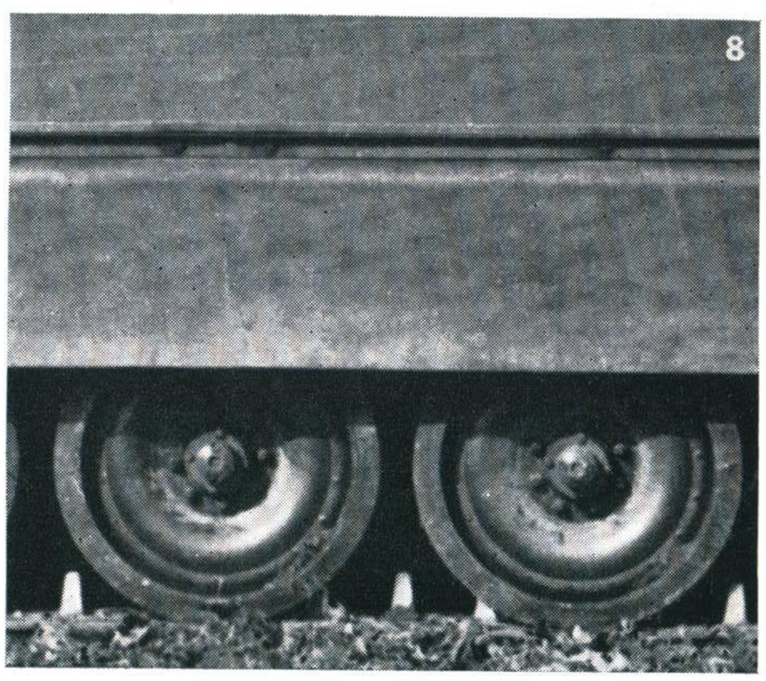


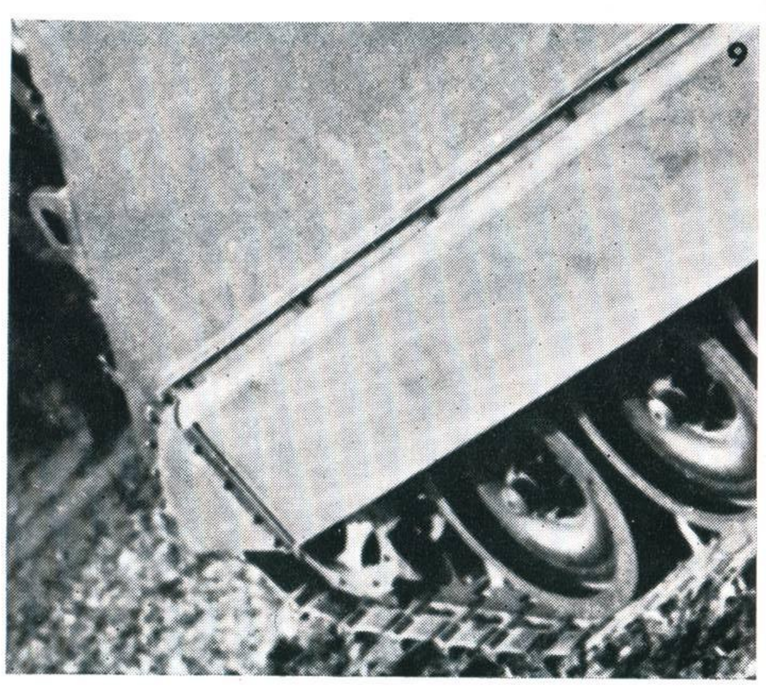


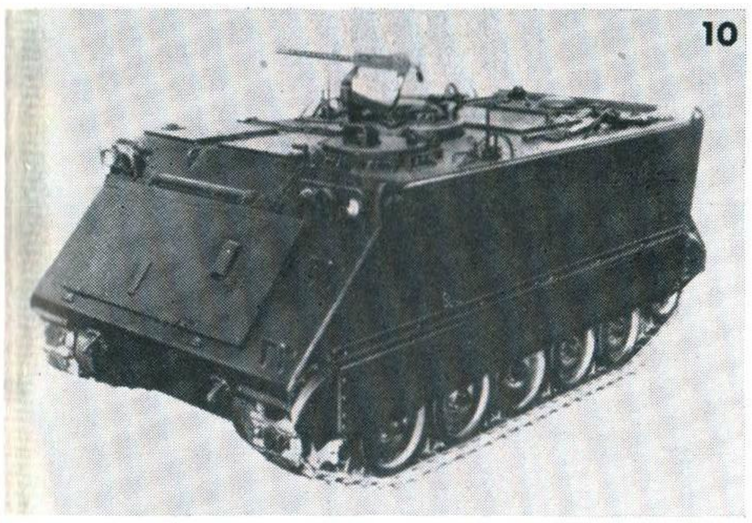


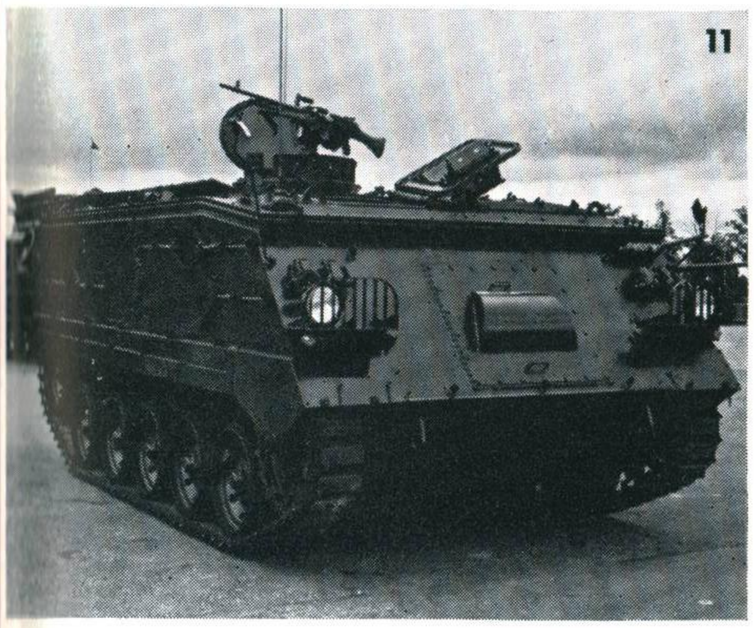




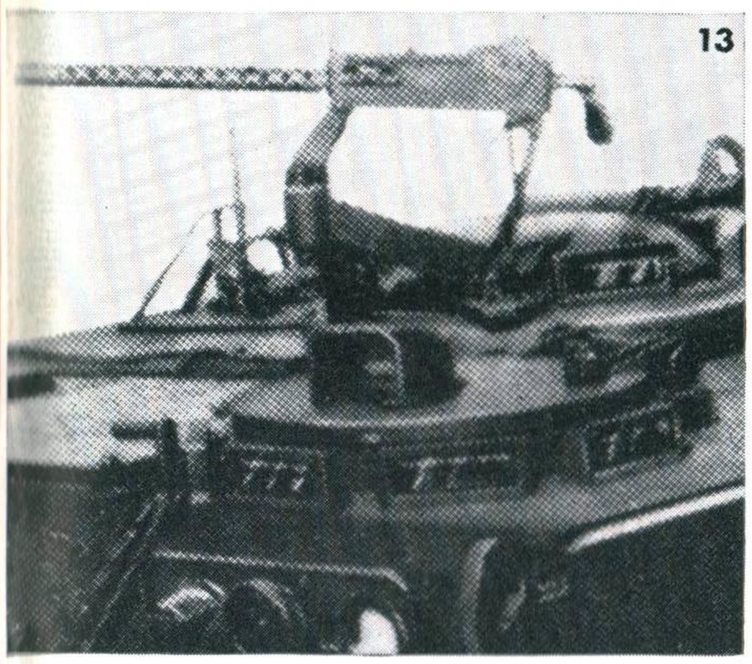


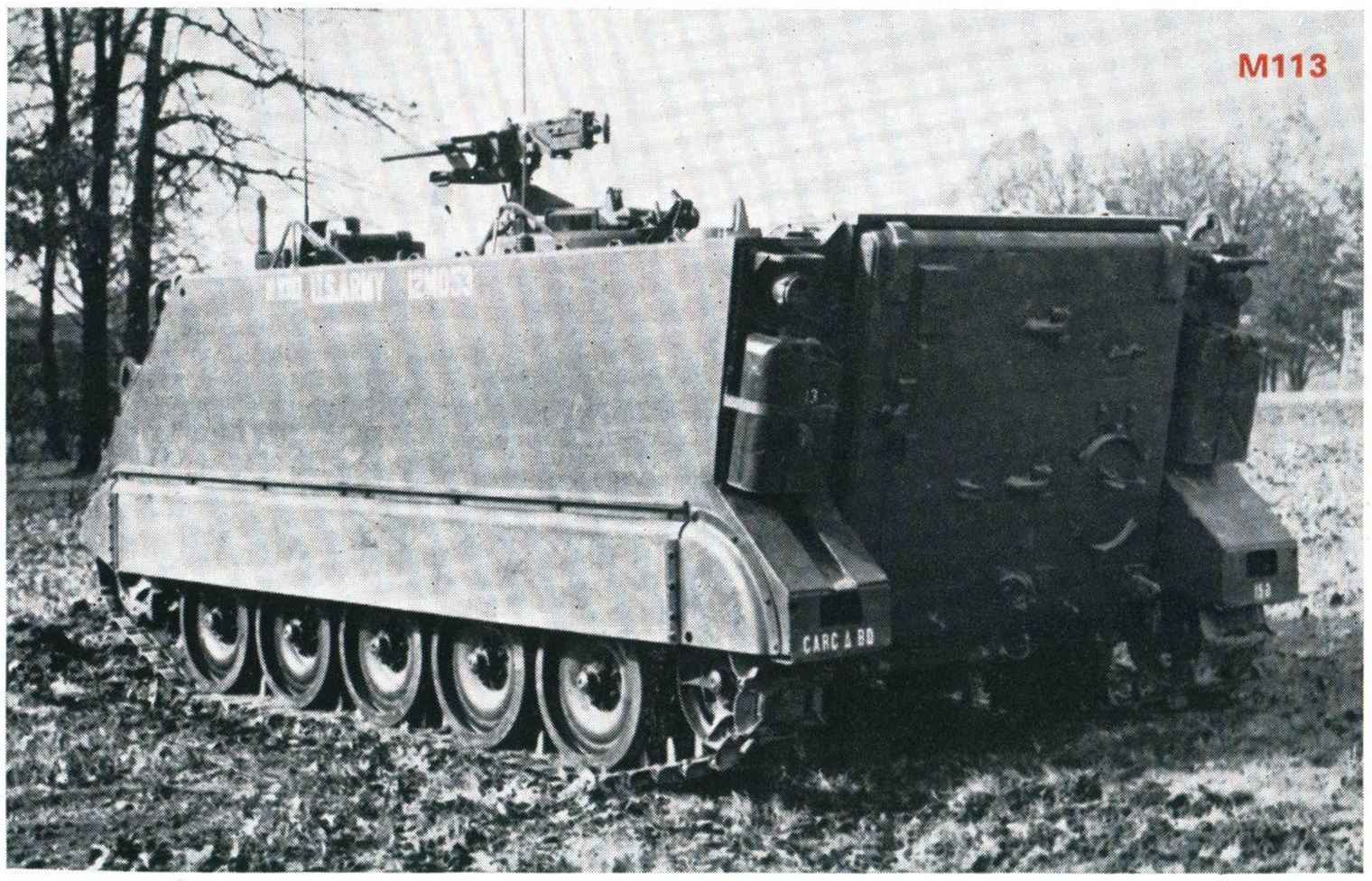



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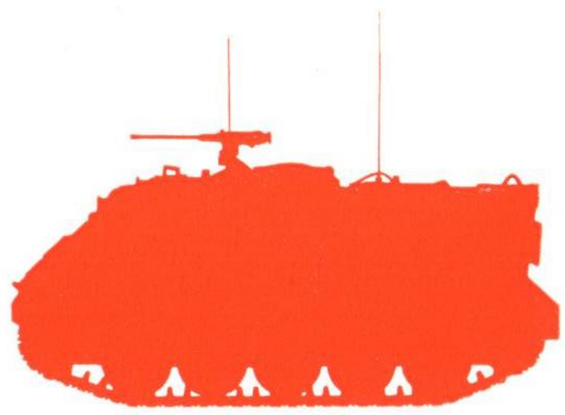

