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Right from the start

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ANY YEARS AGO there was a dreadful shaggy-dog story about the man who shot a horse in his bathroom to impress a friend. Recently, a piece of information
came my way that, to me, seemed almost as unlikely. According to the BLAC, a Mr Graeme Percival is operating a simulator from, of all places, the bedroom of a London hotel. After more than half a century of a life that has not always been kind, I freely admit to being a bit of an old sceptic. But my informant at BLAC, Miss Noelle darken, was quite right. Graeme Percival does own a simulator, a Link Gat 1 to be precise, a modern light trainer reproduc-ing movement in all axes. And, however unlikely it may seem, he does in fact operate it from Room 129 at the Grosvenor Victoria Hotel near Victoria Station.

Like most of these simulators the Gat is primarily intended as an instrument and procedure trainer and, while the manufacturers do suggest that a horizon line painted around the walls of the room will enable students to learn visual flight, Percival has taken the idea a stage further. He has surrounded his Gat 1 with an endless curved wall and painted on it 360° of sky and cloud, horizon and green fields with, on one heading, a runway as it would be seen on the approach.
The trainer is set up to fly like a Cessna 150 (although it may be adjusted to reproduce most light singles in the 100-180 h.p. class) and it provides all the illusions of flight — engine and slipstream noise, rough air at the discretion of the instructor, gentle swing with changes of throttle, etc. There is even a faint bump and a protesting squeal of rubber when the altimeter arrives at runway level. Of course, Percival uses the simulator for instrument instruc-tion. But it was its application as a visual trainer I had been asked to assess, and I must admit to having left the hotel with a feeling that here was a good instrument trainer being used on a task beneath its capabilities. Several weeks ago, however, I received a letter from Graeme Percival telling me that he had given Noelle Clarken and a young architect named David Falck ten hours' visual instruction in his simulator. Neither had ever flown a light aeroplane before and he wanted to know if I would fly with them and express an opinion on the value of this ten hours.

The first flights

We all met at Biggin Hill on a gin clear morning with hardly a cloud to be seen, the only difficulty being a 10-15kt crosswind on runway 23. I gave the two guinea-pigs a briefing, introduced them to the Cessna 150 for the first time, showed them the cockpit and then tied in Noelle Clarken who had expressed a wish to go first and relieve her long built-up excitement at the thought of trying a live aeroplane. Within minutes she was able to taxi the aero-plane and managed to arrive safely at the holding point. I showed her a "run-up" and the pre-take-off vital actions, then got her to follow me through on her first take-off, something that can only be partly reproduced in the simulator since there is no moving-runway display.
At 500ft I handed over. It was rather turbulent and at first Noelle seemed bewildered by it all. We climbed up to smooth air and I said "level out at 3,000ft, hold your heading of 030° and fly at 100 m.p.h." And to my utter astonishment she did just that. I said "turn on to one-two-zero" and after a rather timid start we settled into a 25° bank, went through 120°, took rather a long time to get

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PRIVATE FLIGHT

By Alan Bramson

the wings level again and then adjusted back to 120°. After 15min or so it was all beginning to make sense. When I asked for a climb to 4,000ft at 80 m.p.h. on a heading of 240° I got it, more or less on the nail. When I requested a descent to 2,000ft we drifted down and levelled out at that height.
I talked her into a circuit joining pattern and took over on the base leg so that I could demonstrate an approach and landing. By now there was a 90° crosswind and this was making the final bit more than a little interesting but Noelle told me I was having to crab in to counteract drift so at least she knew what was going on. I let her try a take-off just adding a word of advice here and there. We ran straight down the runway, lifted off at 60 m.p.h. and climbed into the turbulent air. It was a perfectly safe take-off, her first ever, and, while the landing that followed was more of an arrival, for a first attempt under very difficult conditions it was an impressive perform-ance. By now she was able to taxi back to the club with confidence, park the aircraft and tell me how to shut down the engine.
David Falck had never been in a light aircraft before. Fortunately for him they had now changed to runway 29 and the wind was more or less on the nose. Again I repeated the test, handing over control at 500ft. Immedi-ately he flew accurately, commenting that he felt as though he was still in the simulator. I showed him a stall and the simple power-off recovery. "Shouldn't you have opened the throttle to recover," he asked. I explained that I wanted him to see the height loss and added "since you appear to know all about it, do one yourself." It was the first stall he had tried outside the Gat 1, yet he recovered with a height loss of little more than 50ft.

Better beginners
All very interesting, but what, you may ask, is the value of such an exercise? Graeme Percival claims that at so many of the clubs there is no pre-flight briefing or post-flight discussion and in his view the first five or ten hours of dual are not as productive as they might be. I think there is a lot of truth in this. On the strength of only two students it would of course be dangerous to assess the true value of a preliminary training session on the Gat 1 before going on to the aeroplane. But I gained a distinct impression that both Noelle Clarken and David Falck were more accurate in their flying than the average pupil after ten hours or so of the usual flying training. Perhaps the simulator provides a more ideal training environment than a light aeroplane and a greater sense of security, important factors in the early stages of flying instruction. Perhaps it is because although the Gat 1 was used as a visual trainer the flight panel was brought into the lessons from the start. Whatever the reason, it seems to me that ten hours in the simulator before flying begins may turn out a better pilot more quickly. At £3-75 an hour, the £37 • 50 involved could even show a small saving in the cost of obtaining a PPL if in the light of experience the CAA were convinced that the 40hr non-approved course could be reduced by 5hr or so.
The use of simulators for handling as opposed to instru-ment training has for some years been recognised in airline flying. It seems to me that the modern simulator could fulfil a similar valuable function in ab initio flying training.
I am impressed by what I have seen. g|