

Fortieth of the Second Series

FRIEND or FOE?

*French Bomber and U.S. Transport
Potez-63 and Electra*



POTÉZ-63: Tapered tailplane with dihedral angle; outriggered vertical fins and rudders of well rounded contour.

THESE two twin-engined twin-tailed aircraft offer an interesting comparison from the point of view of specification, performance, and appearance. Although the Potez-63, a fighter-bomber-reconnaissance machine, is some 7ft. 6in. less in wing-span than the Lockheed Electra, and is shorter by about 9ft., its maximum accommodation, when used for reconnaissance, is a crew of three, whereas the Electra is designed to accommodate a crew of two and ten passengers plus a small amount of baggage or freight.

At its maximum weight as a bomber the French machine scales 9,680 lb., as against the Electra's 12,500 lb. laden weight, and is powered by two Hispano-Suiza 14 Hb radial engines, each of 670 h.p., compared with the 550 h.p. of the American machine's Pratt and Whitney "Wasp" units.

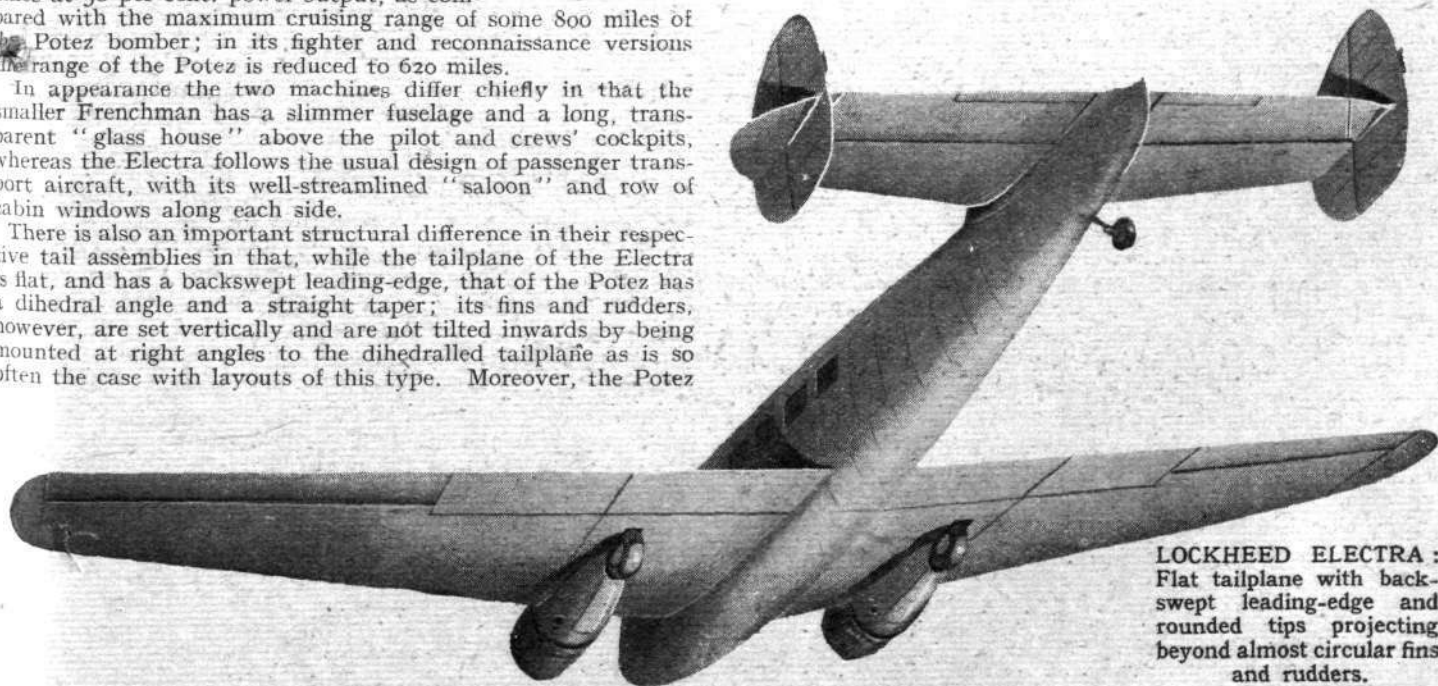
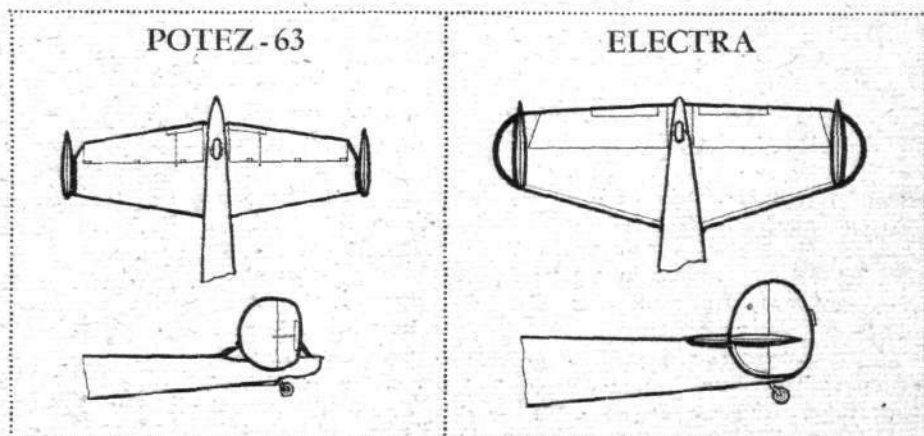
Thus, with its greater power and lighter all-up weight, it is not surprising to find that the bomber version of the Potez has a maximum speed of 280 m.p.h. and an absolute ceiling of 26,240ft., whereas the Electra's top speed is only 228 m.p.h. at a comparable rated altitude, and its absolute ceiling 22,000ft.

On the other hand, the Lockheed Electra scores heavily in the important matter of range when compared with the Potez-63, having a cruising range of no less than 1,020 miles at 50 per cent. power-output, as compared with the maximum cruising range of some 800 miles of the Potez bomber; in its fighter and reconnaissance versions the range of the Potez is reduced to 620 miles.

In appearance the two machines differ chiefly in that the smaller Frenchman has a slimmer fuselage and a long, transparent "glass house" above the pilot and crews' cockpits, whereas the Electra follows the usual design of passenger transport aircraft, with its well-streamlined "saloon" and row of cabin windows along each side.

There is also an important structural difference in their respective tail assemblies in that, while the tailplane of the Electra is flat, and has a backswept leading-edge, that of the Potez has a dihedral angle and a straight taper; its fins and rudders, however, are set vertically and are not tilted inwards by being mounted at right angles to the dihedralled tailplane as is so often the case with layouts of this type. Moreover, the Potez

vertical surfaces are outriggered on the tips, whereas those of the Electra are threaded by the tailplane, the rounded tips of which project. Both fins and rudders are well rounded, those of the Electra being almost circular. The slimming of the fuselage at the tail is, of course, much more marked in the case of the Potez-63 than on the Electra, and it will also be noticed that the dihedral of the Potez tailplane raises the fins and rudders in relation to the fuselage.



LOCKHEED ELECTRA: Flat tailplane with backswept leading-edge and rounded tips projecting beyond almost circular fins and rudders.