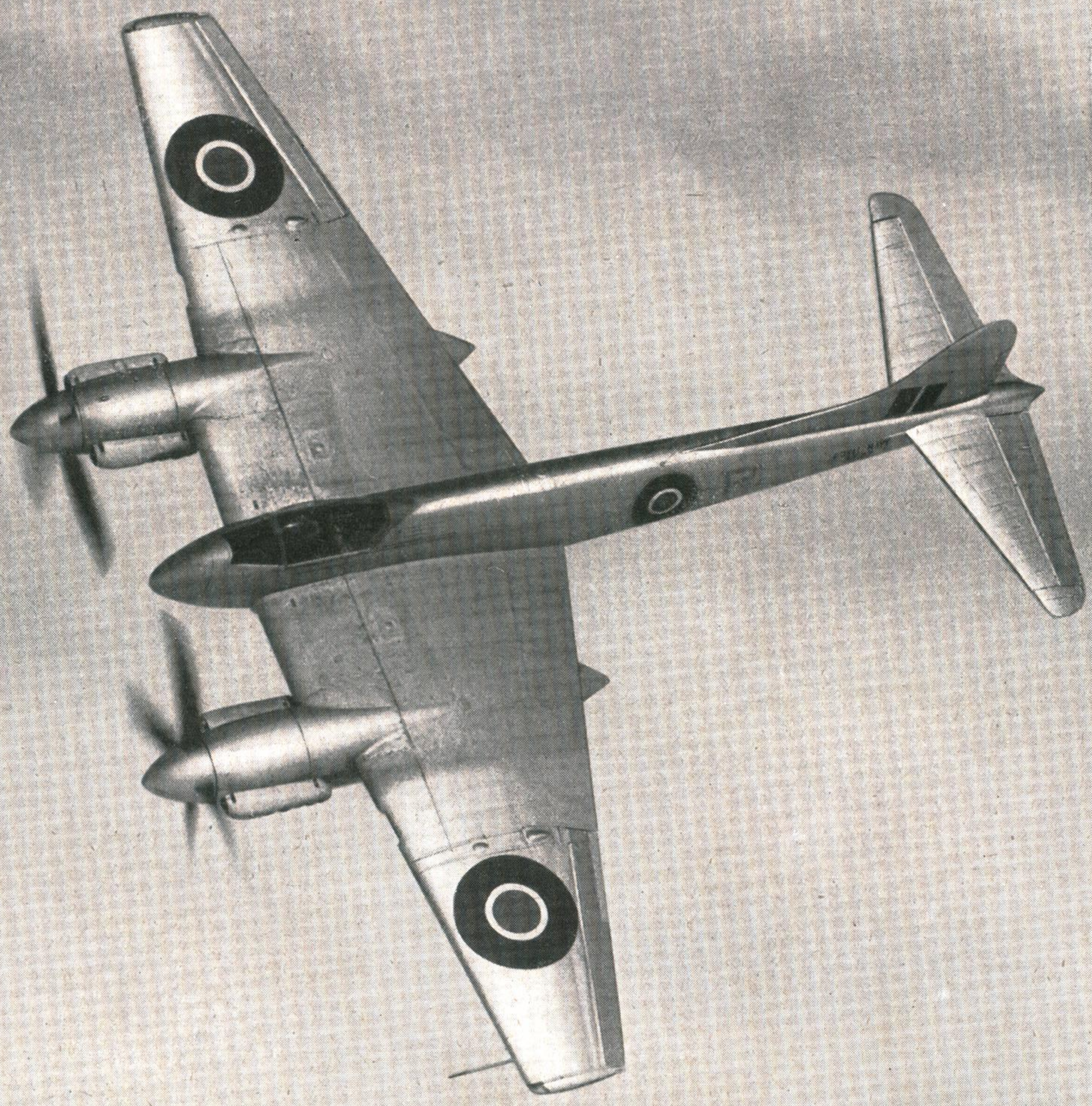
THE INTER SERVICES

AIRCRAFT RECOGNITION *Journal*



SEA HORNET

NAVAL AVIATION

Vol. 3 NOVEMBER 1948 No. 4

NAVY MIXTURE

Recognition Test No. 81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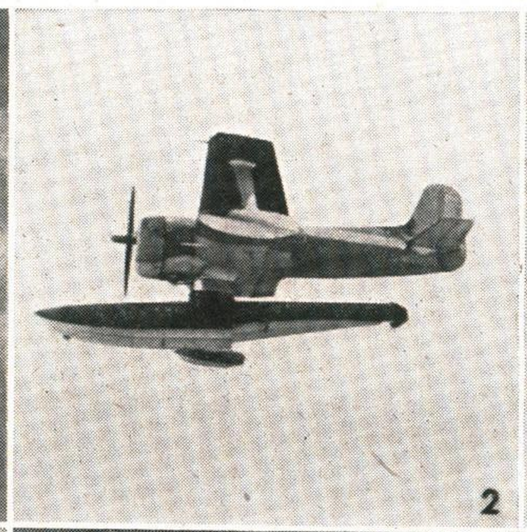
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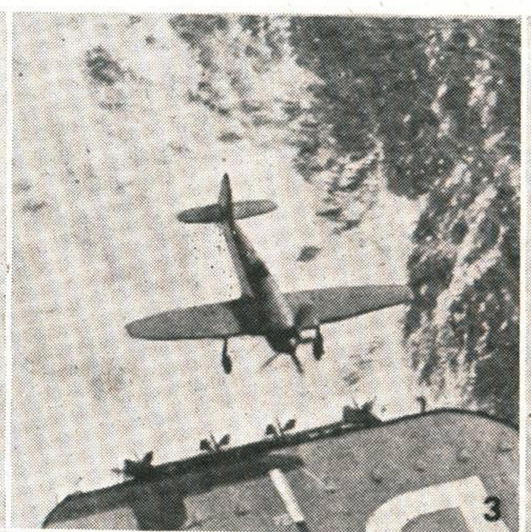
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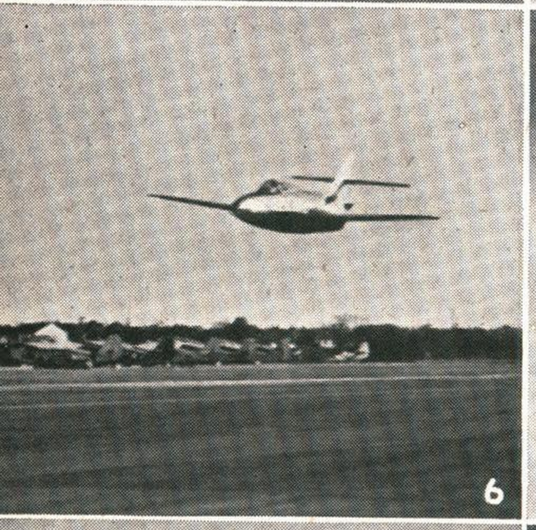
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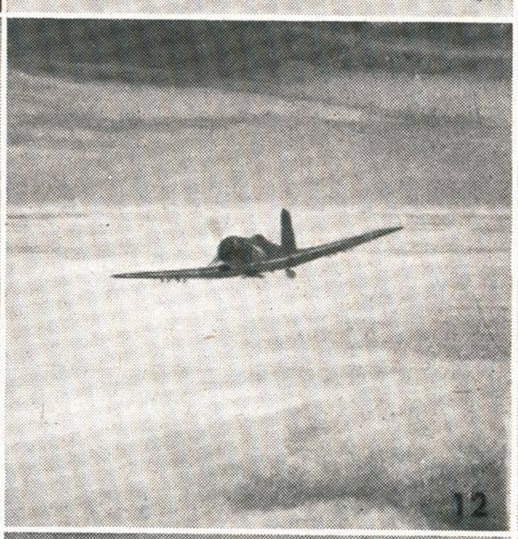
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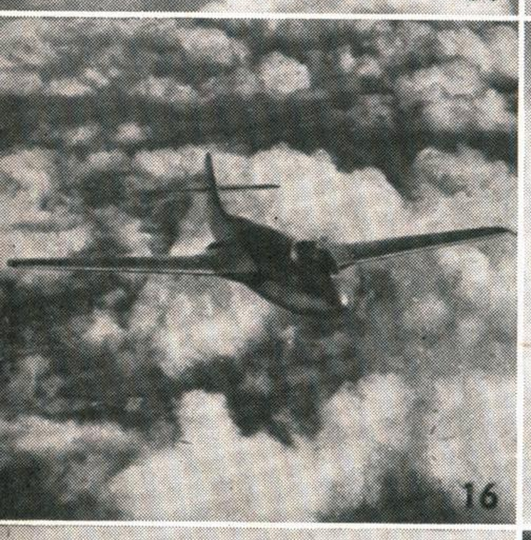
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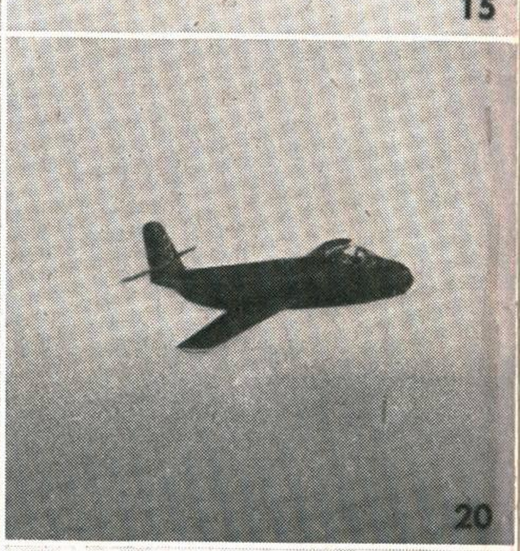
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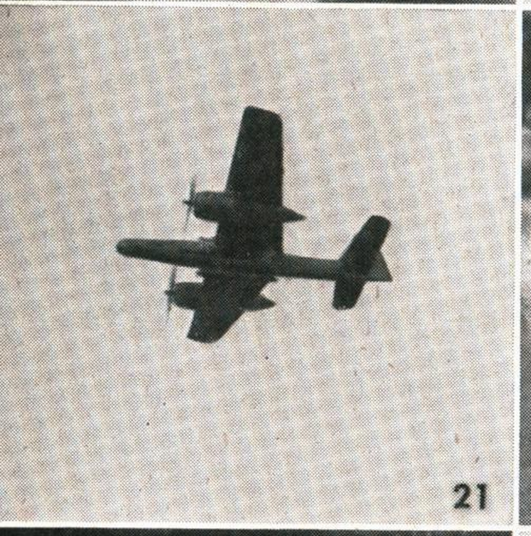
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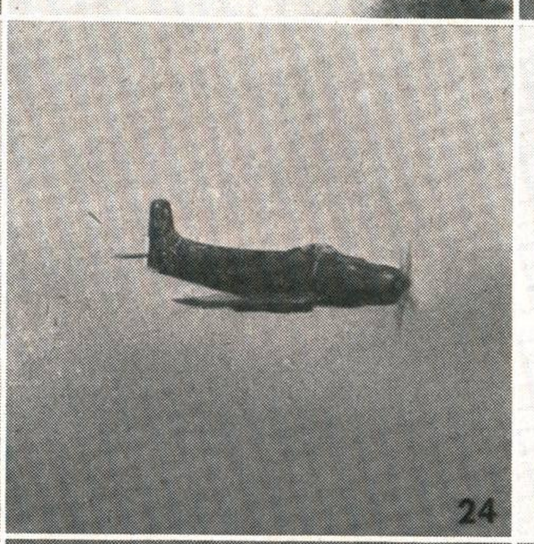
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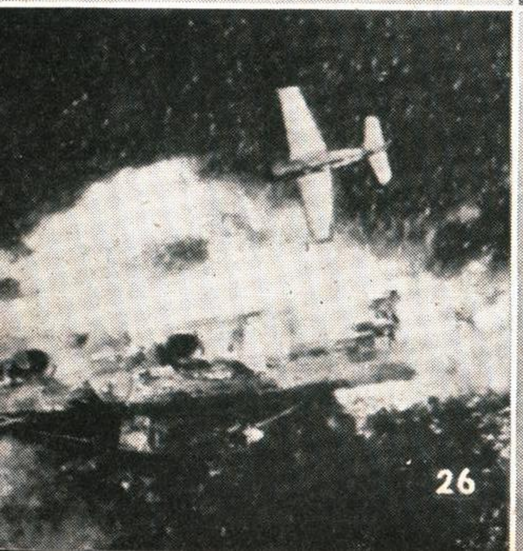
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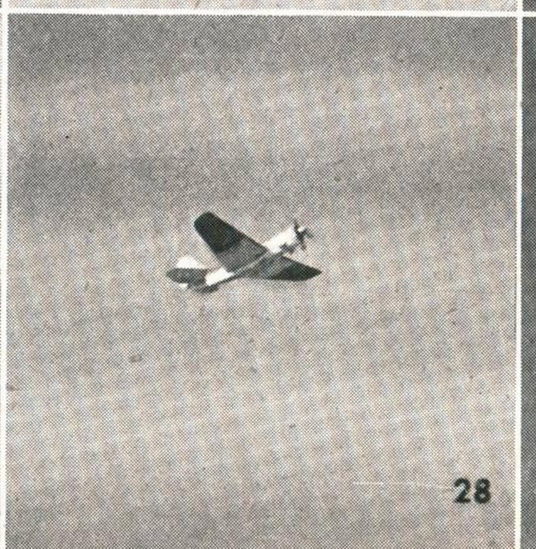
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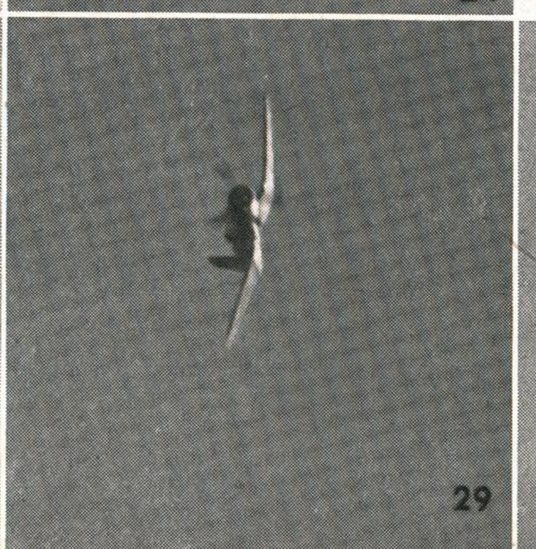
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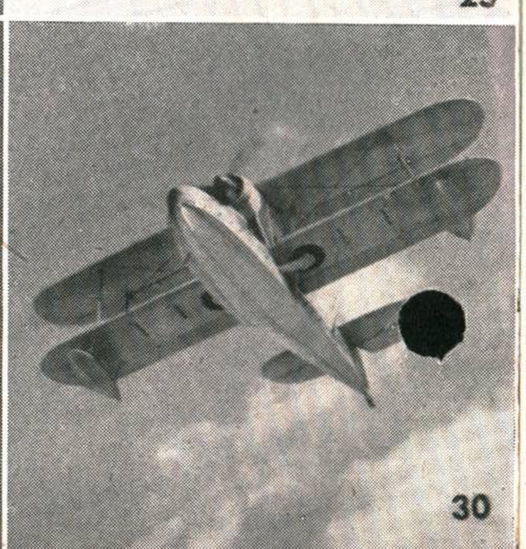
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NOVEMBER 1948 Vol. 3 No. 4

THE INTER SERVICES

AIRCRAFT RECOGNITION JOURNAL

Foreword

by

Admiral Sir Philip Vian,

KCB · KBE · DSO

BY the end of the last war, aircraft recognition had become very efficient, through careful training, constant practice, and sheer necessity But this did not happen before many aircraft, and much worse—crews—had been lost through failure to identify correctly.

