



AIRCRAFT DESCRIBED NUMBER 109

Colonel Roscoe Turner's

PESCO SPECIAL

Described and drawn by
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IN 1936 COLONEL ROSCOE TURNER, whose *Wedell Williams "57"* was due for retirement, was having built a large mid-wing racer fitted with a high-powered twin-row engine. Design of this machine had been worked out at California's Guggenheim University and construction undertaken by Lawrence W. Brown of Los Angeles, who had already built three successful Menasco-powered racing aeroplanes. Dissatisfied with Brown's progress, Turner considered scrapping the entire airframe, but instead passed the aircraft to E. M. "Matty" Laird, of Chicago, builder of the *Solution* of 1930 and Colonel James Doolittle's famous *Super Solution*, to rebuild and complete. This accounts for its designation LTR 14 and its being originally known as the *Laird Turner Meteor*.

The Meteor's moderately tapered wing was in two halves and constructed entirely of wood, with two solid 14-ply spruce spars, plywood ribs, spruce stringers and fabric covered plywood covering, except for the metal covered leading edge. Each wing was attached to the fuselage with 16 bolts, and drag flaps were fitted to reduce landing speed. The wing had originally been of parallel chord, but was rebuilt by Turner and Laird with a greater root chord to increase its area and reduce the wing loading.

A conventional steel tube fuselage structure was plywood covered to the trailing edge of the wing except for the underside, where metal was used as protection from flying stones. The remainder of the fuselage was fabric-covered and the fin was built integrally with the fuselage. Outstanding was the slim single-strut fixed undercarriage fitted with streamlined wheels and tyres which presented little drag and avoided the added weight and complication of a retracting mechanism. The fourteen cylinder twin-row Pratt & Whitney Wasp engine produced 1,000 h.p. at 2,300 r.p.m. and turned a 9 ft. 6 in. diameter Hamilton Standard controllable pitch propeller. The oil cooler was mounted in a well-streamlined tunnel radiator beneath the fuselage close behind the wide chord NACA cowl.

Meteor's first competition was at the 1937 National Air Races. A minor explosion in the fuel system forced its withdrawal from the Bendix Trophy Race, but Turner repaired it in time to fly to Cleveland for the Thompson Trophy Race, averaging 333 m.p.h. from Albuquerque to Cleveland. The Thompson Race developed into a duel between Turner and Earl Ortman, flying the twin-row *Marcoux-Bromberg*, until the beginning of the last lap when on the first pylon Turner was temporarily blinded by the sun and, under the impression that he had missed the pylon, returned to re-circle it. This put Turner, who had been wary of pylons since he finished first in the Thompson Trophy in 1933 but was disqualified for cutting a pylon early in the race,

in third place behind Ortman and Rudy Kling who narrowly won in his *Folkerts SK3*. Turner's speed for the race was 253-802 m.p.h.

During the first half of 1938 the Meteor was modified to have large well-streamlined spats fitted to the wheels and two oil coolers, one above and one below the starboard wing, replaced the one originally fitted below the fuselage. At the Oakland Air Races in May a duel again developed between Turner and Earl Ortman who exchanged the lead several times during the free-for-all event. Ortman won at 265-593 m.p.h. with Turner second at 264-638 m.p.h.

The Meteor was fitted with Pesco oil and fuel pumps, and by the time of the 1938 National Air Races was sponsored by the Pesco organisation of Cleveland and re-named Pesco Special. For the Thompson Trophy Race at Cleveland Ortman again led Turner and the rest of the field for five laps until his over-boosted twin Wasp Junior engine began trailing smoke. Turner, whose engine by now was tuned to develop 1,100 h.p., finally lapped Ortman in the thirtieth and final lap of the race to finish first at a record speed of 283-419 m.p.h. His fastest lap was at 293 m.p.h.

For the 1939 Thompson Trophy Race the Pesco Special was re-named *Miss Champion* with a large replica of the Champion trade mark beneath the cockpit. In fourth place after a slow take-off, Turner missed a pylon on the second lap and turned back to re-circle it, becoming last in the field of seven. By the ninth lap his vastly superior power had regained him the lead from Tony Levier in the *Schoenfeldt Rider Firecracker*. His lead continually increased and he won the Thompson Trophy

Top left is the 1938 Special as it won the Thompson Trophy of that year. Roscoe Turner won the Trophy no less than three times. Below, at Oakland in 1938 the Meteor first showed its wheel spats. Pictures by A. Bachmann and W. Larkins