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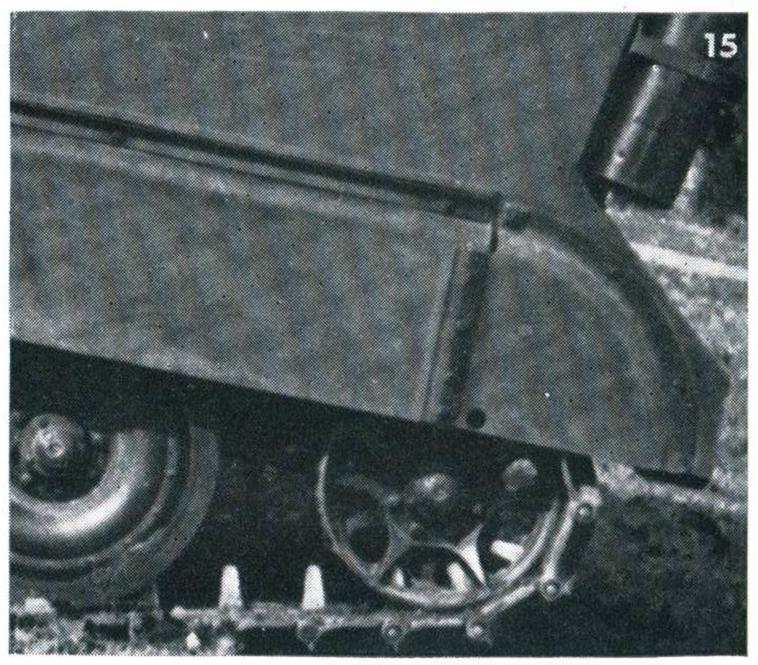

M113

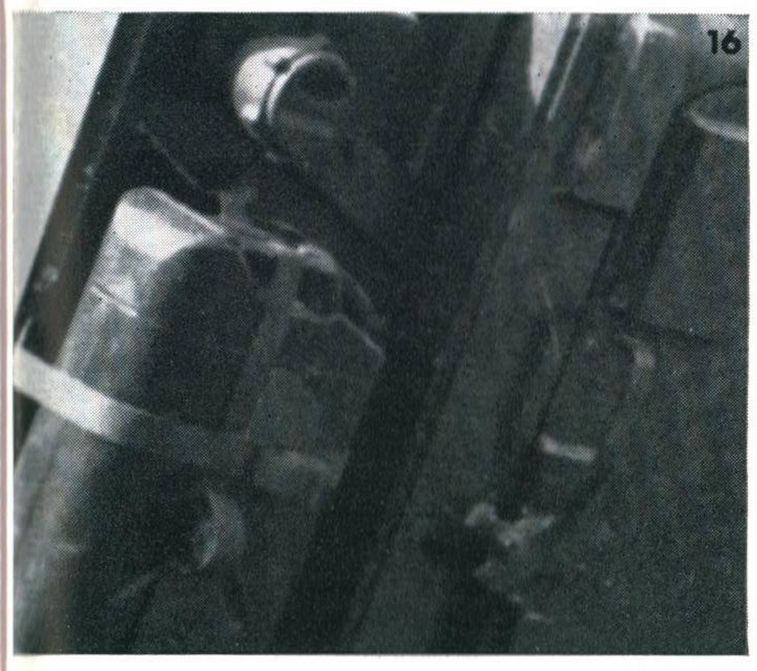
The M113 armoured personnel carrier was the subject of a lesson in the September 1964 issue of the *Journal*. However, as it is one of the most widely used armoured vehicles in the world today it well deserves another lesson.

