D7

JOINT SERVICES

RECOGNITION *Journal*



Vol. 22 NOVEMBER 1967 No. 11

Lesson Instructions **Identity Training is a matter of "doing", rather than one of gathering information. Submit to the instructions given below in every lesson and the ability to identify the subject will become automatic.**

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

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.**

TEST PAPERS

SARACEN?



PHANTOM?

Solutions on the cover



NOVEMBER 1967 Vol. 22 No. 11

JOINT SERVICES

RECOGNITION JOURNAL

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

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* *Identification Lessons*

TEST PAPERS — AND HOW TO USE THEM

A test, or quiz, simply tests or quizzes: it is a means of assessing the skill of a pupil *after* teaching has been done. Training on the other hand is a process of imparting in our case, a skill. It is a matter of adding to the trainees' experience. To many, this may sound like a rather pompous treatise on how to suck eggs, but, in the Services almost everyone is called on sooner or later to teach someone something or other, and this applies particularly in identity training.

In any form of training, teaching and testing methods are complementary but not interchangeable. A test will *not* teach, but a great deal of time and energy is wasted, and much boredom is generated by instructors who provide recognition tests *before they are due*, and who, *sometimes* provide such tests *in* place of training in the belief that they teach.

Perhaps it is more easily understood if it is explained that a test simply poses the question "What is this?" If the trainee knows what it is, it shows that he has learned his lesson. If he fails to identify it, he needs more training. Giving him the answer to what he has failed to identify will not imprint the identity upon his mind. Technical or descriptive talking forces too much conscious memorisation upon the trainee especially when a number of aircraft have to be taught. The only effective and positive identity training can be done only with a correctly constructed lesson.

The greater part of the contents of every *Joint Services Recognition Journal* and also, incidentally, of every *Royal Observer Corps Recognition Journal*, is devoted to identification teaching devices of one kind and another which actually provide the training. These devices are not tests although they may look as though they are. They are designed to train, and each carries clear instructions as to what needs to be done in order to obtain the maximum training benefit. Don't give Test Papers as trainers—use them only as tests.

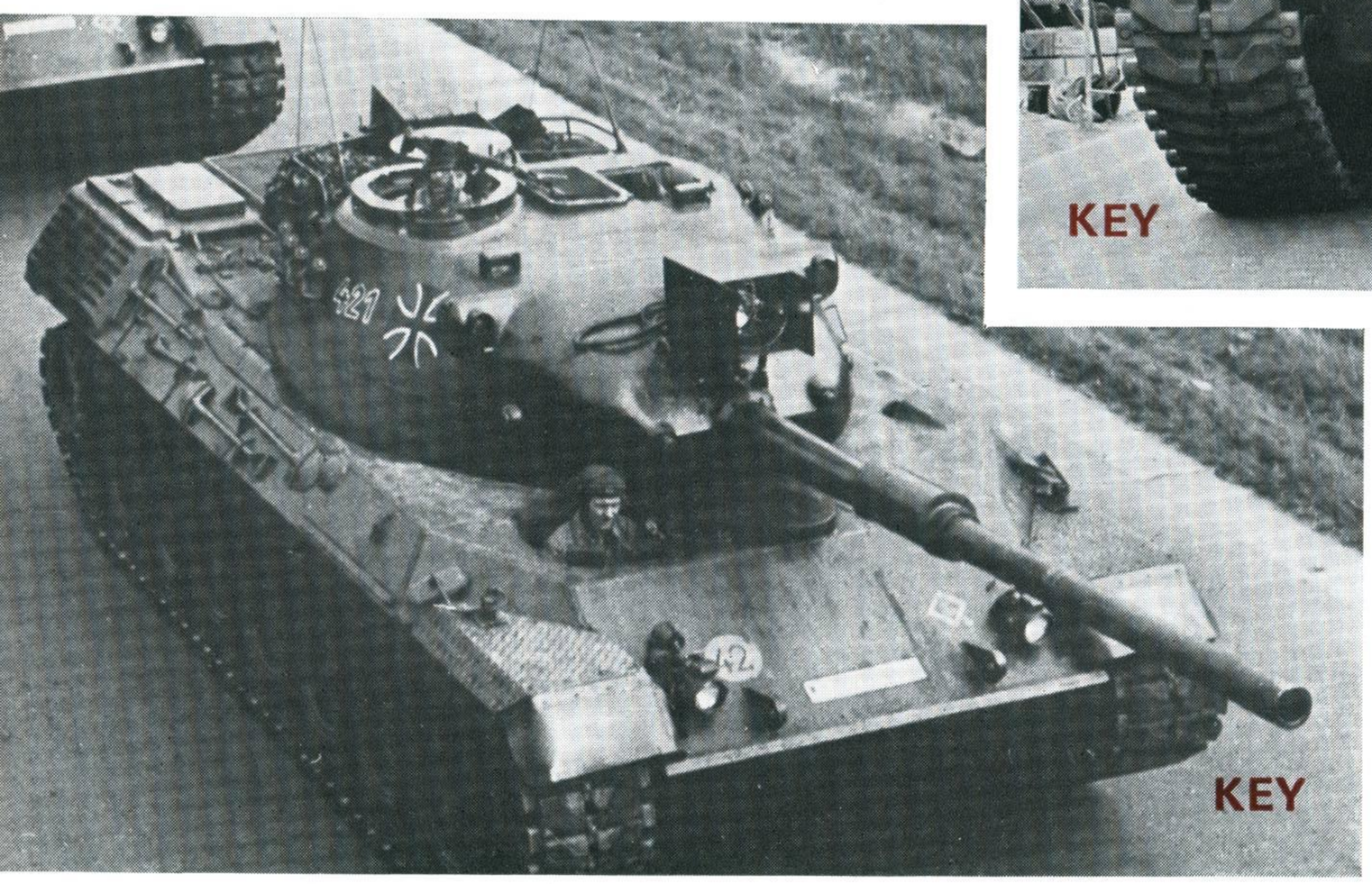
Earlier we mentioned descriptive talking. By this we mean the routine of going over the aircraft shape and describing each part in detail. This is known as the "atomistic" theory of training people to recognise. This subject was discussed by Dr. Allan on page 202 of the August 1967 *Journal* and it is worth re-reading so here is an important part of it . . . "*Atomism is no longer in favour as a sound approach to perception, but its influence on training techniques is deeply entrenched. Where something to be learned (such as an aeroplane) is too complex to be taken in at once, the tendency is to carve it up, tackle the pieces separately, almost as independent units, then string them together. The obvious weakness of this approach to training in recognition is that it is in no way related to the way in which recognition skills are acquired. The stringing together of units is an addition process and we know that small children have acquired quite a high degree of skill in the recognition of familiar objects before they are able to grasp the most elementary idea of summation.*"

So, in recognition training, don't talk, don't "atomise"—just put the trainer before the pupil and see that he obeys the rules.

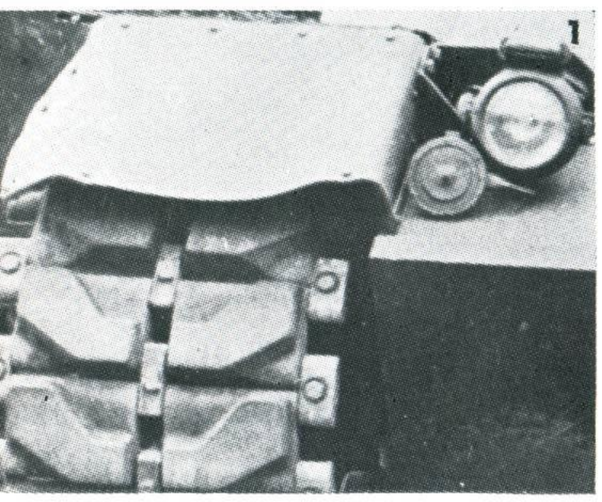
LEOPARD
BATTLE TANK

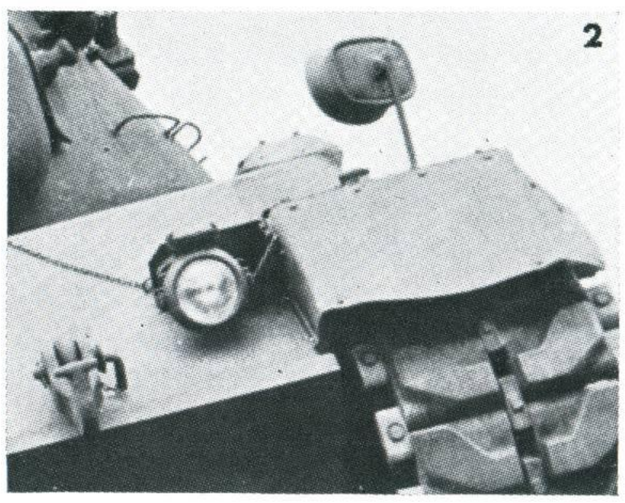
Since the first production model came off the assembly line at the Krauss-Maffei factory in Munich in September 1965, the Leopard battle tank has come into large-scale service with the German Army. In fact, most of the 1,500 tanks of this type ordered by the German Defence Ministry have now been produced. In addition, 334 Leopards have been ordered by the Belgian Army, which adopted this type of tank in 1967.



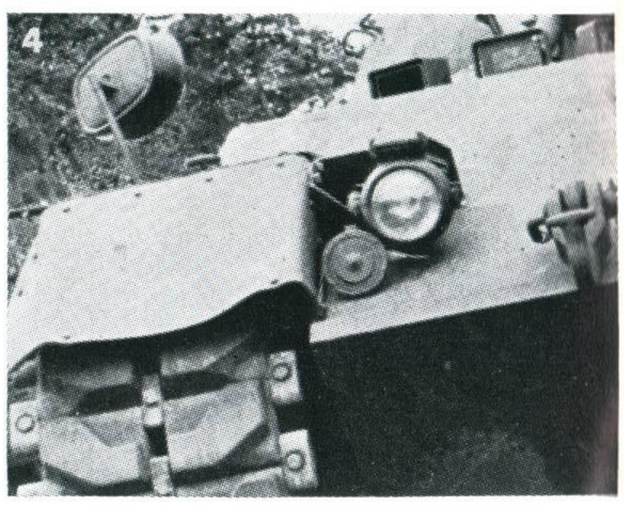


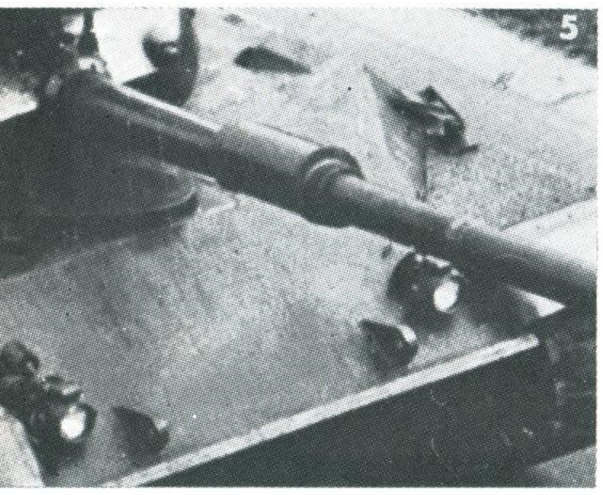
In both the German and Belgian Armies the Leopard replaces the earlier, United States-built M47 medium tanks. It represents a very considerable advance on the M47, as well as the M48, which remains in service with the German Army. However, it bears some resemblance to the two United States-built tanks, mainly because of the similarity in the track and running gear. But whereas the M47, M48 and the M60 have six road wheels per side the Leopard has seven. It also has a longer hull of welded plates instead of castings.

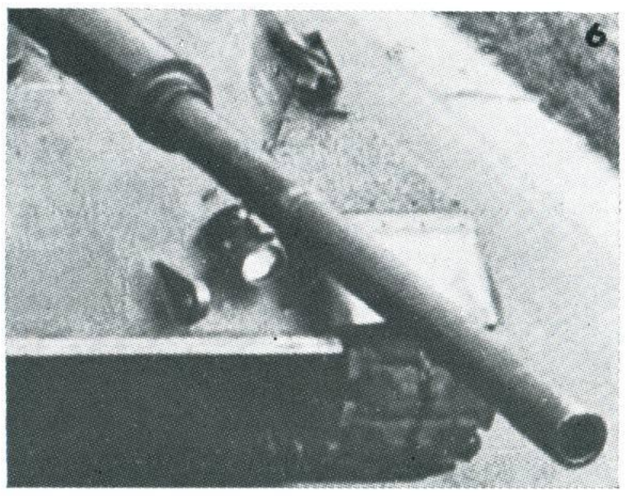


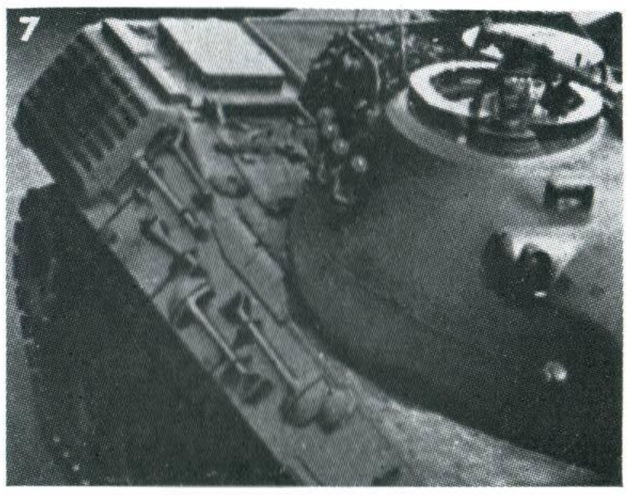


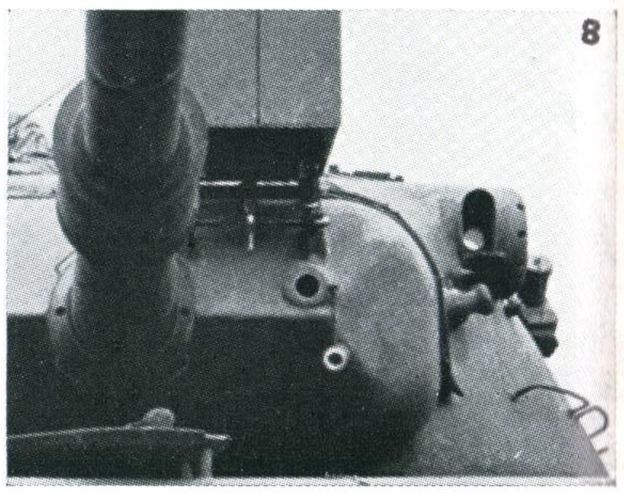




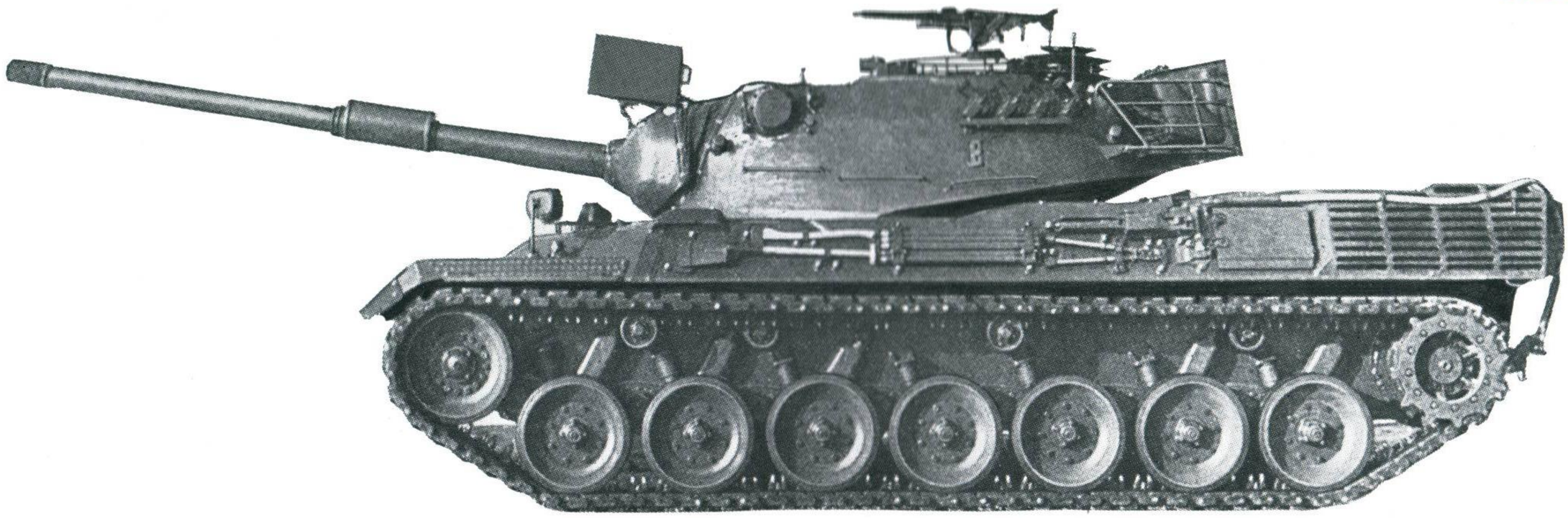


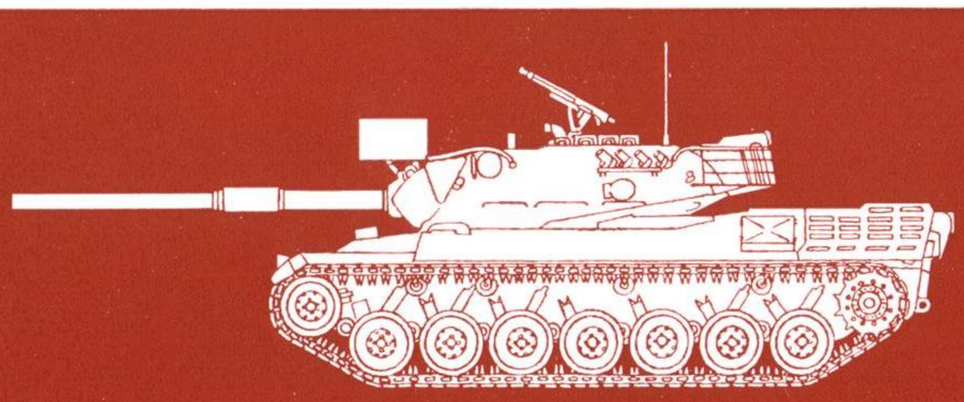


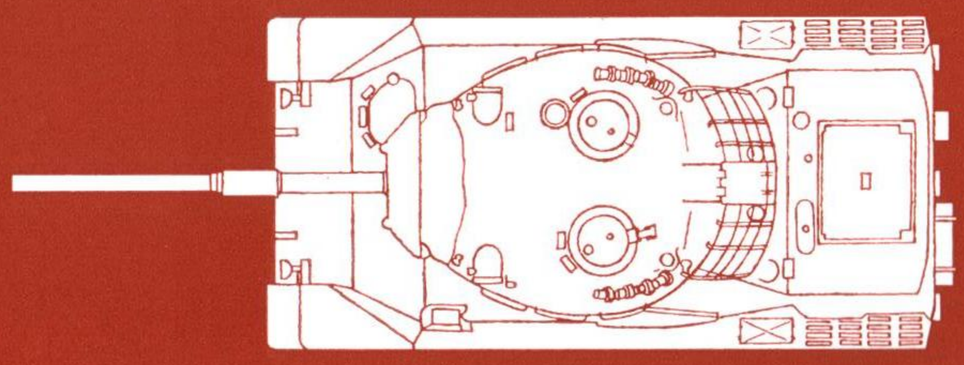




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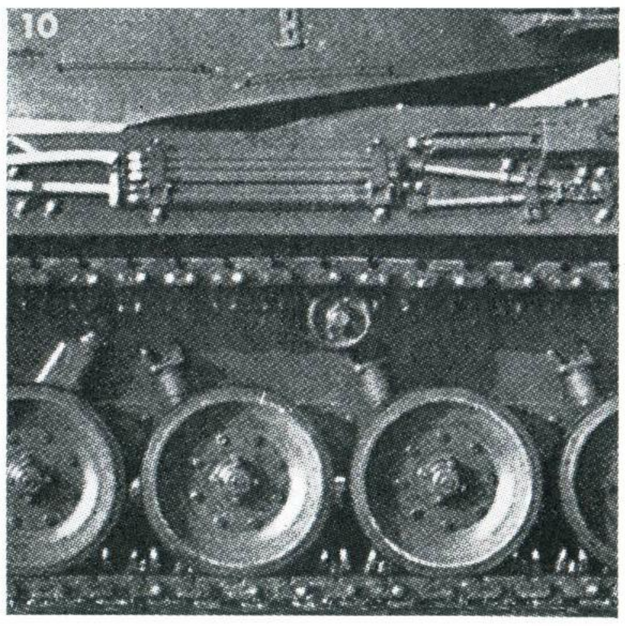


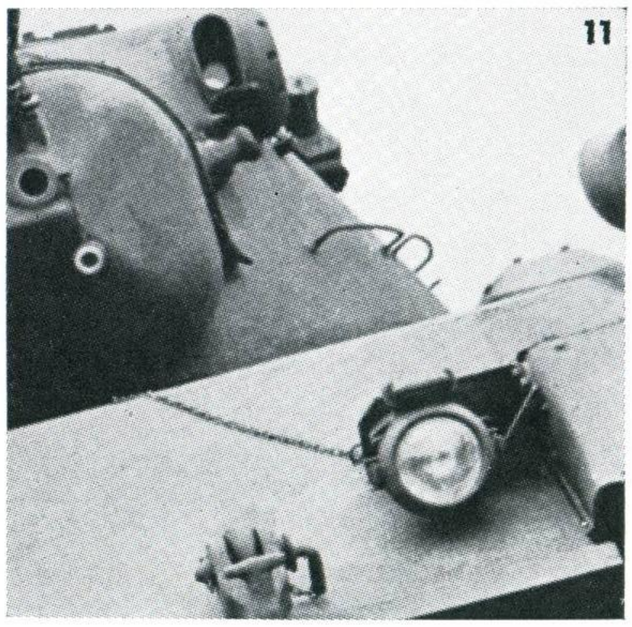


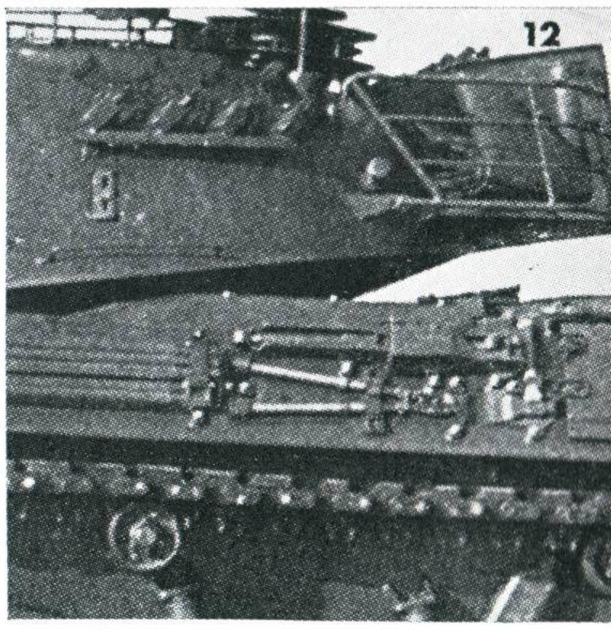
Lesson rules are on page 282

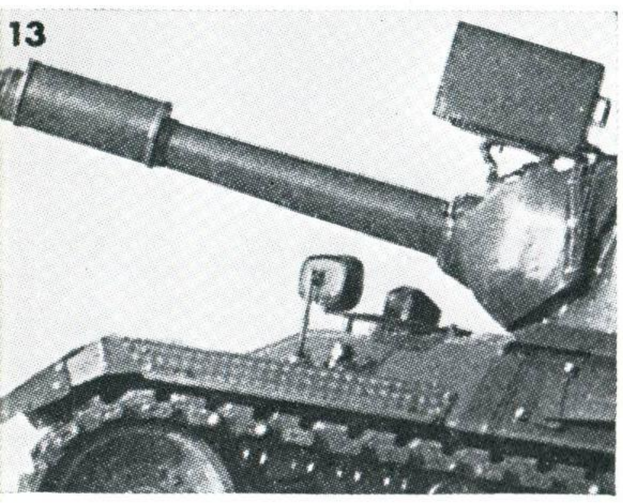
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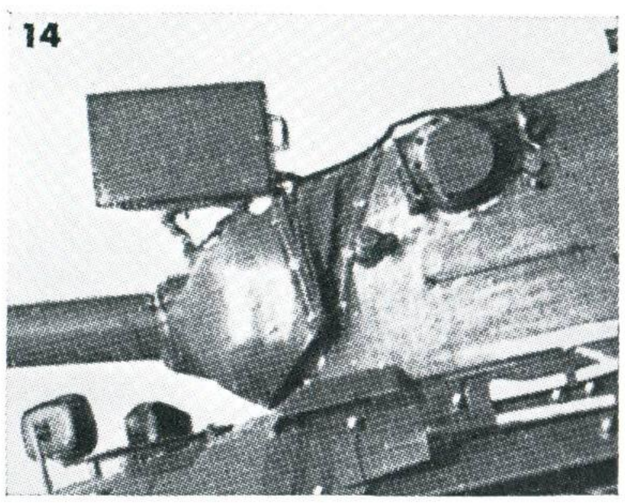


