

'Flight' Pilots a Jet

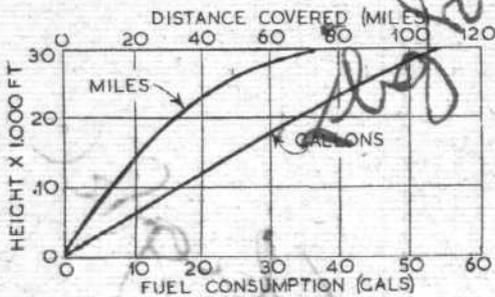
takes a step or two with pounds of lead holding him down.

The Vampire does not carry a simple magnetic compass; interference from the turbine would be excessive if it were mounted anywhere in the cockpit. The R.I. (Remote Indicator) compass master unit is mounted as far from the engine as possible, 3ft from the tip in the starboard wing, and it did its job well. I caught the directional gyro spinning on one or two occasions, but that was to be expected.

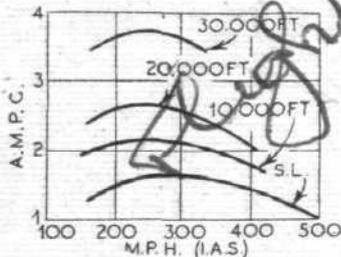
As light was failing I decided to dive home, and in spite of the violent bumps, again thoroughly enjoyed the sensation of high speed when I got nearer to the ground. The highest Mach number reading was 0.69; the limit permitted is 0.75.

To get accustomed to the circuit height, and to reduce speed, I made two circuits, and then commenced an approach to land. Speed was still about 280 m.p.h., so, throttling back to 5,500 r.p.m., I extended the dive brakes. The speed fell to 170 m.p.h. and, having commenced the down-wind leg, I dropped the wheels and selected 30 deg of flap. The wheels locked down with a resounding bump and air passing over the nosewheel produced a loud rumbling. There is no warning horn for the wheels, but an extra-bright red warning light is fitted instead. The emergency switch operates the locks and is only used with the hand pump or on an overshoot landing if there is weight on them. Other aircraft were on the circuit, so as a precaution I switched on lights.

It became necessary at this stage to use some more thrust, the air speed having fallen to 150 m.p.h. There was a strong wind blowing, so I retracted the air brakes, which



Graphic indication of distance covered and fuel used as the Vampire climbs to 30,000ft.

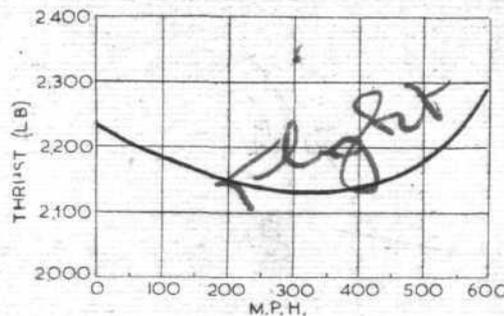


Variation of air miles per gallon with height and air speed for the Vampire.

were producing a certain amount of airframe vibration at this speed, and commenced a wide turn-in at 140 m.p.h. I selected full flap at 500 feet and found the speed dropped slowly off with turbine r.p.m. of around 6,000. It was necessary to hold the stick well forward to keep the nose down and the speed at 130 m.p.h. I started to level-out at about 110 m.p.h.—a little on the fast side for the weight—then closed the throttle and floated well down the runway before touching-down in conventional tail-down attitude and rocking forward on to the nosewheel.

Until the moment of touch-down the Vampire remained most responsive, and the elevators in particular were very sensitive on hold-off. This I have confirmed on subsequent circuits, when I learned to like the approach, landing and ground-handling characteristics of the Vampire very well.

A feature of interest is the relatively small change of fore-and-aft trim experienced under all normal conditions of flight. I did not fly the Vampire at maximum speed, maximum all-up weight or at very high altitude, but,



Estimated thrust of Goblin II at 10,200 r.p.m. in flight at 10,000ft. Although gross thrust increases with forward speed, net thrust falls, recovers, then finally exceeds the initial value. This is due to the deduction of intake drag from gross engine thrust.

except for the final approach, when the nose must be held down, and in a dive when there is also a slight tail-down tendency, there is no need to move the elevator trimmer from the neutral position. Lowering of wheels, dive brakes and up to 40 deg of flap cause no appreciable change of trim. What changes there are tend to cancel each other out on the approach. (Wheels down—nose up. Flaps down—nose down.)

On return to the tarmac I had to think hard for a moment how to stop the engine; no idle cut-outs, no switches. All that one does, in fact, is to turn off the high-pressure fuel cock and the Goblin cuts instantly. Booster pump, master switch, compass, etc., are of course switched off before leaving the aircraft.

In future I shall watch displays of low aerobatics and high-speed flight by pilots of turbo-jet aircraft with more understanding and even greater admiration. The manoeuvres themselves are not particularly difficult to execute; the skill is chiefly in the timing and judgment of position. Moreover, the physical strain imposed on even experienced pilots should not be underestimated.

Piloting a jet aircraft has confirmed one opinion I had formed after flying as passenger in the Lancastrian jet test beds, that few, if any, having flown in a jet-propelled transport, will wish to revert to the noise, vibration and attendant fatigue of an airscrew-propelled piston-engined aircraft.

CONCORDIA PRODUCTION SUSPENDED

FOLLOWING the first stage of a programme of demonstration flights on the Continent and in Africa and India, the directors of Cunliffe-Owen Aircraft, Ltd., have decided that production of the Concordia must be suspended. This regrettable decision has resulted chiefly from the effect of the present world situation. No more unfortunate circumstances could have arisen for an export demonstration tour in view of the existing unrest and the import and currency restrictions.

It had been estimated that orders for 60 or 70 aircraft would have to be obtained to make production of this twin-engined feederline aircraft an economical proposition. Unfortunately these were not forthcoming, largely because of lack of international purchasing facilities for this class of aircraft.

Work on the two large helicopters which are being built in conjunction with the Cierva Autogiro Co., Ltd., will not be interrupted; in fact it will probably be accelerated, and the machines may be completed rather sooner than was expected.