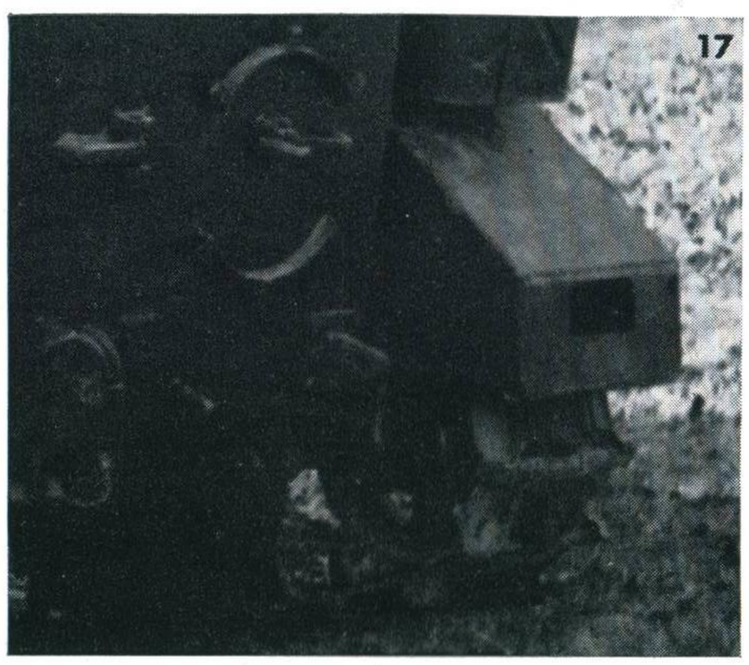
Since the first M113 carrier was delivered to the U.S. Army in 1960, at least 14 other armies have also adopted it as their standard armoured personnel carrier. They include the German, Swiss, Danish, Spanish, Greek, Turkish and Canadian Armies as well as the Italian which is now having its M113 carriers manufactured in Italy. All the other M113 carriers are manufactured in California.

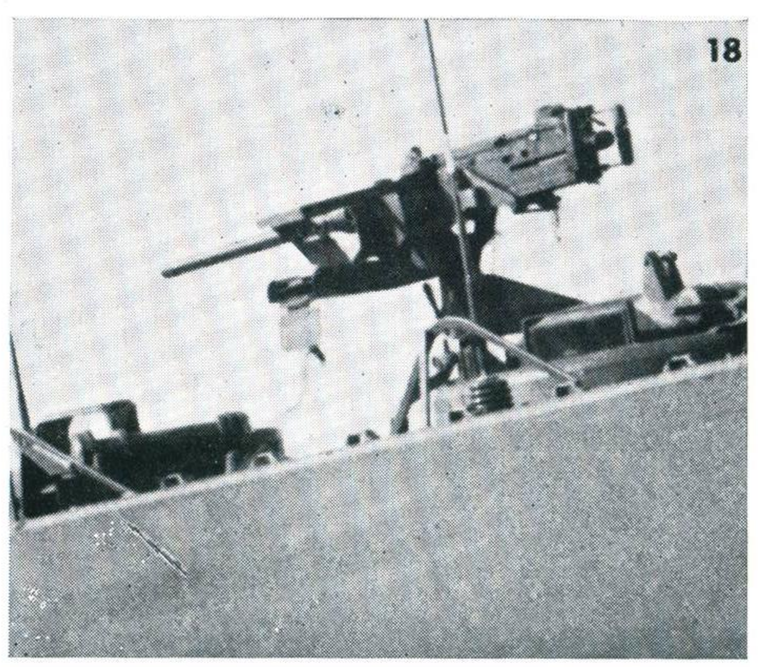



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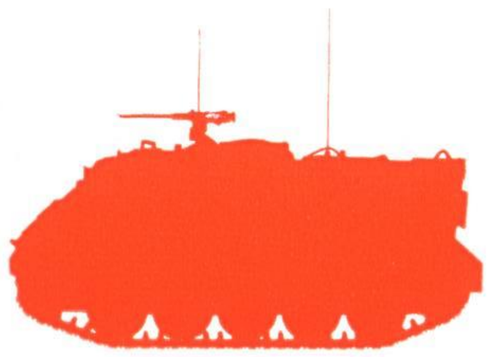

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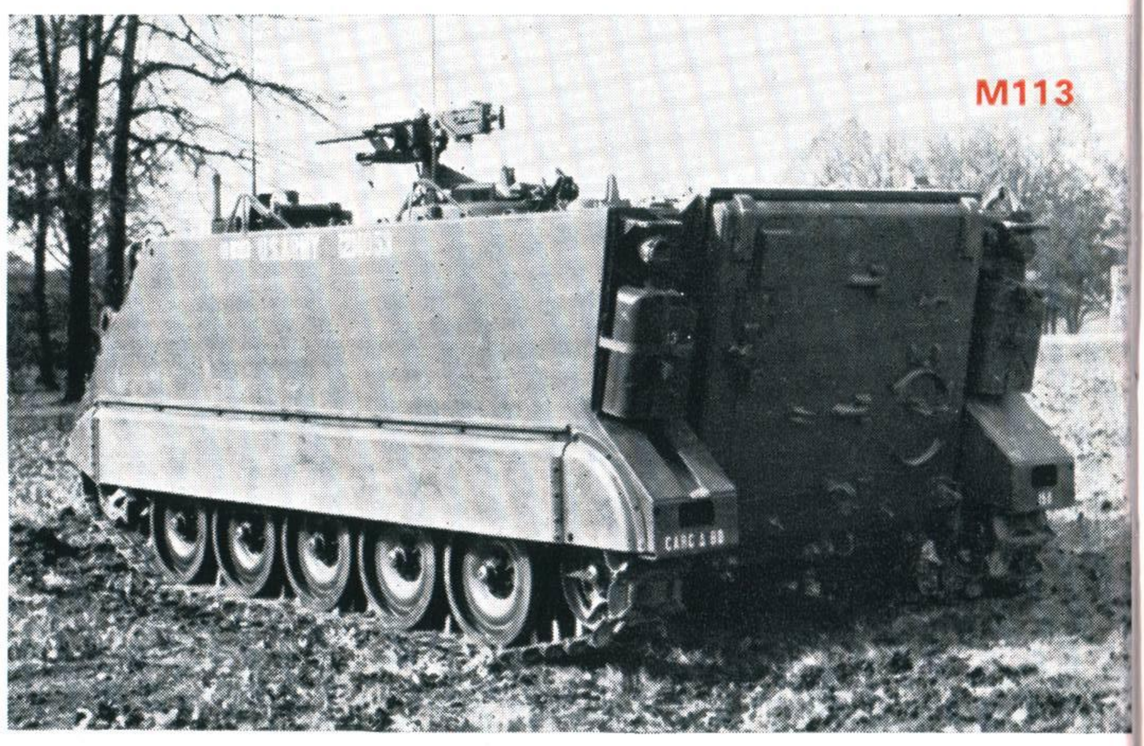

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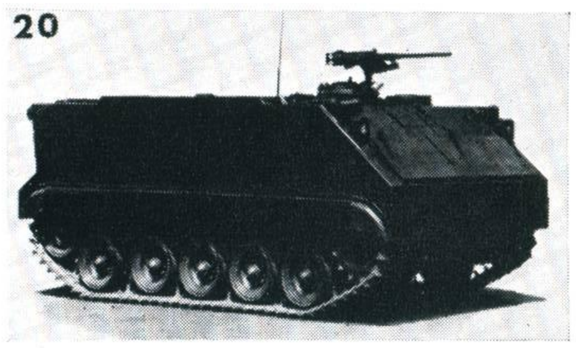