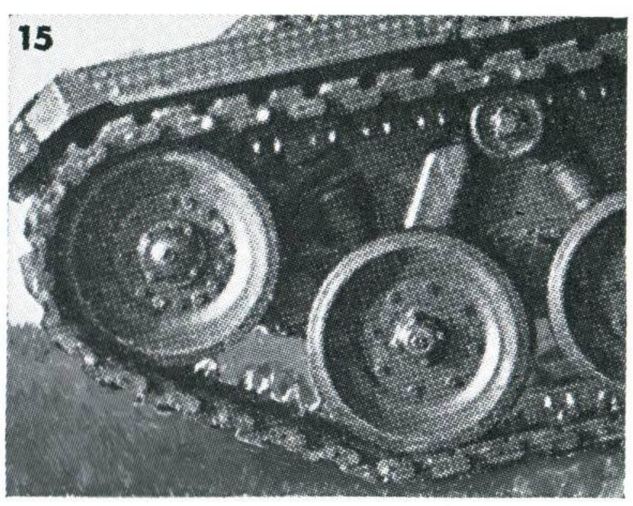


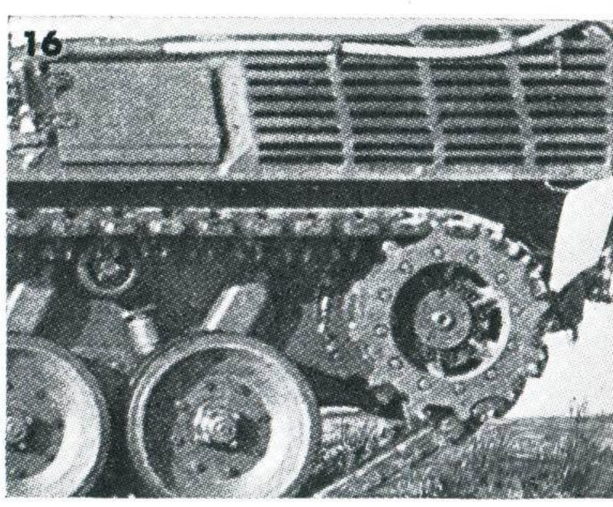


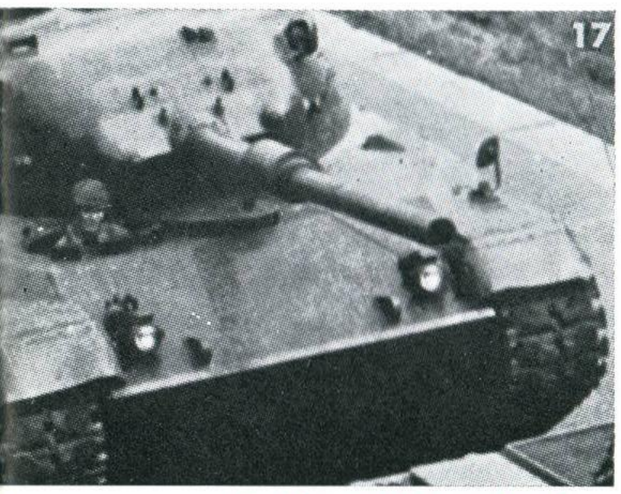




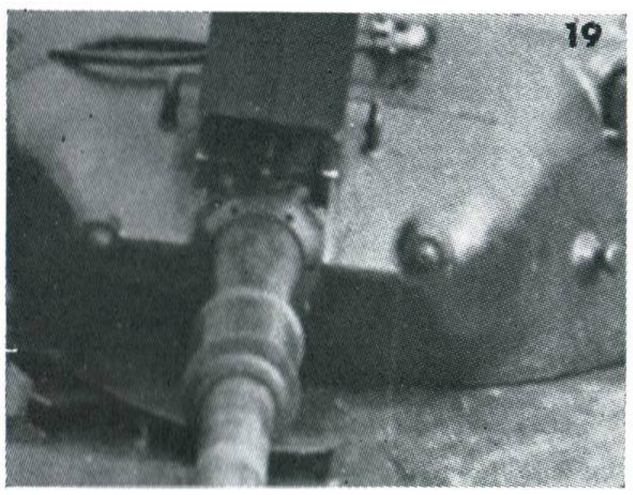






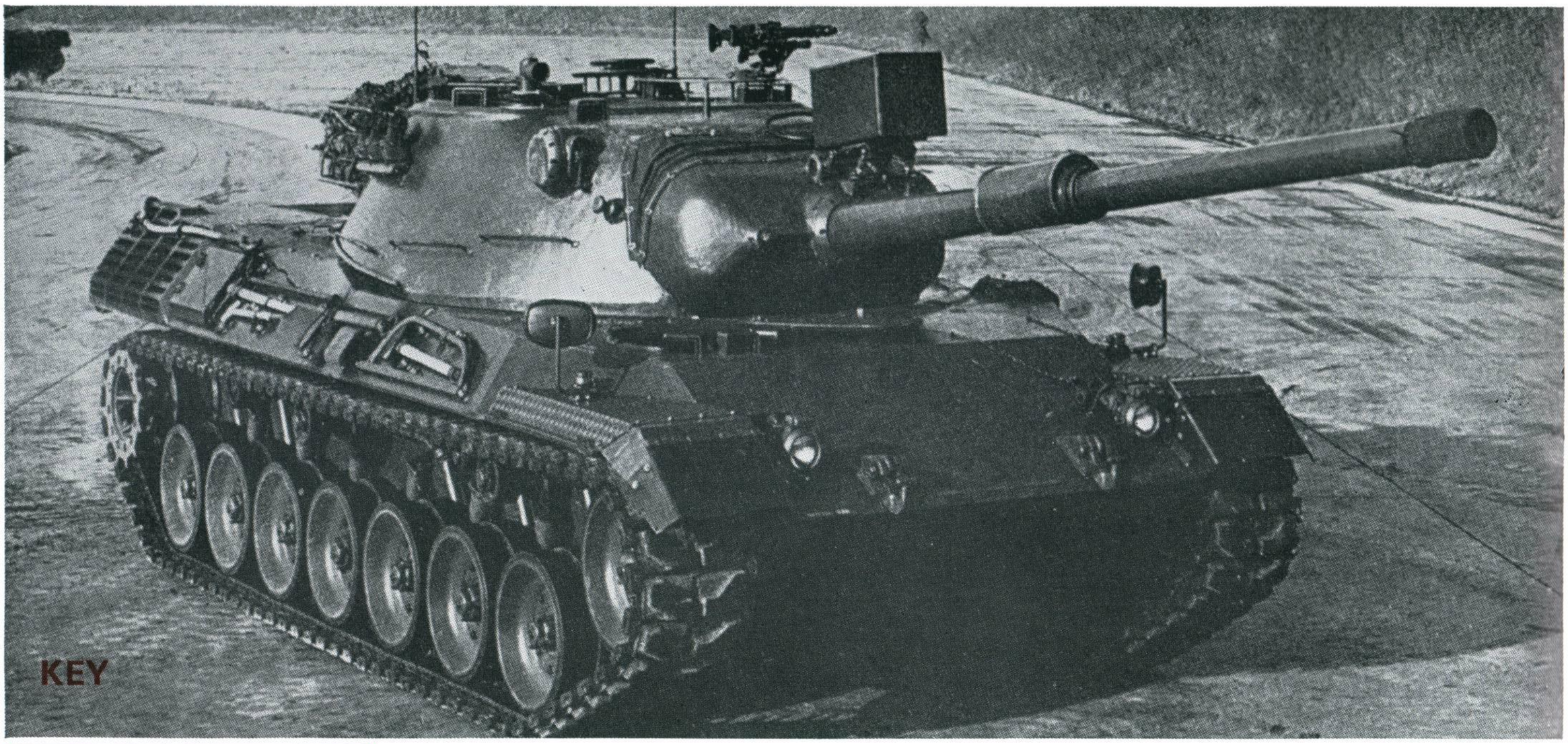


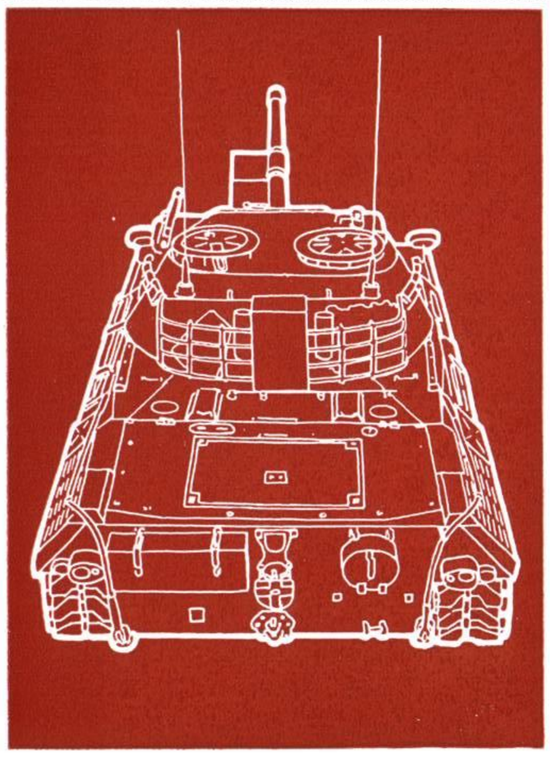






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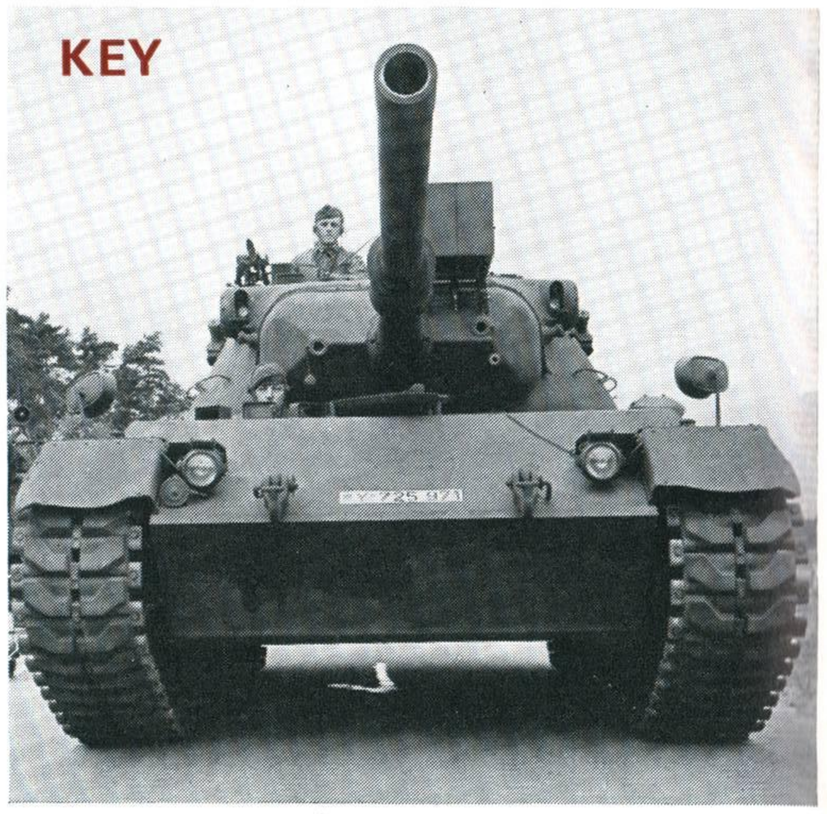




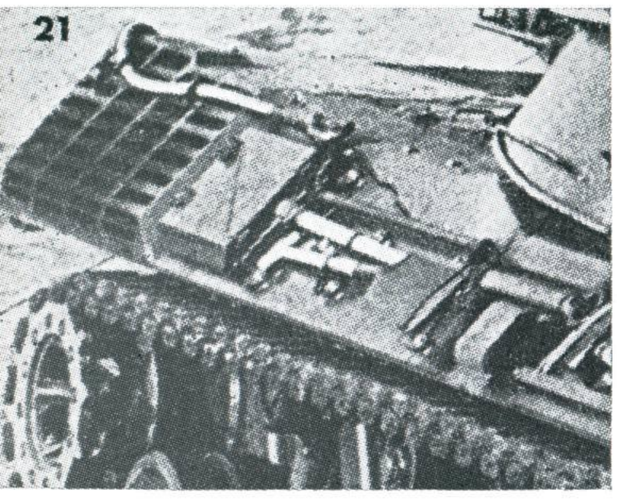
LEOPARD

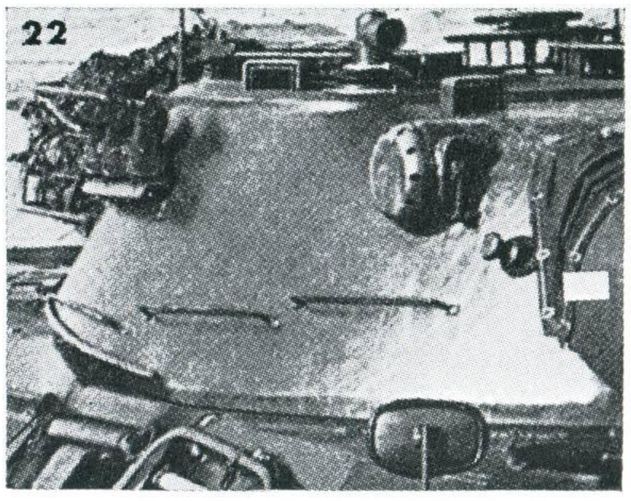
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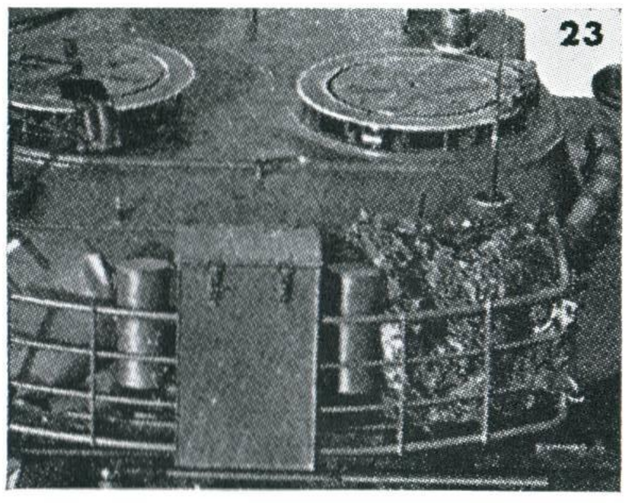
The Leopard also has a much lower silhouette than the United States tanks. In fact, it is only 7 feet 10 inches high, which means that it offers a significantly smaller target than many other tanks. The low overall height is due in part to the absence of a large commander's cupola and together with the relatively long hull it gives the Leopard a long, sleek silhouette.

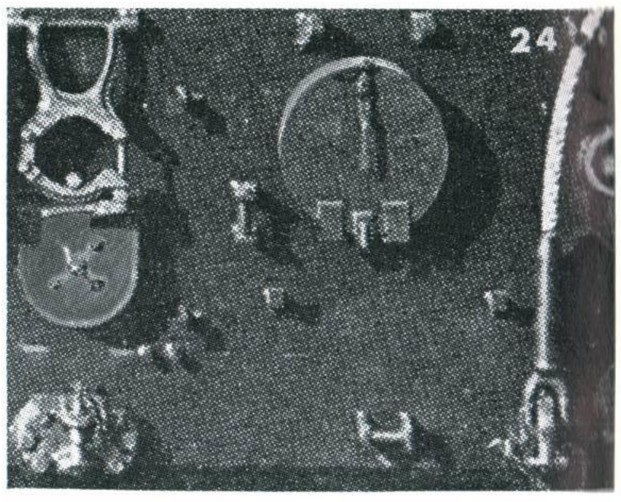


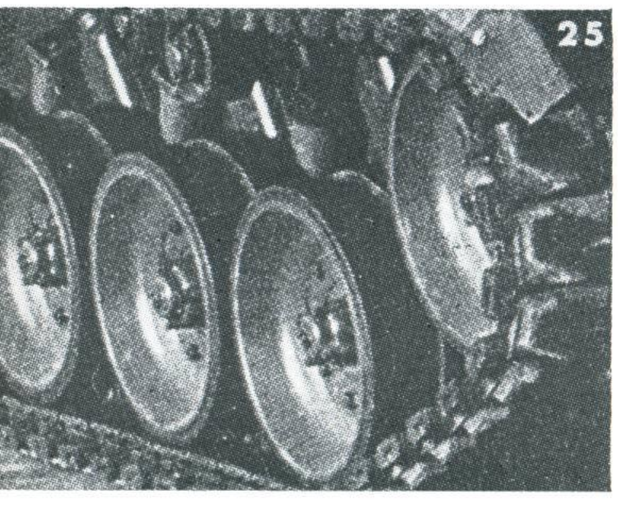
Lesson rules are on page 282

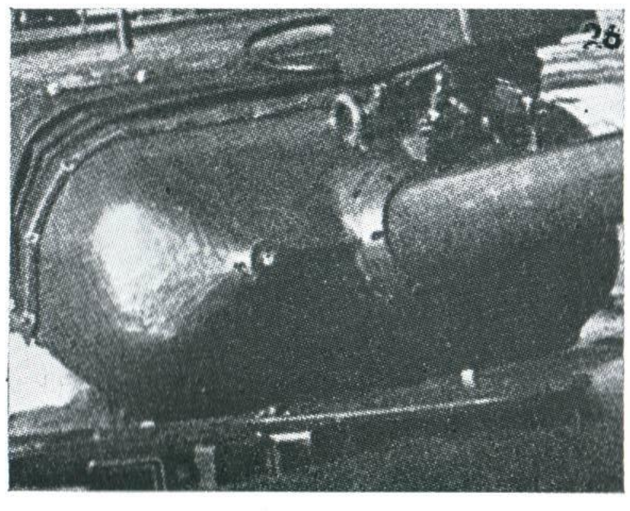


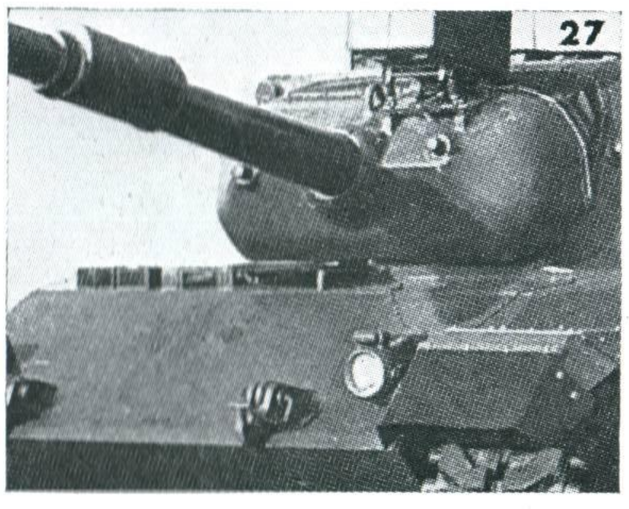


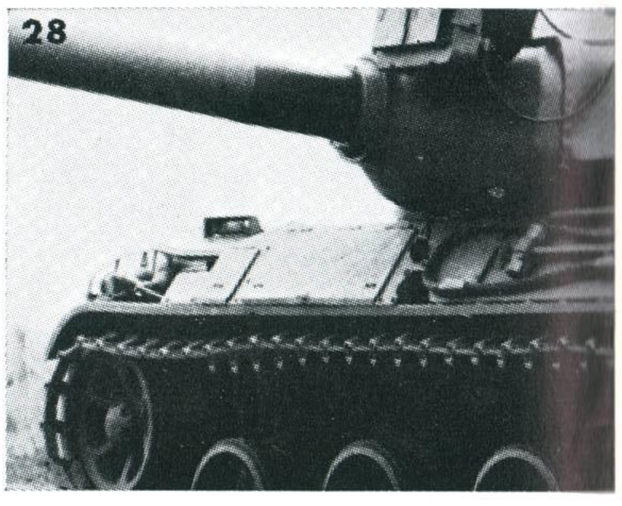


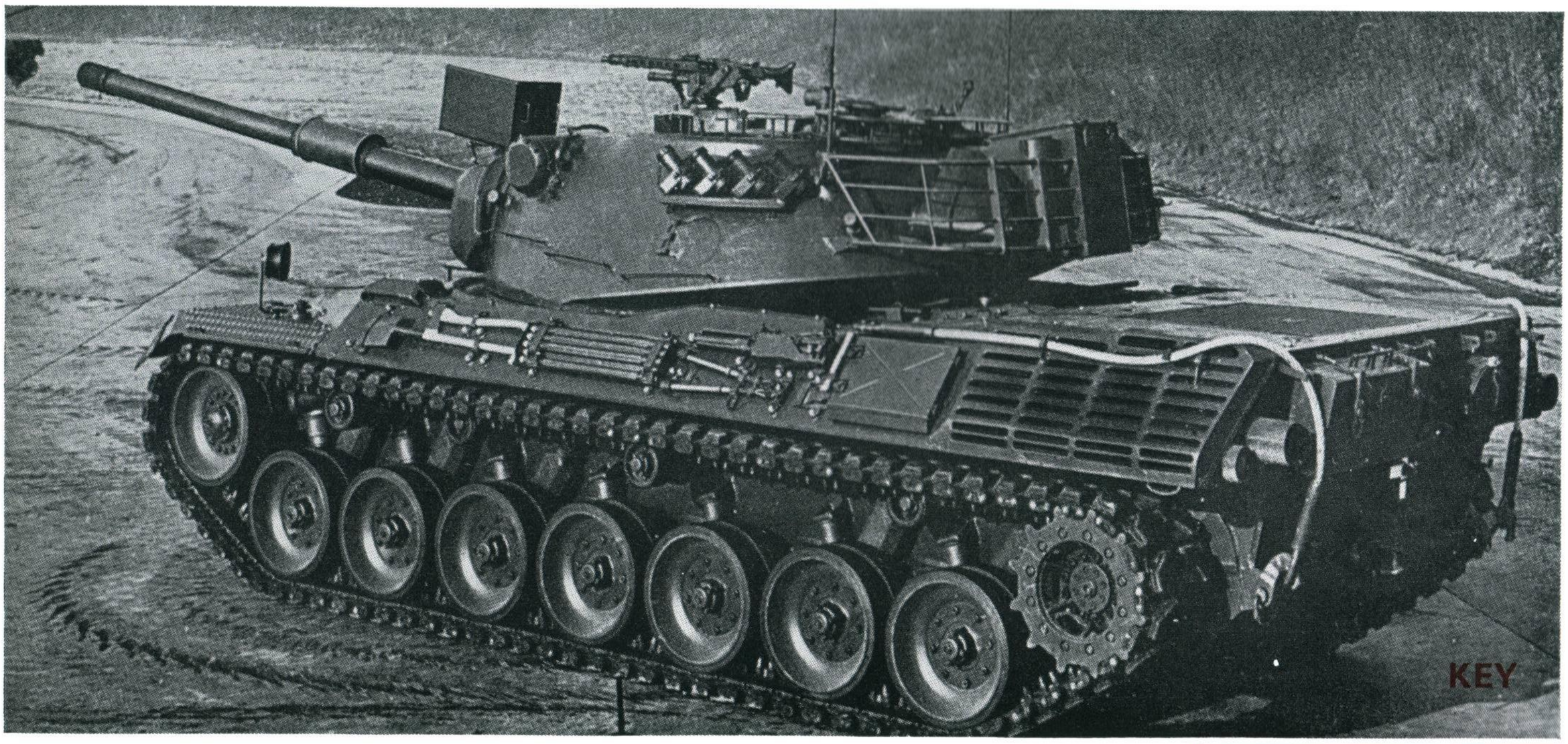




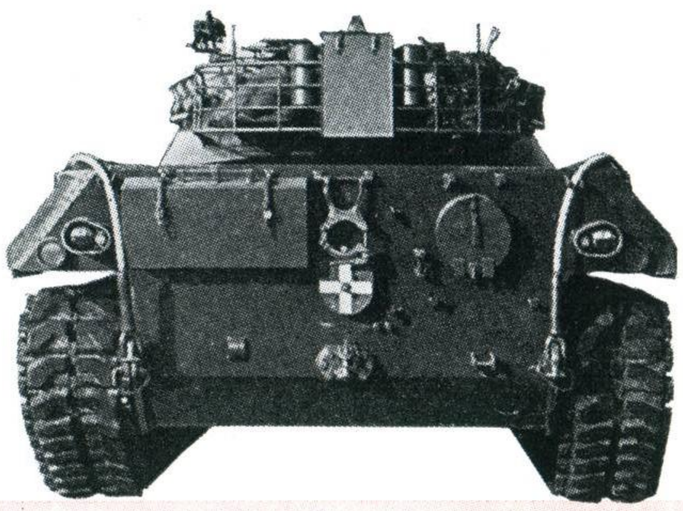




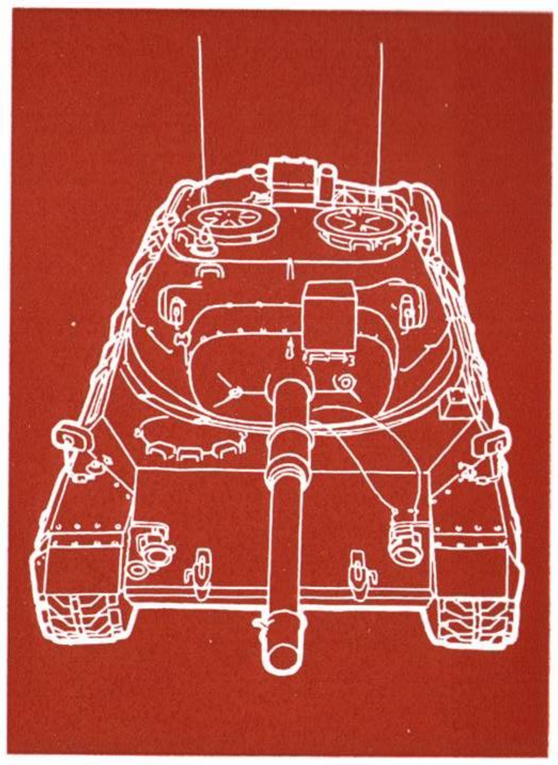




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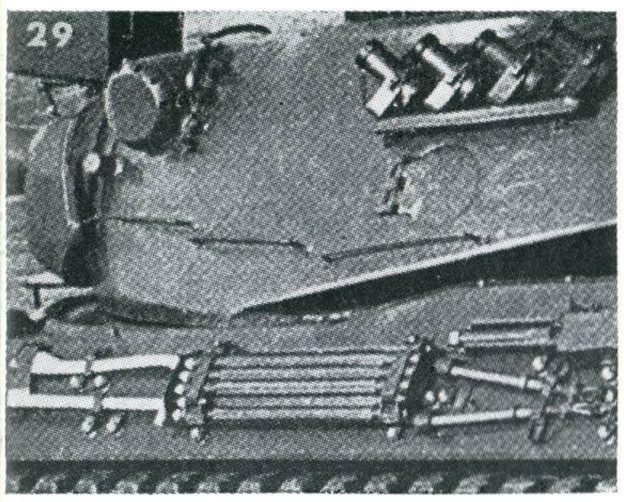


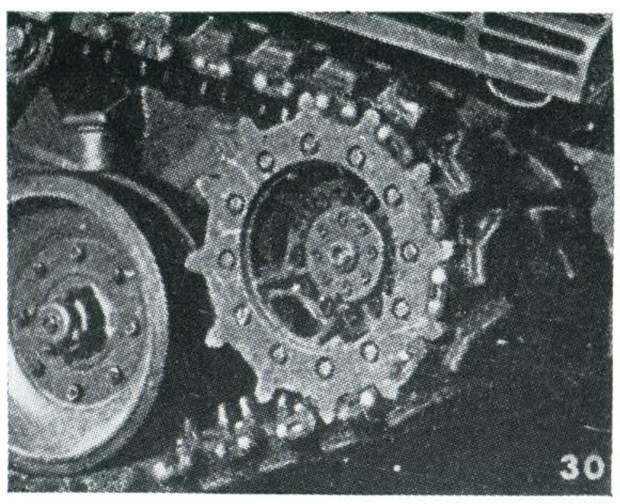


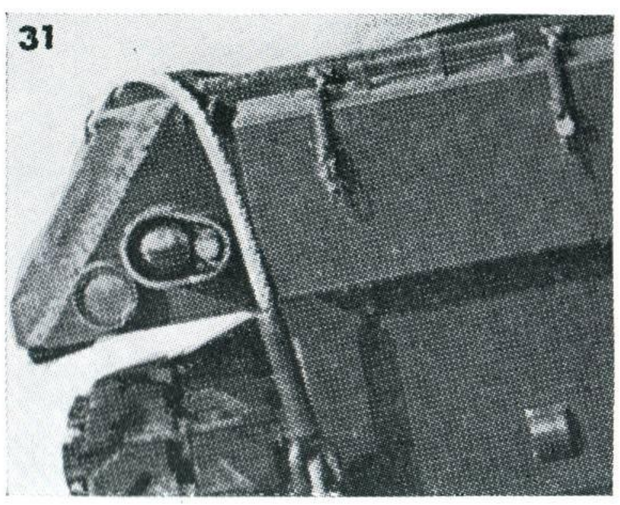


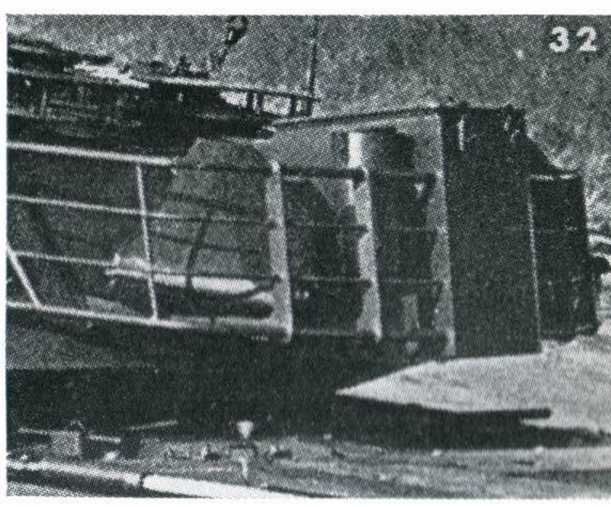
Its length also helps the Leopard to move fast across broken ground and thus exploit the power of its 830 b.h.p. Daimler–Benz V-10 diesel engine, which gives the 40-ton tank remarkable mobility. At the same time the Leopard is well armed having a British-made 105-mm gun, essentially the same gun as that mounted in the Centurions and the U.S. M60 battle tanks.