Such things in peace, important though they are, tend to be overlooked. Training is cut down, we never see a real enemy, and in Fleet practices perhaps we do not appreciate the full significance of a mistake.

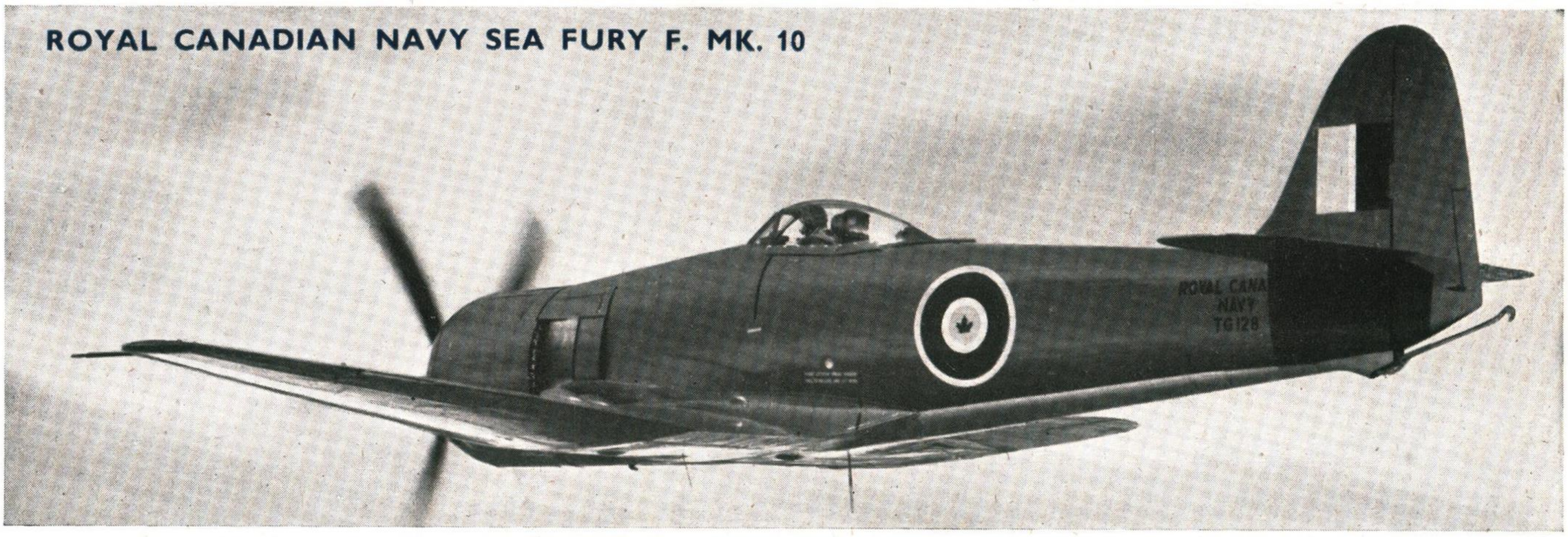
Whether you are a flying crew, a gun's crew, or a lookout, you and your ship will be more efficient in peace-time exercises if you spot and recognize first.

In war, he who hesitates is lost. To recognize at once may make the difference between losing a ship or an aircraft (and a few of your friends as well): and getting in the first shot which brings the enemy down.

With the help of a journal like this, we can, even in peace, become quite familiar with all the aircraft of our friends and probable enemies, and thus in this respect " Be Prepared."

The identity of the aircraft to which the flag signal relates is given on the back cover.

Navy Singles Compared



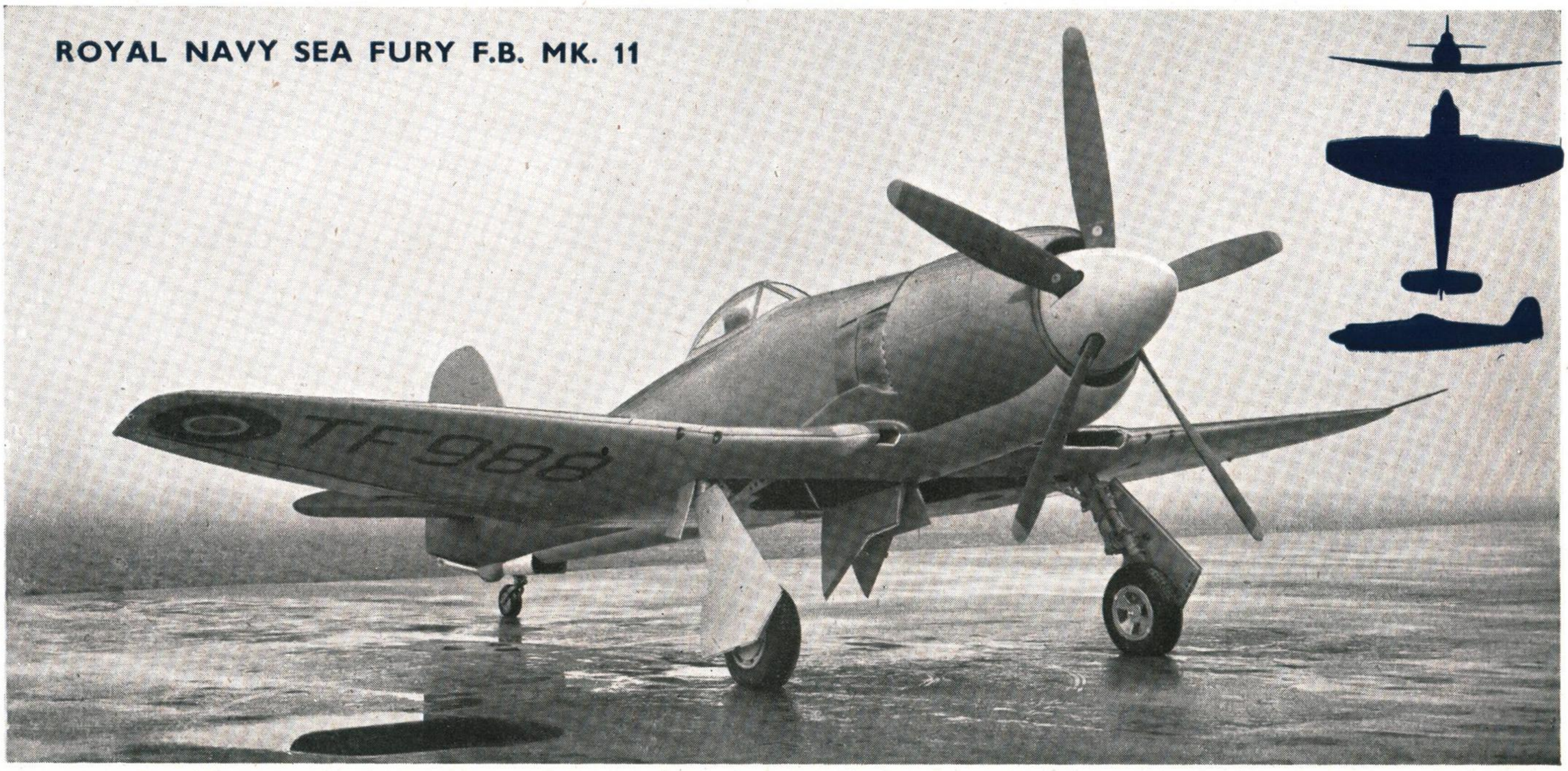
Sea Furies

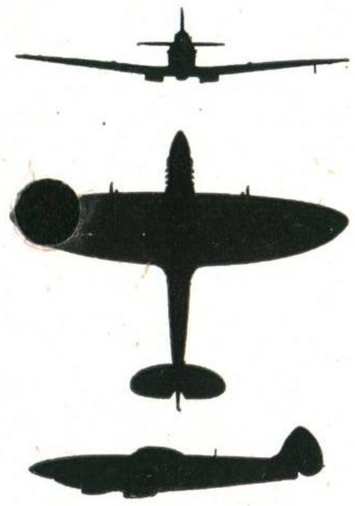
WE may well envy the facility with which the Furies of the good old days of Greek mythology performed their tasks of " haunting the wicked on Earth and scourging them in Hell." They had no problems of range, bombload, maintenance, nor carrier stowage, at least not in the way that we have today. Hell, in fact, had no Fury like the Hawker Sea Fury.

Consider this list of appendages to the Sea Fury. Fixed and permanent are four 20 mm. guns with 580 rounds each, one ciné camera gun, and one gyro-gunsight. Internally, but removable, are two F.24 cameras (one for verticals, one for obliques) and one camera recorder. Outside and expendable are 12 rocket projectiles with 60-lb. warheads, two bombs of from 100 to 1,000 lbs. each, two clusters of small anti-personnel bombs, light series practice bombs, two photoflash bombs and two 500lb. depth charges. Also carried are two camera containers, two smoke curtain installations and two " window " launcher containers. These loads are interchangeable, but with some, drop-fuel-tanks may be carried on the wings when the fuel load goes up to 380 gallons. The pilot is shielded by armour plate ; his wind shield is bullet proof and his ammunition in the wing is protected by more armour. In addition, various kinds of radio, blind-flying, and oxygen equipment are installed. The Sea Fury has a deck-arrester hook ; it folds its wings (with warload on) and there is provision for RATOG. In full battle array it weighs 12,300lbs.

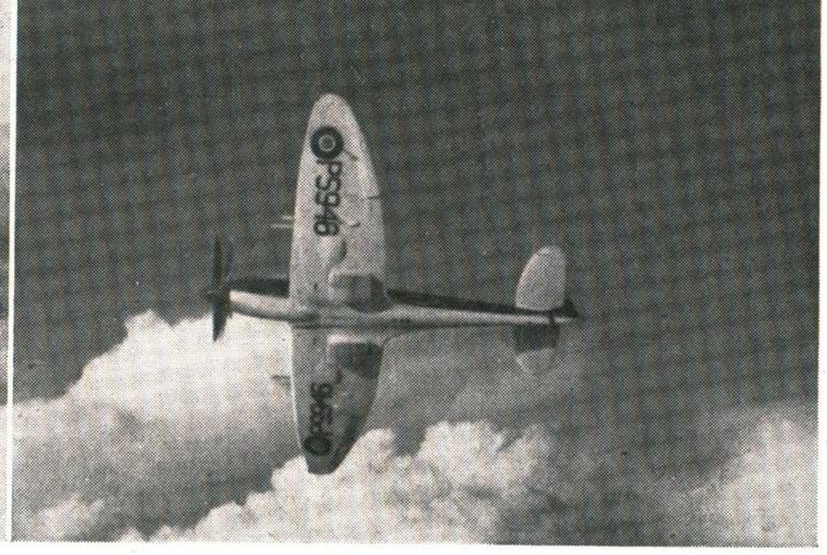
Unadorned the Sea Fury is a neat and simple flying machine. It has a short blunt nose and a large conical spinner, and the cowling lines flow smoothly into the fuselage. In side view the top line rises to the small " fully fashioned " cockpit canopy before sloping gradually down to the fin. The high cockpit gives the pilot a good view. The Sea Fury inherits the family tail, though the rudder is trimmed-off at the bottom for hook stowage. The elliptical wing has blunt tips, a straight centre-section ; it has root fillets on the trailing edge, and small asymmetrical intakes at the leading edge root—larger on the port side.

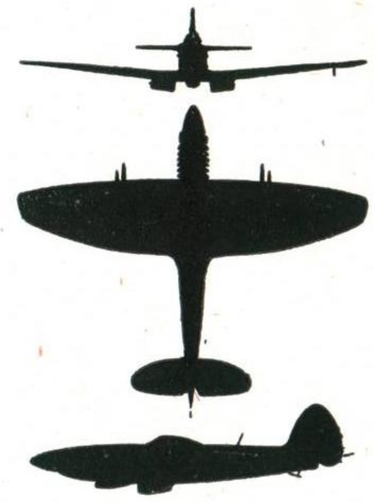
The Sea Fury F.10 and F.B.11 are outwardly identical save when the F.B.11 carries bomb-racks on the outer wings (not seen in photo). Both are powered by the Bristol Centaurus radial and both may be summarized as snub-nosed, hump-backed, high-speed Navy fighters.