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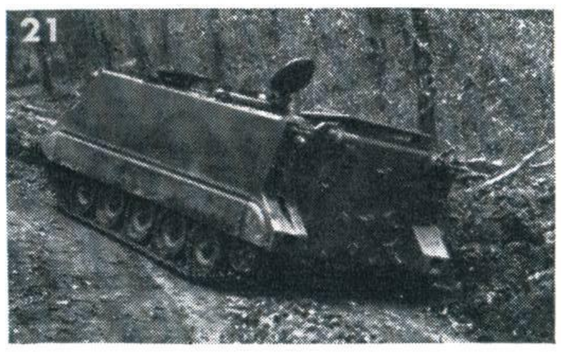
Continued overleaf

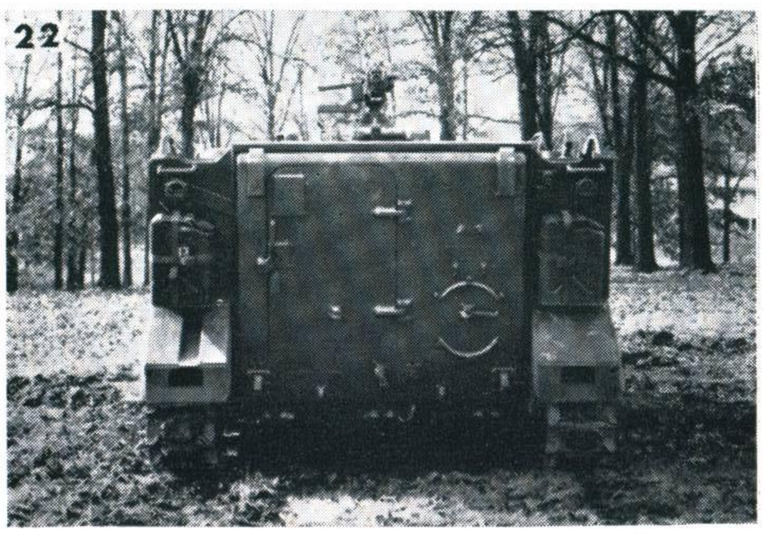






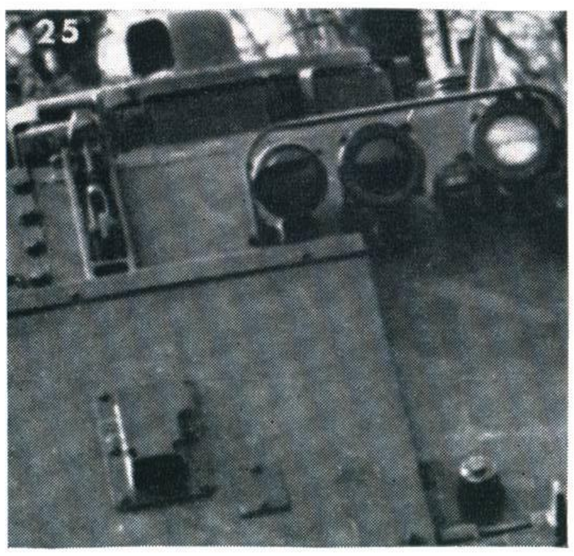


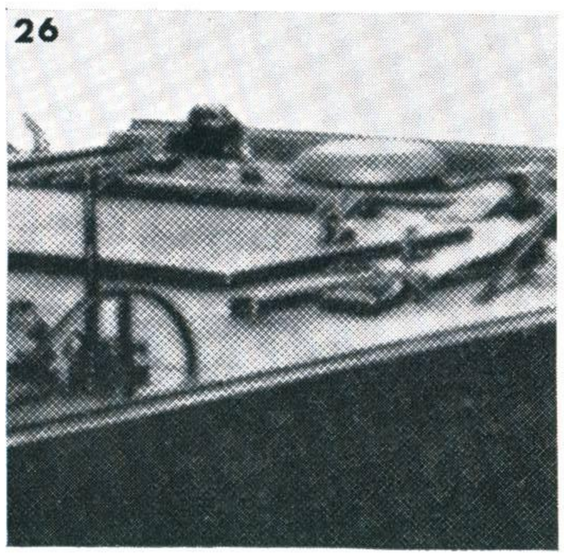










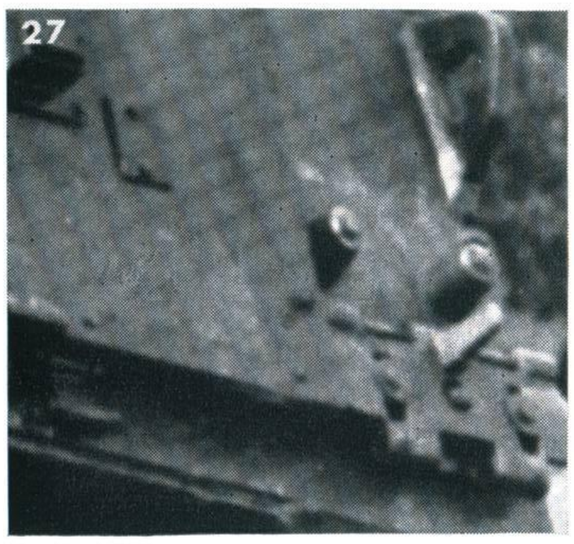


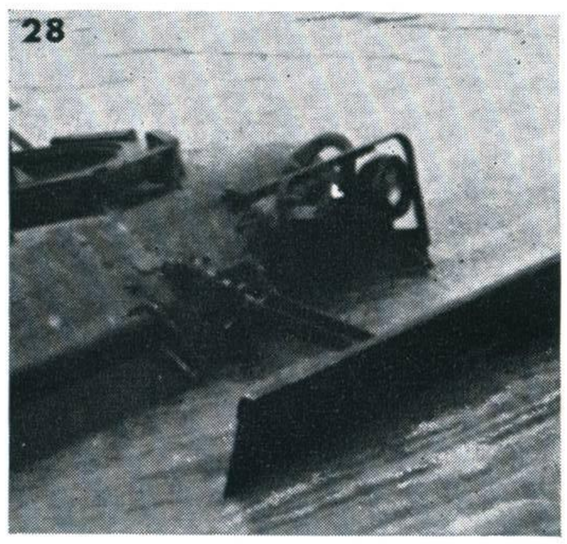
M113 UNITED STATES ARMOURED PERSONNEL CARRIER

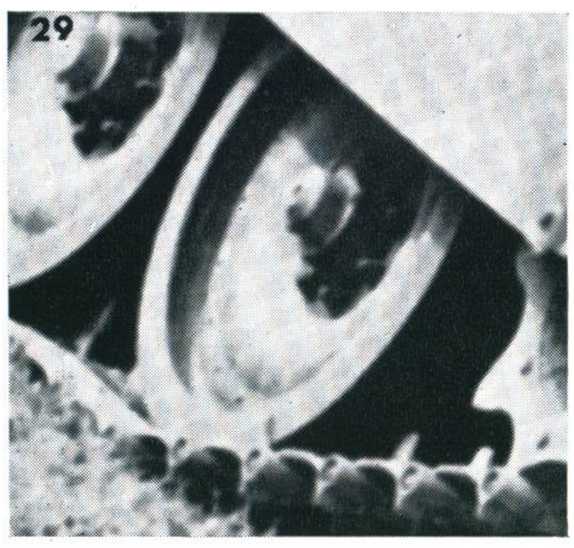
Characteristic of this aluminium-armoured, amphibious carrier is its box-like hull and five road wheels per side, partly covered by track shrouds. These features are, however, shared by its predecessor, the M59 carrier and its British counterpart, the F.V.432 carrier, which was featured in the March 1965, issue of the *Journal*.