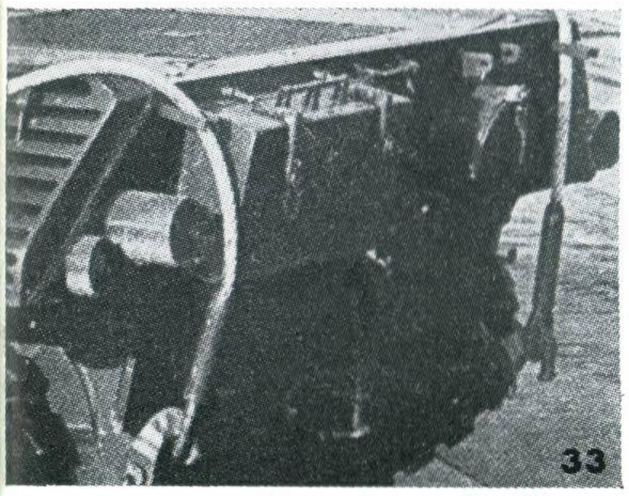
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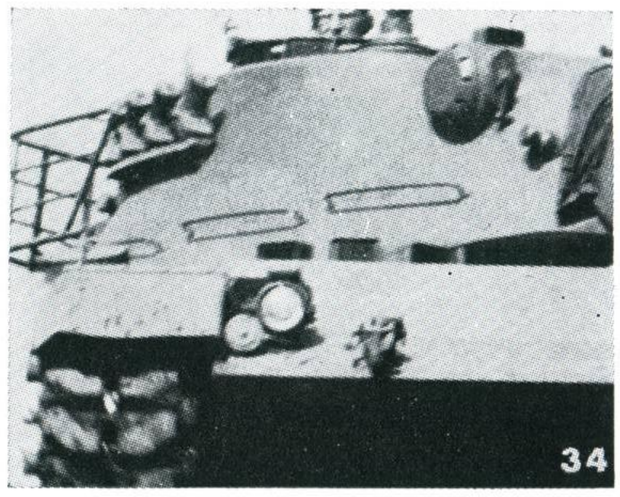


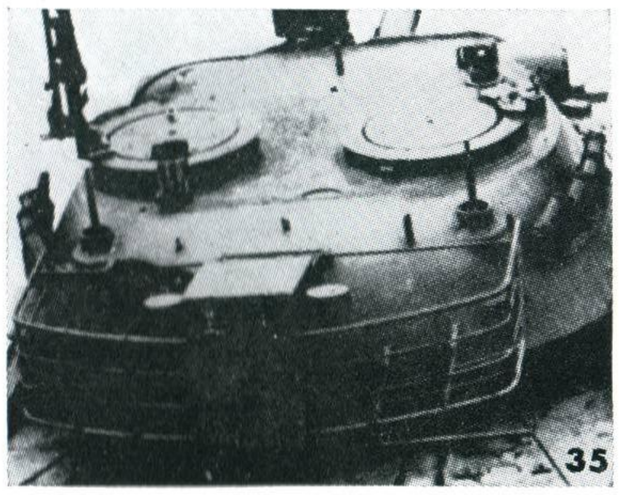


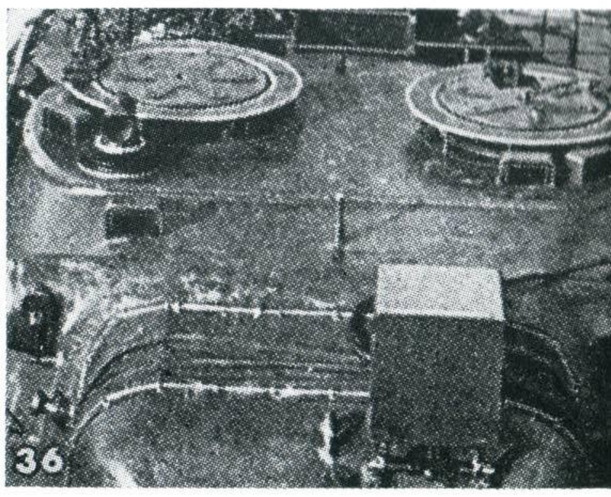










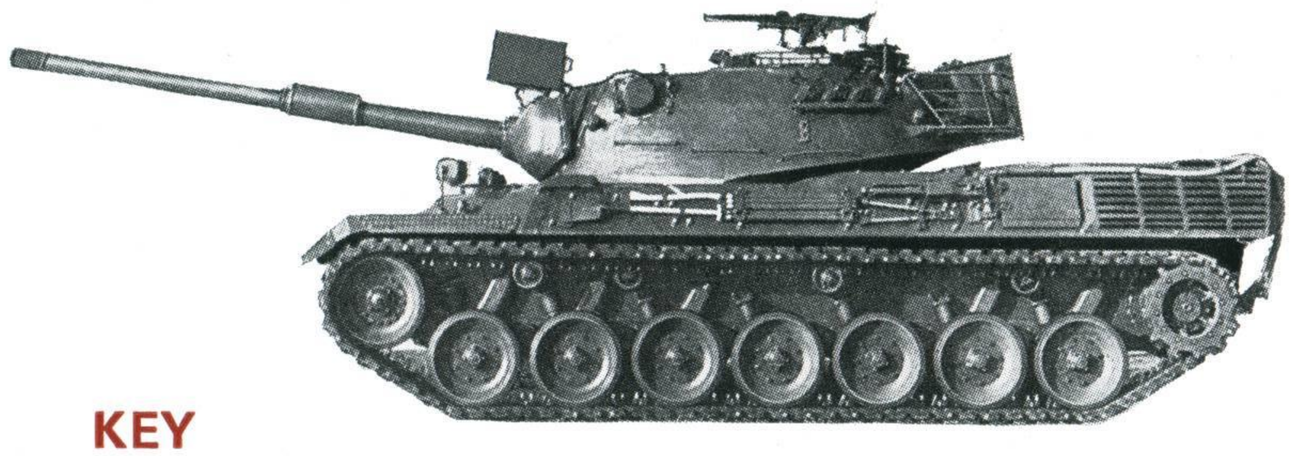


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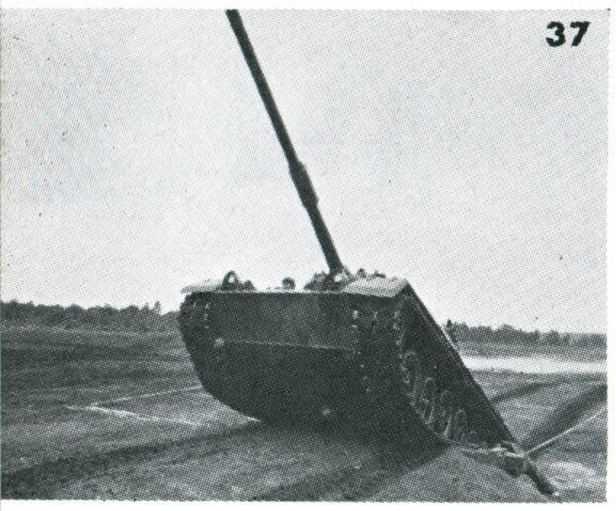
LEOPARD
BATTLE TANK continued



KEY

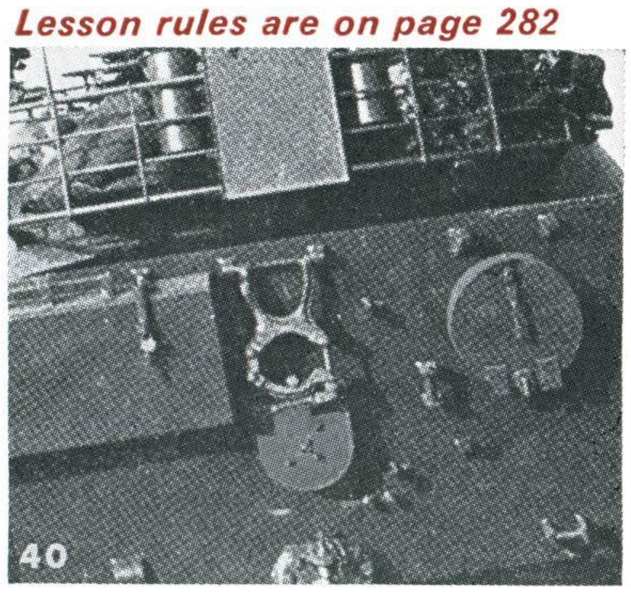
Lesson rules are on page 282

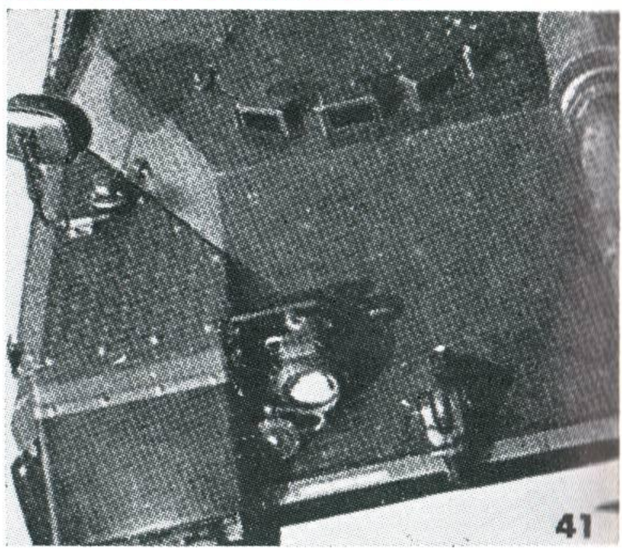
Solutions on the cover

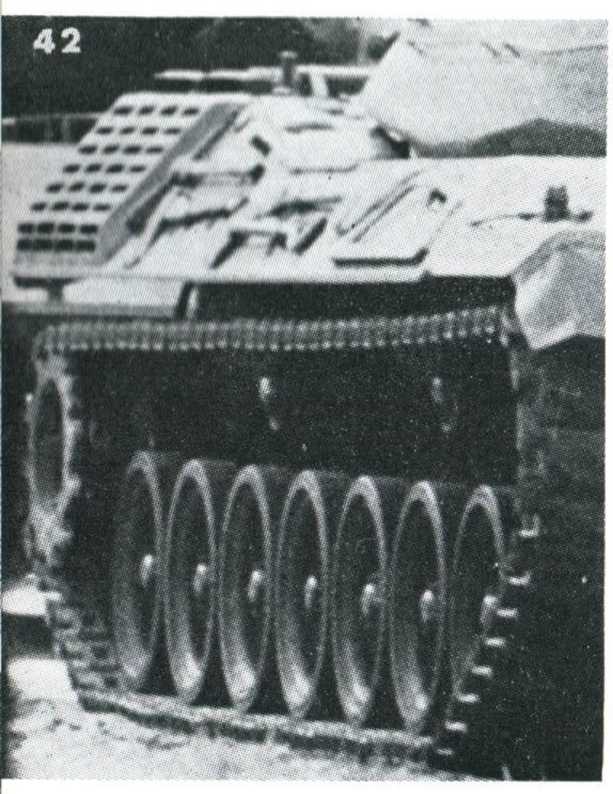


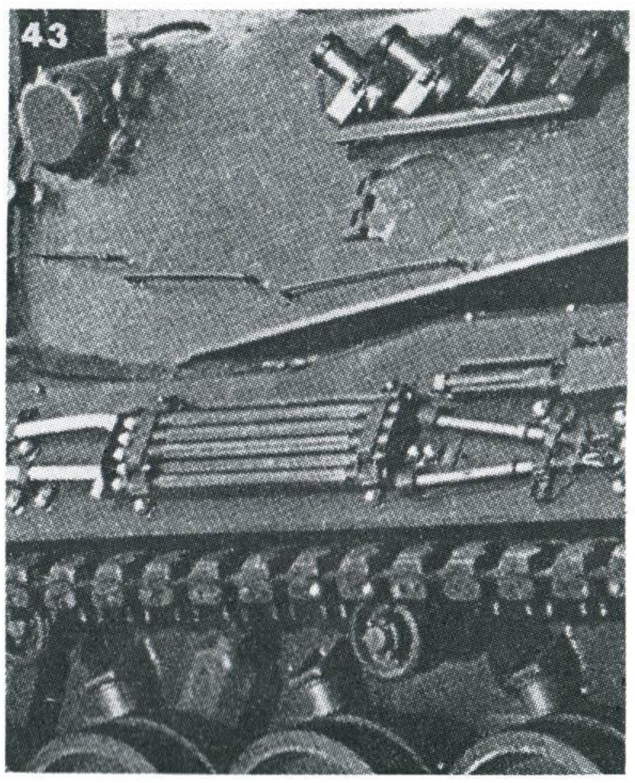


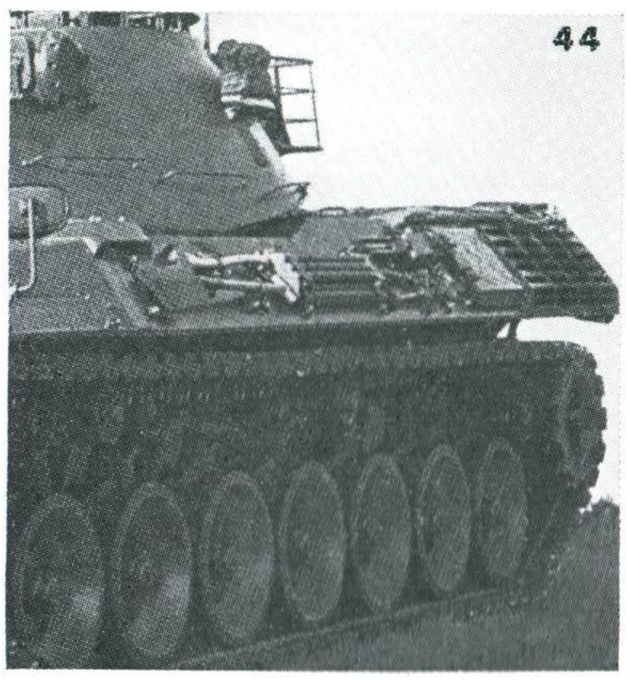




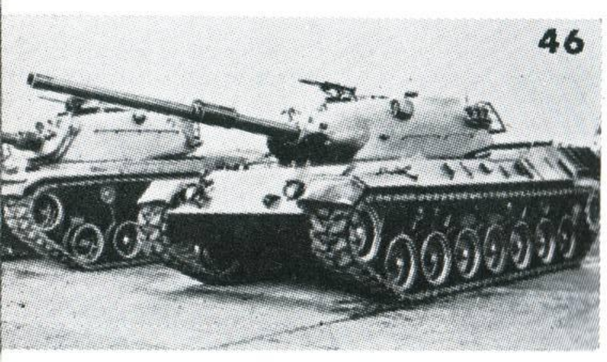


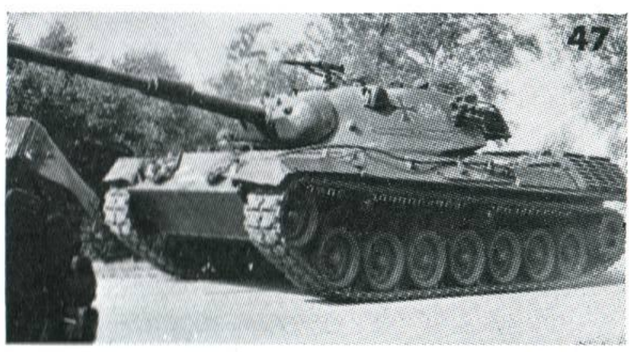




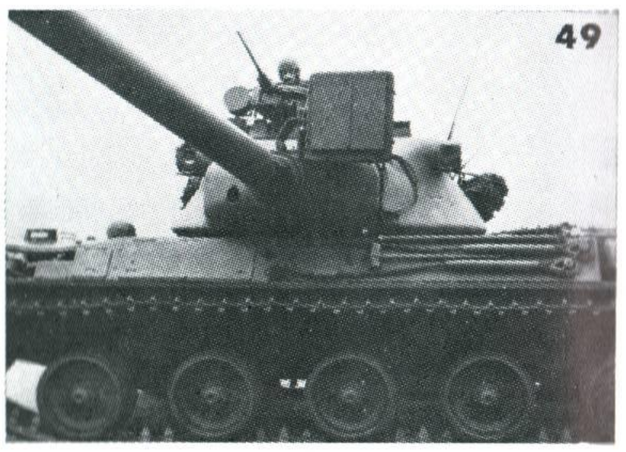


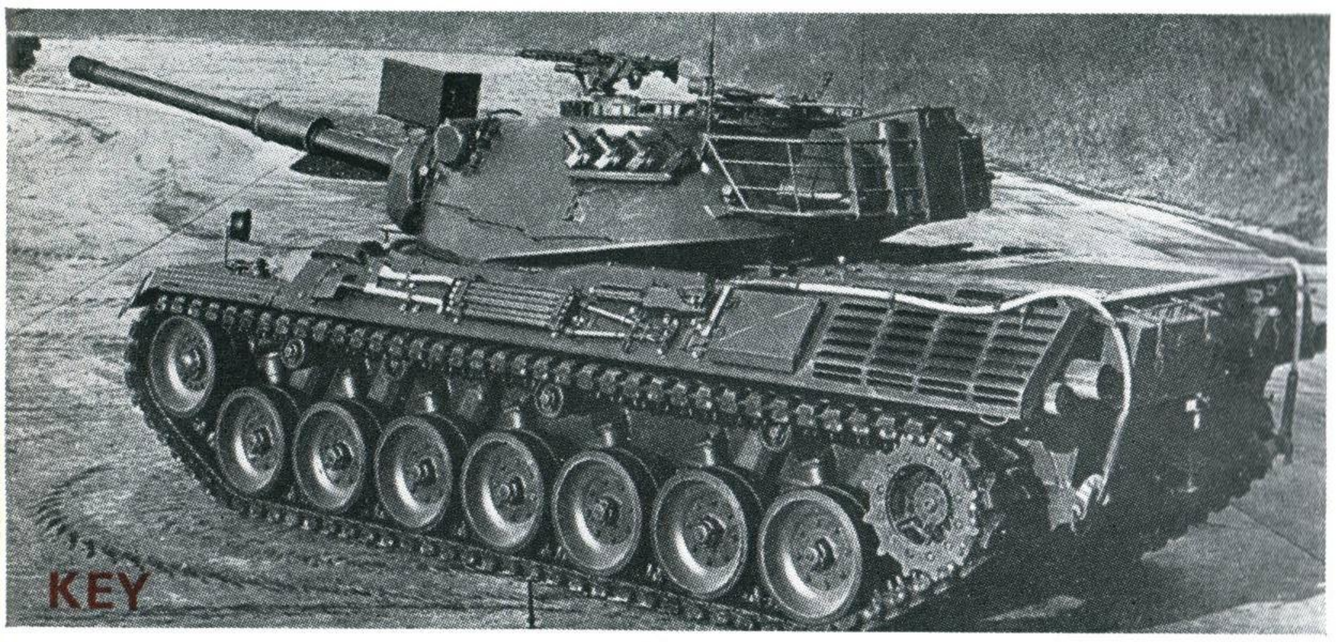




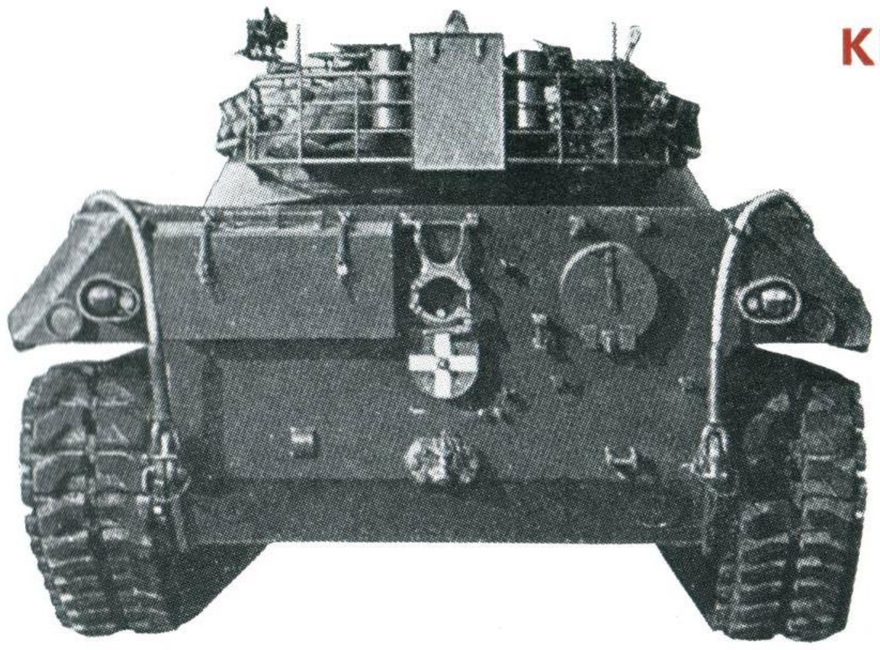








KEY



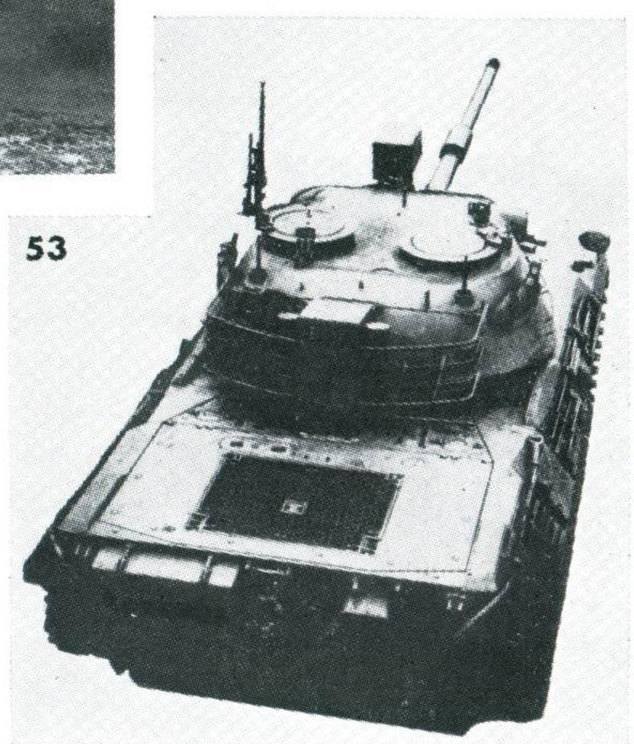
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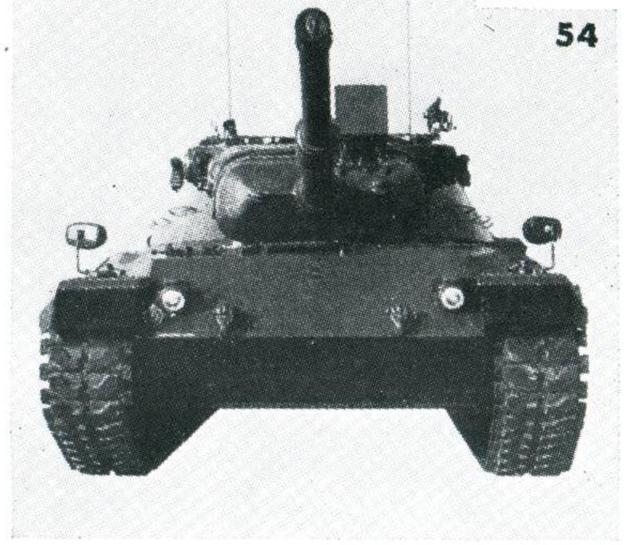


