

1,000-lb bombs, clusters of anti-personnel bombs, two 500-lb depth charges, flare containers, or "window" launchers. Another British Naval machine which, though primarily a fighter, has shown remarkable adaptability as a strike aircraft, is the de Havilland Sea Hornet F.20, a 470-m.p.h. twin-Merlin single-seater. Typical loads are eight 60-lb R.P.s or two 1,000-lb bombs. For the navigation of a Hornet long-range strike formation, the Sea Hornet N.F.21 two-seater is becoming available. This mark carries the offensive loads already mentioned, and is thus able to "have a go" with the rest of the attacking formation.

When it is considered that such loads are within the capabilities of relatively small deck-landing fighters, the impressive armament of the larger and heavier single-seaters, specifically designed for strike duties with the U.S. Navy, may—heavy as it is—not come altogether as a surprise. The two types under consideration (Douglas Skyraider and Martin Mauler) are certainly the most heavily armed single-seat attack aircraft ever built. Measuring 50ft in span, and having a gross weight of over 16,000 lb, the Skyraider AD-1 has a normal offensive load of 4,000 lb and a maximum of 6,000 lb. Two or three 2,000-lb bombs can be slung under the wings and fuselage as an alternative load to two or three torpedoes or three "Tiny Tim" rocket projectiles (11.75in calibre, length 12ft, weight 1,173 lb, penetrative power 3ft of reinforced concrete). Provision is made outboard for twelve 5-in "Holy Moses" R.P.s. A great variety of changes can be rung in the make-up of the armament load, and two built-in 20 mm guns are standard.

Fuselage Dive Brakes

Technically, one of the most remarkable design features of the Skyraider is the fuselage dive-brake installation. It should be borne in mind in this connection that the Skyraider, like the Mauler, was designed to replace not only the Grumman Avenger torpedo-bomber, but the Douglas Dauntless and Curtiss Helldiver specialized dive



The Douglas Skyraider, as operated by the U.S. Navy, is claimed to have a range of over 1,500 miles. The projectile load is 4,000-6,000 lb

carriers of the Midway Class and is powered by a Pratt and Whitney Wasp Major R-4360 radial engine of over 3,000 h.p. A total of 210 Maulers is on order.

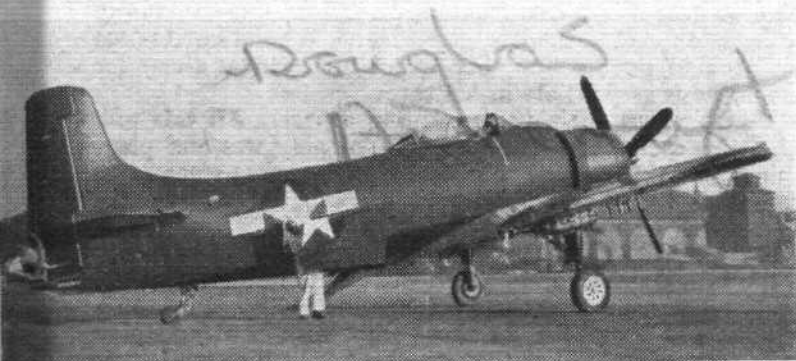
Armament of the Mauler (additional to four 20 mm guns) is similar to that of the Skyraider, with the bombs, torpedoes, or "Tiny Tims" slung under the fuselage and centre-section extremities (the fuselage bomb, of course, having displacement gear) and the smaller R.P.s being attached beneath the outer mainplanes. Dive brakes, of the intermeshing finger type, open along the top and bottom surfaces of the mainplane trailing edges and there is an additional perforated braking surface under the fuselage. Though the Mauler can be dived "clean" at some 500 m.p.h., the speed of descent is limited by the brakes to 350 m.p.h. When the "fingers" of the brakes are intermeshed they form a normal trailing-edge flap. The brakes can be fully applied in three seconds.

Having greater power than the Skyraider, and being generally of more refined design, the Mauler is said to be rather faster, having a level speed over 350 m.p.h. The windscreen has flak-resisting forward and side panels.

American Naval fighters, like our own, are readily adaptable for bombing and R.P. firing, and the Vought Corsair is known to be capable of carrying two "Tiny Tims."

Though it is evidently desirable that single-seat strike aircraft should ultimately be powered by turbojets, the propjet is likely to be favoured in the immediate future by virtue of its superior fuel economy. Unless bombs, torpedoes and rocket projectiles are stowed internally, however, this class of aircraft will remain vulnerable to fighter opposition.

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bombers, so that good diving qualities were stressed. The three rectangular braking surfaces (two on the fuselage sides and one beneath) are hinged along their forward edges and are extended by hydraulic rams. Without brakes the Skyraider has been dived from 20,000ft to 5,000ft at speeds approaching 500 m.p.h. and pulled out at 7 g.

The current version of the Skyraider (AD-1) has a Wright Cyclone R-3350 radial engine of 2,500 h.p. Of this model, 123 are on order, or have been delivered. Later models (AD-2 and AD-3) are improved in detail and of these, 356 will be delivered.

Though generally considered as a counterpart of the Skyraider, Martin's AM-1 Mauler is, in fact, a much heavier machine (21,000 lb gross weight) though differing little in dimensions. It was designed for operation from