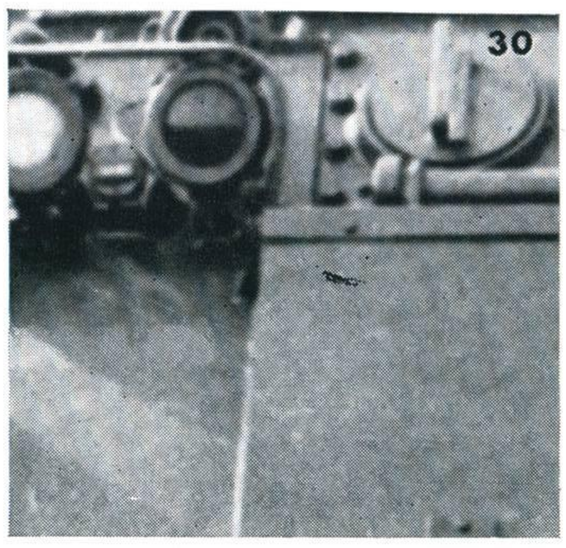
Lesson instructions on page 265. Solutions on the cover

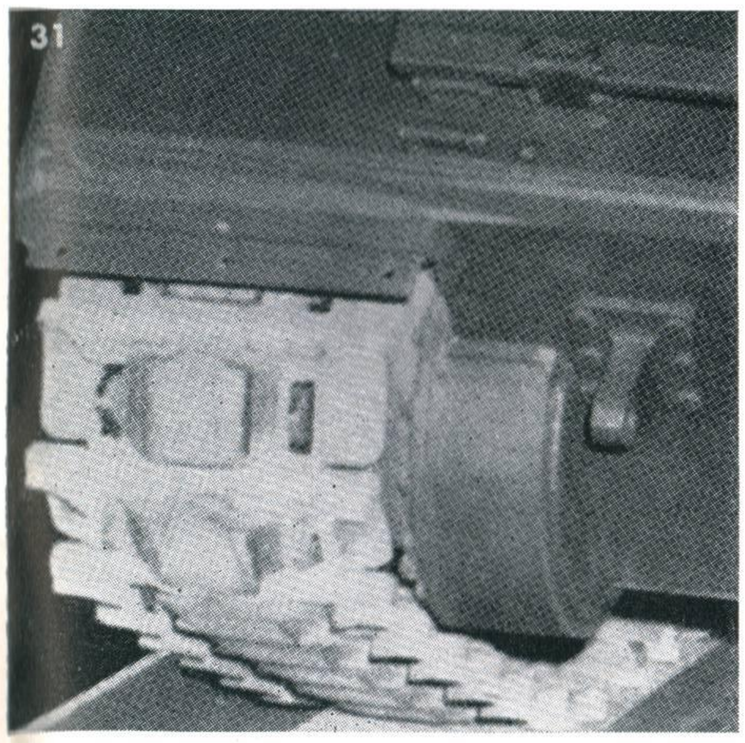


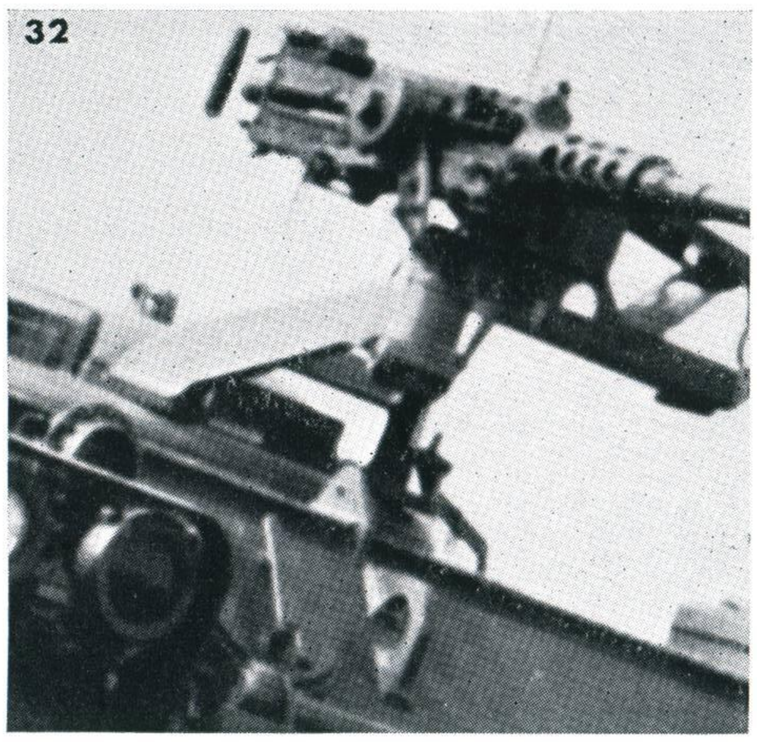


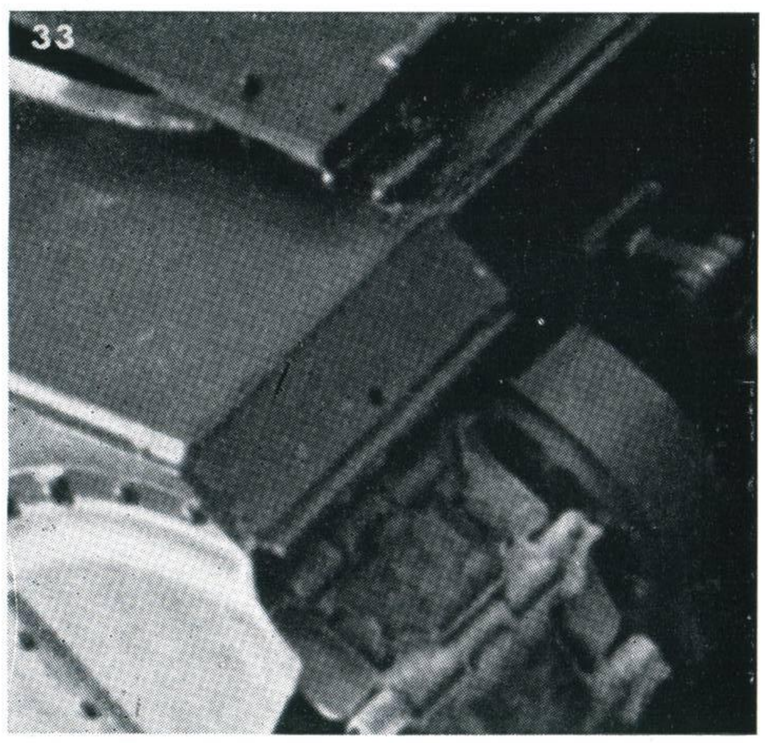


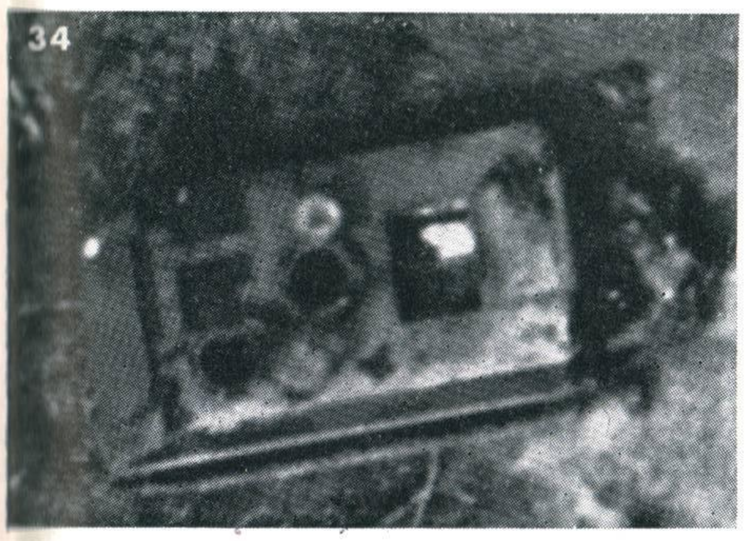




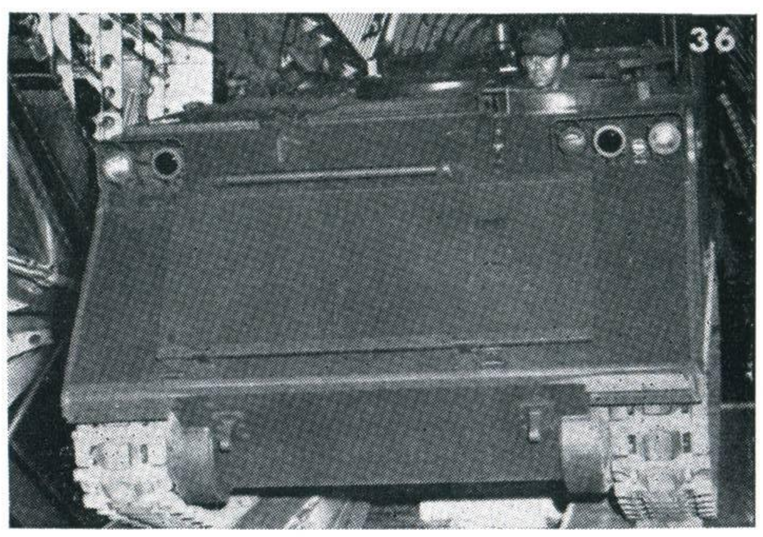

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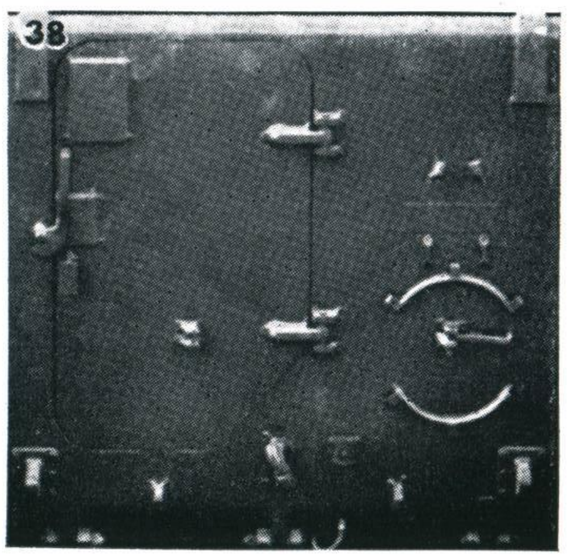