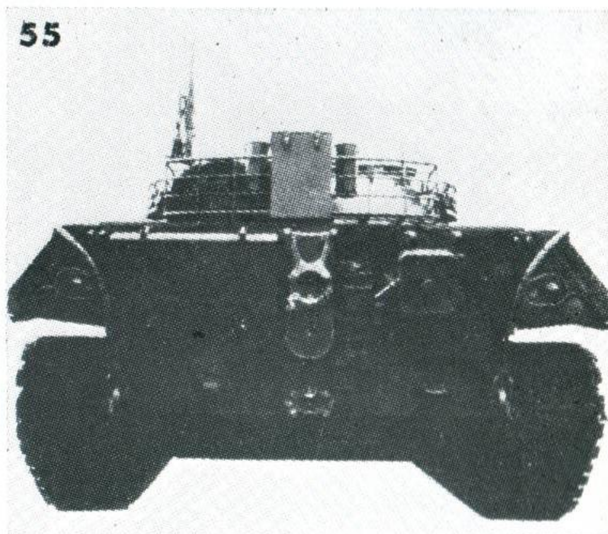






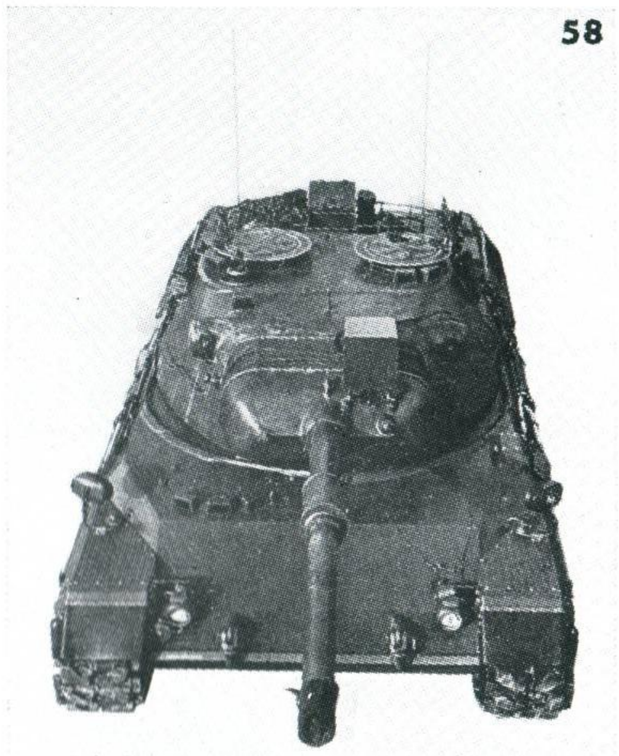


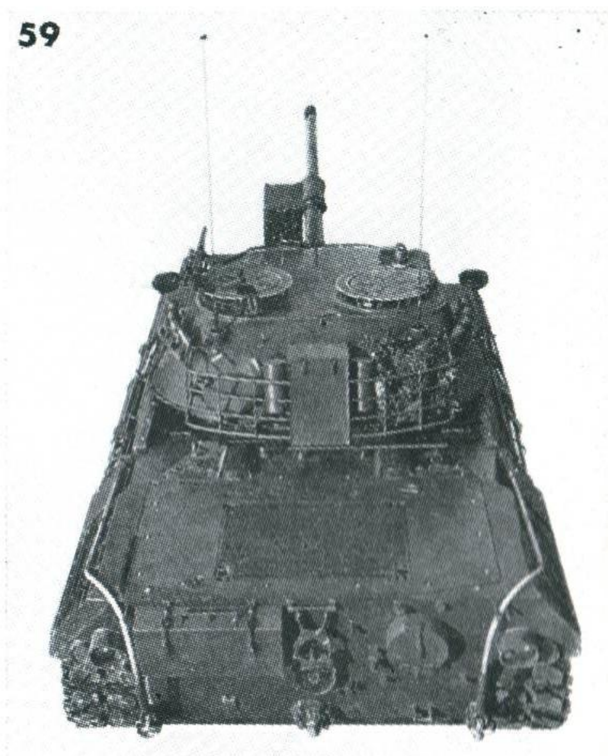




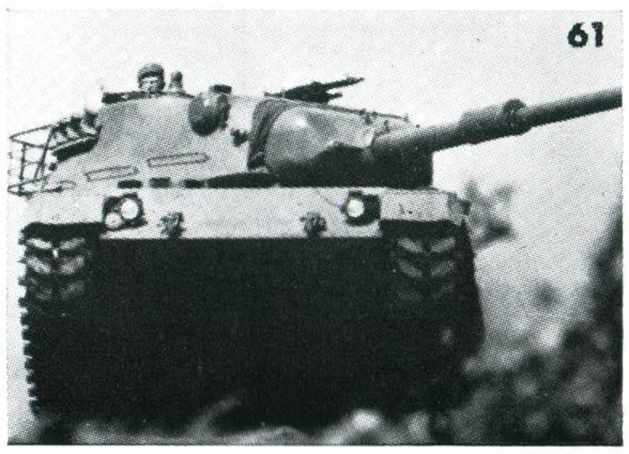


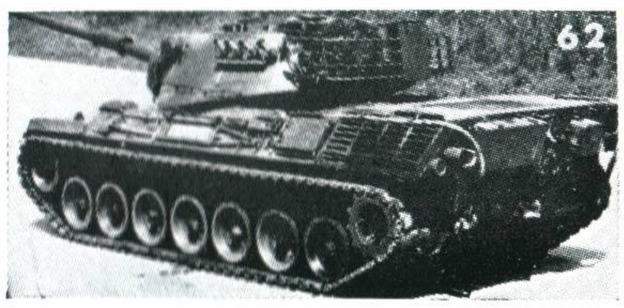






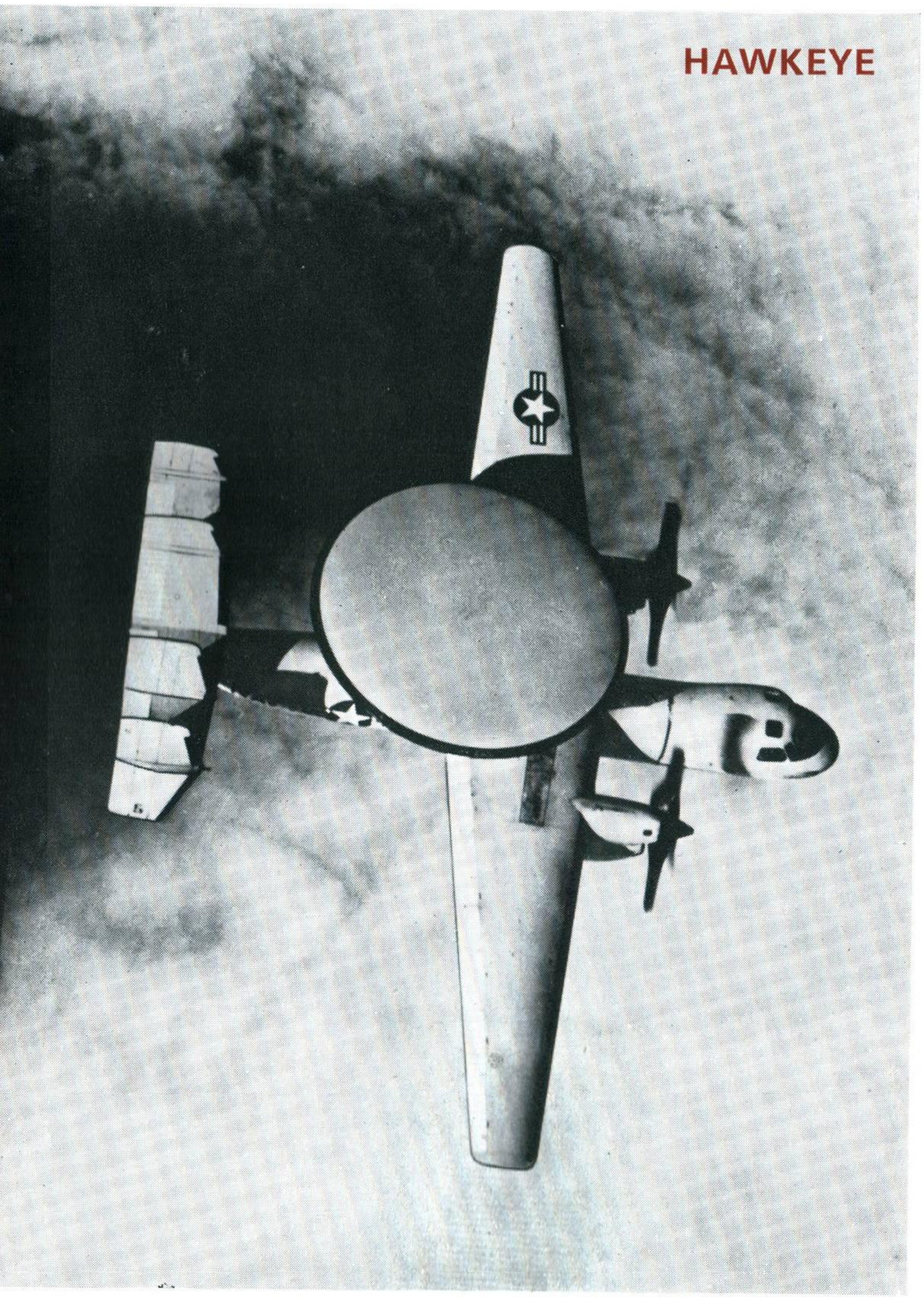












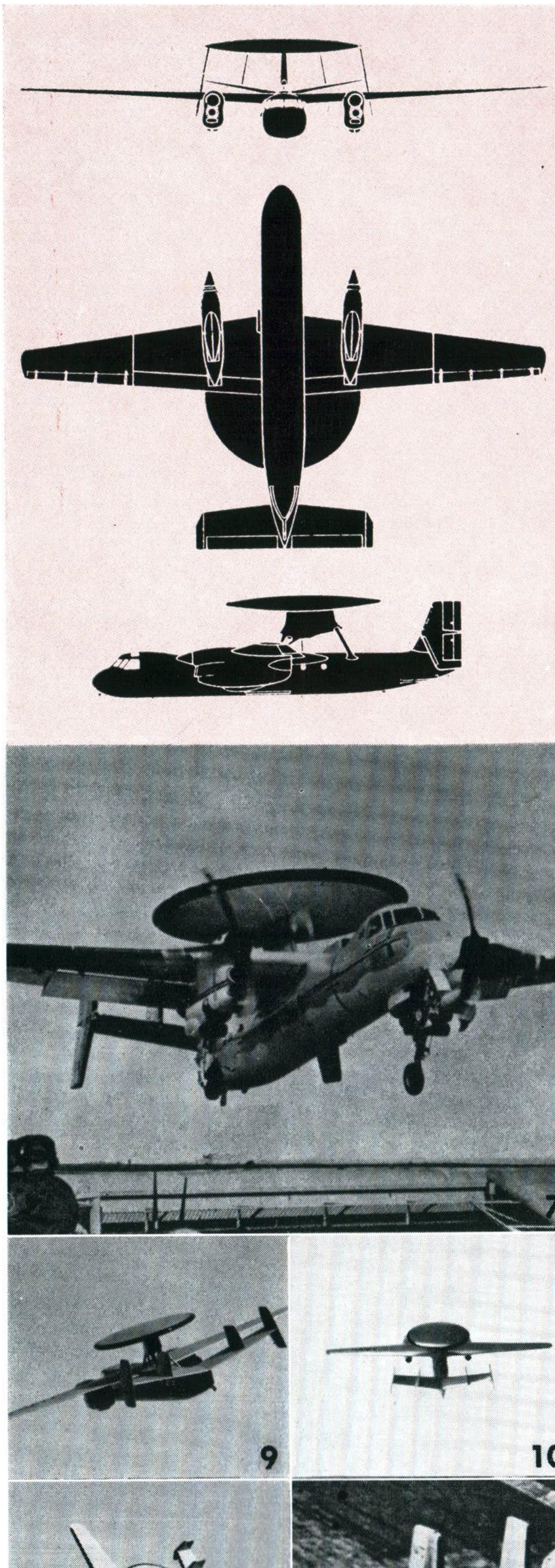
HAWKEYE

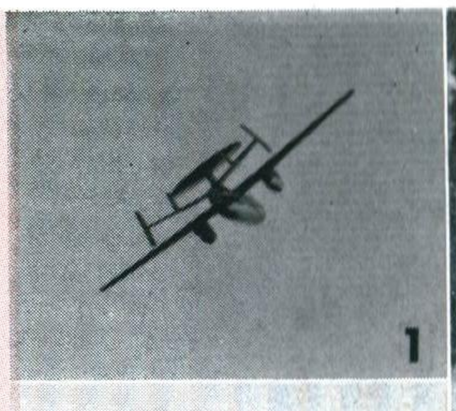
First turboprop-powered operational aircraft to serve with the U.S. Navy, the Grumman E-2A Hawkeye is the U.S. Navy's latest flying watchdog, being designed primarily for early warning protection of fleet units. It entered service in this role in 1964 and it is now also being used to monitor and control all U.S. Navy air strikes over North Vietnam. The 24-foot diameter saucer-like search radome—a key recognition feature of Hawkeye—rotates once every ten seconds while the aircraft is in flight, and the fuselage contains various "black boxes" which account for nearly a quarter of the machine's total weight. The radome can be lowered 2 feet to facilitate stowage aboard the parent carrier.

Hawkeyes operate in teams of two or more aircraft at a height of 25,000 feet for surface surveillance and strike control tasks, and 30,000 feet for early warning duties. A crew of 5 is carried, comprising pilot, co-pilot and three controllers, the latter being seated side-by-side to port in the ATDS (Airborne Tactical Data System) compartment.

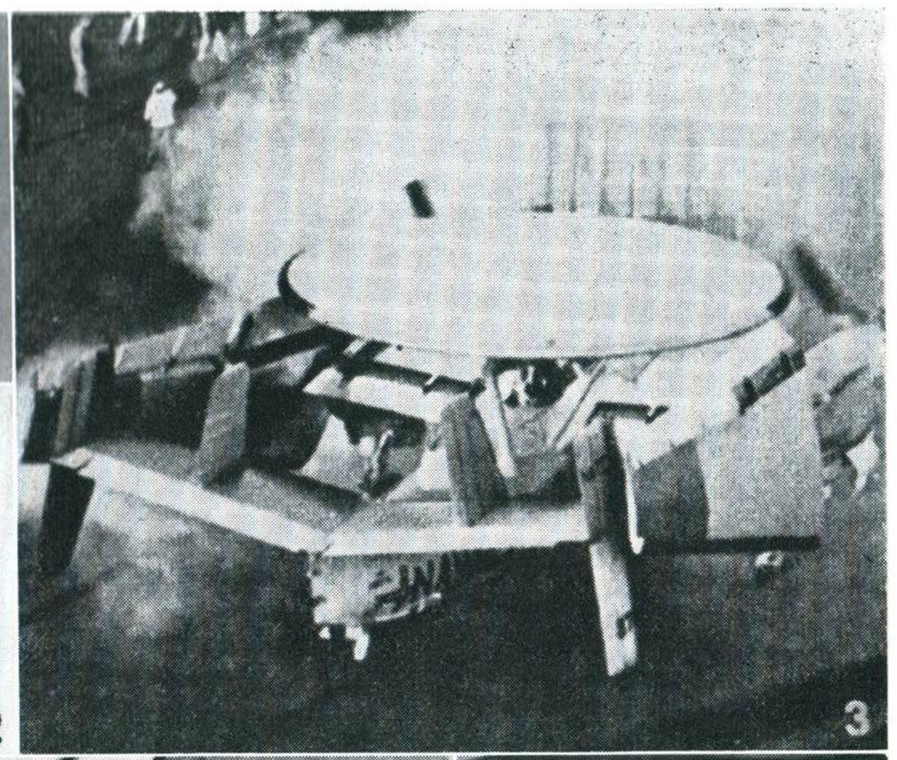
Hawkeye, which is unarmed, has a wing span of 80 feet 7 inches, and is 56 feet $3\frac{1}{2}$ inches long.

Lesson rules are on page 282 *Solutions on the cover*




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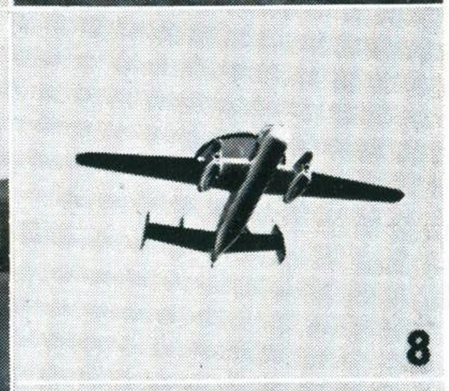

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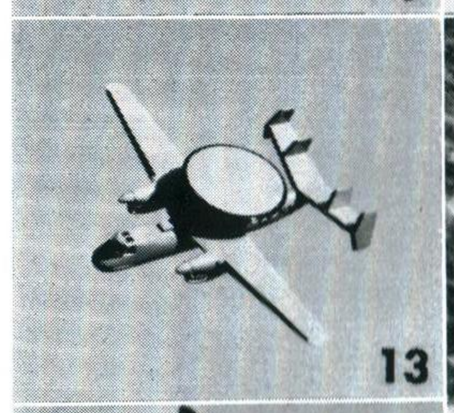

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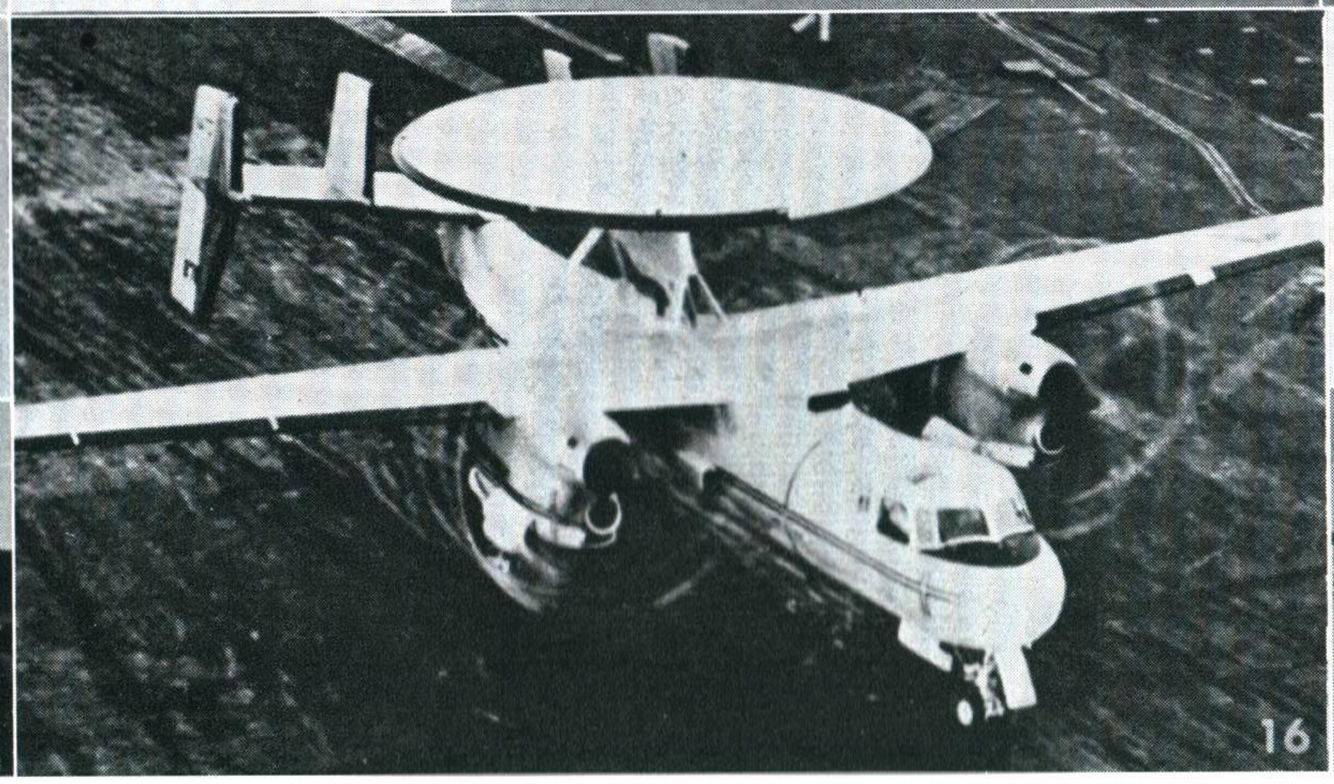

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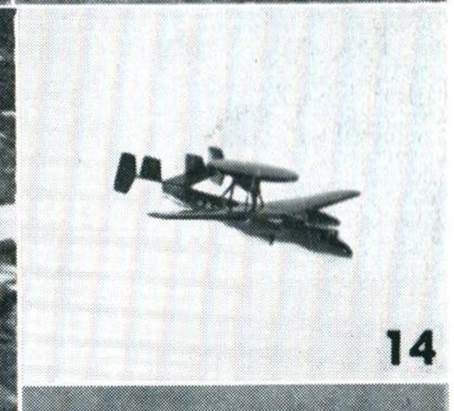
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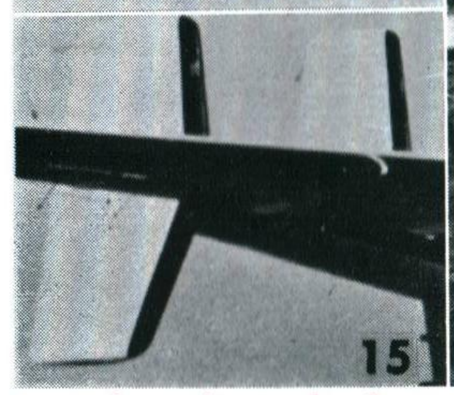

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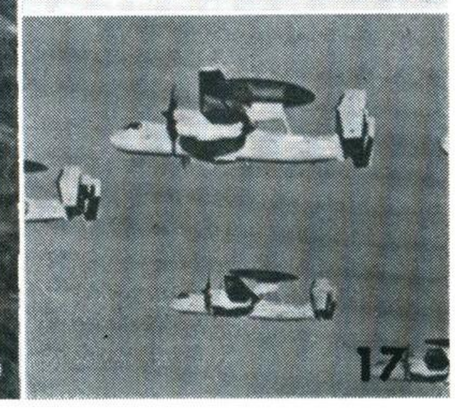

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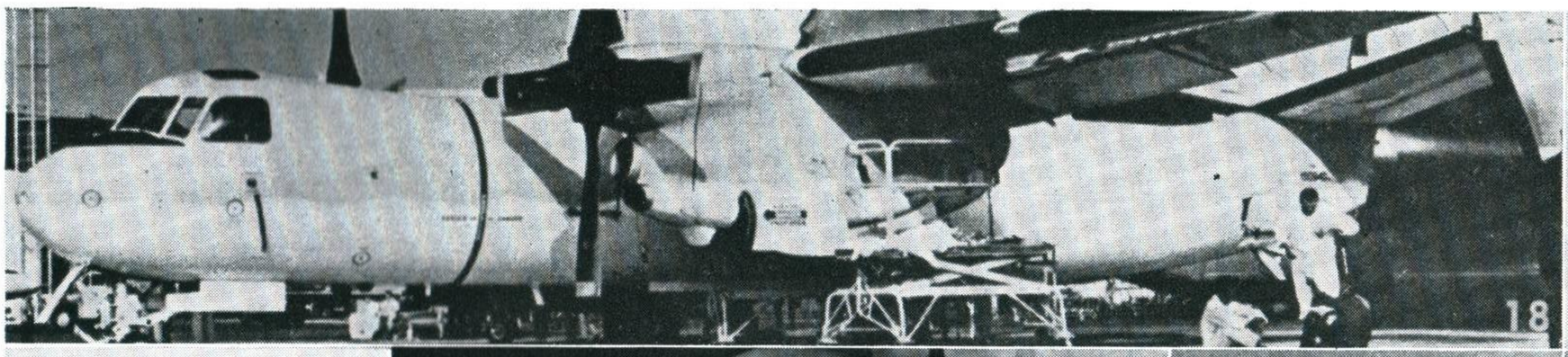

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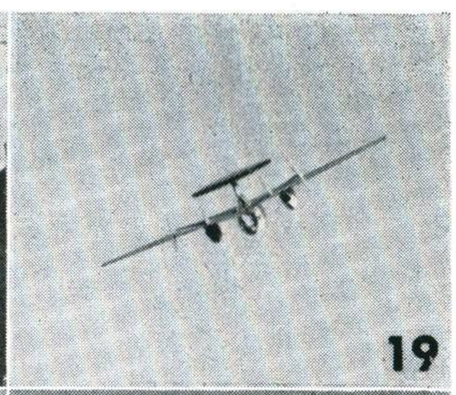

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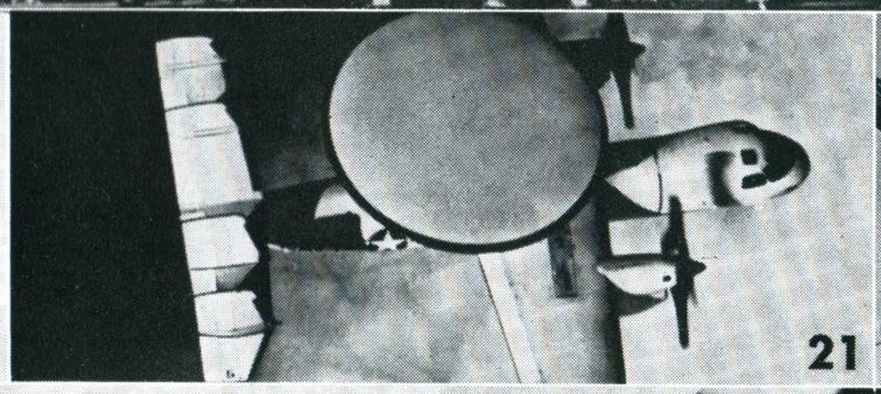

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continued overleaf


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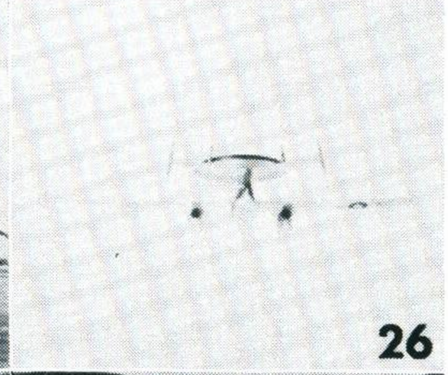

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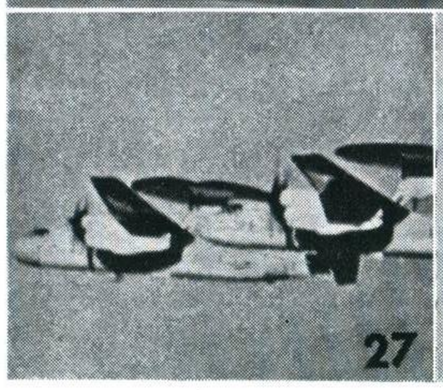

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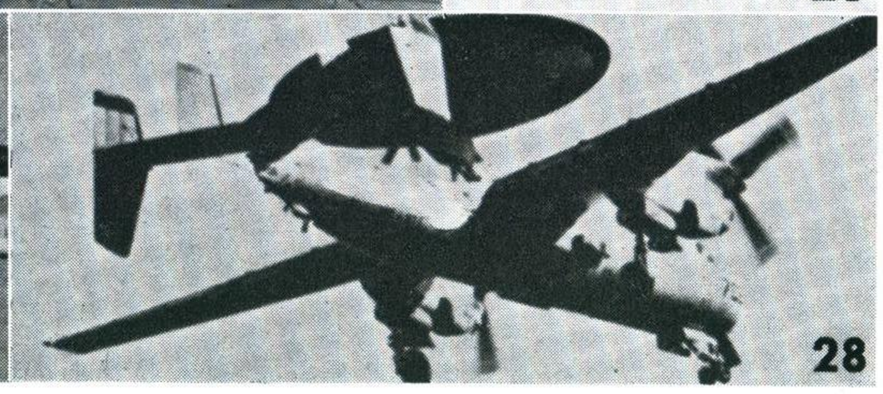


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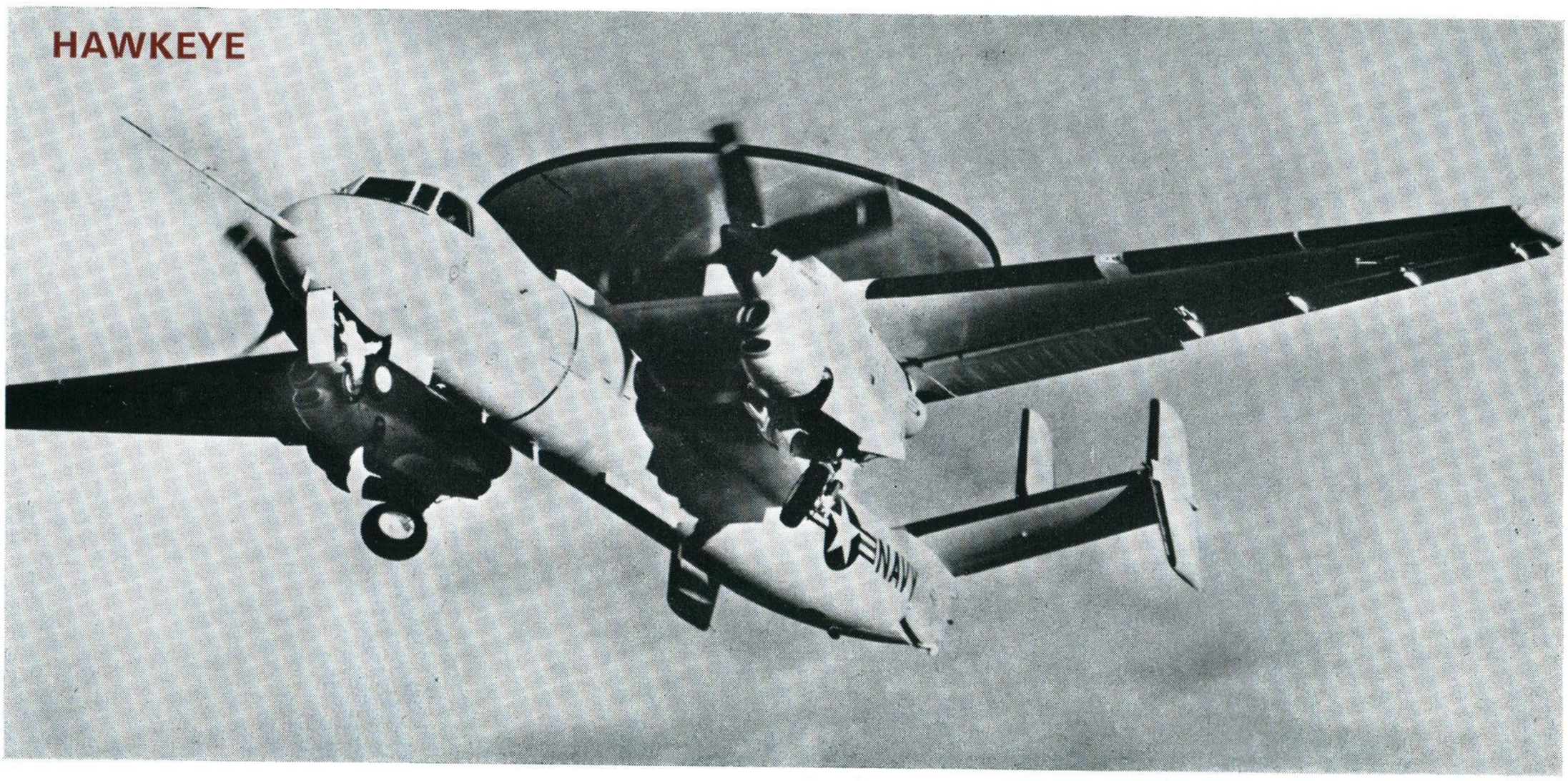

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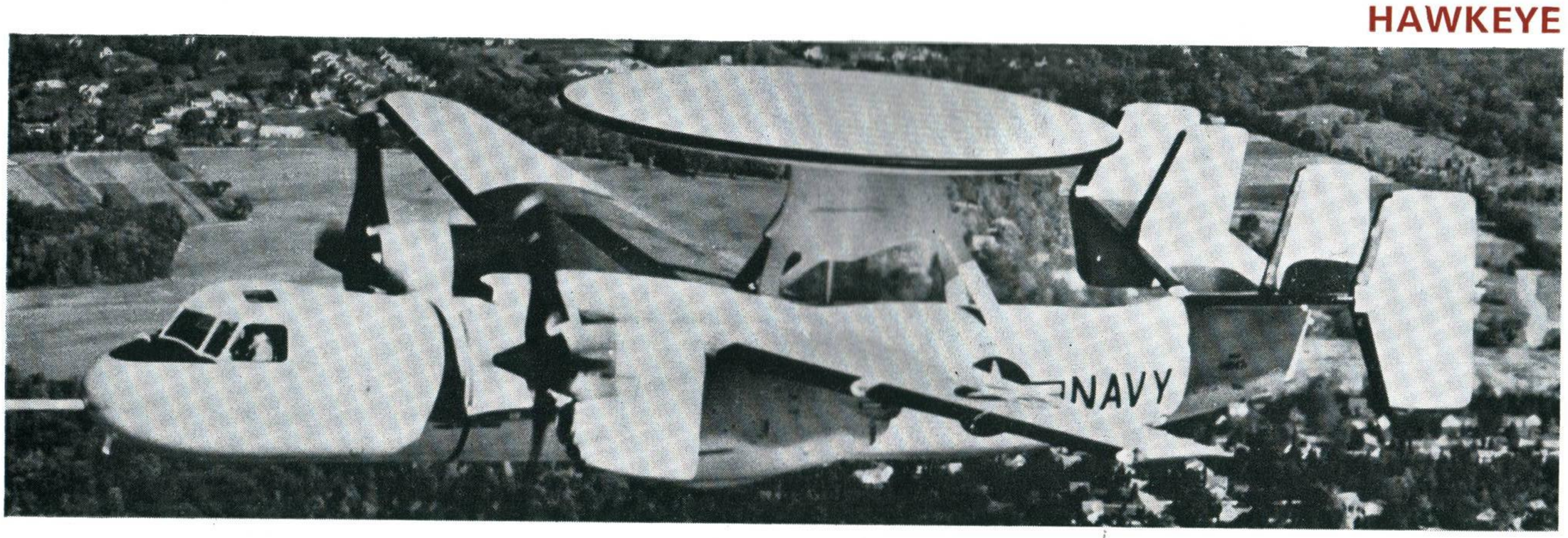

28

Also resembling Hawkeye in some respects, particularly insofar as it carries a large dorsal radome (albeit pear-shaped), is the twin piston-engined carrier-borne Grumman E-1 Tracer which Hawkeye is now supplanting for fighter direction and associated duties.

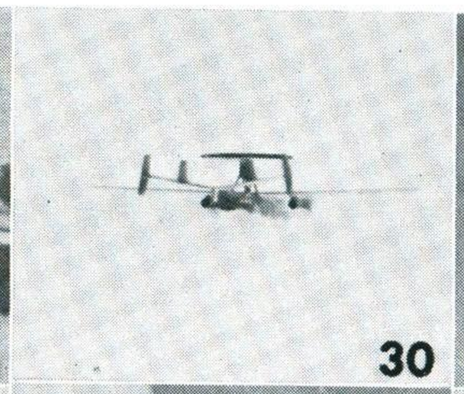
Work to the instructions on page 282, and having studied the three key views, report the targets as Hawkeye, or otherwise if jokers. Solutions on back cover.

