Piasecki H-2SA.

PIASECKI PD-18 RETRIEVER • This very successful basic type—a product of the Piasecki Helicopter Corporation, of Morton, Penn.—is being operated in several versions. In the U.S. Navy the aircraft is known as the HUP-i, 2 or 3, and in the U.S. Army as the H-25A. The HUP-1, production model of 1950, was powered with a Continental R-975 engine of 525 h.p., and a similar engine, though of higher rating, is fitted in the HUP-2. The most interesting difference between the two types, however, is that the HUP-2 (employed on anti-submarine and air sea-rescue duties) uses a special Sperry automatic pilot as its primary means of control, and this has permitted the tailplane and fins of the HUP-i to be eliminated. The HUP-3 is slightly modified and the H-25A is the U.S. Army version of the same model. A rescue hatch measuring 48m by 26in is located at the forward end of the cabin of the H-25A and a hydraulic hoist permits personnel, stretchers or other loads up to 400 lb to be pulled up into the cabin. The engine is fan-cooled and readily removable as a com-plete "power package," including accessories and lubricating system. Power is transmitted through shafting and reduction-gear transmission to two 35ft three-blade counter-rotating rotors, disposed as shown in the photograph above.
The soundproofed cabin extends for 8ft 3m aft of the pilot's compartment and affords approximately 160 cu ft of stowage space. Access is gained through a door measuring 44m high by 33m wide on the port side, at the rear.
The following particulars apply to the HUP-2 3/6-seater of the U.S. Navy: weight empty, 4,132 lb; normal gross weight, 5,750 lb; overload weight, 6,100 lb; max. speed at sea level, over 104 m.p.h.; cruising speed, over 80 m.p.h.; service ceiling, over 10,000ft; vertical rate of climb, 650 ft/min; max. range, about 390 miles.

SIKORSKY S-51 • Known in the U.S.A.F. as the H-5 and
in the U.S. Navy as the HO3S-1, this classic type of helicopter, which is built in Great Britain by Westland Aircraft, Ltd., and is described in some detail on page 103, has now passed out of production at the Bridgeport, Conn., works of the Sikorsky Air-craft Division of the United Aircraft Corporation. Large numbers continue in service.

SIKORSKY S-52 • Though unknown in Great Britain, this useful little machine is employed by the U.S.A.F. under the designation YH-18 and by the U.S. Navy (HO5S-1). It is powered by a Franklin 6V6-245-B16F six-cylinder fan-cooled engine and is normally a 3/4-seater. The pilot and one passenger are seated side by side and behind them there is accommodation for one or two passengers.
It was an early S-52-1 which, in April, 1949, set up the world's helicopter speed record of 129.47 m.p.h.
The present version of the S-52 is the S-52-2, which differs from the S-52-1 in having a larger cabin. This was made possible by moving the engine aft and placing it at an angle. The capacity now available for payload is 81 cu ft. Other features include all-metal main and tail rotor blades, a rotor assembly of revised design, simplified transmission system, engine silencer, and other improvements contributing to durability and ease of maintenance. The makers, in fact, claim that maintenance requirements are appreciably less than all other helicopters.
Rotor diam., 33ft; weight empty, 1,815 lb; gross weight, over 2,500 lb; max. speed, 111 m.p.h.; cruising speed on 75 per cent power, 95 m.p.h.; rate of climb at sea level, 1,250 ft/min; hovering ceiling without ground effect, 3,200ft; service ceiling, 14,000ft.

Sikorsky S-52.

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