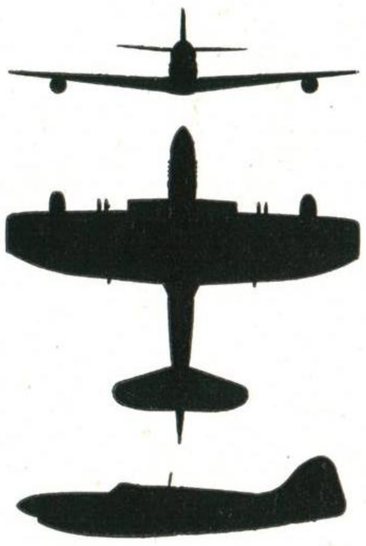


VICKERS ARMSTRONGS SEAFIRE 17



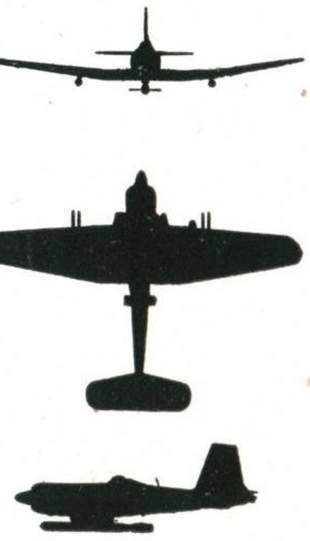


VICKERS ARMSTRONGS SEAFIRE 47



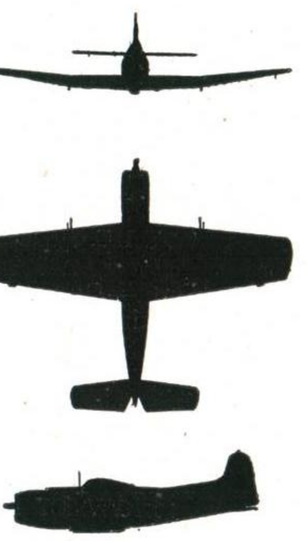
FAIREY FIREFLY 4

BLACKBURN FIREBRAND 5

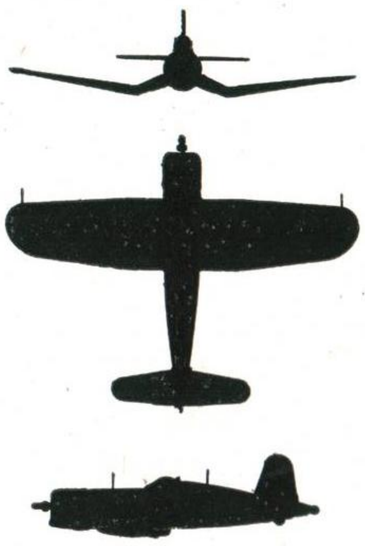


DOUGLAS AD-1 SKYRAIDER

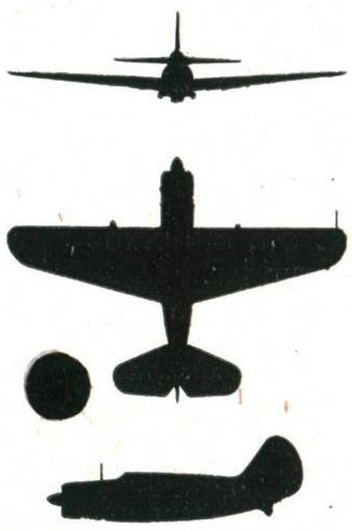
MARTIN AM-1 MAULER



WESTLAND WYVERN 1

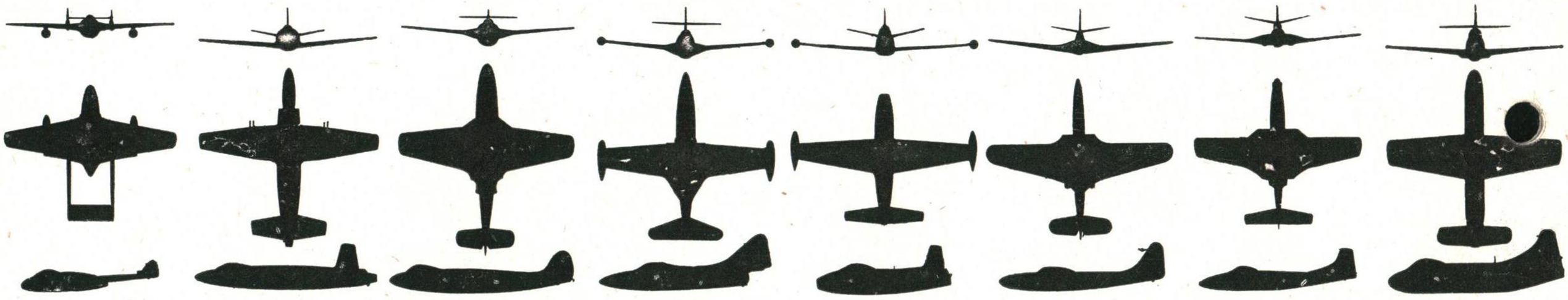


CHANCE VOUGHT F4U-5 CORSAIR



CURTISS SB2C-4 HELLDIVER

GRUMMAN F8F BEARCAT



SEA VAMPIRE 20 | SEA ATTACKER | N.7/46 | PANTHER | FURY | PHANTOM | BANSHEE | PIRATE

SEA-JETS

CARRIER-BORNE NAVY FIGHTERS ARE NO LONGER INFERIOR IN PERFORMANCE TO THEIR LAND-BASED COUNTERPARTS. ALTHOUGH THE OPERATION OF JET-FIGHTERS AT SEA HAS ITS OWN PARTICULAR PROBLEMS, THESE ARE BEING RAPIDLY OVERCOME BY EXPERIMENT AND EXPERIENCE. OF THOSE JET-FIGHTERS LINED UP ABOVE—IN IMPOSING NUMBER AND VARIETY—ALMOST ALL HAVE HAD SOME SERVICE AFLOAT ALREADY.

SEA VAMPIRE 20

De Havilland Sea Vampire 20, except for one " point" is similar to the Vampire F.Mk.5, having clipped wings and butterfly-wing fins and rudders. The " point " of difference is the arrester-hook stowed above the jet-pipe. Other minor differences include accelerator-hooks on wings for deck take-offs. " Sea-Vamp Twenties " will also carry airship-type wing-tanks.

Data—*Duty* : Fighter. *Engine* : D.H. Goblin Mk.II. 3,100 lbs. s.t. *Performance* : Maximum Speed : 540 m.p.h. (476 knots). *Armament* : Four 20 mm. cannon. *Dimensions* : Span : 40 ft. Length : 30 ft. 6 ins.

N.7/46

Hawker N.7/46. Long and impatiently awaited Hawker jet-fighter, the N.7/46 (it has no name at present). N.7/46 and P.1040 (Hawkers Type No.) are basically same aeroplane, but N.7/46 has sharper nose and V-type hook beneath rear fuselage. The N.7/46 design is simple yet distinctive, preserving Hawker hall-mark in tail surface shapes. Enlarged centre section, necessitated by bifurcated jet-trunk, is a good recognition feature.

Data—*Duty* : Fighter. *Engine* : One Rolls Royce Nene. *Performance* : Maximum speed : 600 m.p.h.+(528 knots +). *Armament* : Apparently four 20 mm. cannon. *Dimensions* : Span : 36 ft. 6 ins. Length : 38 ft. 4 ins.

FURY

North American FJ-1 Fury. Cut and shape of flying surfaces recall the North American P-51 series, but tubby fuselage does not. Note tailplane dihedral angle and squared-off fin and rudder with dorsal fin. It will also have tip-tanks. The FJ-1 Fury was recently on catapult and landing trials aboard the U.S.S. " Boxer." Press reports mention production order of 30 for the U.S. Navy.

Data—*Duty* : Fighter. *Engine* : One General Electric J-35 Turbojet of 4,000 lbs. static thrust. *Performance* : Maximum Speed : 570 m.p.h. (502 knots). *Range* : 800 miles (695 n.m.) with drop tanks. *Armament* : Six .5 machine-guns. *Dimensions* : Span : 38 ft. 1 in. Length : 33 ft. 7 ins.

BANSHEE

McDonnell F2H-1 Banshee. Bigger and better Phantom of the Fleet—a super-spook—has more power and twice as much fuel, also longer nose, larger guns and smoother skin. Configuration remains basically that of Phantom but individual features differ ; fin and rudder and dorsal fairing are larger, and squared off ; later models lack dihedral to tailplane. A thinner wing retains characteristic shape and swept-forward impression.

Data—*Duty* : Fighter. *Motors* : Two Westinghouse 24C Turbojets of 3,000 s.t. each. *Performance* : Maximum speed 550 m.p.h.+(480 knots+). *Armament* : ? ? ? *Dimensions* : Span : 41 ft. 6 ins. Length : 39 ft.

SEA ATTACKER

Vickers Armstrongs Sea-Attacker. Projectile shaped body suggests winged-bullet. Sea-Attacker differs externally from Attacker only in the addition of a V-frame type arrester-hook fitted behind the tail-wheel well. To increase range, a large belly tank is carried. Its " spiteful " wing (folding) has broken taper, tips are blunt as are those of stunted tail-plane and fin and rudder.

Data—*Duty* : Fighter. *Engine* : One Rolls Royce Nene Turbojet of 5,000 lbs. s.t. *Performance* : Maximum Speed : 590 m.p.h. (520 knots). *Range* : 1,100 miles (955 n.m.) with drop tanks. *Armament* : Four 20 mm. cannon. *Dimensions* : Span : 36 ft. 11 ins. Length : 37 ft. 6 ins.

PANTHER

Grumman F9F-2 Panther. U.S. Navy has ordered 100 of these long-nosed, high-tailed, pod-bodied jet-fighters for carrier-operation. Production models will be powered by Pratt and Whitney built Nenes (J-32s). Easy to recognize, the Panther has expanded centre-section containing jet-intakes and main undercarriages. " Step " beneath the tail, and fin and rudder outline give side-view impression of can-opener. High-positioned back-tapered tailplane and large tip-tanks complete picture of unusual and promising Navy fighter.

Data—*Duty* : Fighter. *Engine* : Pratt and Whitney J-42 Turbojet. *Performance* : Maximum Speed 600 m.p.h.+(520 knots+). *Armament* : An unspecified number of .5 machine-guns in nose. *Dimensions* : Span : 35 ft. Length : 38 ft.

PHANTOM

McDonnell FH-1 Phantom. The FH-1 Phantom was the first jet aircraft to operate from an American carrier (June 1946) ; it was also the first jet aircraft to go into production for the U.S. Navy. Features now common expanded centre-section, housing twin turbojets exhausting at wing trailing edge. Sharp-tapered (folding) rounded-off wing outer sections give general effect of swept-forward wing. High setting and dihedral angle clear tailplane from jet-exhaust.

Data—*Duty* : Fighter. *Motors* : Two Westinghouse J-30 Turbojets of 1,600 lbs. s.t. each. *Performance* : Maximum speed 505 m.p.h. (440 knots). *Range* : 1,400 miles (1,230 n.m.). *Armament* : Four .5 machine-guns. *Dimensions* : Span : 40 ft. 9 ins. Length : 37 ft. 2 ins.

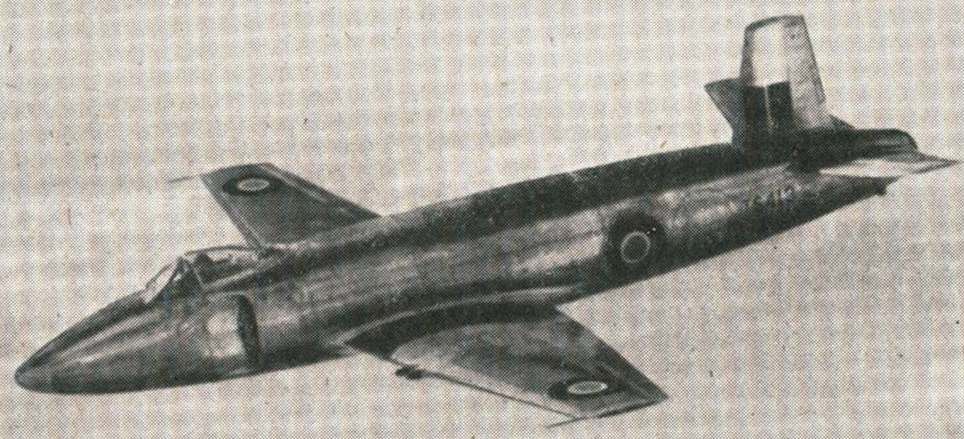
PIRATE

Chance Vought XF6U-1 Pirate. Pirate's fuselage has milk-bottle form of which jet-pipe forms neck. Jet-pipe is fitted for "after-burning " for emergency speed bursts. (After-burning means injection of fuel into jet tail-pipe to burn with unburnt exhaust gases and augment thrust : after-burners have enormous fuel thirsts.) Horizontal flying surfaces are spare, straight-tapered ; wings are squared off, tail-plane is rounded off, and set on " sugar loaf " shaped fin and rudder.

Data—*Duty* : Fighter. *Engines* : One Westinghouse turbojet of 3,000 lb. s.t. *Performance* : Maximum speed 550 m.p.h. (484 knots). *Range* : 750 miles (650 n.m.). *Armament* : Six .5 Browning machine-guns or four 20 mm. cannon. *Dimensions* : Span : 30 ft. 2 ins. Length : 32 ft. 10 ins.