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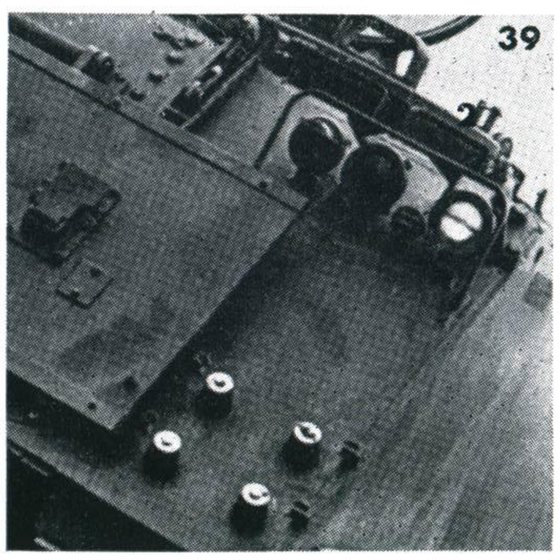

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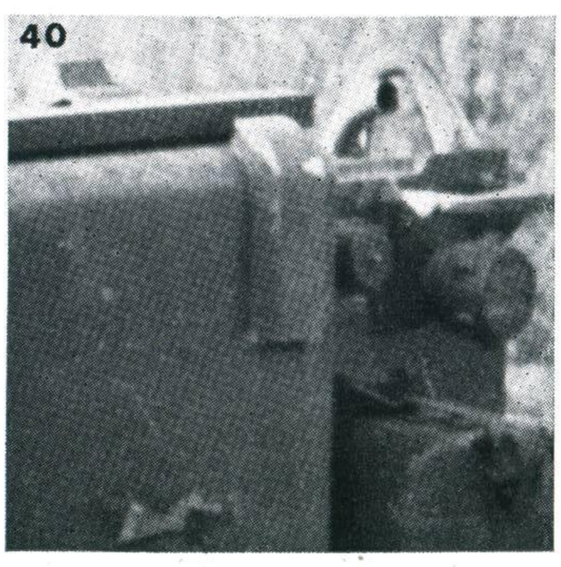

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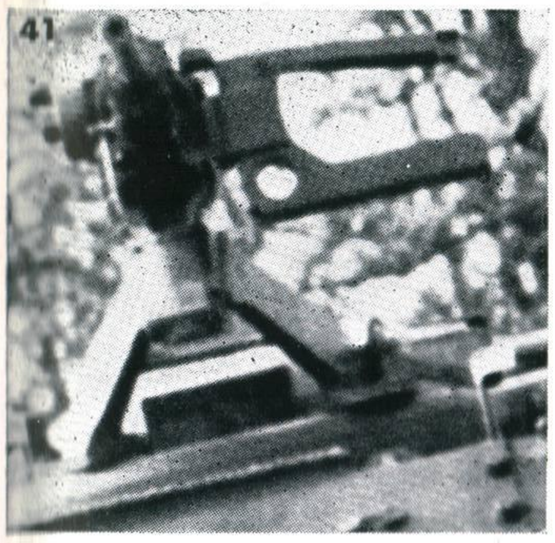

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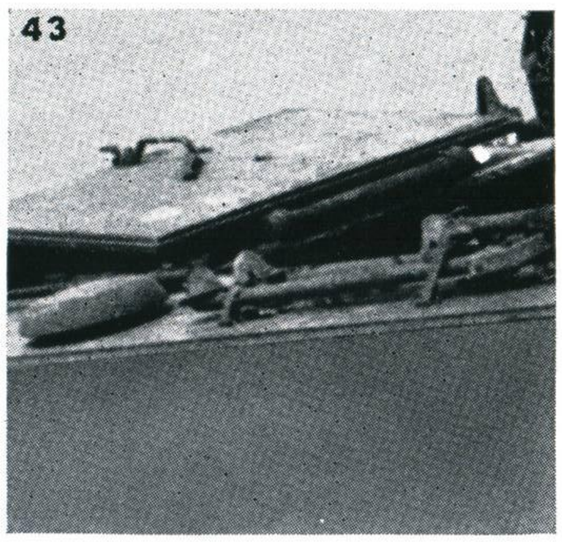

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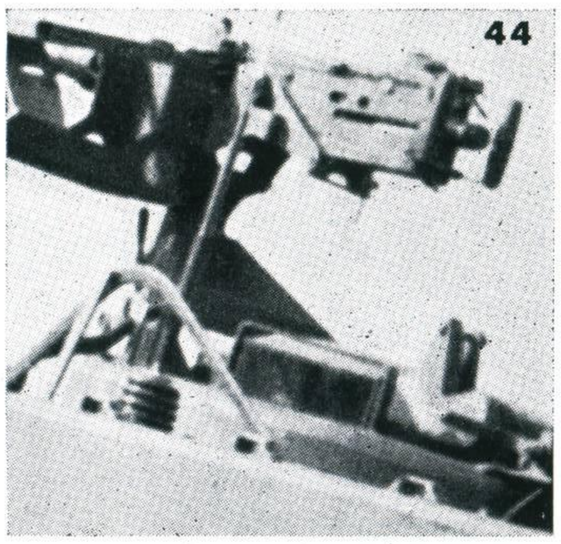

