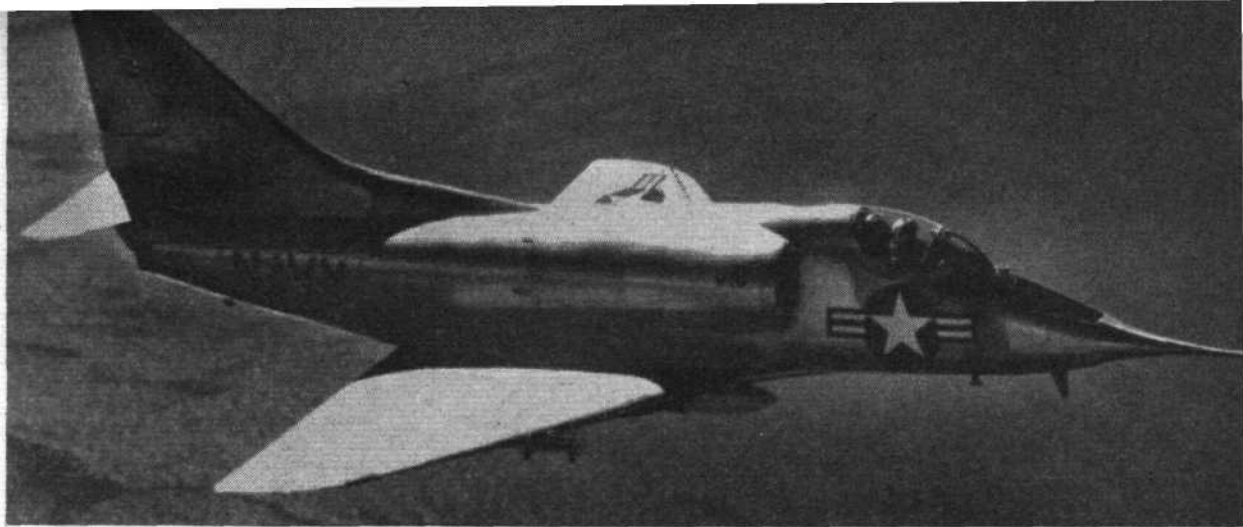


Douglas A4D-1 Skyhawk.



platform are carried on individual ejector racks, 18 racks being employed to ensure positive separation of low-density stores. An anti-buffet rake is also fitted ahead of the bay; this is opened by a jack tied to the bomb-door circuit and has been found to reduce buffet to an acceptable level under all conditions."

For rear defence there are two remotely controlled 20 mm guns in a tail barbette with the fire control radar installed above it. Range is 2,000 nautical miles. Reference has been made to an A3D-2P for photographic reconnaissance and an A3D-2Q for radar countermeasures. A transport version is also said to have been planned.

Span, 73ft; length, 74ft 6in.

Douglas A4D-1 Skyhawk In more than one respect the Skyhawk is one of the most significant military aircraft of post-war years. Though capable of carrying an atomic bomb or heavy loads of conventional weapons (bombs, rockets, guns or missiles), its span is a mere 27ft (rendering wing folding unnecessary), and gross weight not greatly in excess of 20,000 lb. Range is said to be sufficient for non-stop crossings of the U.S.A. and is, in any case, claimed to be "greater than present propeller-driven attack aeroplanes." Lightness and simplicity were keynotes, and Douglas's chief engineer (El Segundo) has said: "The A4D is believed to be a major step in designing an airplane on a completely functional basis, making each requirement stand on its own feet rather than by doing things because they had been done that way in the past. The 'mighty midjet' was conceived as a single, integrated weapon designed to fit the pilot and his needs. Under our programme of design simplification the A4D gained 20 per cent more in speed and a third more in range than was at first thought possible."

Typical examples of weight-saving are the air-conditioning system (one-third the weight of the system previously used), and the ejection seat (a half the weight of that used in the A4D's predecessor). Some 172 lb of electronic equipment were "repackaged" into a compact aluminium container weighing only 136 lb and a special lightweight bomb-sight was evolved.



The delta wing is of extremely simple construction, and houses internal fuel tanks and has leading edge slats. The fuselage also houses much fuel (the total internal load is thought to be well in excess of 600 gallons), and carries lateral intakes for the Wright J65 (Armstrong Siddeley Sapphire licence) turbojet. Two 20 mm guns are built into the wing roots, but all major armament loads are carried externally.

Indicative of performance is the record speed of 695.162 m.p.h. over a 500 km closed-circuit course. Previous records of this class were held by fighters and certainly not by carrier-borne attack machines.

Douglas AD-5 Skyraider The so-called "Multiplex" version of the Skyraider, this is already well known for its amenability to conversion for any one of twelve rôles, utilizing "packaged" conversion kits. Equipment can be provided for attack by day or night, early warning, anti-submarine search and strike, photographic reconnaissance, target-towing, ambulance work and transport. As a strike aircraft it carries two 20 mm guns in addition to two 11.75in Tiny Tim rockets, two 2,000 lb bombs, two 2,150 lb torpedoes, or varied loads of mines, depth charges, smoke containers or searchlights. Twelve wing pylons carry either twelve 5in rocket projectiles or the same number of 250 lb bombs.

Douglas AD-6 and -7 These models are specialized single-seat attack machines and are the latest of the Skyraider series, of which some 3,000 were built between 1946 and April 1956. Deliveries of the -7 will begin in August this year. This model differs from the AD-6 in having a Wright R-3350-26-WB engine and strengthened wing "to prolong service life under higher tactical loads." The makers point out that whereas the Skyraider was originally designed to carry a 1,000 lb bomb load, late versions have taken off with combinations of bombs to a weight of over 10,000 lb.

North American AJ-2 Savage Pending the introduction of the Douglas Skywarrior, the AJ-2 Savage remains as the standard heavy-attack aircraft of the U.S. Navy. It is powered with two Pratt and Whitney R-2800 piston engines and an Allison J33 turbojet, all burning the same type of fuel. Maximum speed is 425 m.p.h. and service ceiling over 40,000ft. An atomic bomb is a possible load and conventional weapons up to about 10,000 lb in weight can be stowed. Gross weight is 37,000 lb and tactical radius some 500 miles.

This extract from a report on a Savage-equipped squadron is reproduced from *Naval Aviation News*: "The pilot, who is the plane commander, sits in the left seat where he drives the plane with a 'yoke' and controls the three engines with throttles mounted on a centre console. Old carrier pilots who thought that no plane would ever go aboard ship with anything but a stick and left-hand throttles are universally amazed at the ease with which they adapt themselves to the unique AJ cockpit arrangement. The bombardier-navigator, or 'three-headed monster' as he is referred to in heavy attack circles, could easily utilize three heads and four arms in the performance of his many in-flight duties. Occupying the right seat, he must operate a radar set, a bombing system, several radios, and perform radar, celestial and dead reckoning navigation."

A number of Savages have been converted for use as tankers, and, as already remarked, the type is also used for photographic reconnaissance (AJ-2P).

Span, 75ft; length, 65ft.

(Above) Douglas AD-6 Skyraider. (Below) AD-5 Skyraider. (Lower right) AD-6 Skyraider, apparently carrying mines and radar.