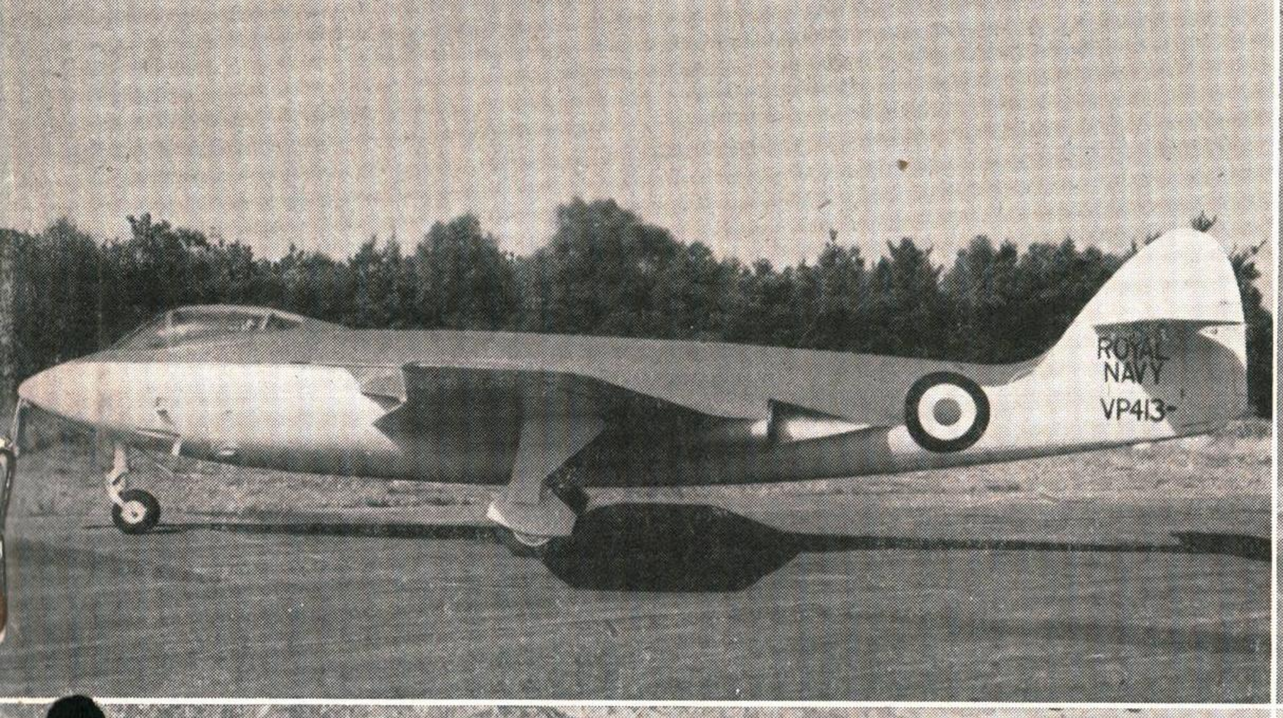
SEA VAMPIRE 20

SEA ATTACKER



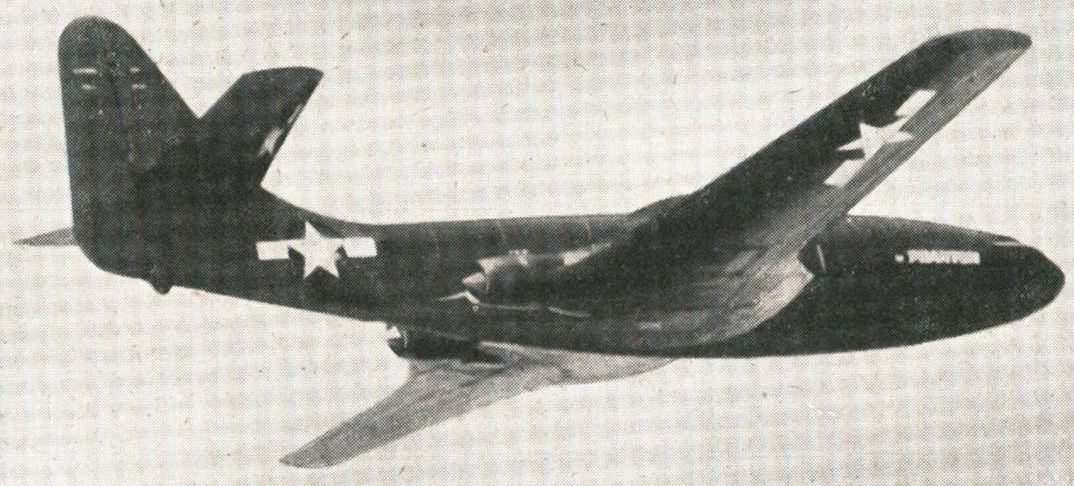
N.7/46

PANTHER (Photo. Harold G. Martin)



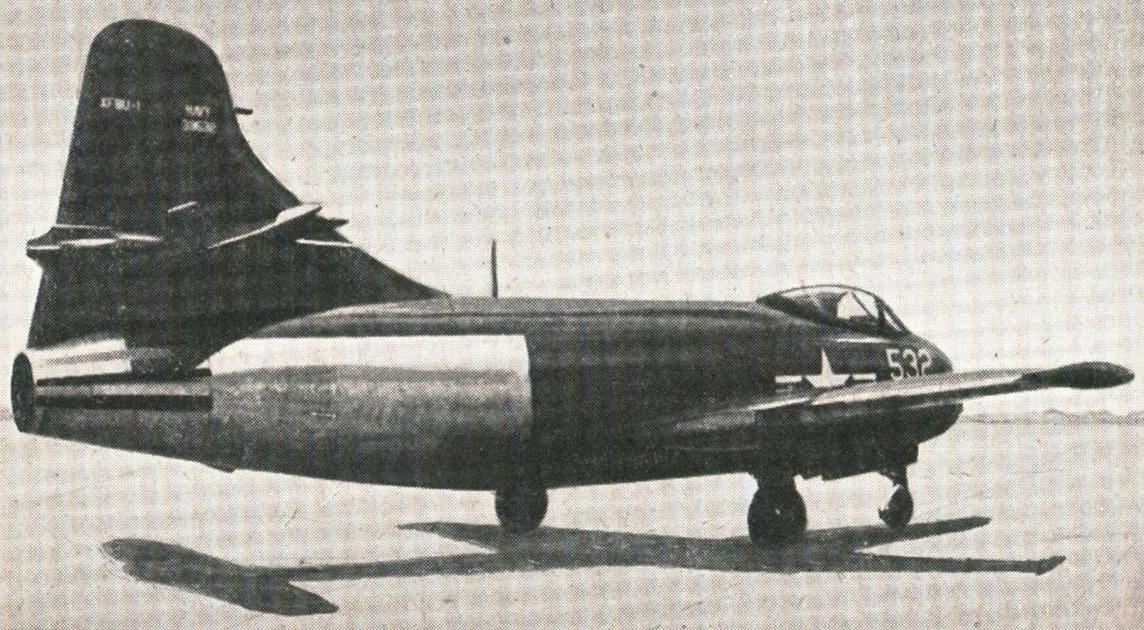
FURY

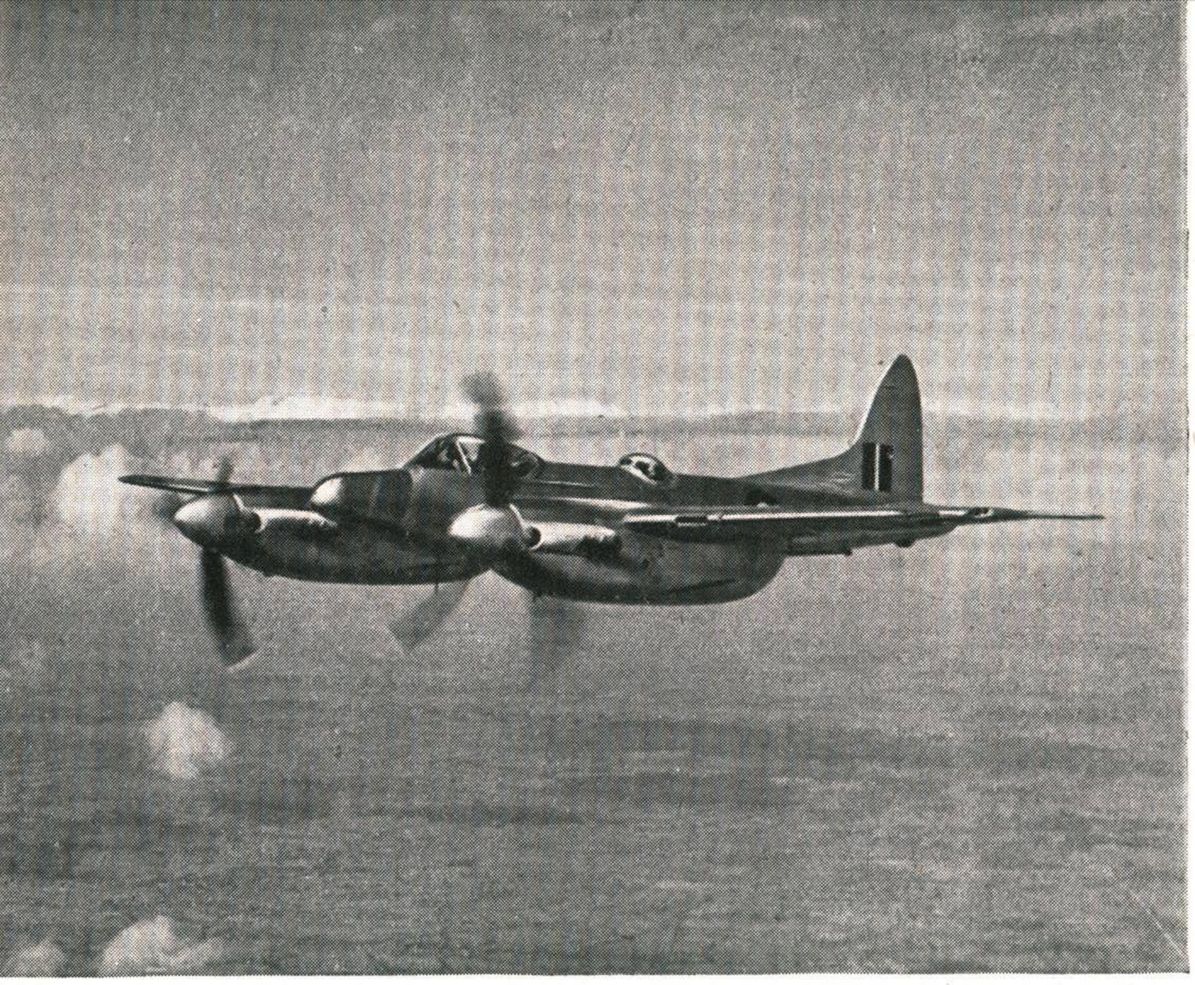
PHANTOM



BANSHEE

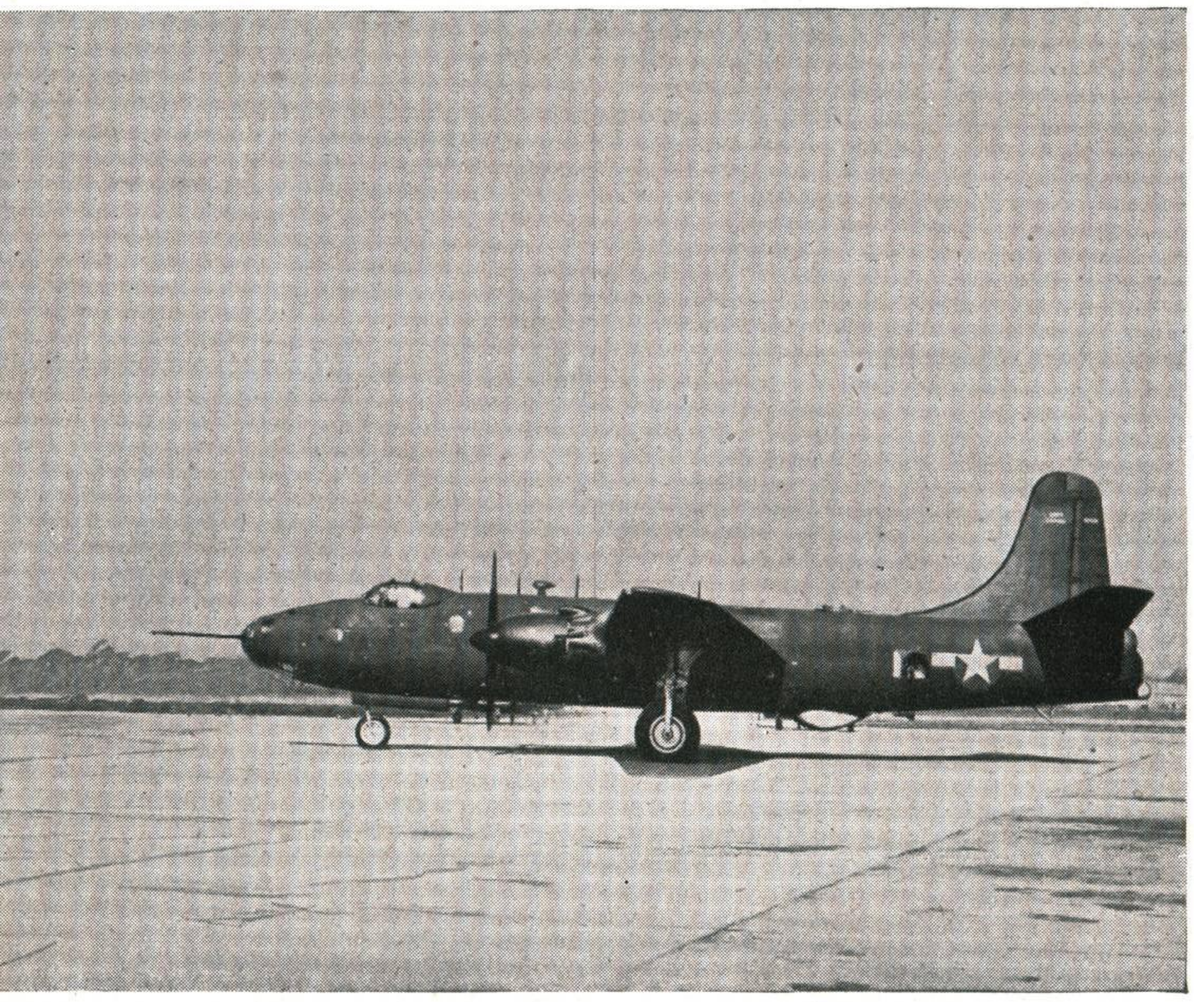
PIRATE





DE HAVILLAND SEA HORNET N.F. Mk. 21

LOCKHEED P2V-1 NEPTUNE



MARTIN XP4M-1 MERCATOR

Navy

Our title has no connection with the Quads born are necessarily twin-engined, as one of them, the twin-propeller types is reasonably accurate, although only true thing to say of them is that they have

De Havilland Sea Hornet N.F. Mk. 21

Night Fighter

Thimble nose—*Our picture of the Sea Hornet (D.H. 103) shows all the important features: enormous nacelles, thimble nose, twin cockpits and dorsal fin which gives the impression of a tail-high flying attitude. Somewhat unusually, this Sea Hornet is flying on both engines and is right side up.*

Data—*Engines*: Two Rolls-Royce Merlins 134 and 135. *Performance*: Max. speed: 470 m.p.h. (415 knots). *Dimensions*: Span 45 ft. Length 38 ft. 4 ins. *Armament*: Four 20 mm. cannon in nose.