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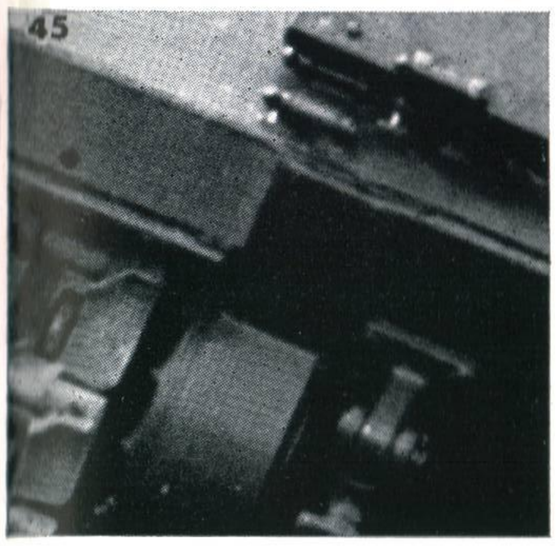

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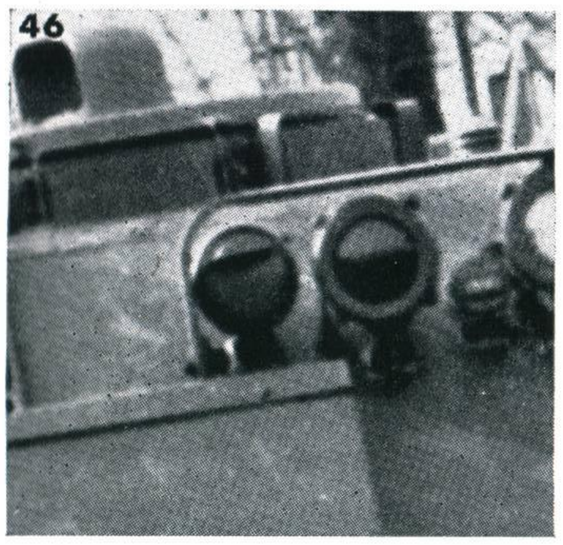

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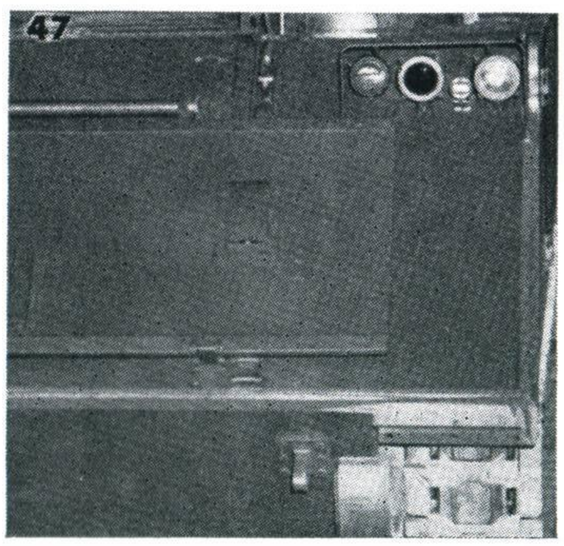

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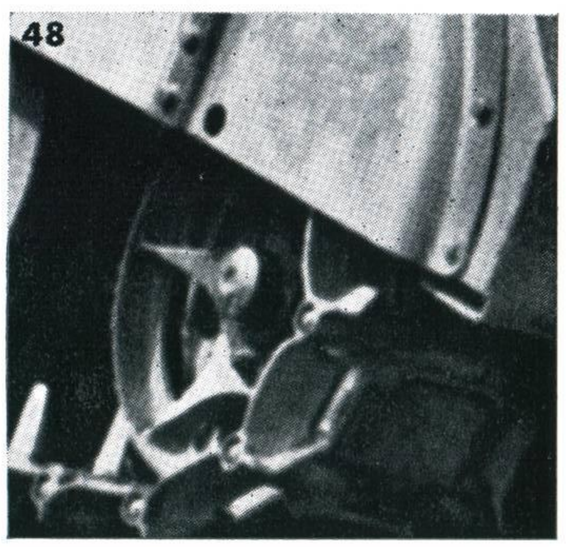

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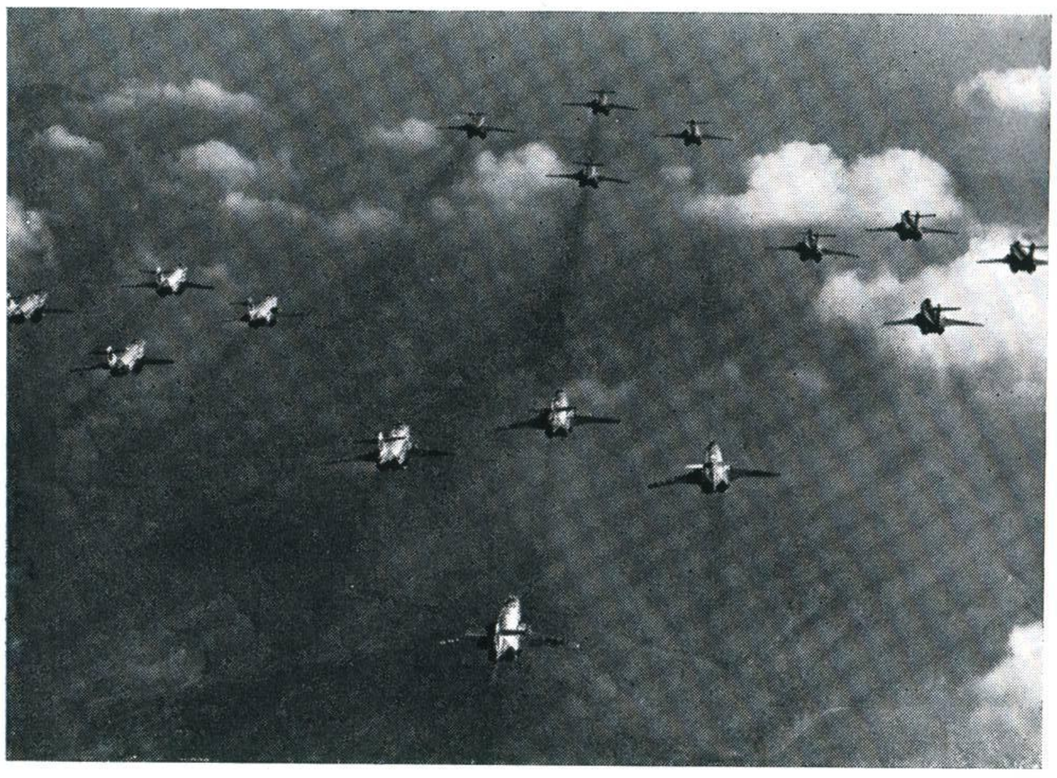

44


45


46


47


48



Cover Photo: F-101 Voodoos of the United States Air Force.

SOLUTIONS TO TESTS AND EXERCISES

Page 273

RUSSIAN W CLASS SUBMARINES

1 W Class
2 W Class
3 W Class
4 W Class
5 W Class
6 W/FK Class
7 W Class
8 W/FK Class
9 W Class
10 W/FK Class
11 W Class
12 W Class
13 Z Class (Joker)
14 W Class
15 W Class
16 W/FK Class
17 W/FK Class
18 W/FK Class
19 W Class
20 W/FK Class
21 W Class
22 W/FK Class
23 W Class
24 W/FK Class
25 W/FK Class