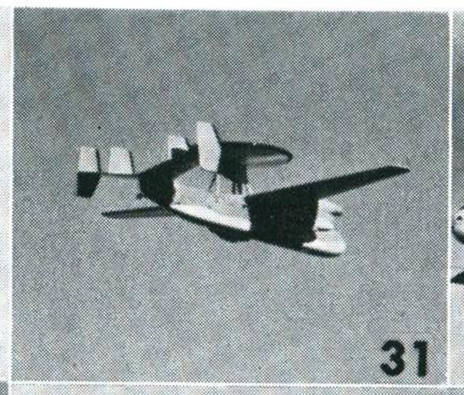
HAWKEYE





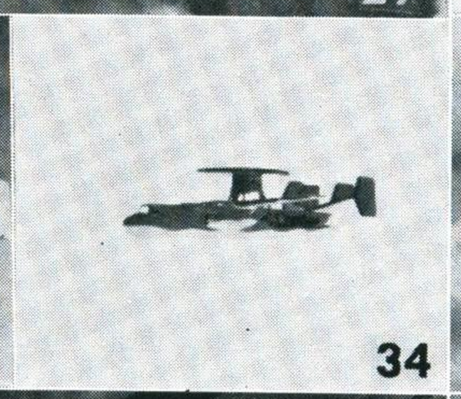

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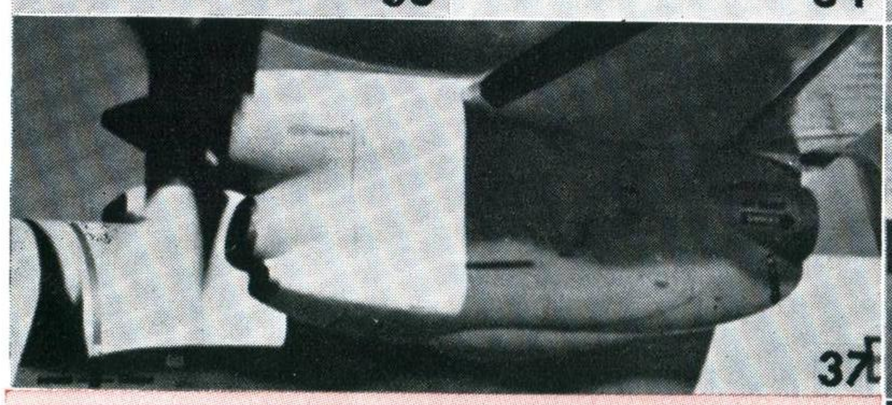

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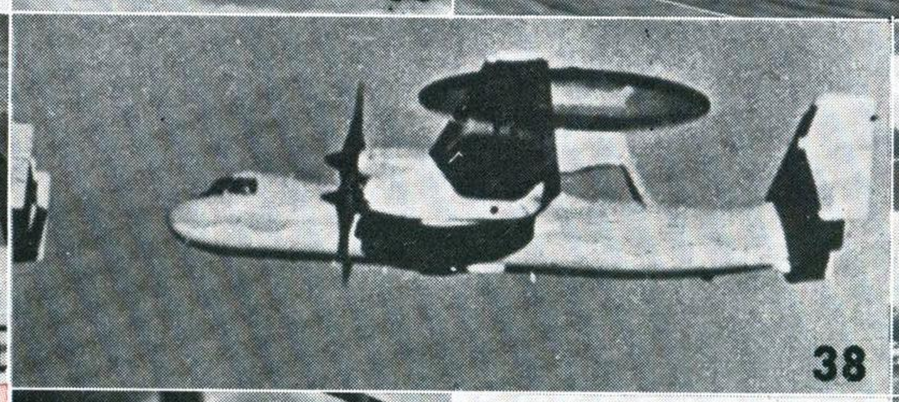

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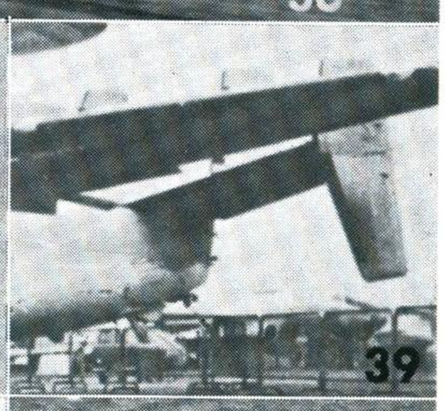

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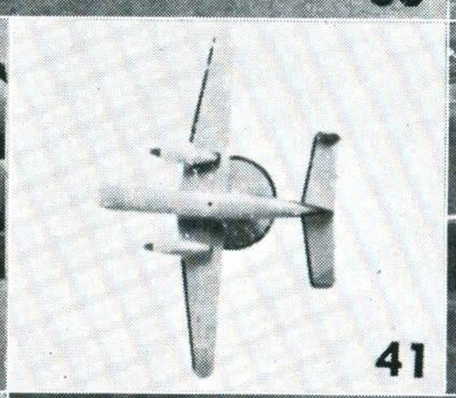

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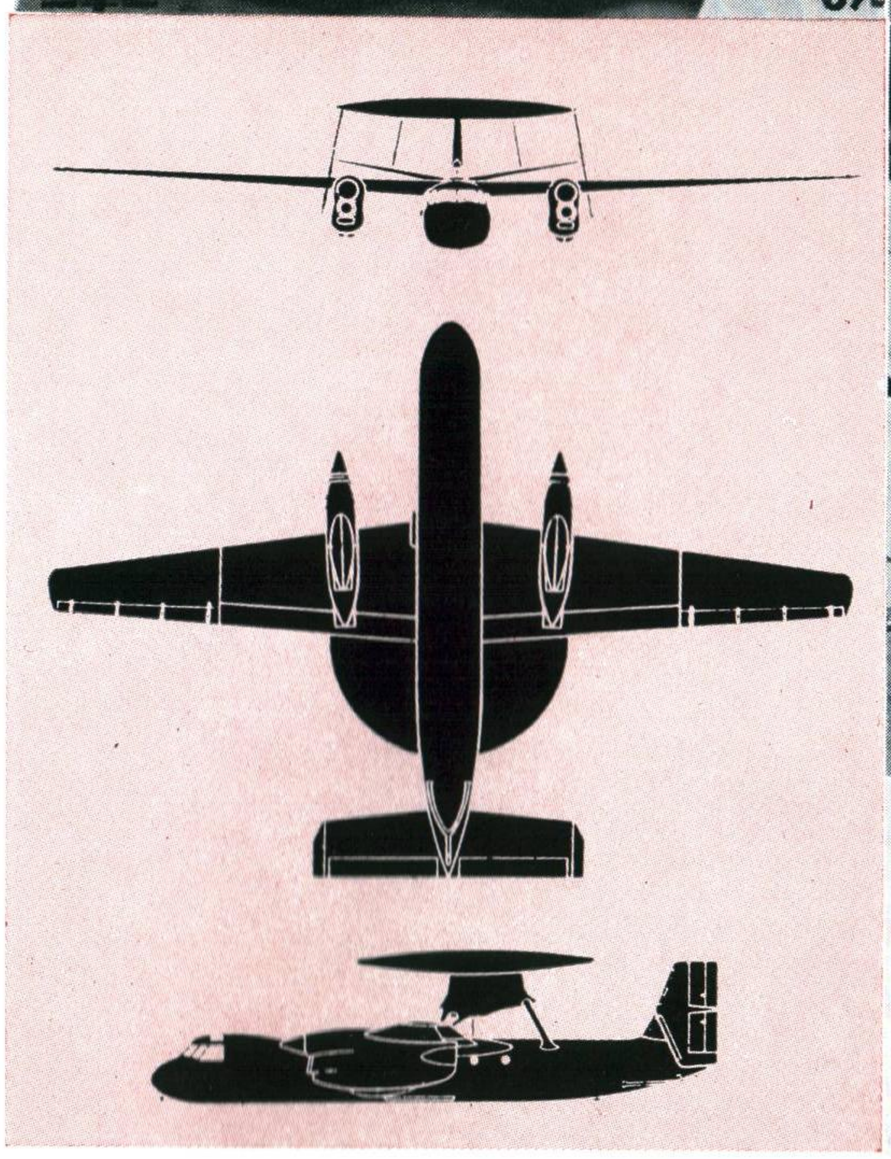

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AIRCRAFT OF THE USSR

ANTONOV 22 — COCK

Russia's gigantic Antonov An-22 long-range transport was first seen in the West in June 1965 when the prototype arrived at the Paris Air Show, totally new and previously unannounced. The aircraft first flew in February 1965 and is powered by four turbo-prop engines—exactly the same as those fitted to the long-range Tu-114 (Cleat)—driving contra-rotating propellers. Since then four more prototypes have flown and the delivery of production machines has begun. By mid-1967 two of the prototypes were being used by Aeroflot on experimental freight services. Three An-22s with military insignia took part in the Soviet air display at Domodedovo in July 1967, landing batteries of Frog-3 and Ganef missiles on tracked launchers.

In general configuration, the An-22 is similar to its smaller predecessor, the An-12 (Cub), with the outer wing anhedral that has become characteristic of Antonov's designs. A 724 passenger two-deck version with a longer fuselage has reportedly reached the design study stage, but no further development of it is planned at present. Antonov is also said to be developing an airbus version capable of carrying 300–350 passengers and 66,150 lb. of freight on a stage length of 1,865 miles.

On October 27, 1966, an An-22 established 11 payload-to-height records. Maximum payload to height of 2,000 metres was 194,234 lb. Length of the An-22 is 189 feet 7 inches and span 211 feet 4 inches.

KEY



BUFFALO

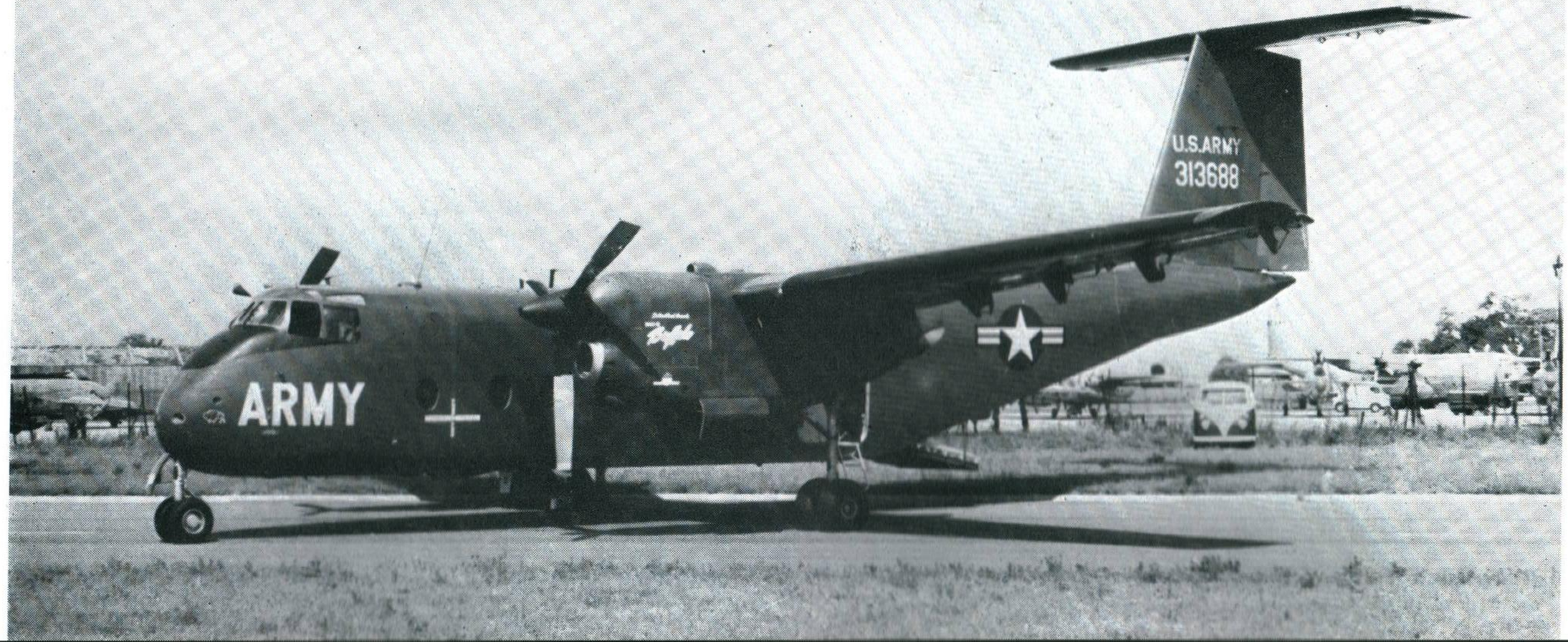
First flown in April 1964, the de Havilland Canada Buffalo is a STOL tactical transport powered by two General Electric T64 turboprop engines. It has a crew of three and can carry 41 troops, 35 paratroops, or 24 casualty stretchers and six seated casualties. Typical loads include an Honest John missile and trailer, a Nike-Ajax missile in containers, an amphibious personnel carrier, a 105-mm. howitzer, or an ambulance truck. Palletised loads of up to 7,500 lb. can be air-dropped by the Buffalo, and typical performances include a 12,780-lb. payload over 507 miles (with 45-min. reserves) or a 4,000-lb. payload and max. fuel over 2,170 miles.

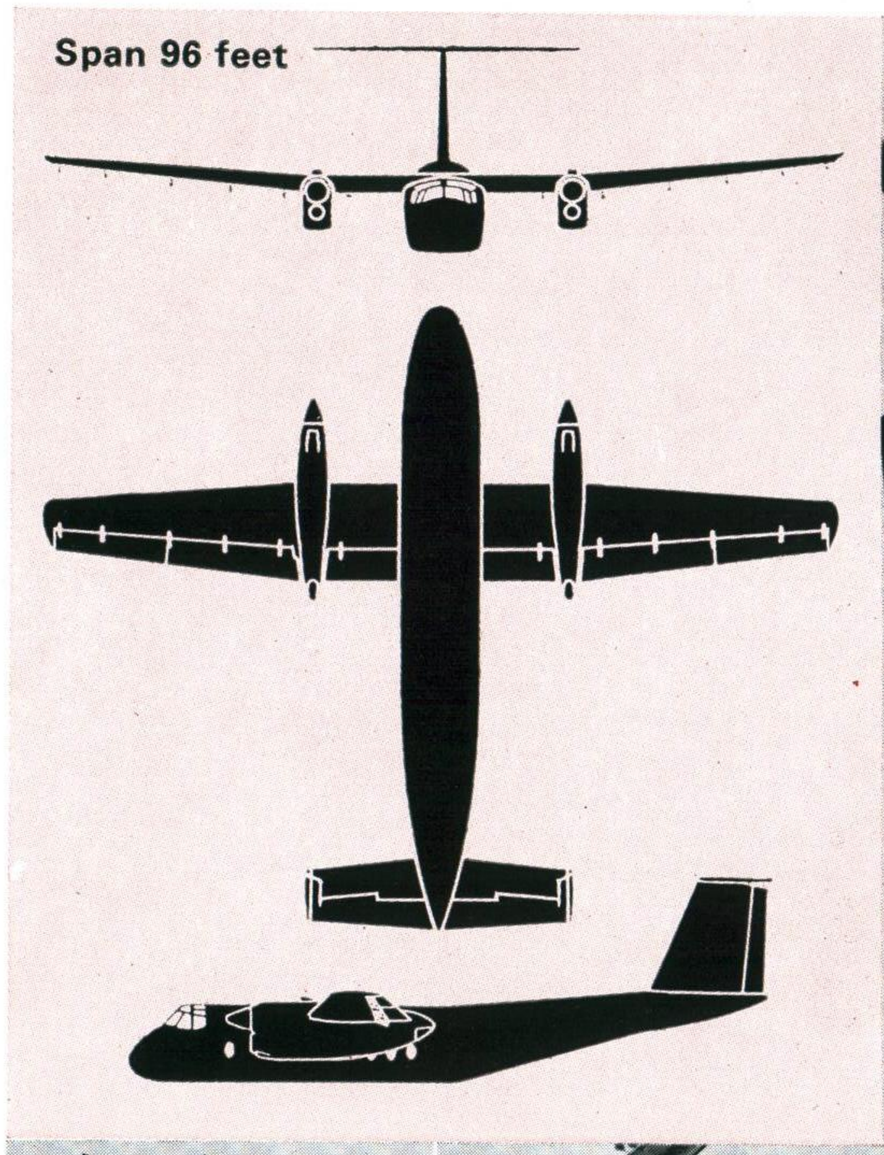
The Buffalo has been ordered by the R.A.F. (15 initially for No. 419 Squadron with 1 ft. 8 in. longer fuselage and designated CC-115) and Brazil (12) and a small number have been evaluated by the U.S. Army in Vietnam (CV-7A); the survivors having now been passed to N.A.S.A.

Apart from its high-mounted tailplane and new engine nacelles, the Buffalo is very similar in outline to the smaller Caribou transport from the same stable.

Lesson instructions on page 282 and solutions on cover

KEY





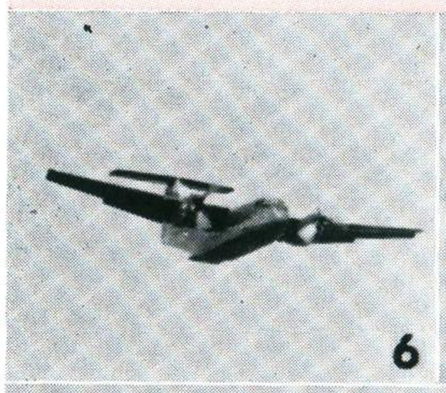

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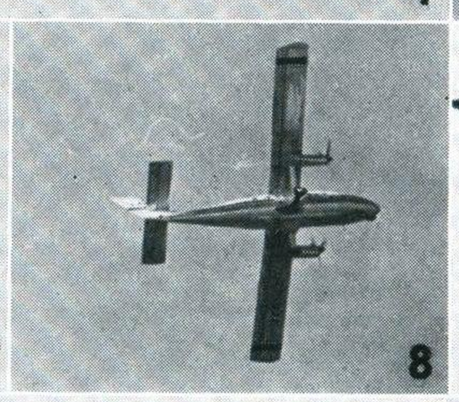

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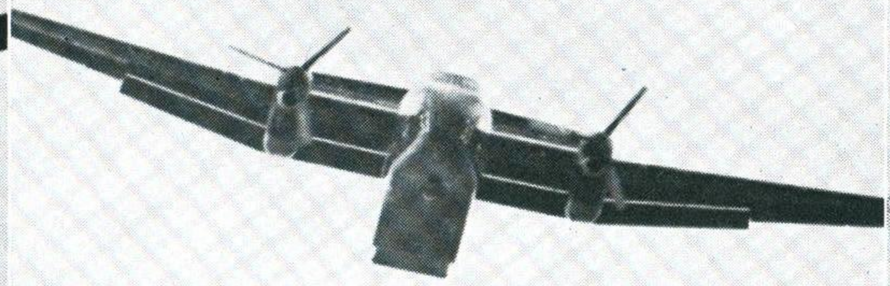

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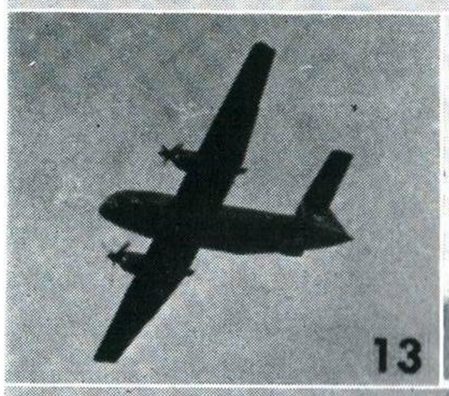

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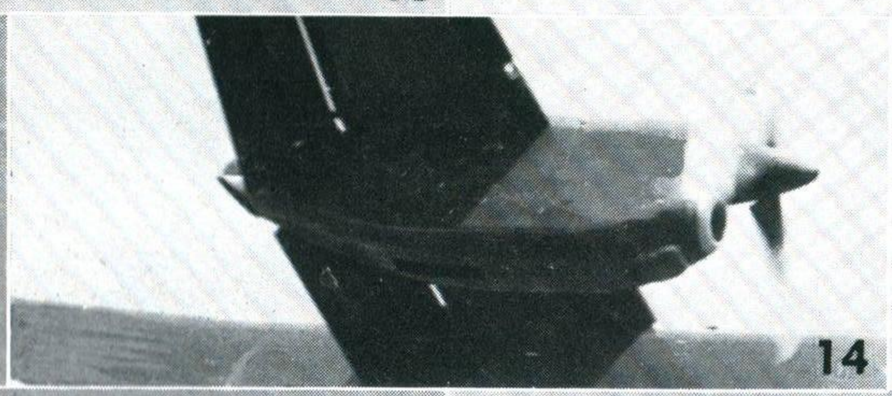

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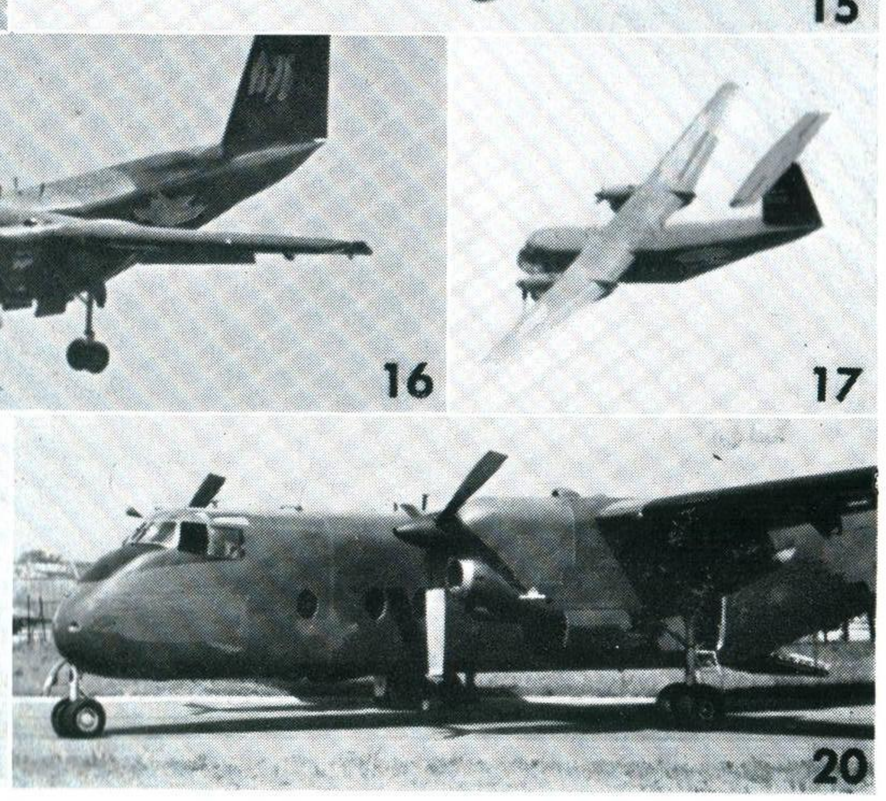

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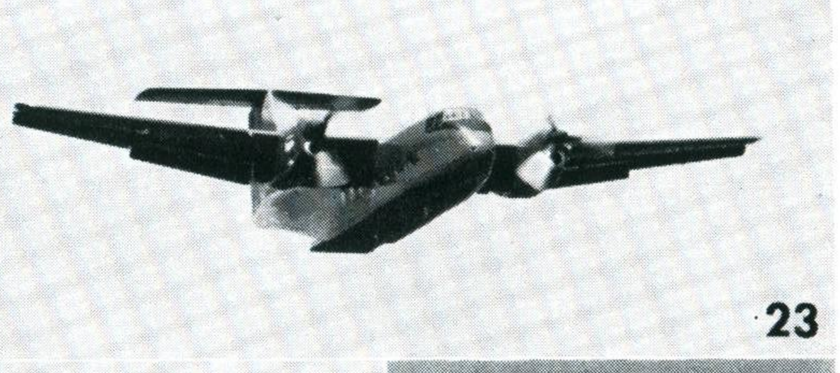
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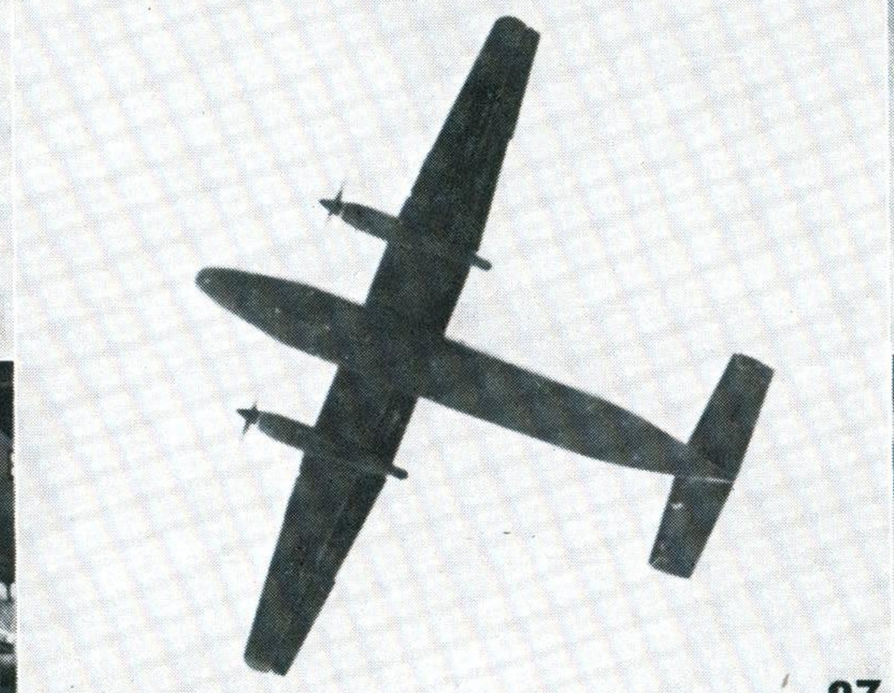
BUFFALO *continued*

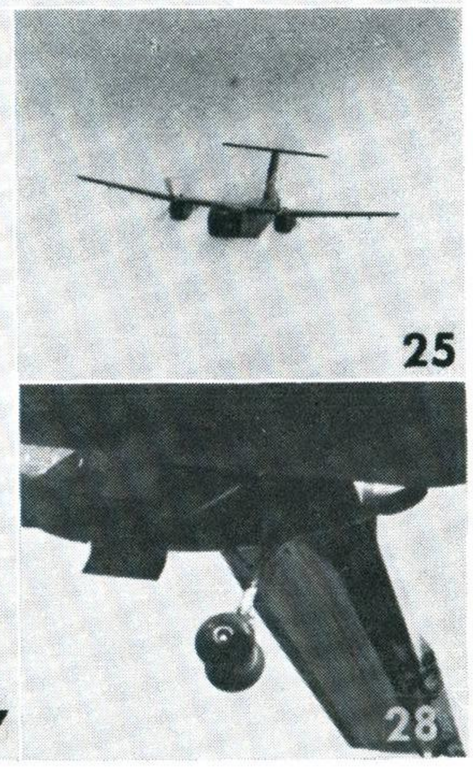










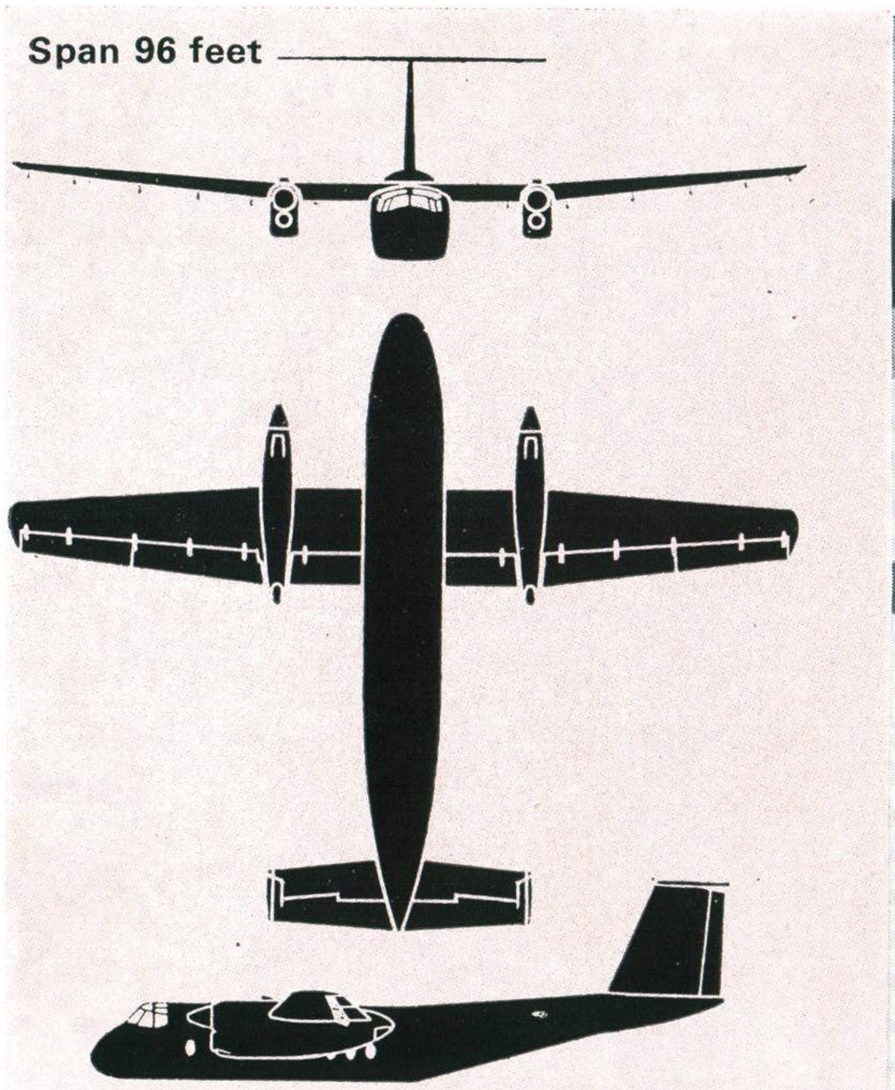


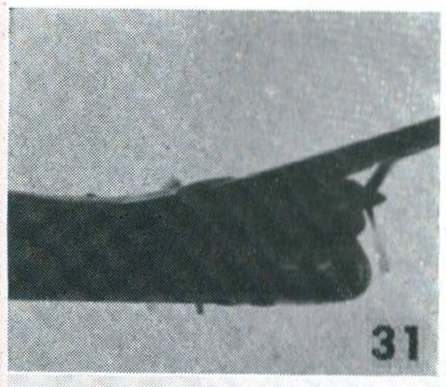


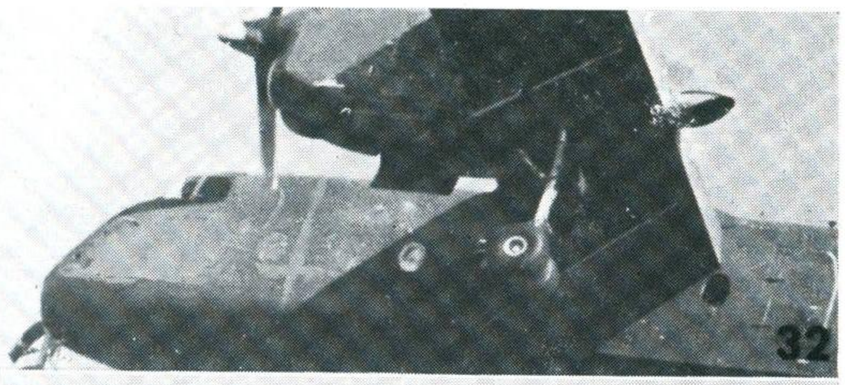




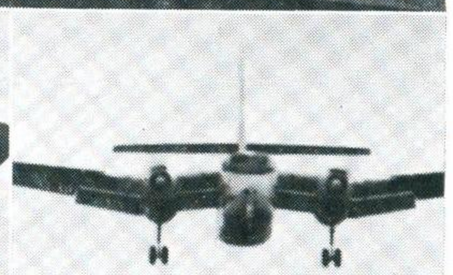
To learn the Buffalo properly follow the lesson strictly in accordance with the instructions on page 282 and dismiss the Caribou from the mind. Report targets as Buffalo—or otherwise if jokers—and afterwards check your answers with the solutions given on the cover.