Lockheed P2V-1 Neptune

Patrol Bomber

Snort Detector—*A long-range, long-winged very anti-submarine aircraft claimed capable of detecting the Schnorkel-breather of submarines below the surface, and of being the most heavily armed patrol bomber in existence. The P2V-1 is now in production, and squadron service of the United States Navy. It is shore-based.*

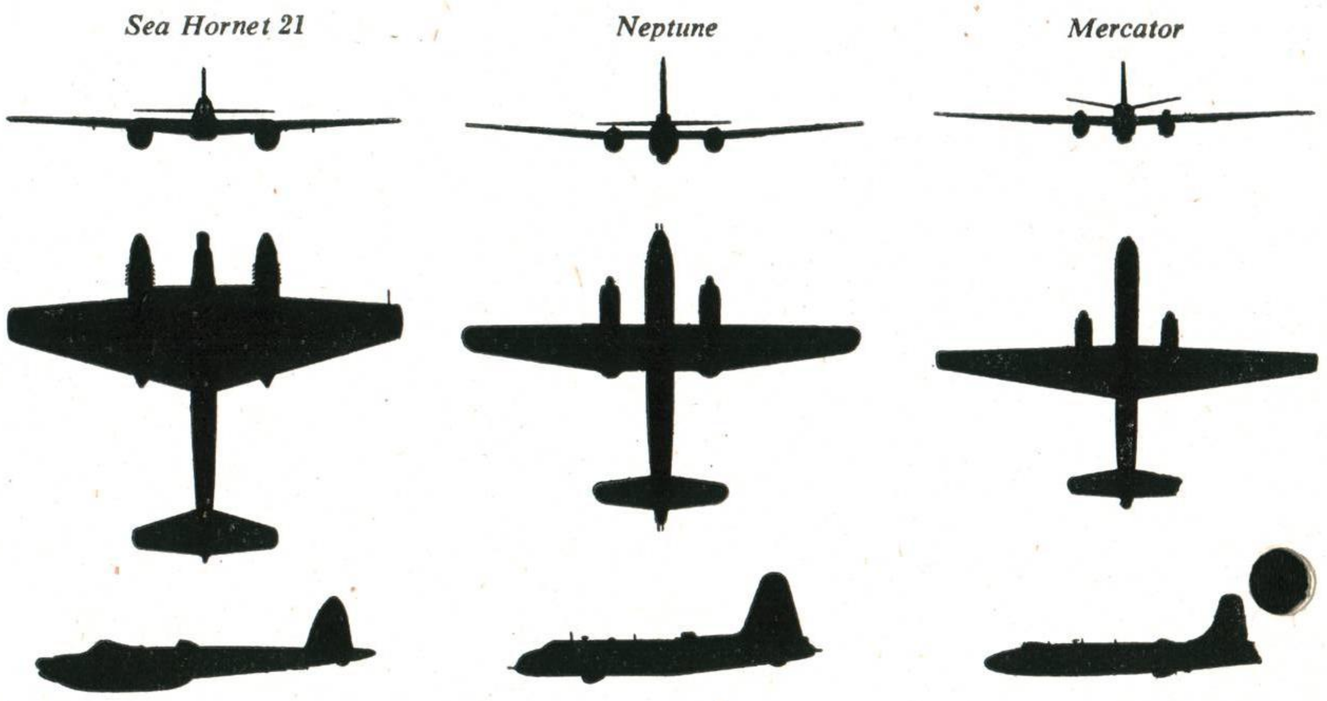
Data—Two Wright Cyclone radials of 2,300 h.p. each. *Performance*: Max. speed 285 m.p.h. (251 knots). *Dimensions*: Span 100 ft. *Length*: 75 ft. 6 ins. *Armament*: P2V-1.—Two 20 mm. cannon in nose, two in dorsal turret, two in rear turret. P2V-2.—Six 20 mm. cannon in nose. Up to 8,000 lbs. of bombs, rockets or torpedoes.

Martin XP4M-1 Mercator

Long Range Patrol Bomber

No Twin—*Mercator has four engines, two radials and two turbojets, one of each in each nacelle. It is technically four-engined, though recognitionally it looks like a twin and is uncomfortably Warwick-like except in tail unit detail. There is a production order for Mercators for the United States Navy. They will be land-based.*

Data—*Engines*: Two Pratt and Whitney Wasp Major radials and two I-40 turbojets. *Performance*: Max. speed 398 m.p.h. (350 knots). *Dimensions*: Span 114 ft. Range 82 ft. 7 ins. *Armament*: Six .5 in. machine-guns in nose, two 20 mm. cannon in tail turret, dorsal and beam gun positions.



•Twins

last Trafalgar Day, nor does it mean that the aircraft Martin Mercator, has four. To refer to them as the Short Sturgeon really has four. In fact, the twin power-packs and *look* like twin-engined types.

Grumman F7F-3N Tiger Cat

Shipboard Night Fighter

Ship's Cat—*The -3N is the only carrier-based version of the F7F. Earlier models which saw operations towards the end of the war equipped several United States Marine Squadrons but were shore-based. Salient features include large forward-tapered squared-off wing, over-grown carrot-shaped engines and nacelles, and long snout to fuselage.*

Data—*Engines* : Two Pratt and Whitney Double Wasp radials of 2,100 h.p. each. *Performance* : Max. speed 425 m.p.h. (374 knots). *Dimensions* : Span 51 ft. 6 ins. Range : 45 ft. 5 ins. *Armament* : Four 20 mm. cannon in wing roots.

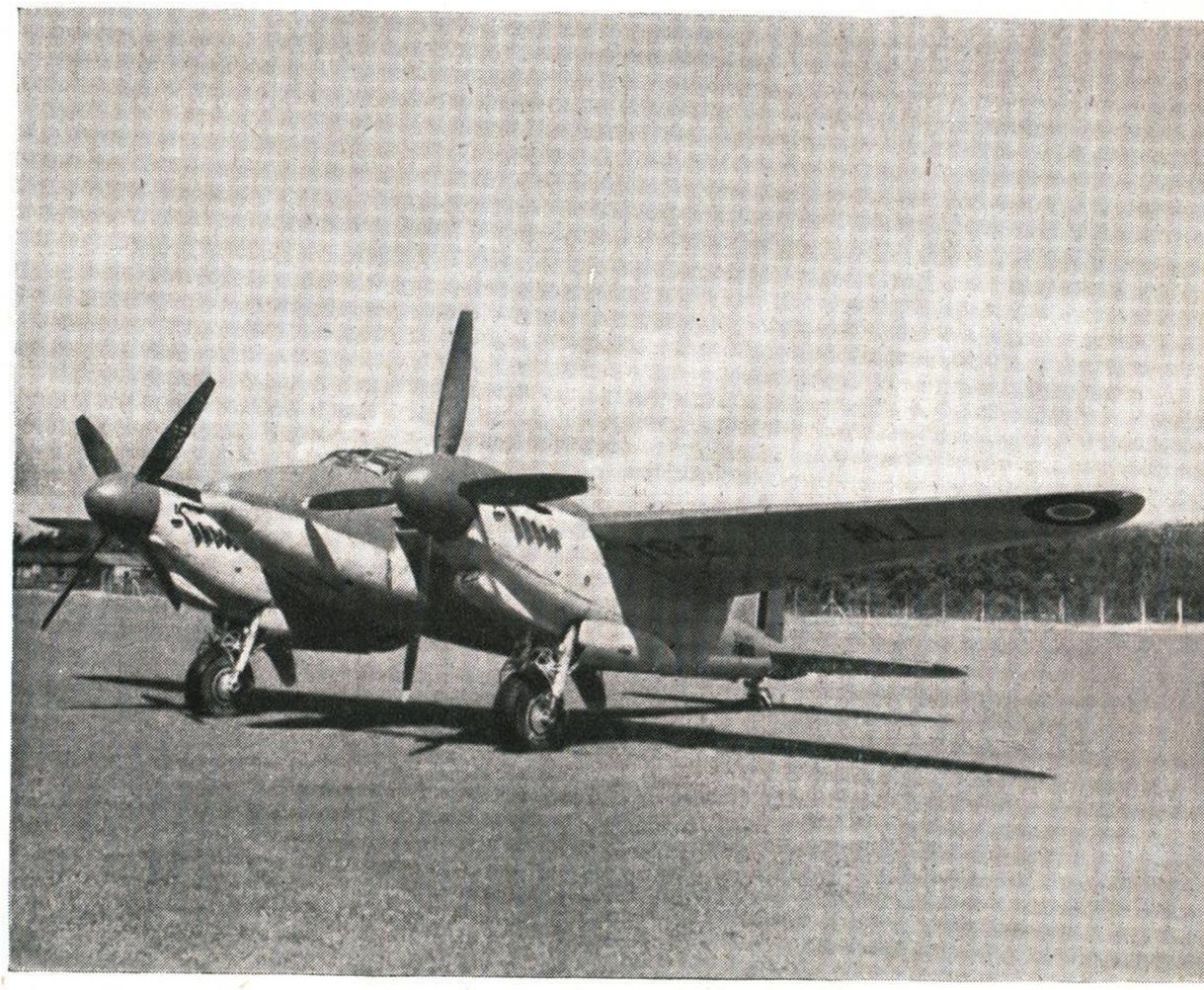
GRUMMAN F7F-3N TIGER CAT
(Photo Harold G. Martin)

De Havilland Sea Mosquito T.R. Mk. 33

Torpedo Reconnaissance

Tinfish Transport—*Yet another version of the versatile De Havilland 98 Mosquito. Chief recognition difference—a small one—is the new radar snout. It carries a deck-hook ; outer wing-panels fold. Prototype Sea Mosquito " landed on " for the first time in March, 1944, it was the first twin-engine aeroplane ever to alight upon a carrier at sea.*

Data—*Engines* : Two Rolls-Royce Merlins 25. *Dimensions* : Span 54 ft. 2 ins. Length : 41 ft. 2 ins. *Armament* : Four 20 mm. cannon, air-torpedo of 2,000 lbs. or two 2,500 lb. bombs in bomb-bay and two 500 lbs. bombs under wings.