MERCHANTMEN OF THE USSR—NO. 14

Page 270

UGLEURALSK, POLTAVA & PEKIN CLASSES

1 Ugleuralsk Class
2 Pekin Class
3 Poltava Class
4 Pekin Class
5 Pekin Class
6 Ugleuralsk Class
7 Poltava Class
8 Ugleuralsk Class
9 Poltava Class
10 Ugleuralsk Class
11 Poltava Class
12 Pekin Class
13 Pekin Class
14 Poltava Class
15 Ugleuralsk Class
16 Poltava Class
17 Ugleuralsk Class
18 Pekin Class
19 Ugleuralsk Class
20 Poltava Class
21 Ugleuralsk Class
22 Pekin Class
23 Ugleuralsk Class
24 Poltava Class
25 Pekin Class
26 Poltava Class
27 Pekin Class
28 Ugleuralsk Class
29 Ugleuralsk Class
30 Poltava Class
31 Poltava Class
32 Pekin Class
33 Poltava Class
34 Pekin Class
35 Ugleuralsk Class
36 Poltava Class
37 Ugleuralsk Class
38 Pekin Class
39 Poltava Class
40 Pekin Class
41 Poltava Class
42 Pekin Class
43 Ugleuralsk Class
44 Ugleuralsk Class
45 Poltava Class
46 Ugleuralsk Class
47 Poltava Class
48 Pekin Class
49 Pekin Class
50 Poltava Class
51 Pekin Class
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53 Pekin Class
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55 Ugleuralsk Class
56 Poltava Class
57 Pekin Class
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63 Pekin Class
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65 Ugleuralsk Class
66 Ugleuralsk Class
67 Poltava Class
68 Pekin Class
69 Pekin Class
70 Ugleuralsk Class
71 Pekin Class
72 Ugleuralsk Class
73 Ugleuralsk Class
74 Pekin Class
75 Ugleuralsk Class
76 Pekin Class
77 Pekin Class
78 Poltava Class
79 Ugleuralsk Class
80 Ugleuralsk Class
81 Pekin Class
82 Pekin Class

Page 256

SEA VIXEN

1 Sea Vixen F(AW)2
2 Sea Vixen F(AW)1
3 Sea Vixen F(AW)1
4 Sea Vixen F(AW)2
5 Sea Vixen F(AW)2
6 Vulcan
7 Sea Vixen F(AW)1
8 Sea Vixen F(AW)1
9 Sea Vixen F(AW)1
10 Sea Vixen F(AW)1
11 Sea Vixen F(AW)2
12 Sea Vixen F(AW)2
13 Sea Vixen F(AW)1
14 Sea Vixen F(AW)1
15 Sea Vixen F(AW)2
16 Sea Vixen F(AW)1s
17 Sea Vixen F(AW)2
18 Sea Vixen F(AW)2
19 Sea Vixen F(AW)2
20 Sea Vixen F(AW)1
21 Sea Vixen F(AW)1s
22 Sea Vixen F(AW)1
23 Sea Vixen F(AW)1
24 Sea Vixen F(AW)1
25 Sea Vixen F(AW)2
26 Sea Vixen F(AW)2
27 Vampire T.11
28 Sea Vixen F(AW)1
29 Sea Vixen F(AW)2
30 Sea Vixen F(AW)2
31 Sea Vixen F(AW)1
32 Sea Vixen F(AW)1 (Sea Venoms in background)

Page 260

MALLOW

All targets are of **Mallows** except for No. 22 which is an **A-6 Intruder.**

Page 262

HERON

All targets are of **Herons** except for No. 10 which is a **Viscount.**

Page 276

UNITED STATES M113 ARMOURED PERSONNEL CARRIER

All targets are of the **M113** except No. 11 which is of an **F.V.432** and Nos. 20 and 35 which are **M59s.**

CORRECTION: JEANNE D'ARC lesson, AUGUST 1965

Target No. 12, the **U.S.S. Carronade**, inshore fire support ship, was not declared as a "joker".

Page 275

CLASSIFYING AND SIZING OF MERCHANTMEN

No.	Sequence	Hull	Profile	Stem	Stern	G.R. Tons	Overall length	Type	Name
1	KKMKFK	H13	P2	B2	S3	9,039	489	Freighter	Clan MacGillivray
2	KKMF	H(H1)	P2	B2	S3	20,416	606½	Passenger	Federico C
3	MFM	H1	P2	B1	S2	3,035	338	Packet	St. Andrew
4	MMFKK	H2	P1	B1	S1	7,394	473	Freighter	Nimba
5	KMKKFMK	H	P2	B2	S3	8,604	467	Passenger	Andrea C
6	MKFKMK	H13	P2	B2	S3	8,582	488	Freighter	Trentbank
7	KMFKK	H	P2	B2	S3	15,889	579	Passenger	Provence
8	KMFK	H2	P2	B2	S3	9,824	500	Passenger	Funchal
9	MFM	H1	P2	B2	S2	3,964	372	Packet	Princess of Tasmania
10	MFM	H1	P2	B2	S2	5,092	377	Packet	Amsterdam
11	KMKCMFKKK	H13	P2	B2	S3	11,391	550	Freighter	Benvalla
12	KKFK	H123	P1	B1	S1	5,600	415	Freighter	Ken-ei-Maru
13	MKMFK	H13	P4	B2	S2	18,047	610	Ore/Oil Bulk Carrier	Lens
14	CCMF	H	P2	B2	S3	34,000	774	Passenger	Oceanic
15	KKMKKF	H1	P3	B2	S3	9,336	482	Freighter (Heavy Lift)	Schwarzenfels
16	CMCCMCFKC	H13	P4	B2	S3	6,723	496	Freighter	Algorab
17	MKK(M)F	H1	P4	B2	S3	1,817	293	Coaster	Bambi
18	KKFKK	H1	P2	B2	S2	8,202	464	Freighter	Governor
19	KMKF	H13	P4	B2	S3	1,437	238	Coaster	Le Scandinave
20	CF	H13	P4	B2	S2	9,283	501	Floating Crane	Global Adventurer
21	MFM	H1	P2	B2	S2	2,491	345	Packet	Mona's Isle
22	KKMFKK	H2	P2	B2	S3	27,284	650	Passenger	Empress of Canada
23	KMKCKCMF	H1	P3	B2	S2	9,724	499	Heavy Lift	Wartenfels
24	CCKMF	H13	P4	B2	S3	2,194	290	Coaster	Brabant
25	KMFK	H	P2	B2	S3	13,306	642	Passenger	Infante Dom Henrique
26	KKMFKM	H13	P2	B2	S2	6,746	443	Freighter	Leonce Vieljeux
27	KKKMFCKC	H12	P2	B2	S3	12,220	495	Freighter	Medic
28	MFM	H	P2	B2	S2	2,875	312	Packet	Brighton
29	KKMF	H13	P4	B2	S3	24,434	671	Tanker	Raffaele Caffeiro
30	KKKMFKK	H13	P2	B2	S2	9,350	400	Freighter	Clarkforth
31	KKMFK	H13	P2	B2	S3	7,200	440	Freighter	Explorer
32	KMFK	H	P2	B2	S2	20,204	604	Passenger	Southern Cross
33	KKMFK	H	P2	B2	S3	12,575	492	Passenger	Seven Seas
34	MCMFK	H1	P2	B2	S3	3,450	316	Coastal Passenger	Towuti
35	KMF	H2(H12)	P2	B2	S3	11,969	537	Passenger	Riviera Prima
36	MMF	H1	P4	B2	S3	500	263	Coaster	Batavier V
37	KCMC(M)FK	H13	P2	B2	S2	7,915	516	Freighter	Ampal
38	KMKMFKMK	H13	P2	B2	S3	10,294	509	Freighter	Benarty
39	MCFM	H13	P4	B2	S2	795	228	Coaster	Elk
40	KKMKFK	H1	P2(P1)	B2	S2	7,050	499	Freighter	Arlington Court
41	MKFM	H13	P1	B2	S3	5,660	453	Freighter	El Kanemi
42	CC(M)CCMF	H13	P3	B2	S3	11,901	555	Bulk Carrier	Berkesheim
43	KMFKCC	H	P2	B2	S3	11,789	523	Passenger	Ausonia
44	MCCCCCCKM (M)KFK	H13	P4	B2	S3	14,861	593	Bulk Carrier	Aubade
45	KMFK	H	P4	B2	S2	12,780	539	Ore Carrier	Stigmaria
46	KMFKK	H2	P2	B2	S2	18,400	590	Passenger	Patris
47	KCMCMMF	H1	P3	B2	S3	9,381	476	Heavy Lift	Treuenfels
48	KKMKMFK	H12	P4	B2	S3	11,611	510	Freighter	Carl Trautwein

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