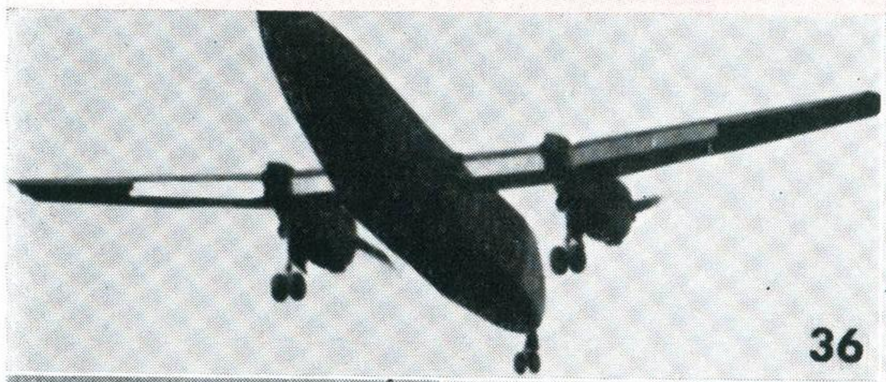

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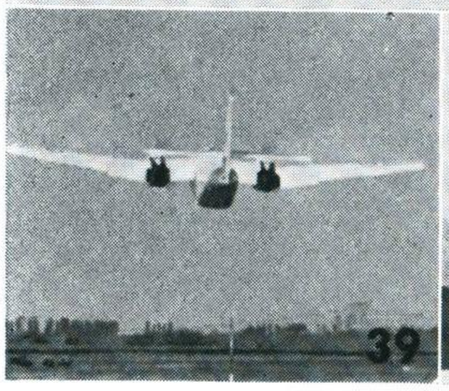

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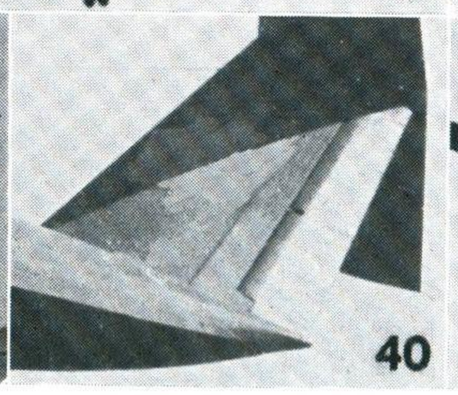

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SHIP RECOGNITION

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 during World War II; here it is used to force attention to features of ships.

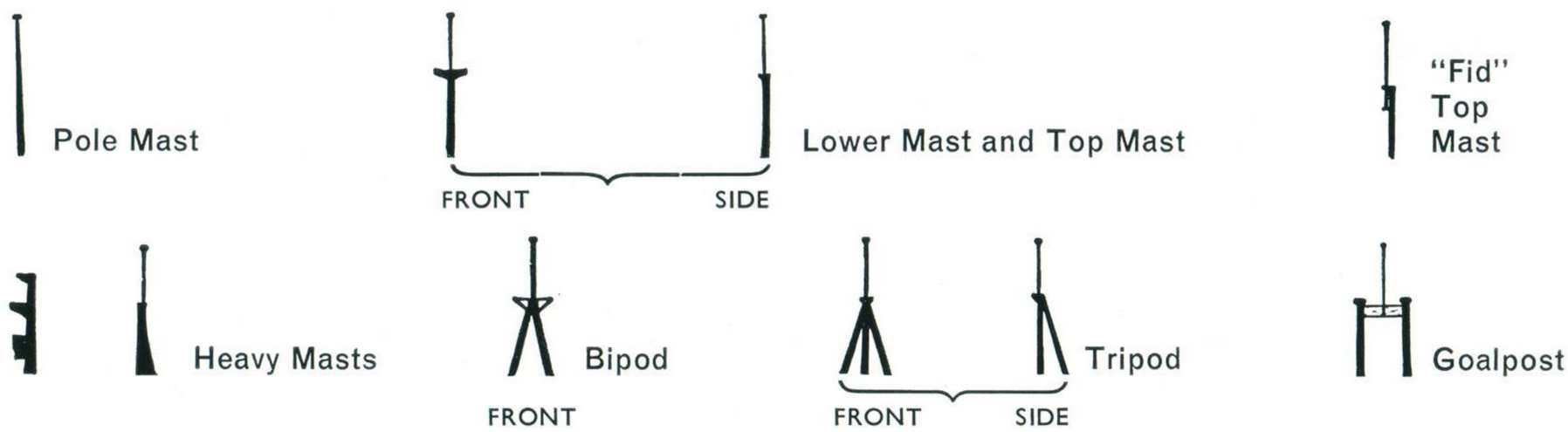
Reporting must be systematically and carefully carried out —as with recognition training procedure in other fields.

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

SEQUENCE

(Kingposts (K), Masts (M), Deck Cranes (C) and Funnels (F), reading from stem to stern.)

TYPES OF MASTS To be reported simply by the letter M

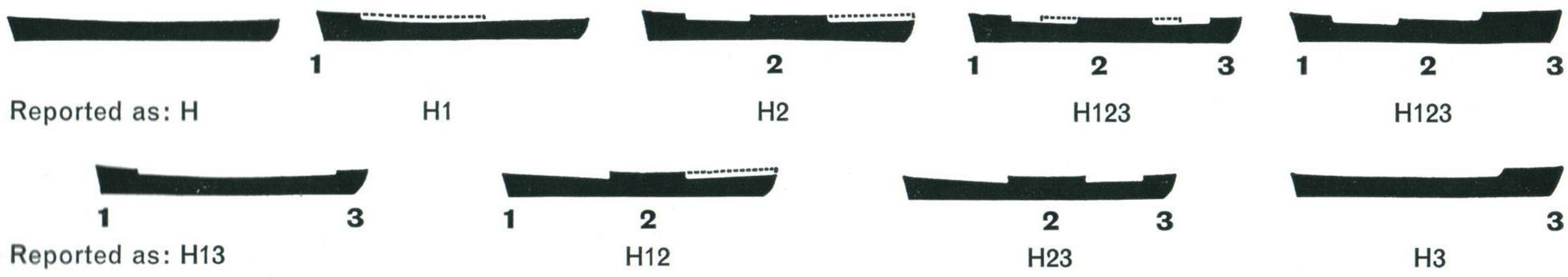


TYPES OF KINGPOSTS (Derricks stowed vertically). To be reported simply by the letter K



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



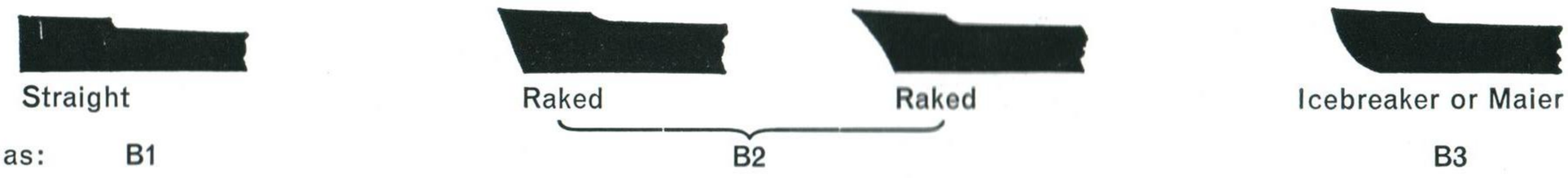
Split Superstructure (a space between bridge and superstructure) — Reported as: P1

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



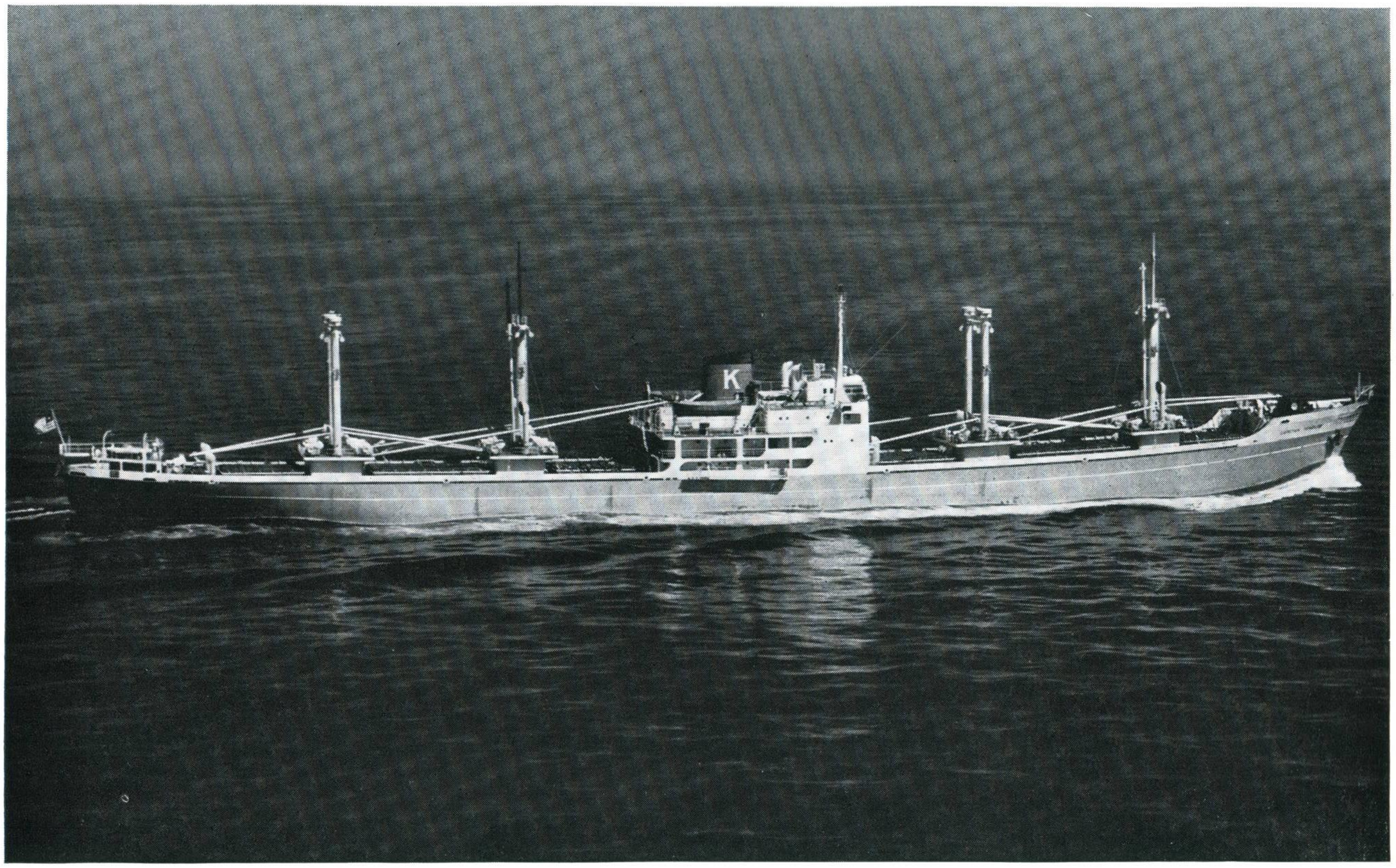
Reported as: B1 — B2 — B3

STERNS



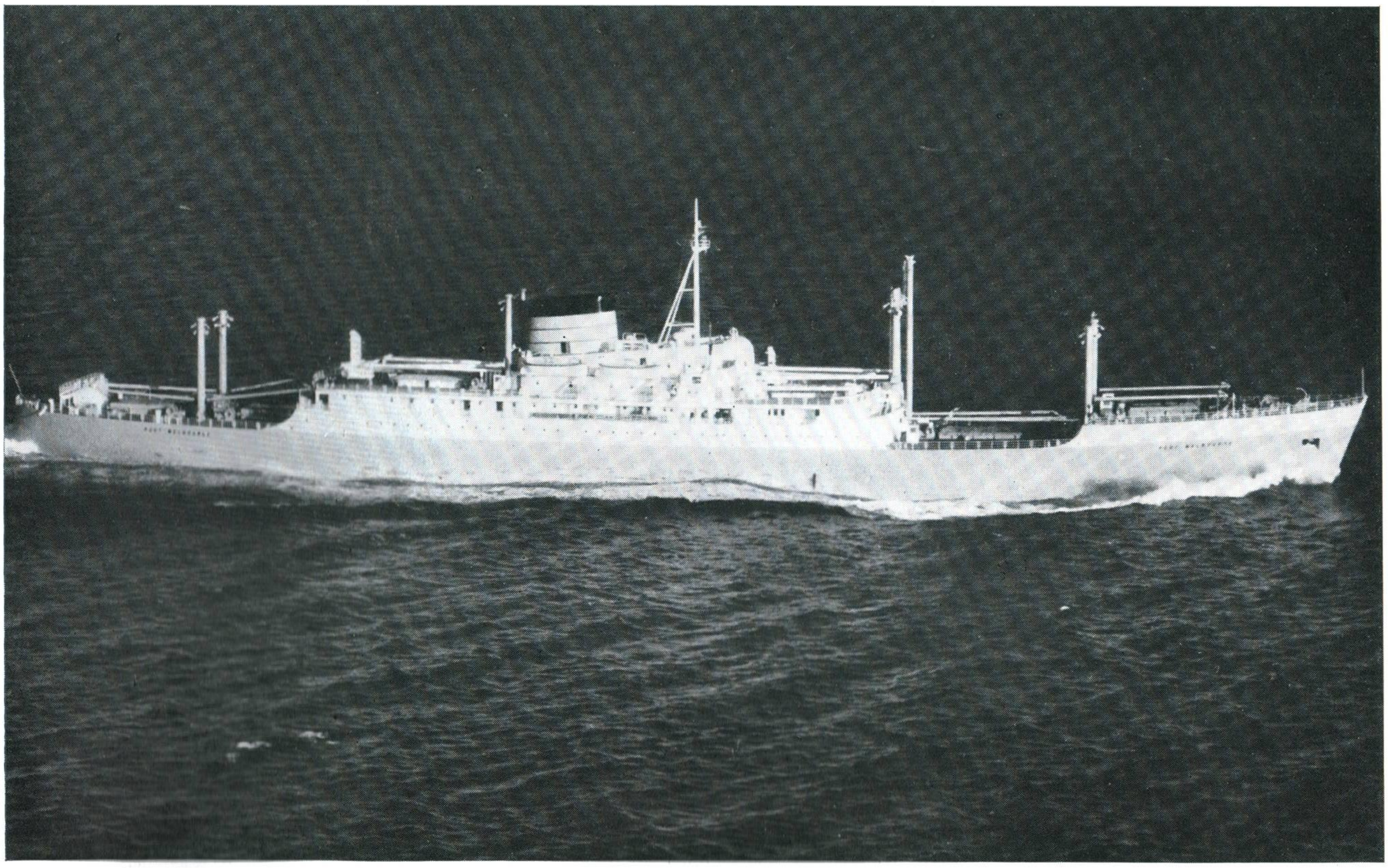
Reported as: S1 — S2 — S3

REPORTING CODE EXAMPLES



OCEAN SEIGNEUR

Reporting Code — **MK(M)FMK H.1. P2. Stem B2. Stern S2**



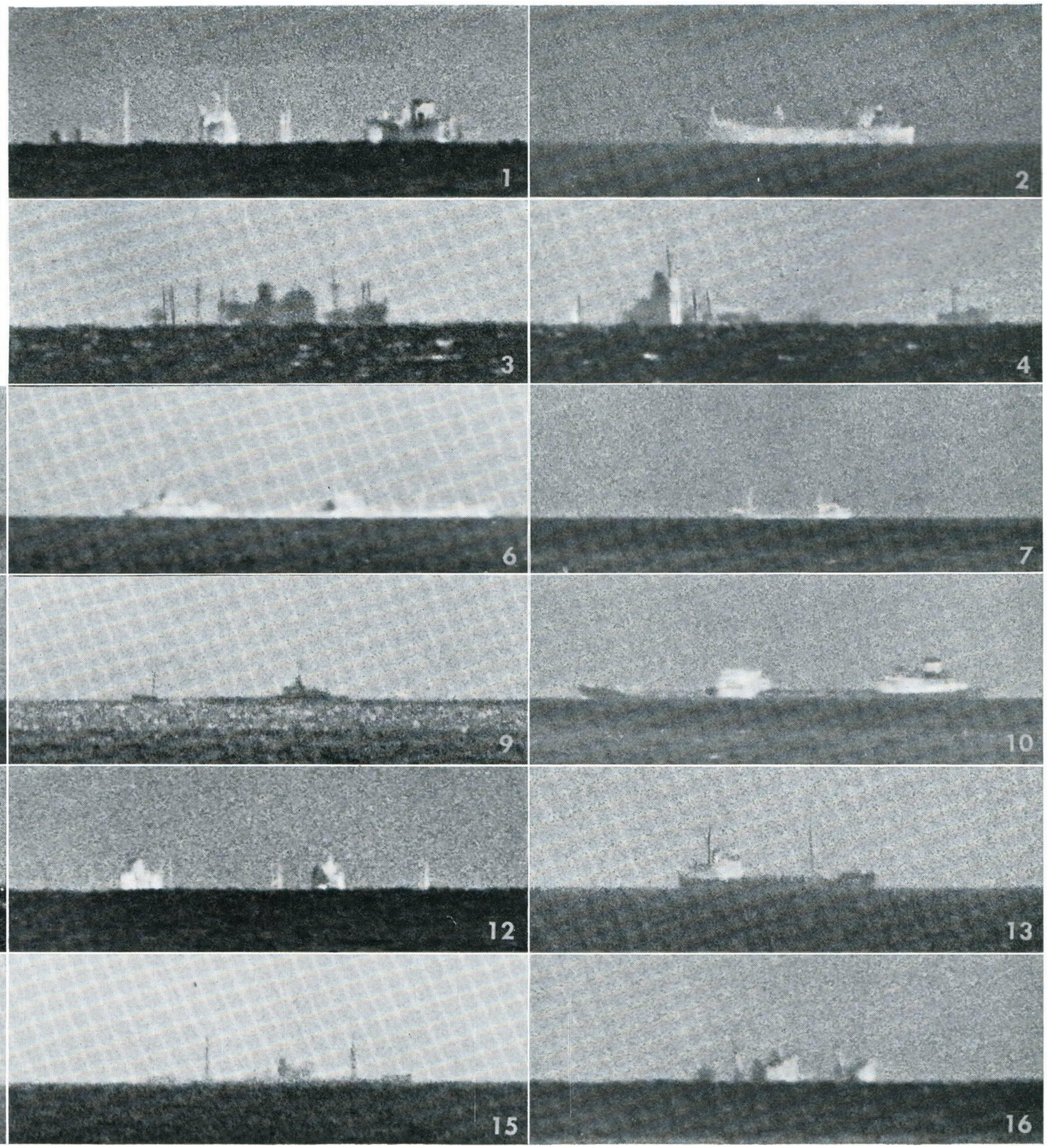
PORT MELBOURNE

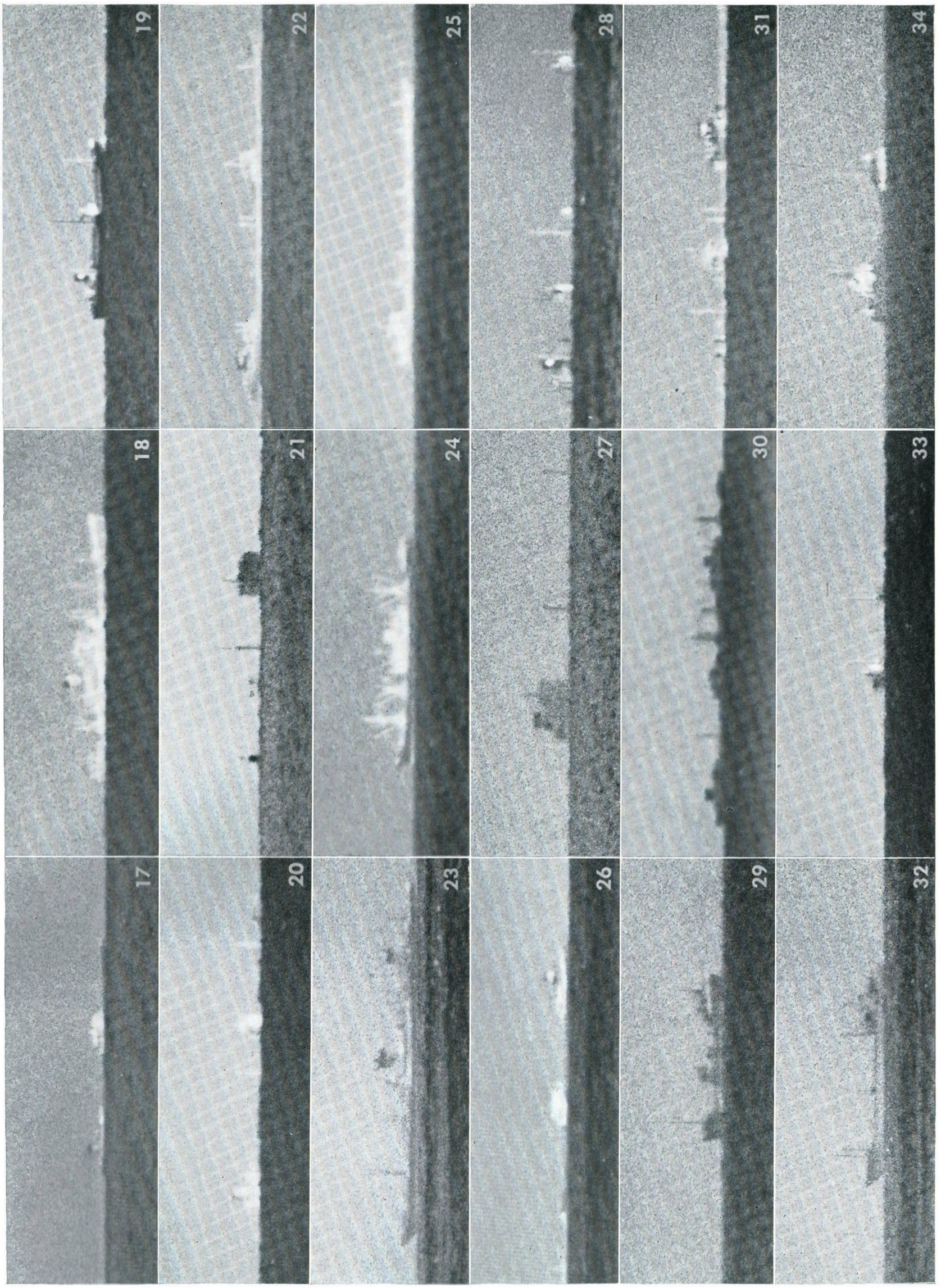
Reporting Code — **KKMFKCK H.12. P2. Stem B2. Stern S2**

continued overleaf

MERCHANT SHIPPING
— *the low down*

On the previous page is an explanation and worked out examples of a system of coding merchant ships where recognition of the individual vessel is not possible or necessary. Here are some views as a submariner might see them. Code them in the same way. Solutions on the cover.




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USS LONG BEACH

NUCLEAR POWERED GUIDED MISSILE CRUISER

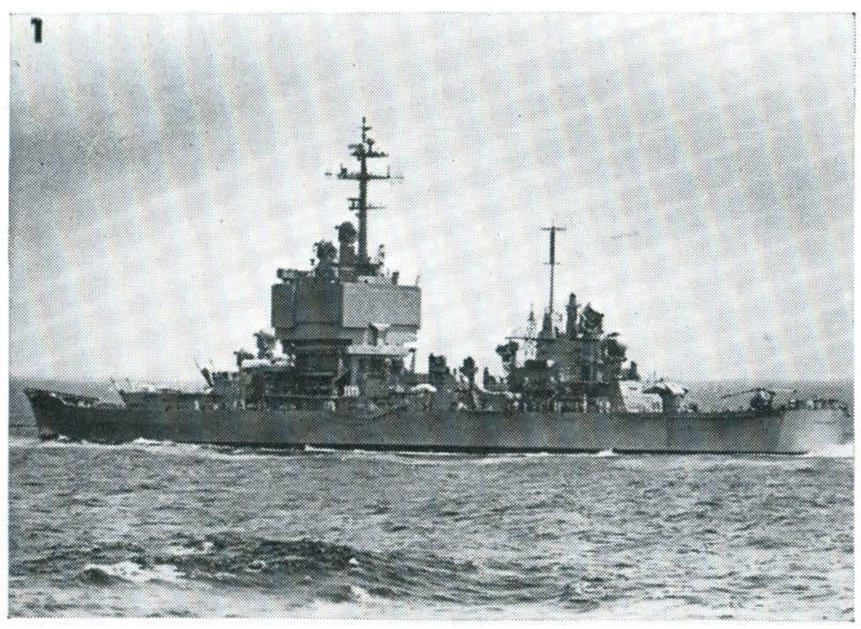
"LONG BEACH" was the first nuclear powered surface fighting ship in the world and was completed in 1961, four years after being laid down.

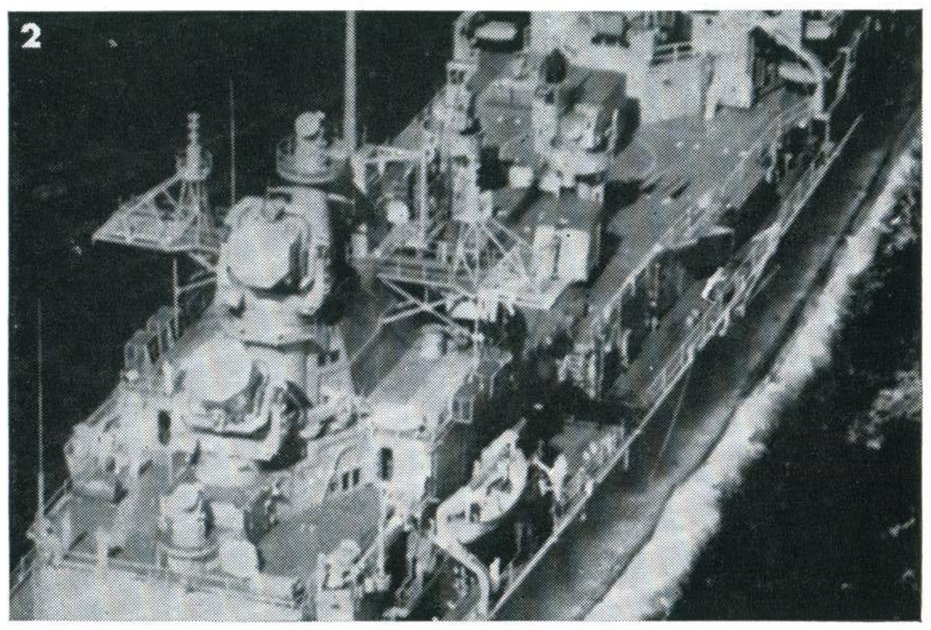
Of 14,200 tons standard displacement and with an overall length of 721 feet, she has geared turbines connected to two shafts giving a speed of about 30 knots and she has a radius of action at this speed of 100,000 miles or of nearly four times that distance at 20 knots.