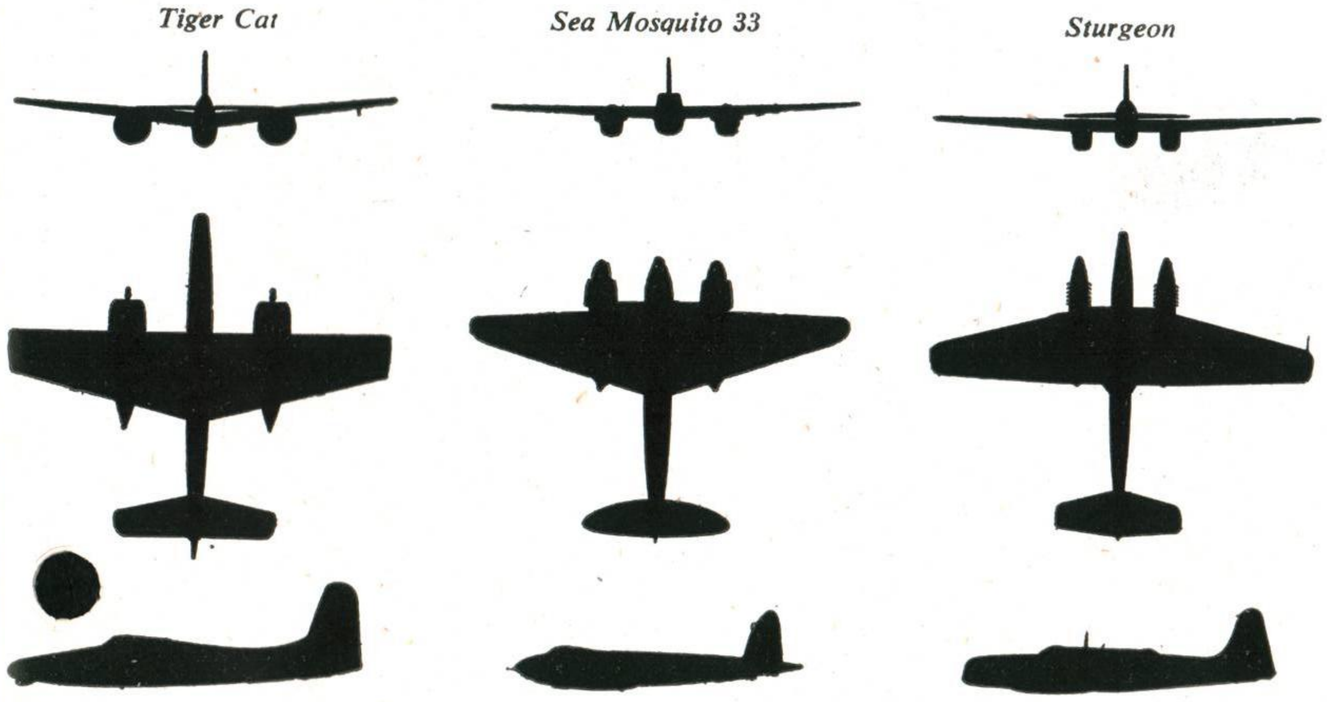
DE HAVILLAND SEA MOSQUITO T.R. Mk. 33

Short Sturgeon T.T. Mk. 2

Target Tug

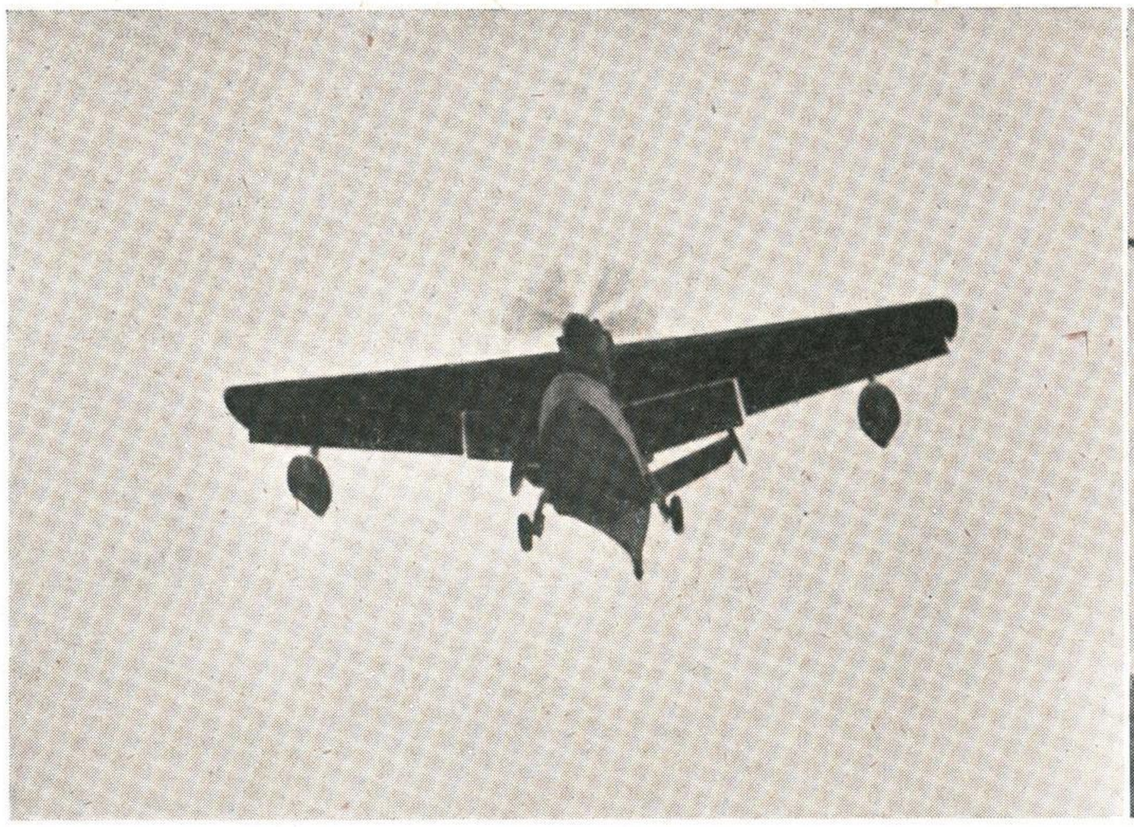
Short Haul—*The Sturgeon was the first aircraft designed expressly for the Royal Navy. To meet stowage requirements it folds wings and nose section of fuselage. Contra-props eliminate all swing, facilitating operation from carriers. Most distinctive feature is the sharply back-tapered wing.*

Data—*Engines* : Two Rolls-Royce Merlin 140s. 1,660 h.p. *Performance* : Max. speed 366 m.p.h. *Dimensions* : Span 59 ft. 9 ins. Length : 48 ft. 11 ins.

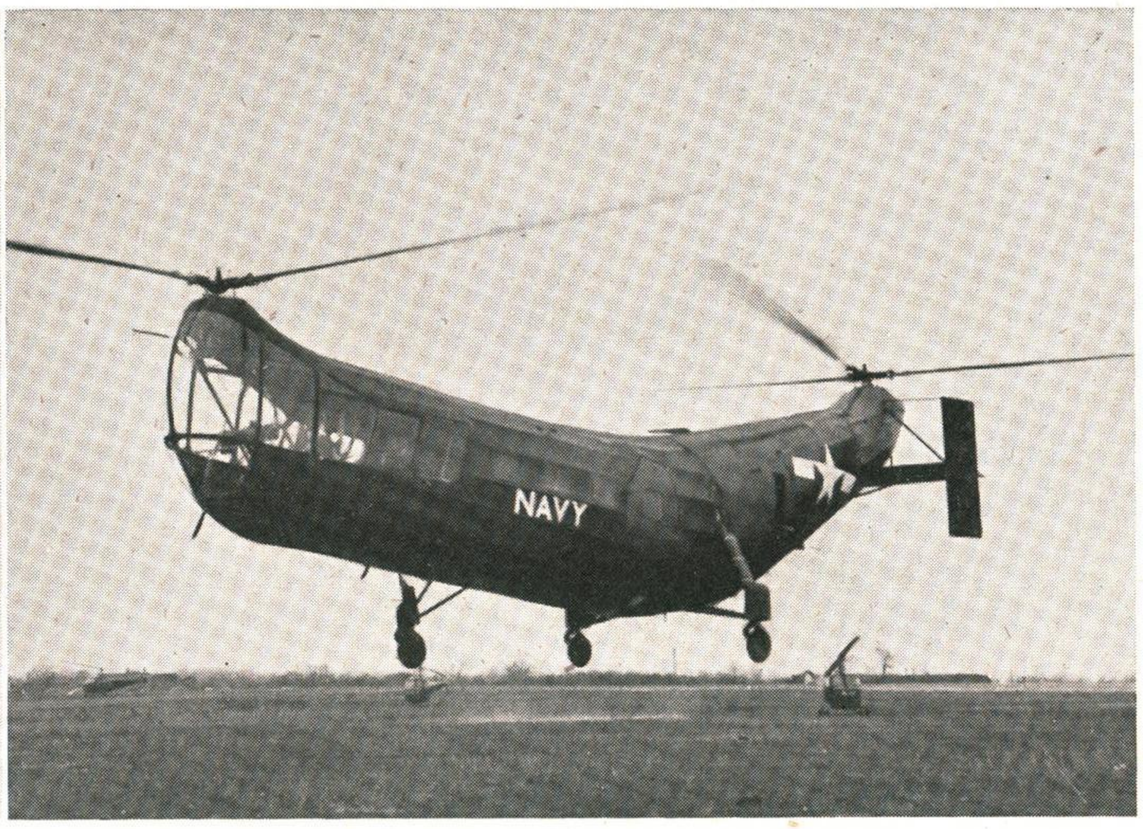


SHORT STURGEON T.T. Mk. 2

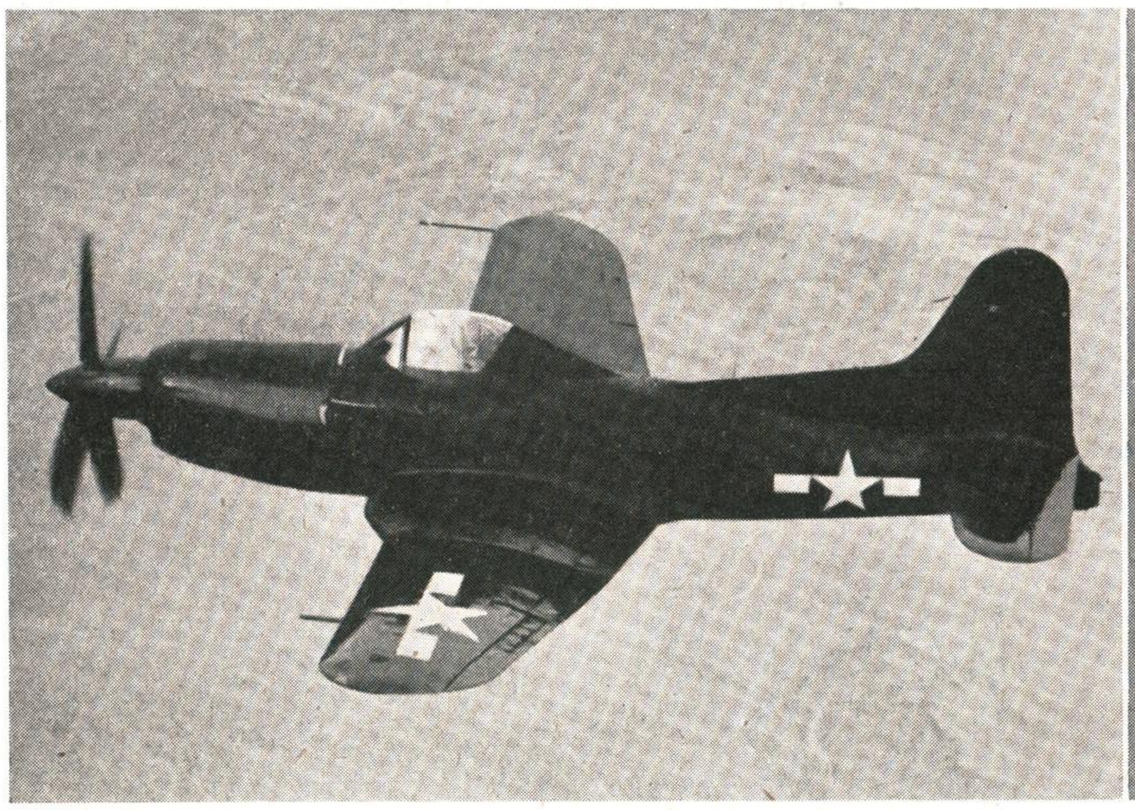
NAVY NOVELTIES



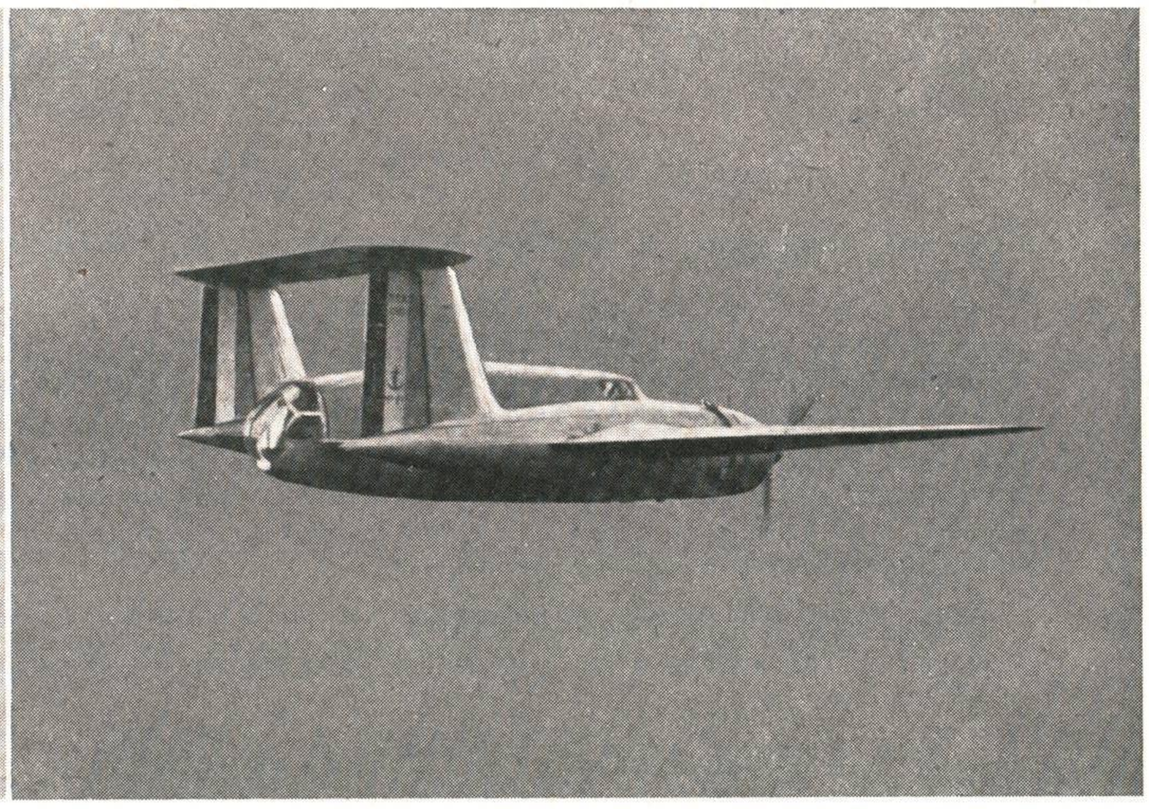
Seagull (Griffon) by Vickers Armstrongs Supermarine "opens out" to land-on. Maid-of-all-work amphibian for the Royal Navy, it sports a variable incidence wing, large degree of dihedral in tail and twin fins and rudders.



