IN THE AIR

By Mark Lambert: Number 175 of the series

BEECHCRAFT A55 BARON
(Two Continental IO-7470-L giving 260 h.p. each)
Span, 37ft 10in; length, 26ft 8in; wing area, 199.2 sq ft; empty weight, 2,960lb; gross weight, 4,880lb; maximum seating capacity, 6; fuel tankage, standard 94 Imp gal; optinal, 116 Imp gal; *power loading*, 9.4lb/h.p.
Performance Max speed at sea level, 236 m.p.h.; cruising speed at 75 per cent power at 7,000ft, 225 m.p.h.; at 65 per cent power at 10,500ft, 220 m.p.h.; stalling speed, gear and flaps down, 76 m.p.h.; initial twin-engined climb, 1,700ft/min; single-engined at gross weight, 340ft/min; *service ceiling*, 20,000ft; single-engined service ceiling, 7,600ft; take-off to 50ft, 1,255ft; landing from 50ft, 1,470ft; range, with departure, climb and 45min cruising reserves, 1,100 miles at 65 per cent power, 1,125 miles at 45 per cent power.

Beechcraft A55 Baron

FOR one reason or another I have never had much to do with Beechcraft aeroplanes. Before I flew the Baron demonstrator belonging to the British agents, Short Brothers and Harland, from their base at London/Gatwick, I had only flown the Debonair —briefly—and an early model Travel Air. I must admit that I had not been enormously impressed with either, though for reasons I am equally prepared to admit were not really concerned with the overall quality of the aircraft. Experience with the Baron has greatly changed my attitude to this particular *marque*. I was most impressed with the Baron's construction, equipment, control layout and performance. Now that I have seen how these things can be done, I shall feel a great deal less resigned to the compromises in one direction and another that I had come to accept as necessary evils in other types. Though no production light twin will ever, in my opinion, equal the old Aero Commander 520 as a pilot's aeroplane, the Baron comes about as close to it as necessary—I say "production light twin," because the Beagle 206X prototype has them all beaten for sheer handling.

A stout structure, and such things as sub-assemblies painted before final assembly (so that coats of paint run between metal faces, not just across them), thick rubber-compound internal sealing; these and many other details, make the Beechcraft line a really workmanlike prospect for hard flying and long life. Because of these extra features, the initial price of Beech aeroplanes is usually significantly higher than that of their direct competitors, but they command a rather better secondhand value, so that depreciation is lower. An added feature of the Baron is that it is the only Beechcraft so far to have proved structurally amenable to doubling of horsepower and greatly increased tankage, as it has in being adapted to the SFERMA Marquis.

In developing their line of types Beech have followed a "building block" technique. Basically, the Baron has the Bonanza cabin, the T-34 undercarriage, and the Bonanza wing and ailerons with additional outboard wing-panels and flaps of extended chord. The square-scalloped Hoehner wing-tips are distinctive. The 260 h.p. Continental engines are, of course, entirely new to the airframe and the vertical tail has been modified in proportion. As far as handling goes, there is very little difference between the smaller 180 h.p. Lycoming-engined Travel Air and the Baron, but weights, loads and (especially) performance are significantly increased.

Extra strong structure, well above minimum airworthiness levels, pays off in a number of ways. Penetration speeds for turbulence, structural cruising speed, and undercarriage lowering speeds are all usefully and reassuringly higher than usual. Inboard ailerons, resulting from the addition of fixed outboard panels to the original wing, are probably responsible for particularly pleasant lateral control, but they do produce an unusual inclination to aileron reversal or aileron-induced stalling at minimum speeds. From the purist point of view this last feature is unattractive, but it does not interfere with normal operation, nor prevent achievement of the published minimum landing distances.

Visibility is an unusually strong point in the Baron—as it is in the smaller relatives of this aircraft. Arched side windows, long rear windows and the tapering cabin allow the pilot to see upwards and rearwards over an unusually wide field. Tinted and infra-red-excluding transparencies mitigate sun glare. Another Beechcraft bonus is that both centre-side windows can be quickly tilted outwards to admit fresh air on the ground—a very important asset in hot weather—and can also be jettisoned with the same linkage, a fact which might prove even more important. As is usual in this type of aircraft, one or two additional seats can occupy the normal baggage space in the rear of the cabin, but there is an additional luggage compartment in the nose, with a weatherproof access hatch and a floor which, Beech claim, is more genuinely stressed to support its full 270lb capacity load in bumpy conditions than is "the other man's aeroplane."

All this robustness inevitably increases initial cost, and Beech salesmen are evidently trained and briefed to stress the additional safety and higher secondhand values which can be had for the extra dollars. Beech provide pretty persuasive confidential documentation to support their claims. The better the product, the more insistently does the salesman have to emphasize its qualities

Short Brothers' Baron demonstrator is extensively equipped with full radio coupled autopilot, de-icing and luxury appointments