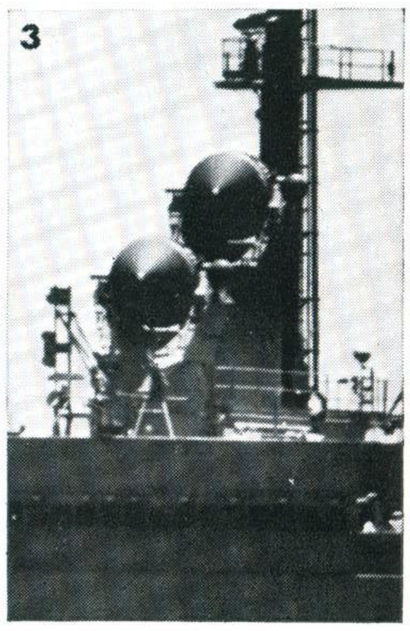
Conventional weapons consist of six torpedo tubes on the main deck and two single 5-inch guns for use against surface craft, on the superstructure amidships. Missile launchers are two (Twin) "Terrier" A.A. weapons forward and one twin "Talos" launcher aft in addition to an "Asroc" anti-submarine weapon amidships. *Long Beach* is also designed to mount "Polaris" launchers.

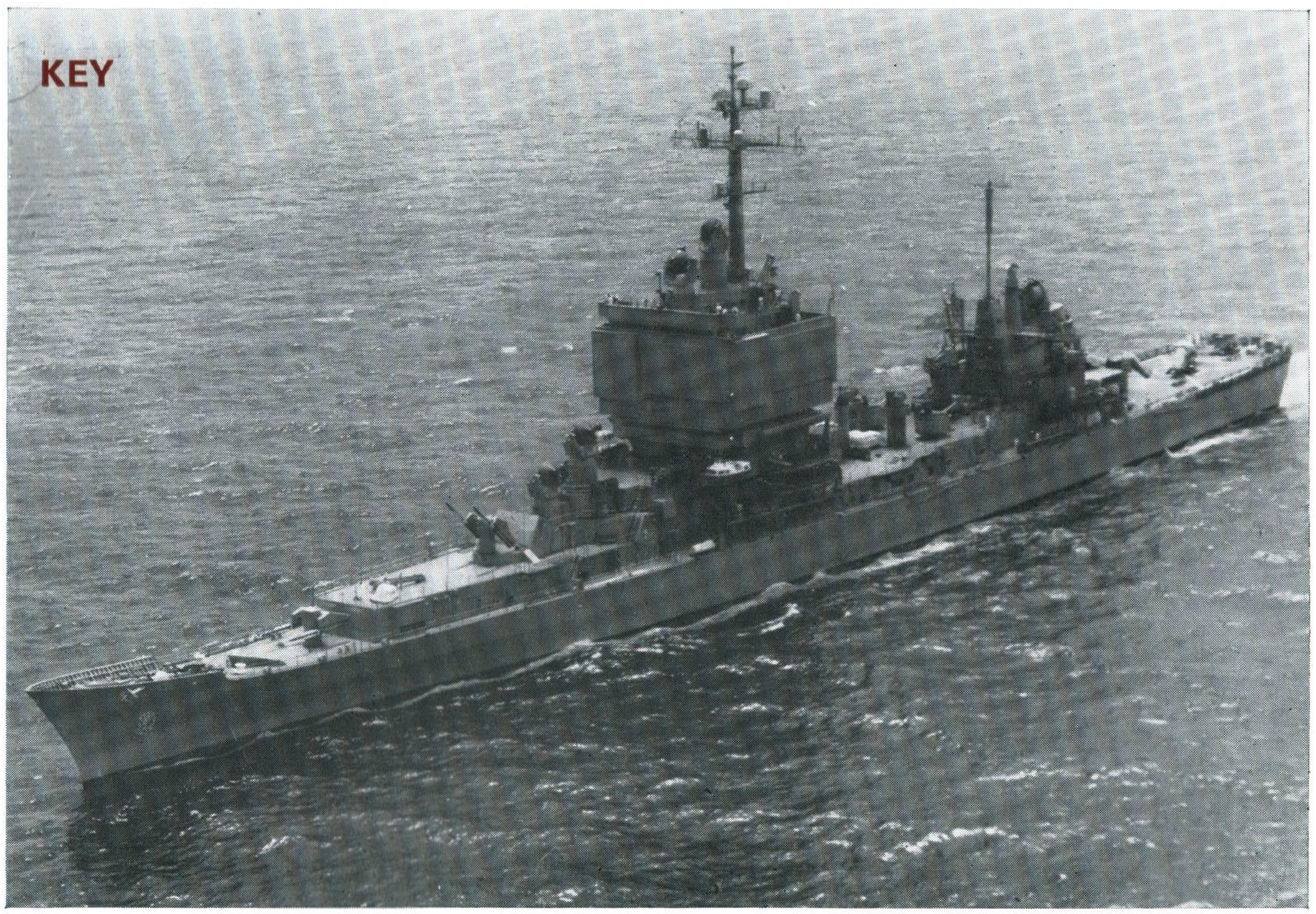
In appearance *Long Beach* is quite unique, an enormous box-like bridge structure just forward of midships and absence of any funnel, a very steep short sheer in the bows and a curved and raking stem make her so. Nevertheless you must learn to identify her.

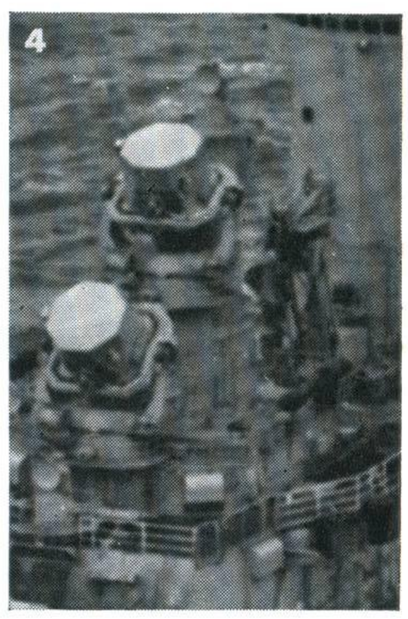
Superficially the guided missile cruisers of the "Albany" Class bear a slight resemblance when seen on the bow but the two enormous "Macks" (combined funnels or stacks and masts) of these ships immediately dispel the illusion.

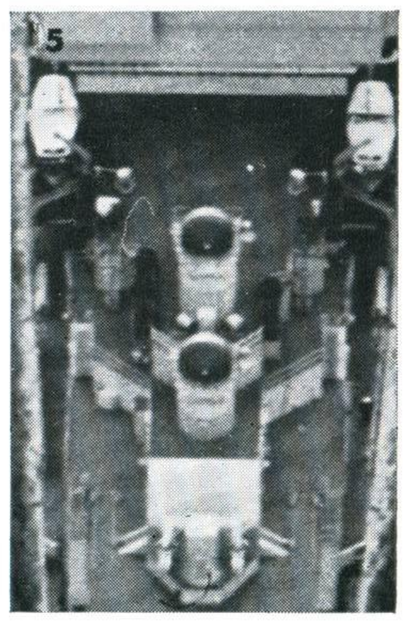




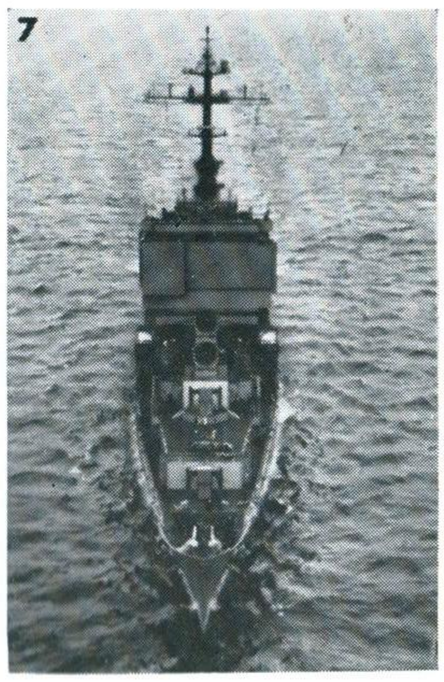


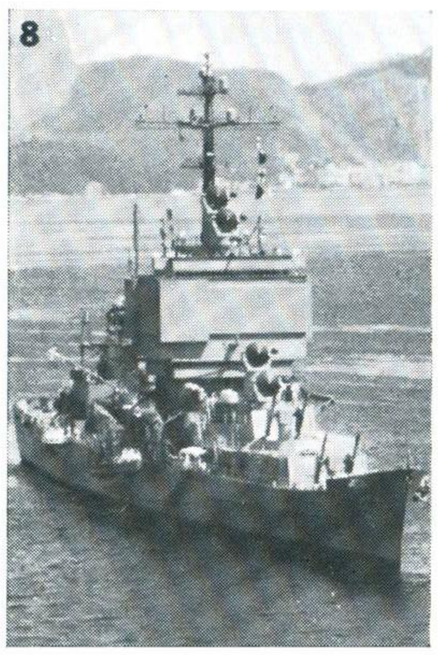


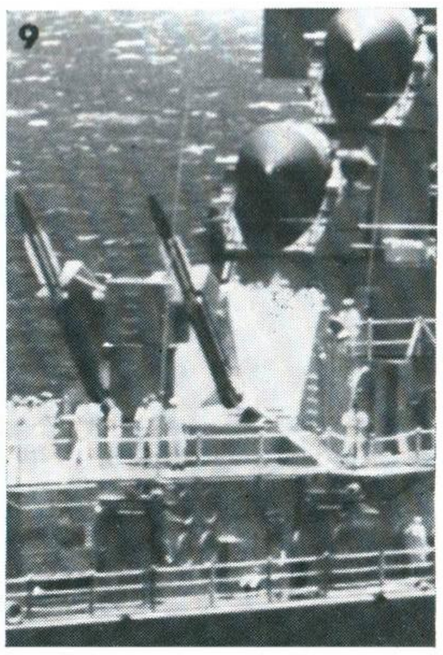


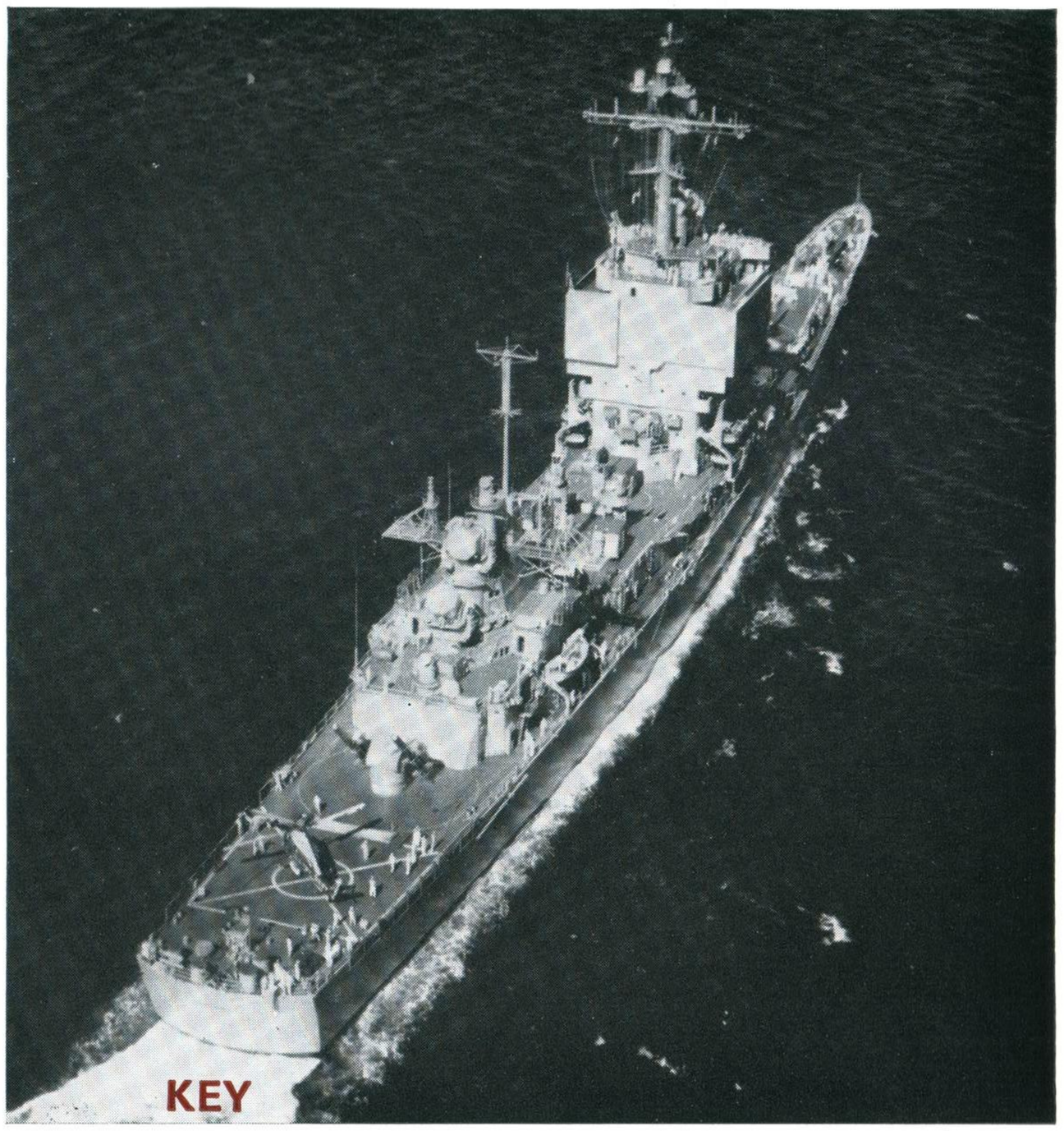


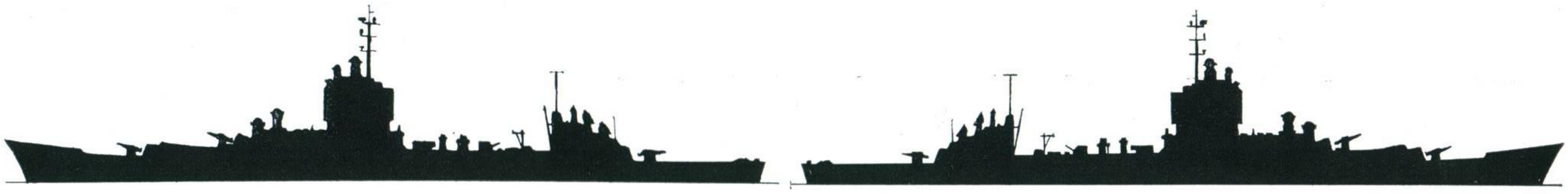


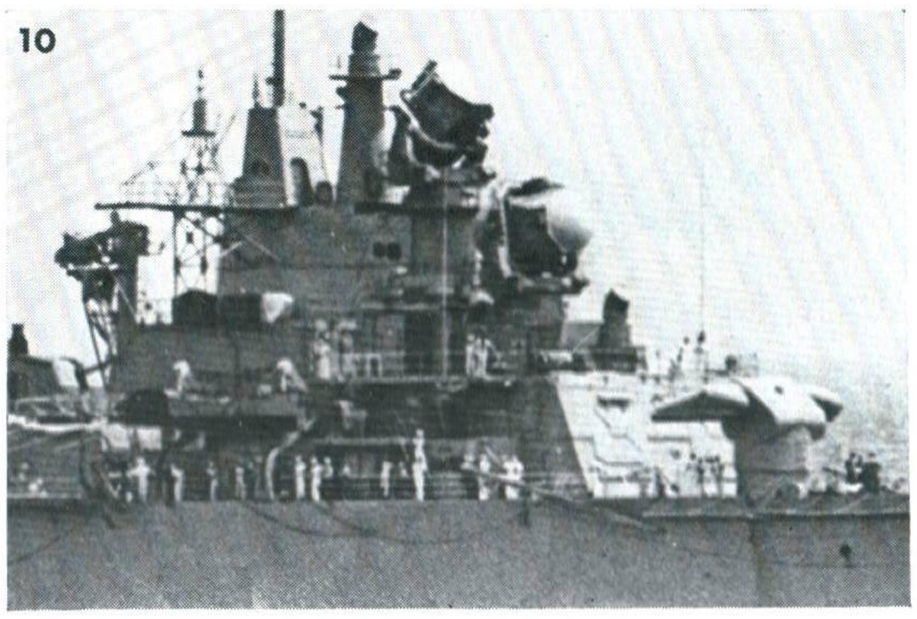


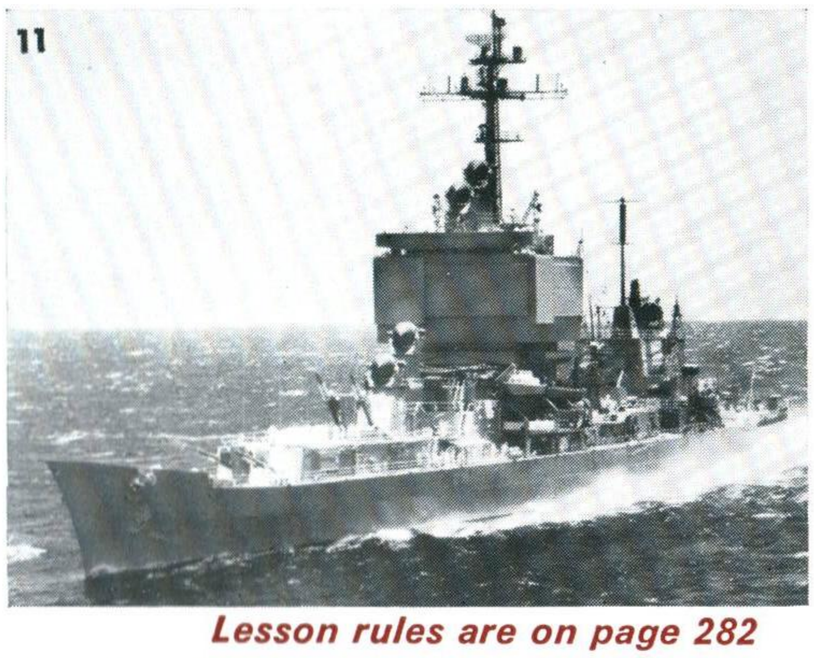


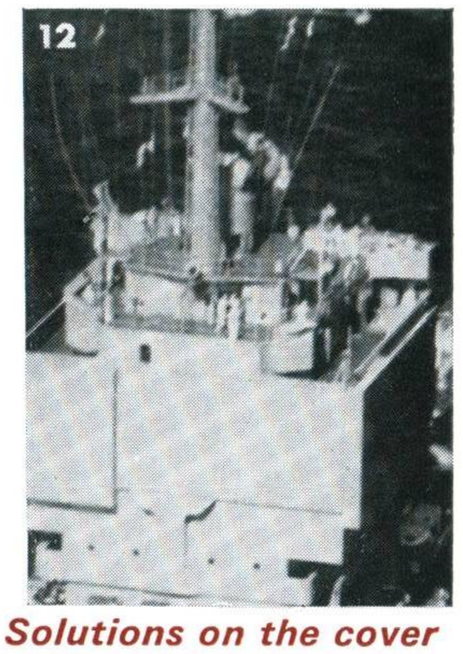










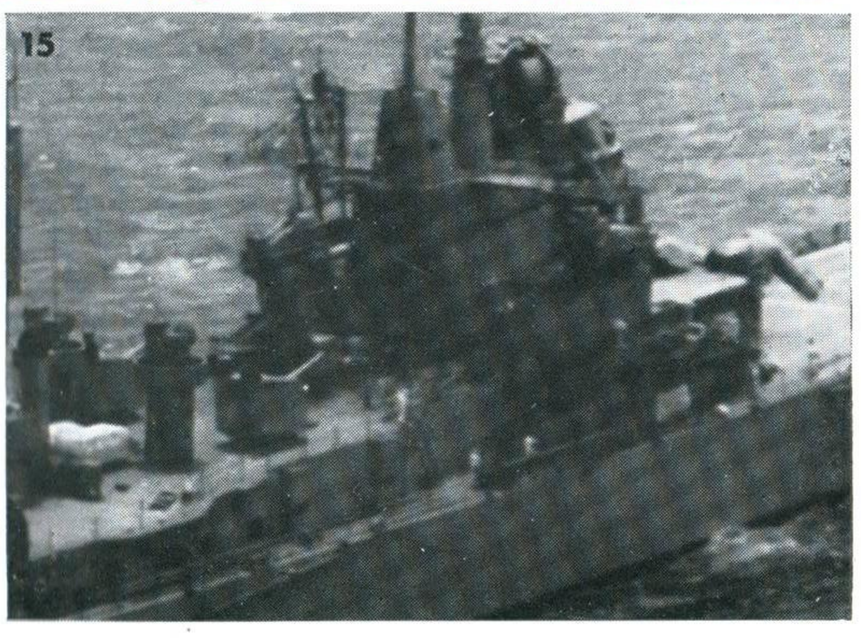


Lesson rules are on page 282

Solutions on the cover

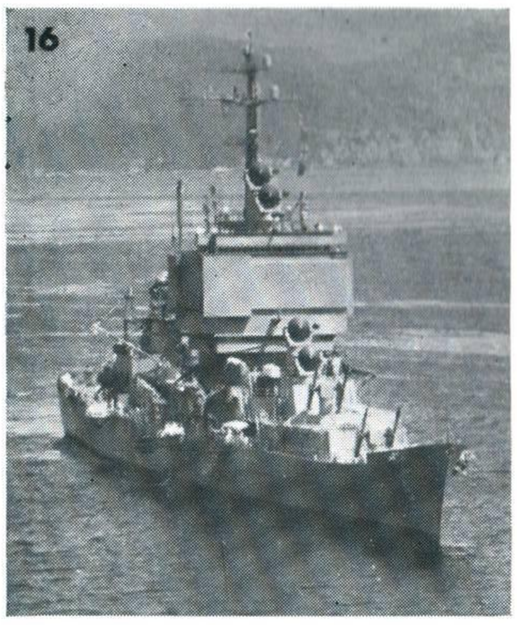


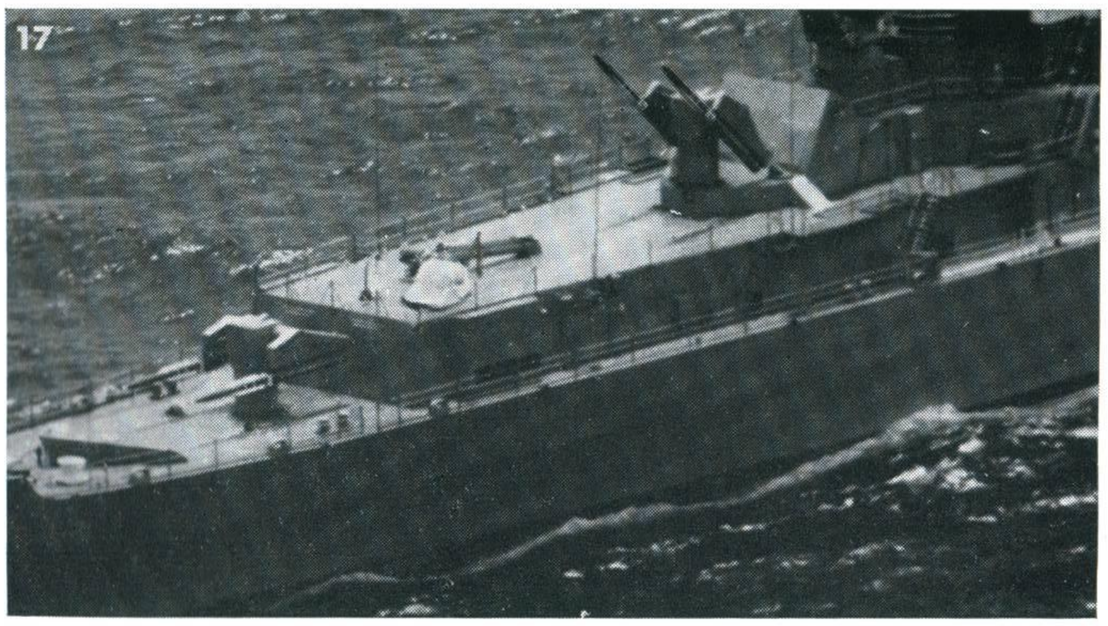


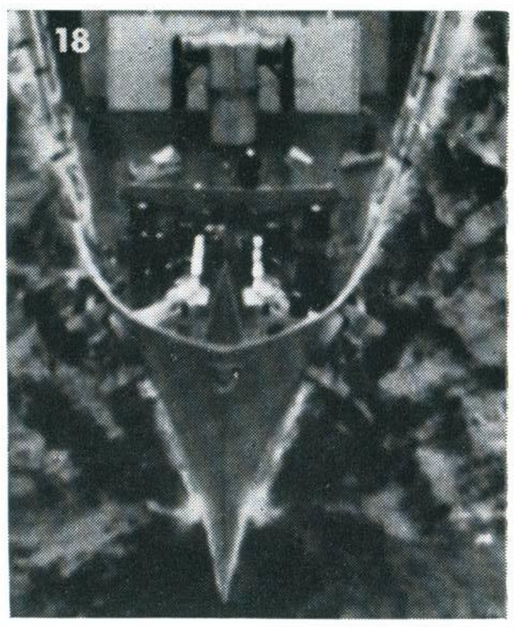


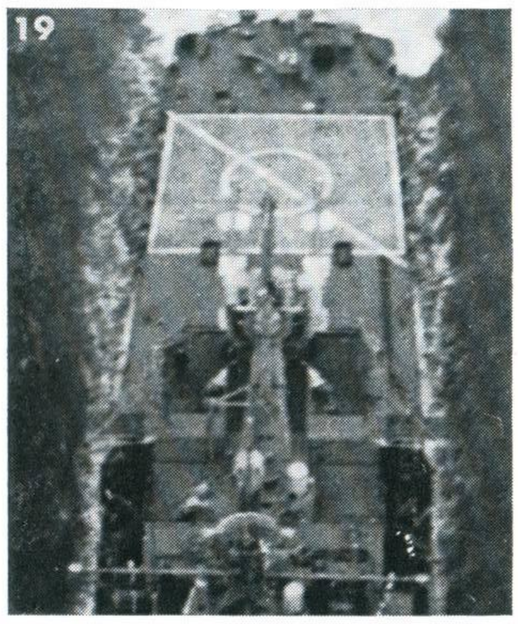
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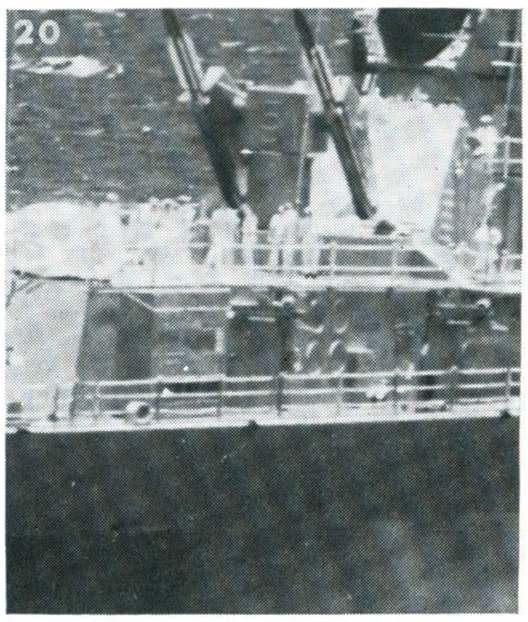
USS LONG BEACH continued