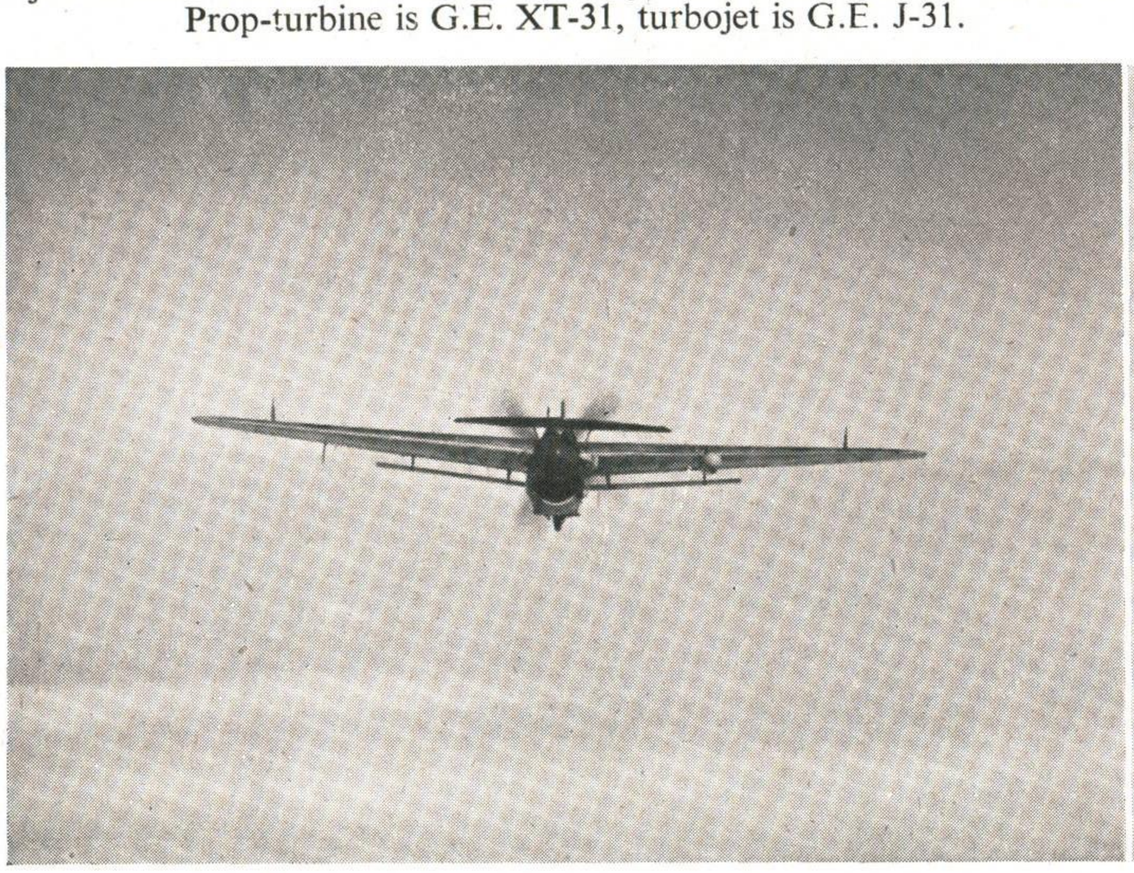
Flying Banana, or HRP-1 which means helicopter, transport. Piasecki. In its "engine-room" lies a Pratt and Whitney Wasp radial. U.S. Navy has an order for an even bigger and better "banana" to carry 25 men.



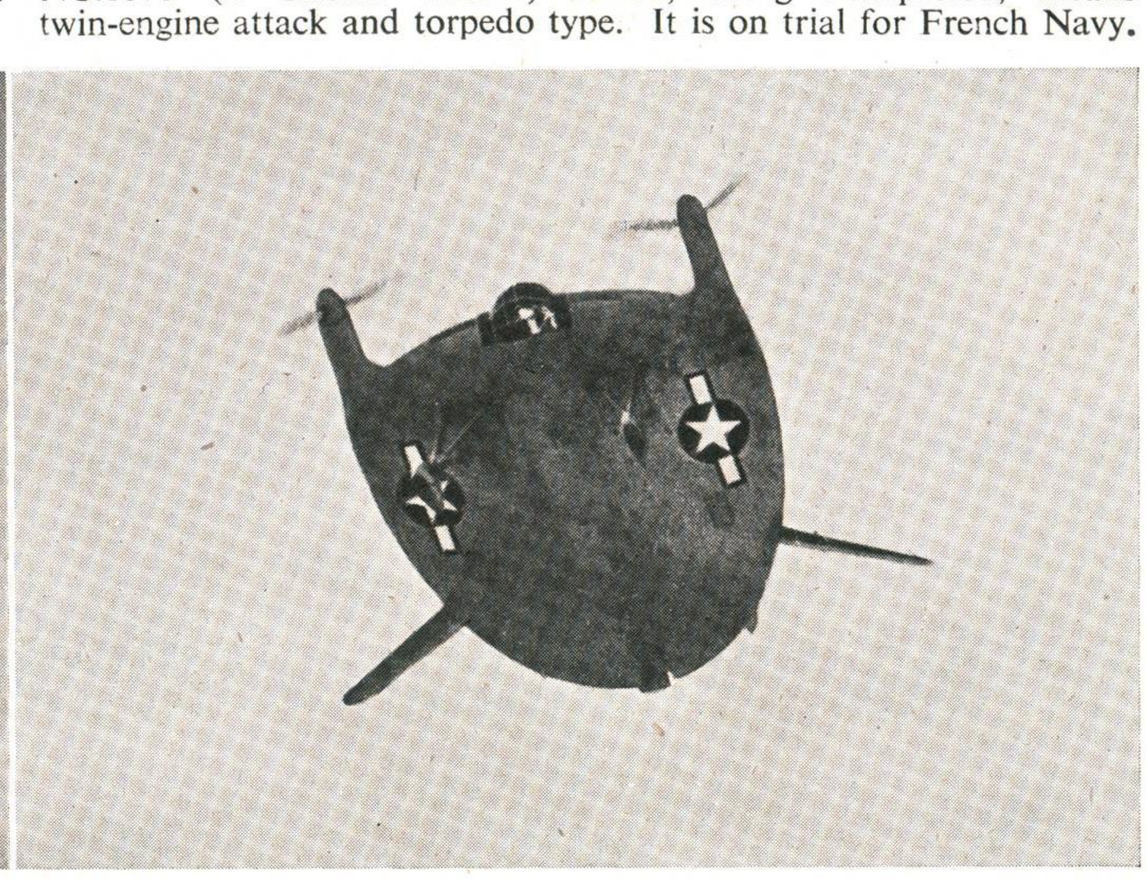
Dark Shark, or Ryan XF2R-1, for research on airscrew-turbine and jet-turbine combination for U.S. Navy. Tests are not yet complete. Prop-turbine is G.E. XT-31, turbojet is G.E. J-31.



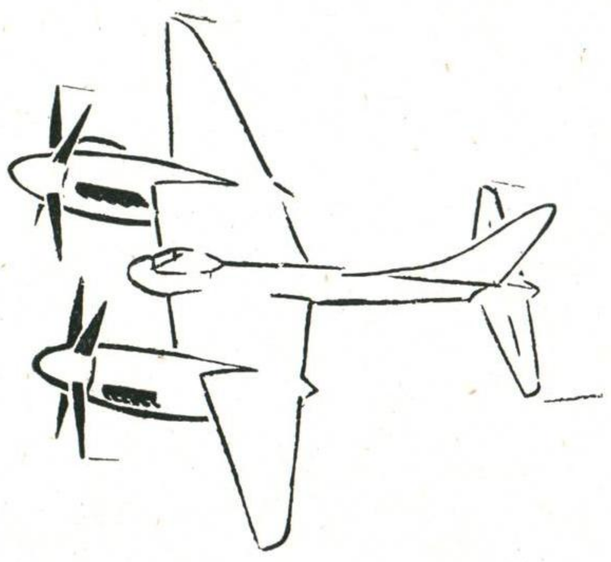
Box Kite, or Bimoteur de bombardement en piqué et torpilleur NC.1070 (2 Gnome Rhone) which, being interpreted, means twin-engine attack and torpedo type. It is on trial for French Navy.

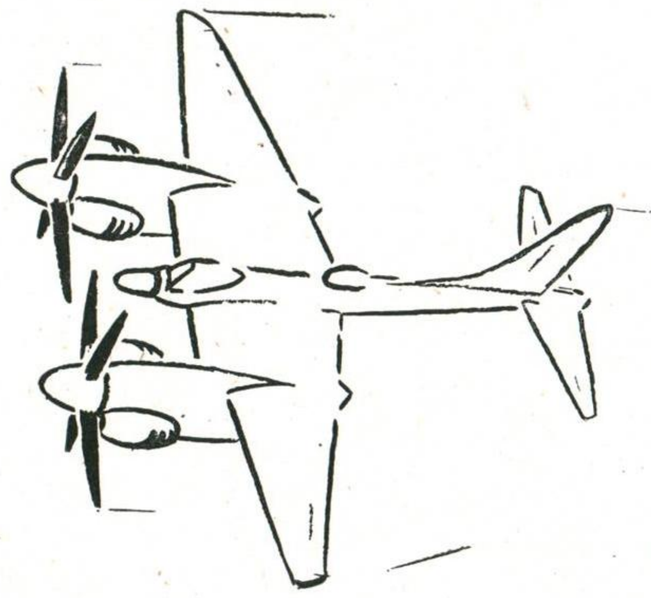


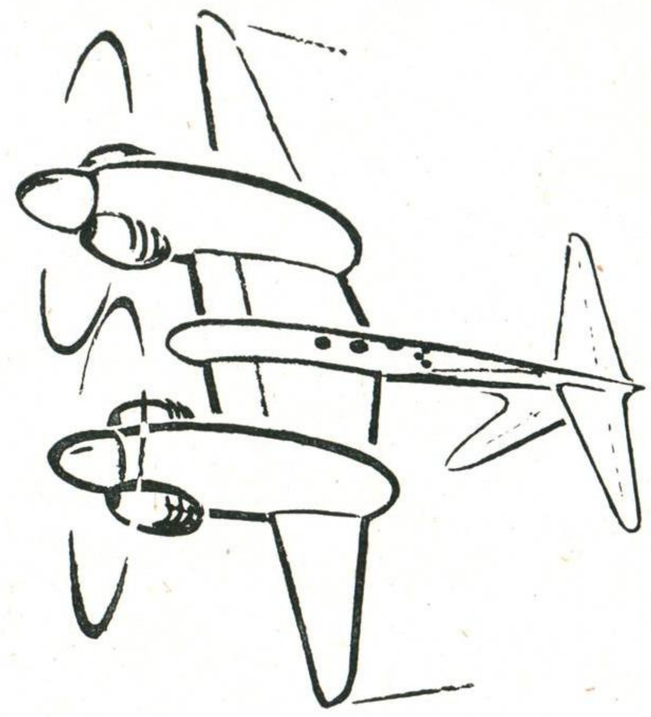
Barra. 5. Novel only in the sense of being unusual in configuration, the Barracuda was operational from 1941 onwards. The MK 5 (Griffon) still survives with Royal Navy; it displays high-set flying-surfaces and low confusability factor.



Flying Saucer, original, U.S. Navy, for the use of. The Chance Vought V-173 or XF5U-1 was designed for speed range from zero to 550 m.p.h.—ideal for carrier work. There is no sign of it in service yet.







Sea Hornets

IT is said of the Sea Hornet that if one feathers both propellers it can be flown on the windscreen wipers; control being effected by raising one or other of the eye-brows. Doubtless that is an exaggeration, but a Sea Hornet was recently looped twice in succession with both props feathered, and that is not an exaggeration.

On August 9th, 1945, the second atom bomb was dropped on Nagasaki, thereby completing another chapter in World and Aviation history. At the same time it stopped the war-service of the Sea Hornet, for it was on the following day that the first deck-landing trials of the prototype Hornet were begun aboard the aircraft carrier H.M.S. *Ocean*. This, in its own way, was also history, because it was the first twin-engined aircraft to go into service with the Royal Navy. Between then and now three Sea Hornets have appeared : the F. Mk.20., the NF. Mk.21, and the P.R. Mk. 22.

" Over-powered "

These three marks are all very similar and give one a first impression of being over-powered because of the size of the nacelles. This impression is exaggerated by the two enormous airscrews, opposite-rotating—one could almost say inter-meshing—in front of a snub nose. But on looking at the speed figures—over 470 m.p.h. on the level (413 knots to you) for all marks—the impression of power becomes a reality. The Sea Hornet is in fact about the fastest thing on props.

