DOUGLAS



Douglas Aircraft Company, Incorporated Santa Monica, California UPton 0-1211 EXbrook 9-9311

## DOUGLAS-NAVY A-1 SKYRAIDER

Background Information

The A-1 Skyraider, produced by Douglas Aircraft Company for 12 consecutive years between 1945 and 1957, has become one of history's best known and most effective propeller-driven aircraft.

Battle proven in the Korean war, the venerable Skyraider was produced in seven series from AD-1 through AD-7 and approximately two dozen different configurations.

The Navy has utilized "Able Dogs" for almost every type of mission that an aircraft can fly, from an ambulance plane to an atomic bomber. New designation of the Skyraider series is A-1.

The rugged, carrier-based attack bomber was first flown on March 18, 1945, and the first operational version was delivered to the U.S. Navy on June 13, 1945. Final delivery on February 18, 1957, brought the total Skyraiders produced to 3180.

Striking with deadly payloads from the Navy carrier USS Valley Forge, A-l Skyraiders blasted targets in Korea on July 3, 1950, just three days after the start of United Nations action.

From then on, hardly a day passed that Skyraiders didn't strike. Rear Admiral John W. Hoskins, commander of Task Force 77, was moved to state, "I am convinced that the Skyraider is the best and most effective close support airplane in the world today."

The basic A-l is a single-place, all metal, low wing monoplane and includes all series except the A-1E-DL multiplex version which has a side-by-side, two-place cockpit and large, plexiglas-enclosed rear compartment. Wings fold for carrier operations, and all series have a conventional two-wheel landing gear and tail wheel.

The A-IE model brings full circle the development story of the single most versatile combat airplane ever created. It is, in essence, a basic airframe. To it may be applied any of a dozen special groups of equipment furnished in compact kit form for fleet installation. These include special radar equipment, counter-measure items, and the entire gamut of versions developed to date.

In addition, the A-IE adds an emergency evacuation and litter function to the already long list of Skyraider capacities. Either ten passengers or four litter patients may be accommodated in the spacious aft fuselage. These are in addition to the new two-man, side-by-side flight crew located up front, which brings the radar operator and/or co-pilot up to the pilot's elbow.

Thus, the A-IE provided a unique function for the peculiar problems of the Korean action. It permitted the swift transport of VIP's between carriers or ship-to-shore, rapid evacuation of wounded and/or sick personnel and simultaneously permitted the airplane to carry out its rugged combat and special electronic missions with a quick-conversion capability rendering it the essence of utility in the combat zone.

There was no front, no action and no day of the Korean war that the Douglas Skyraider was not carrying the brunt of the sea-going attack against the enemy, working low-down directly against troops, tanks and ground installations while the more glamorous fighters spent their time upstairs.

Although designed originally to meet a 1000-pound bomb-carrying specification, the AD regularly carried 4000 to 8000-pound loads in Korea, both from Navy carriers and Marine Corps land bases. It also delivered torpedoes, mines, depth charges and napalm bombs.

The Skyraider demonstrated that it was the first airplane capable of carrying greater than its own structural weight in armament when, in 1953, a basic single place AD-4, weighing 11,798 pounds, went aloft carrying a useful load of 14,491 pounds, including armament, pilot and flight gear, fuel and oil. Armament alone exceeded basic weight by approximately 200 pounds.

Wing span of the basic Skyraider is 50 feet; length is 38 feet 10 inches; height, 15 feet 7 inches, and it has a normal gross weight ranging from 16,000 to 25,000 pounds.

All series except the final A-lJ-DL are powered by the Wright R3350-26WA reciprocating engine which turns up 2300 horsepower. The "lJ" uses an improved -26 engine with added strength margins at higher power ratings. All series are equipped with an Aeroproducts four-bladed,  $13\frac{1}{2}$ -foot, steel propeller.

The A-1 is capable of vertical diving speeds in excess of 500 miles per hour and pullouts of 7G-s at this speed. Its range exceeds 1500 miles, and it has a cruising speed up to 300 miles per hour. Its normal landing speed for carrier operations is approximately 80 knots or 92 miles per hour.

Normal armament includes four forward-firing 20 mm. guns mounted in the wings and various arrangements of five-inch HVAR rockets and 11.75-inch "Tiny Tim" rockets, all hung from external racks mounted under the wings or fuselage center line. The 12-foot, 1300-pound "Tiny Tims" and HVAR's combined make the A-l an airborne arsenal with an explosive wallop more destructive than the guns of a light cruiser.

The powerful Skyraider also has transported bomb loads of 10,500 pounds -- three 2000-pound bombs, six 500-pounders, and six 250-pounders. With additional armament, such as guns and ammunition, the total load was 11,944 pounds, a world record for single-engine aircraft.

Of the 3180 AD's delivered to the Navy, 670 were all-purpose A-1E's which were turned over to the fleet during a  $2\frac{1}{2}$ -year period.

Heralded as "versatility on wings," the "IE" was produced in three basic configurations -- day attack, night attack and airborne early warning. Douglas also delivered nearly 2000 special kits which make it possible to convert the day attack version into a 2000-pound cargo plane, six-place personnel transport, 12-place high-density troop transport, four-litter ambulance or long range bomber.

A-1E SKYRAIDER



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