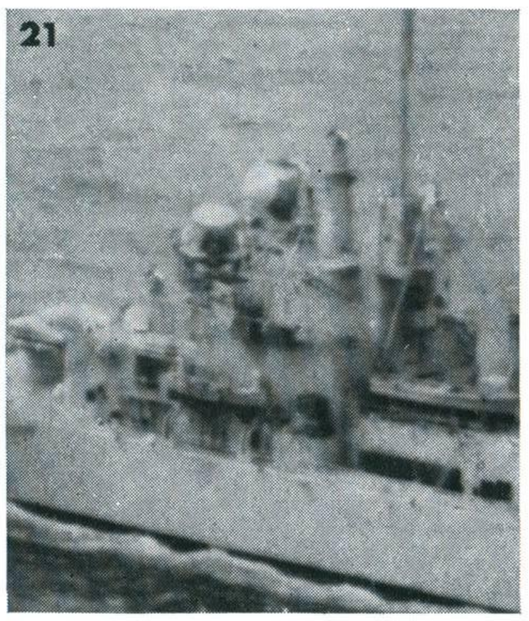

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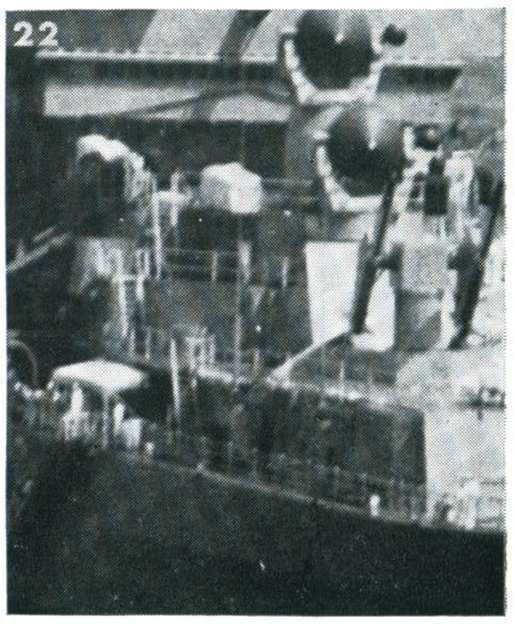

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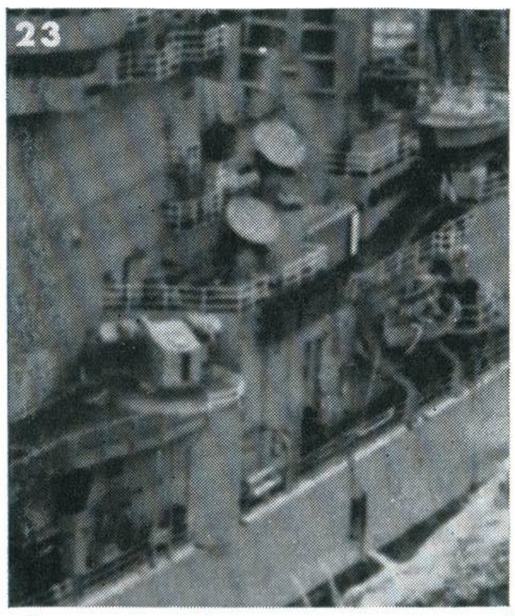

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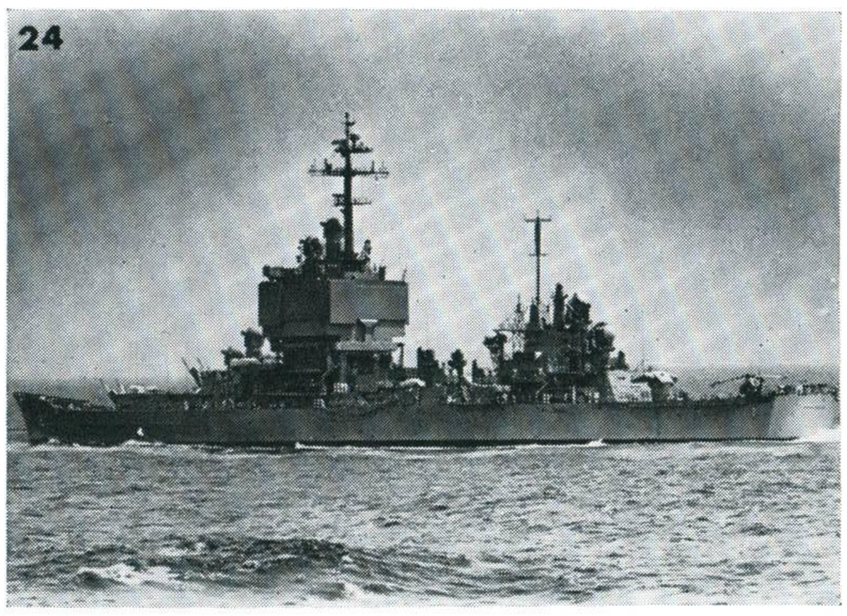

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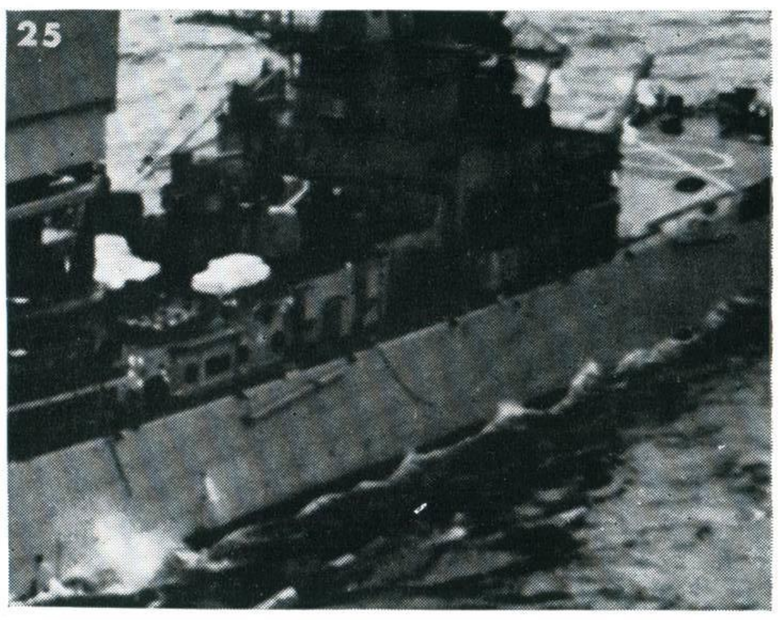

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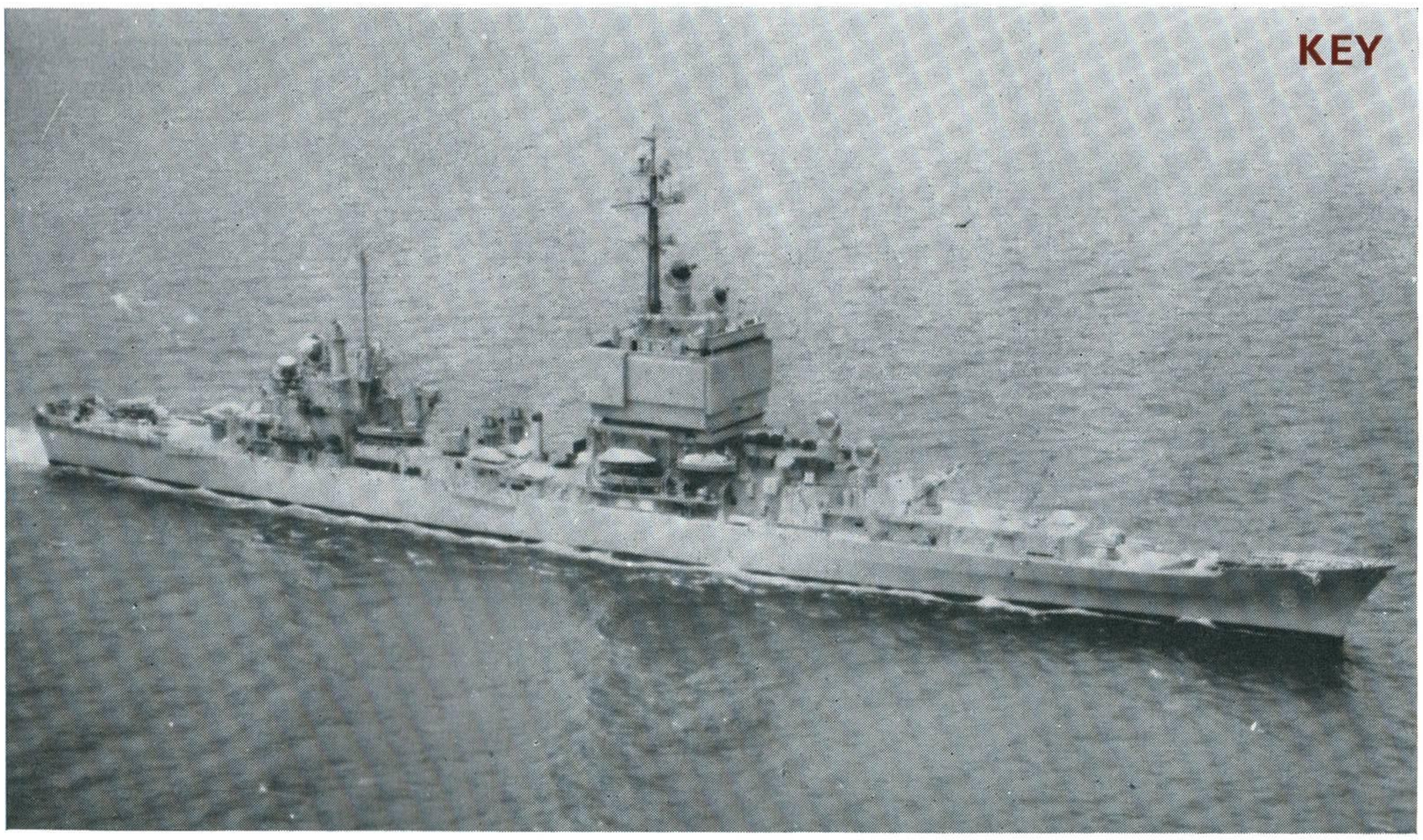

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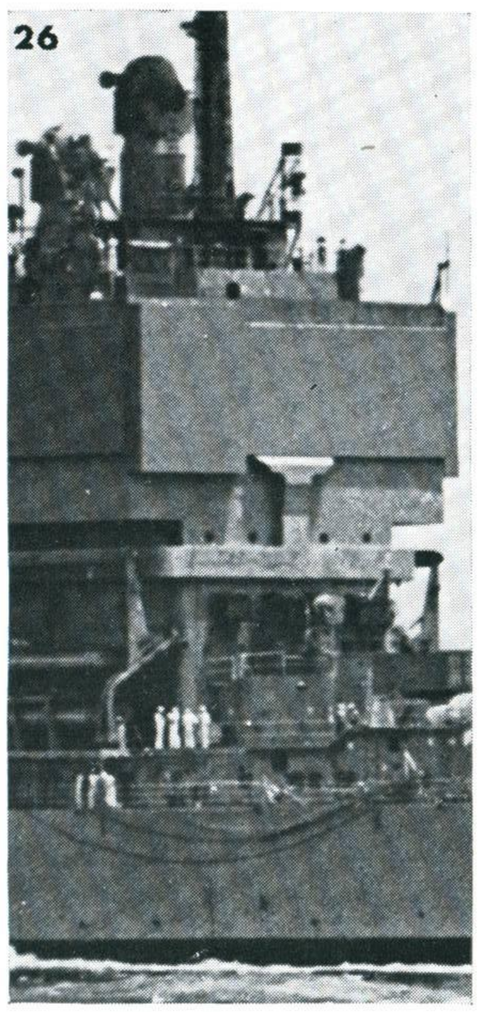

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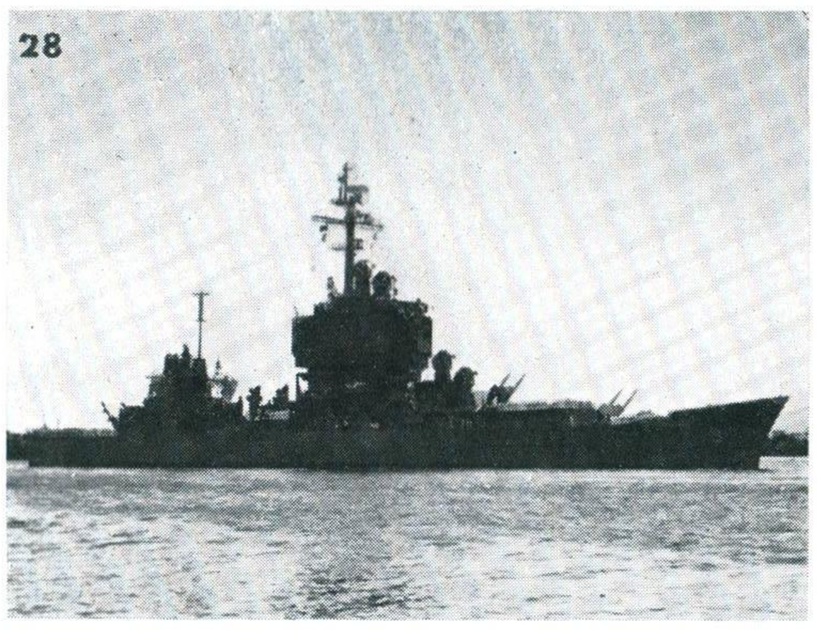

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Lesson rules are on page 282


KEY

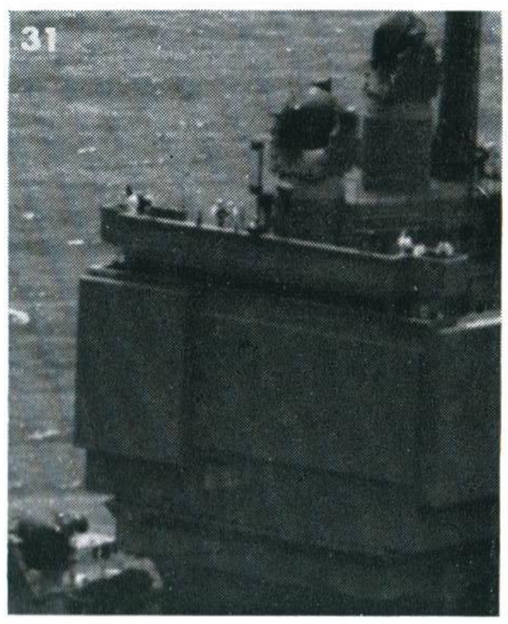

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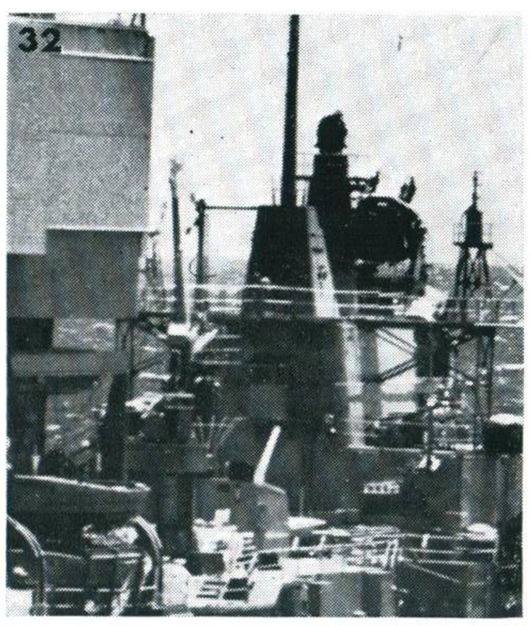




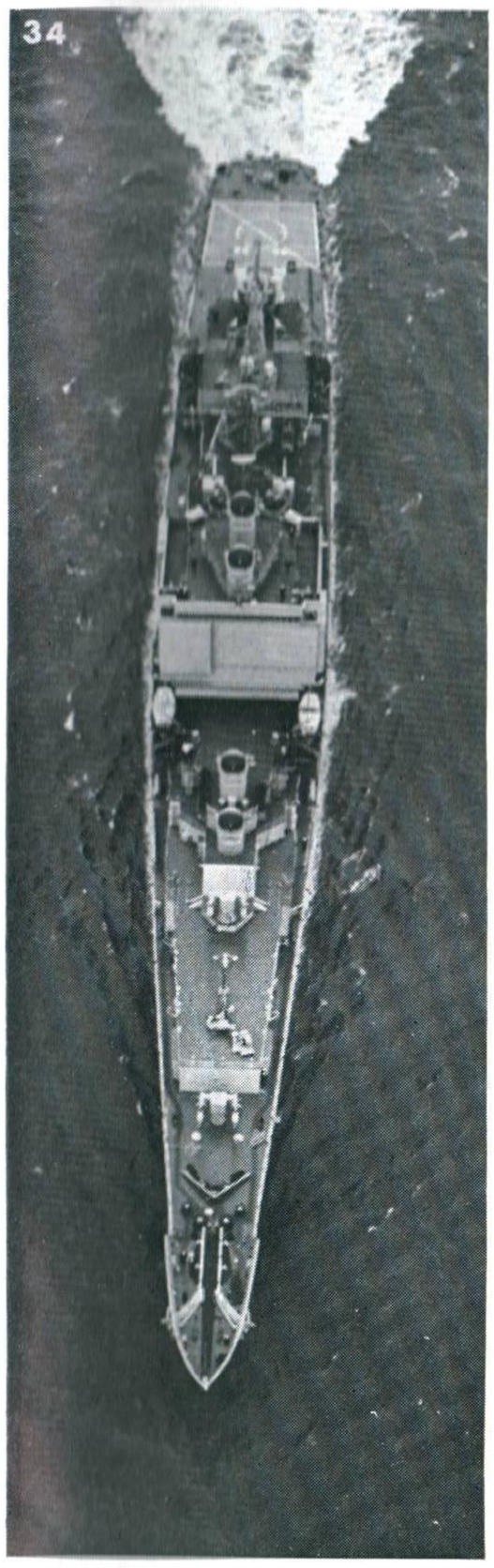


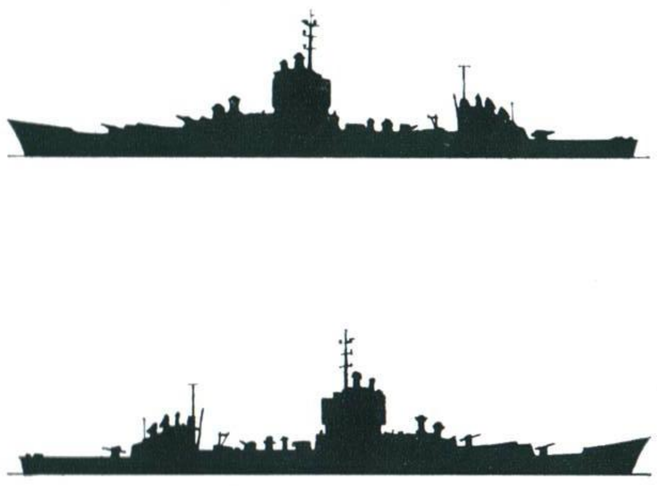








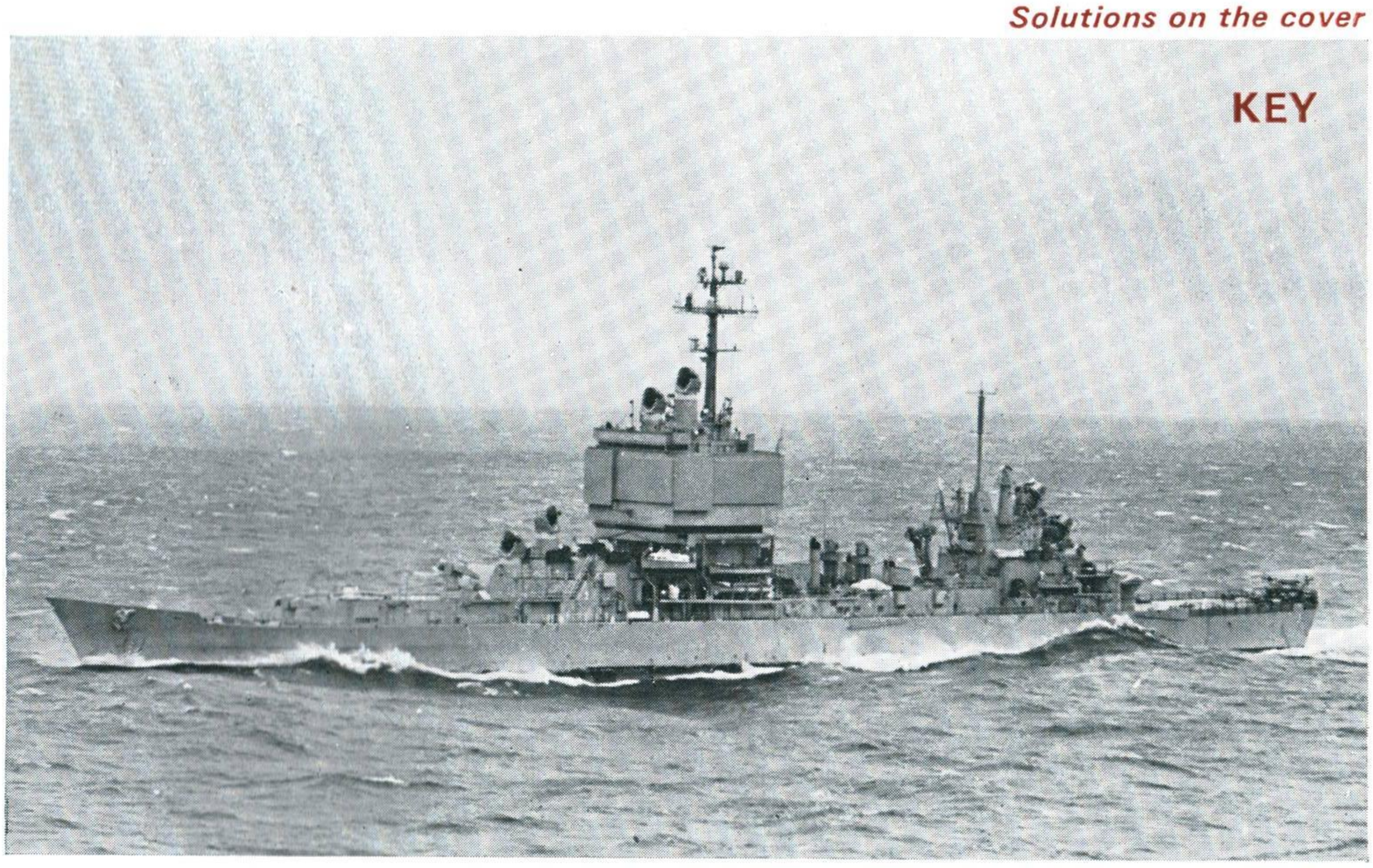






Solutions on the cover

KEY





Cover Photo: Loading a **Belfast** at dusk.

CORRECTION

July 1967, Silhouette Edition, page 185. Please amend the Chipmunk caption to read as follows :

CHIPMUNK Over a thousand of these Canadian Trainers were built in the U.K. and sixty in Portugal. Although the Chipmunk was withdrawn as a standard R.A.F. trainer when the jet training scheme was inaugurated it was, subsequently, re-introduced to give elementary training before pupils go on to the Jet Provost. Span 34 feet.

SOLUTIONS TO TESTS AND EXERCISES

Page 282 **TEST PAPERS**

PHANTOM: Joker is third line 4th picture.
SARACEN: 1st line 2nd picture, left vehicle is Joker.
1st line 3rd picture, right vehicle is Joker.
2nd line 4th picture, only vehicle in circle is Saracen.
3rd line 1st picture, right-hand vehicle only is Saracen.

Page 284 **LEOPARD BATTLE TANK**

All targets are of **Leopard Tank** except Nos. 28, Left-hand vehicle 46, 49 and 60, which are jokers.

Page 290 **HAWKEYE**

All targets are of **E-2A Hawkeyes** except Nos. 5 and 22 **Greyhound**, 25 and 32 **Tracer**, 35 **Mohawk** and No. 42 **Tracer**.

Solutions to Testing Time.

1 DC-8	6 Cargomaster	11 Blinder
2 Hercules	7 Argosy	12 Boeing 707
3 Herald	8 Classic	13 Phantom
4 Wessex	9 Dakota	14 Beverley
5 Caravelle	10 Bear	15 Trident

Page 296 **BUFFALO**

All targets are **Buffaloes** except Nos. 7, 30, 33 and 39 which are **Caribou** and No. 8 which is a **Twin Otter.**

Page 304 **U.S.S. LONG BEACH**

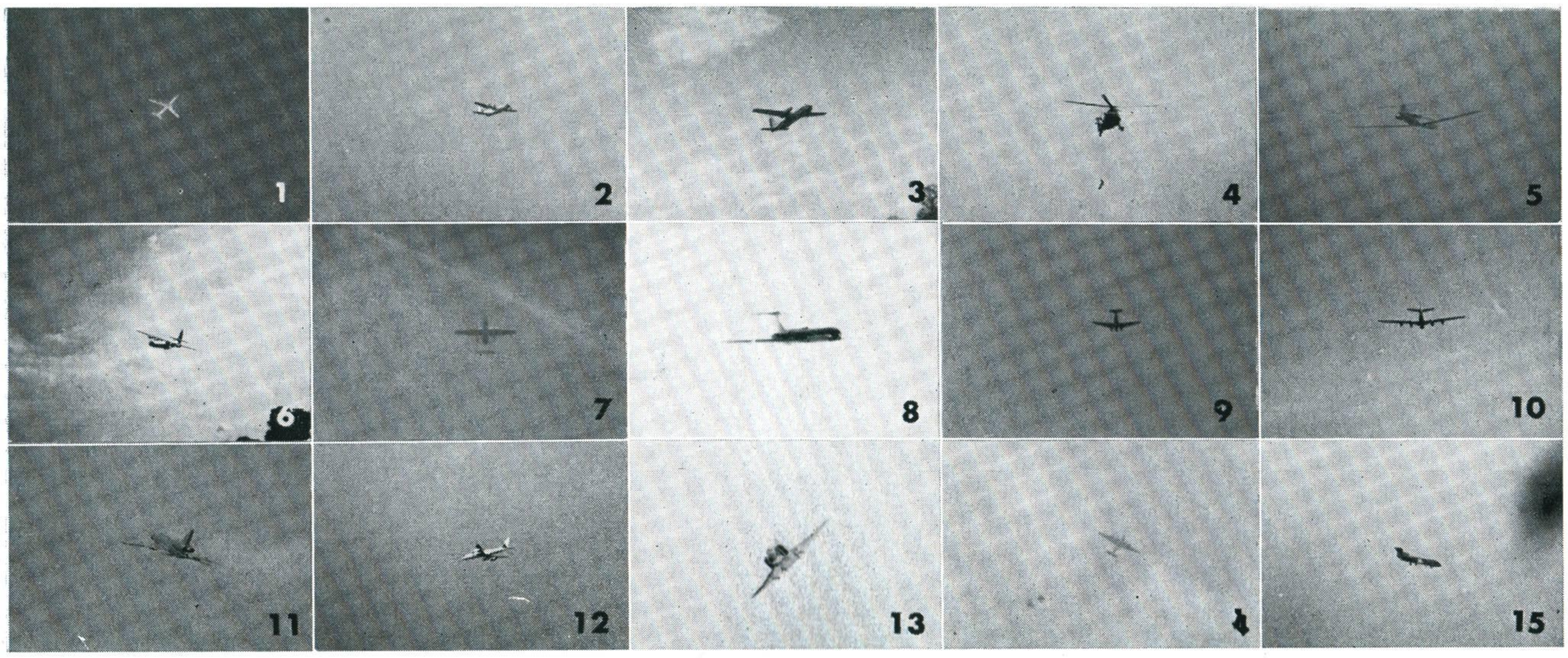
All targets are of **U.S.S. Long Beach** except Nos. 4 and 23.

Page 302 **MERCHANT SHIPPING—the low down**

No.	Type	Sequence	Hull	Profile	Class
1	Tanker	MMKF		P3	
2	Cargo	CCF	H1	P4	
3	Cargo Passenger	KMFKMK		P2	Possible Dutch "Straat" Class
4	Bulk Carrier or Tanker	KKMFK	H13	P4	
5	Tanker	KMFK	H123	P3	
6	Tanker	KMF	H123	P3	
7	Coaster	MMF	H13	P4	
8	Cargo	MKKFKK		P1	Brocklebank liner
9	Coaster	MMF		P4	
10	Tanker		H123	P3	
11	Coaster	MMF		P4	
12	Tanker	KMKKF		P3	
13	Coaster	MFM	H12	P4	
14	Coaster	MKFM	H	P4	
15	Cargo	MFM	H1	P2	
16	Cargo	MFM	H1	P2	
17	Tanker		H123	P3	
18	Cargo Passenger	KMKFKK	H123	P2	"Argentina Star" Class
19	Coaster	MKF	H12	P3	"Henfield" Class
20	Tanker	KMKF	H123	P3	
21					
22	Tanker	KMKKF	H123	P3	Niarchos Company
23	Cargo	MKFKMK	H13	P2	"Alaunia" or "Andania"
24	Cargo Passenger	MKKMFCM	H13	P2	East Asiatic "S" Class (Bi-pod masts)
25	Bulk Carrier	CCCCCMF	H13	P4	
26	Same as No. 10				
27	Bulk Carrier	KKMF		P4	
28	Same as No. 19.	(Another ship on right of photograph.)			
29	Coastal Tanker	MMF?	H123	P3	
30	Tanker	MMF	H123		Other ship same as No. 24
31	Same as No. 1				
32	?	?	?		
33	Coaster	MMF	H13	P4	
34	Coaster	MMF	H13	P4	

TESTING TIME

Solutions above



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