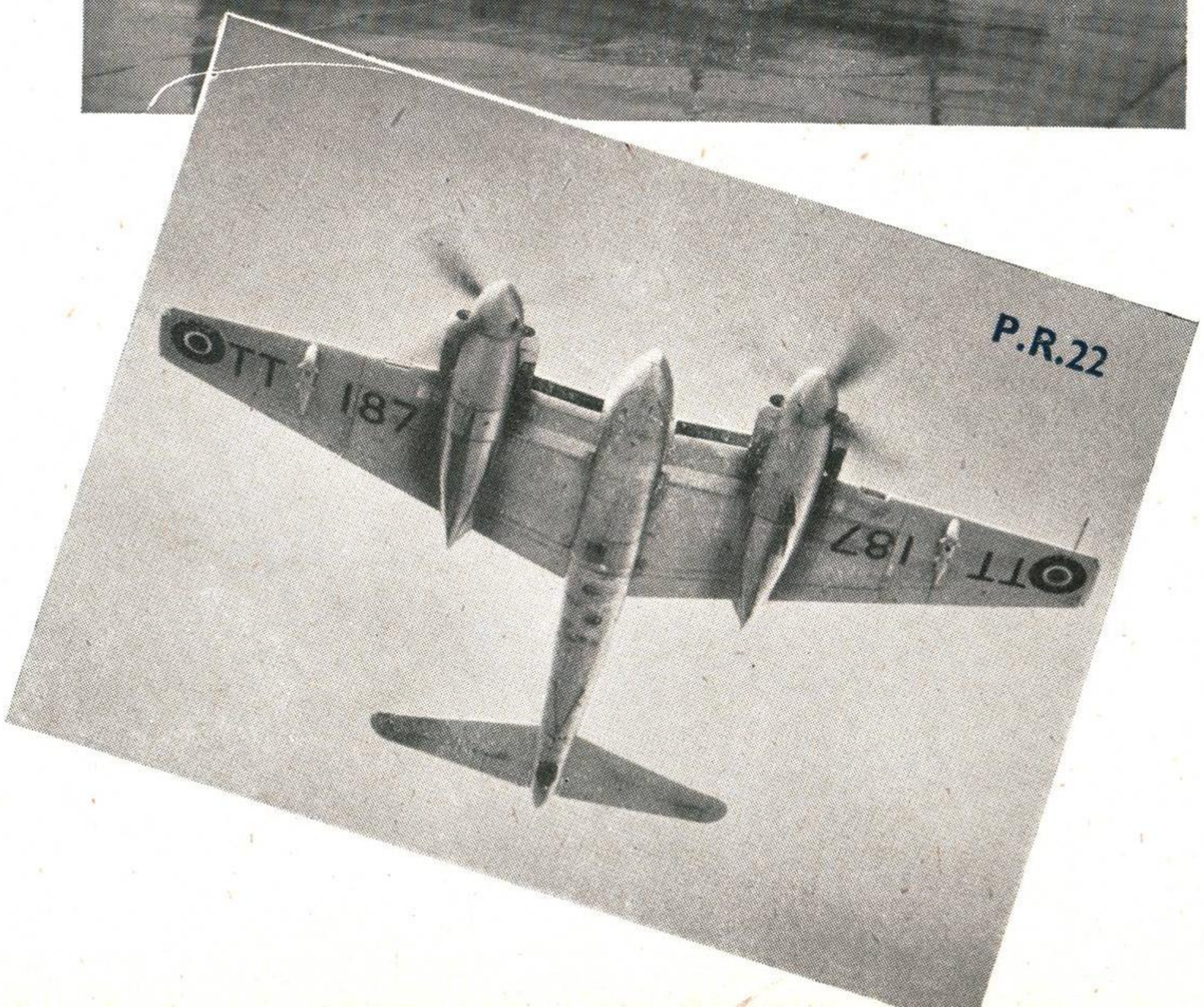
The original call for the Sea Hornet came in 1943. A fighter, with long-range and good aerobatic performance and plenty of speed was required to out-smart the Jap fighters which infested the Pacific Islands which lay between the Allies and the Japanese mainland. Rolls Royce and De Havillands co-operated closely in producing the Sea Hornet, Rolls Royce producing a special pair of cleaned-up Merlins (models 134 and 135) and by re-arrangements of accessories and the re-positioning of various items such as radiators, oil-coolers, etc., the over-all size of the engine in its nacelle was reduced considerably as well as being made almost perfect in streamline shape.

" Underfed "

Round these two engines the Hornet airframe, based upon that of the well-tried Mosquito, was built. Sizes of structures were kept to an absolute minimum to preserve range (note the " skinny " fuselage); the wing was given a sharp taper to aid the aerobatic performance, particularly in rolling, and for the same reason the wing-tips were squared-off. The fuselage cross-section was considerably reduced in size over that of the Mosquito, so that there was only just enough room for the pilot and beneath him his guns. By keeping the nose short, and perching the cockpit right on it, the view forward is probably the best that any naval aircraft has ever had.

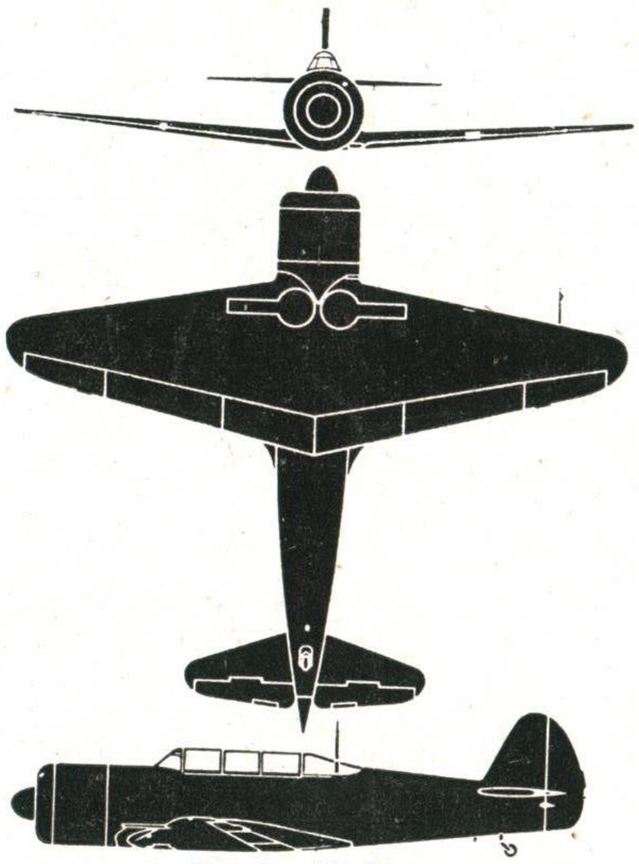
In appearance all marks of Hornet and Sea Hornet are similar, shapes being largely as they appeared in the original prototype except that the dorsal fin has been added to all models. The F. Mk.20 and the P.R. Mk.22 are outwardly identical, except for camera windows in the stomach of the 22. The Mk.21 has a thimble-type radome on its nose, a second cockpit and muff-type exhaust shields over the exhaust system, as in the 22.

(*For technical data see page 44.*)



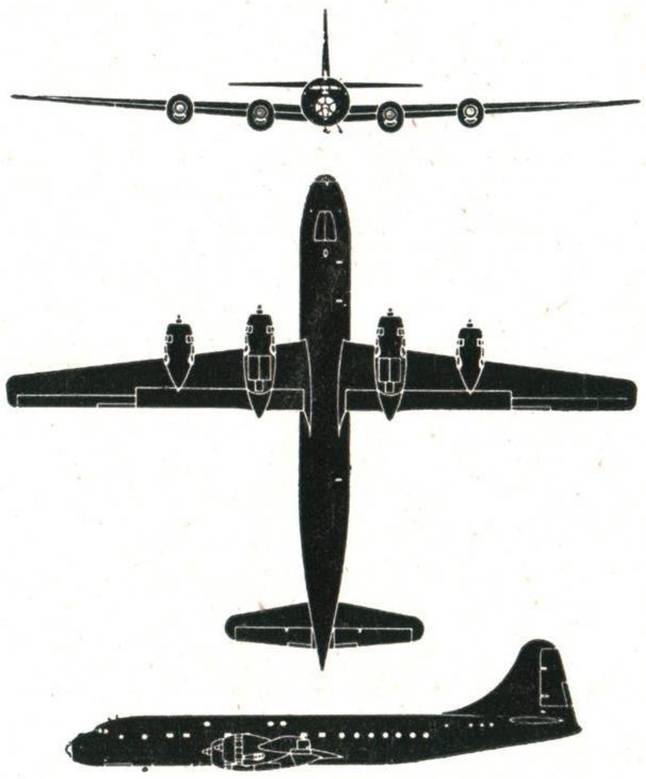
NEW and REVISED SILHOUETTES

YAKOVLEV YAK 11



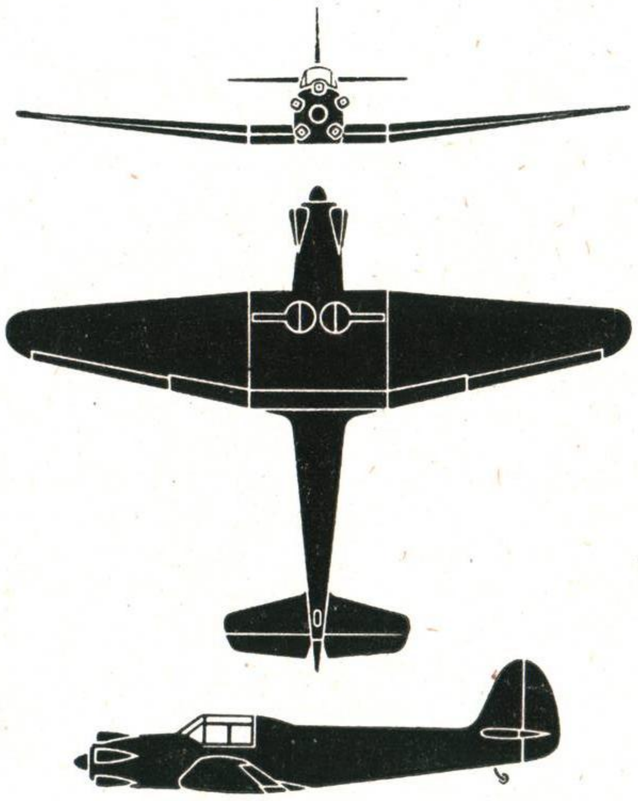
Russian Trainer
1 Ash 21 Radial
Span : 30 ft. 6 ins.

TUPOLEV TU-70



Russian Transport
Believed 4 Russian-built
Wright R.3350 Radials.
Span : 141 ft. 3 ins.

YAKOVLEV YAK 12



Russian Trainer
1 M.II Radial
Span : 37 ft.

SOLUTIONS TO RECOGNITION TESTS IN THIS EDITION :

FRONT COVER : *The De Havilland Sea Hornet P.R. Mk.* 22.

NAVY MIXTURE *(Test No. 81)*

1. XP4M-1 Mercator
2. SC-1 Sea Hawk
3. Sea Fury 10
4. P2V Neptune
5. Liberator (ditching)
6. F9F-2 Panther
7. Barracuda 5
8. Sturgeon 1
9. Firefly 4
10. SR/A1
11. Sea Attacker
12. Firebrand 5
13. AM-1 Mauler
14. F6F Hellcat
15. F2H-1 Banshee
16. Hawker P.1040
17. Seafire 17
18. Seabee
19. Seafire 47
20. F6-U Pirate
21. F7F-3N Tigercat
22. Sea Fury 10
23. Mosquito 33
24. AD-1 Skyraider
25. Sea Hornet 20
26. F6F Helicat
27. FR-1 Fireball
28. SB2C-4 Helldiver
29. F4U-3 Corsair
30. Sea Otter.

Title page: D.H. Vampire or Sea Vampire.

AMERICAN AIRCRAFT DESIGNATIONS

THE U.S. AIR FORCE

Aircraft of the U.S.A.F. are designated by a letter or letters indicating duty, followed by a hyphen and a number ; thus F-80, L-15, and so on. The letter used are :—

A Amphibian
B Bomber
C Cargo and Transport
F Fighter
G Glider
H Helicopter
L Liaison
Q Target and Drone
R Reconnaissance
S Search and Rescue
T Trainer
X Special Research

One or more of these symbols may be used to indicate the duty.
The letters X, Y and Z indicate prototype, limited order for service trials, and obsolete, respectively.

U.S. NAVY

The U.S. Navy uses a combination of letters defining duty and the name of manufacturer of the aircraft ; and numbers to indicate the model and modifications of the model. The system covers all fixed-wing piloted aircraft, pilotless aircraft, and rotating-wing aircraft. The duties of fixed-wing piloted aircraft are indicated by the following letters :—

A Attack
F Fighter
P Patrol
O Observation
R Transport
U Utility
T Trainer
G Glider

Rotating-wing aircraft, or helicopters, have the symbol H with additional duty letter, thus :—

HH Search and Rescue
HO Observation
HT Training
HR Transport
HU Utility

The letter K indicates pilotless aircraft and the designation KD is applied to drones or radio-controlled pilotless target aircraft. Z and ZF prefixes to duty letters indicate airships and free balloons respectively.

Individual aircraft designations are made up of the duty letter, a model number, the manufacturer's letter, a hyphen, and a modification or mark number. For example, F9F-2 broken down to its component symbols indicates that the aircraft is a fighter, the ninth of its type built by Grumman, and that it is the second variation from the basic type. The U.S. Navy also uses suffix letters for special versions and to indicate special duties. These suffix letters follow the modification number. The makers of U.S. Navy aircraft are indicated as follows :—

B Beech Aircraft Corporation / Boeing Aircraft Company
C Curtiss-Wright Corporation, Airplane Division / Culver Aircraft Corporation
D Douglas Aircraft Company, Inc.
E Piper Aircraft Corporation / Edo Aircraft Corporation
F Grumman Aircraft Engineering Corporation
G Globe Corporation, Aircraft Division / Goodyear Aircraft Corporation
H McDonnell Aircraft Corporation
J North American Aviation, Inc.
K Fleetwings Division, Kaiser Cargo, Inc.
L Bell Aircraft Corporation / Columbia Aircraft Corporation
M Glenn L. Martin Company
N Naval Aircraft Factory
O Lockheed Aircraft Corporation
P Piasecki Helicopter Corporation
Q Fairchild Engine and Aircraft Corporation
R Ryan Aeronautical Company / Radioplane Corporation
S Sikorsky Aircraft (United Aircraft Corporation / Sperry Gyroscope Company
T Northrop Aircraft, Inc.
U Chance Vought Aircraft (United Aircraft Corp.
V Lockheed Aircraft Corporation
W Willys-Overland Company.
Y Consolidated Vultee Aircraft Corporation

52M 11/48 38-241-0

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