

MEMORY IS A CORRIDOR
(LINED WITH DISTORTING MIRRORS)

by

Ranald Porteous

Having been born in the drone of Zeppelin engines, one of my first recollections is of a great longing to take off and soar upwards until I could see over the Ochil Hills which loomed close and steep behind the small town of Alva, where we lived. Some twenty-two years were to pass before I actually took off in the little Chilton from a farm field there and fulfilled this ambition but the seeds of a lifelong love of 'personal' flying were surely sown then.



Ranald and his cherished Chilton

Memory is a corridor lined with distorting mirrors. Long ago strawberries were sweeter and the sun shone warmer and oftener. Not so, of course, but here lies the trap into which the ageing fall, of thinking that things were different and better in their day. I must therefore beware.

I have always loved flying. It has, in sum, given me immense pleasure, both of itself and in the less creditable context of good old-fashioned vanity. Praise for a display well given can be as heartwarming as for a poem well written, or a song well sung. Anyone claiming otherwise is a hypocrite.

The beauty of flying in the grotesque grandeur of sunlit cumulus cloudscapes never palled, nor did the wonder of bursting through heavy winter stratus into the dazzling blue-and-white world above. In a suitable aircraft, one could write poems of harmonized motion among the clouds, and the thrill of a perfect landing at the end of a flight never diminished. To those who are able occasionally to sample these experiences, surely the air is a segment of Paradise with its roof the very ceiling of the sky.

Practical introduction to aviation came in 1934. I had won a place at London University but, on an irresistible impulse, forsook it for the de Havilland Aeronautical Technical School, then at Stag Lane, the sooner to be among real aeroplanes. Thus, a rather naive schoolboy of eighteen was blooded and friendships were formed there which influenced his life greatly in later years.

Among my student friends at De Havillands were Andrew Dalrymple and Reggie Ward. This pair of clever, witty and iconoclastic Etonians were the John Britten and Desmond Norman of their day and were determined to enter the light aircraft market, efficiently and profitably. That, had peace continued, they would have succeeded spectacularly I have never doubted. They combined the vision, the business sense, and the technical ability with the resources initially necessary. Such Chilton DW.1 light monoplanes as still survive are a monument to these.

This fabulous little machine, which took its name from Ward's home near Hungerford where it was built, was designed by them in the Tech. School, under the watchful eye of Marcus Langley, as a kind of freelance exercise, and I dare to say that no comparable ultralight aircraft yet built has matched the Chilton for integrity and performance, both quantitative and qualitative.



"This fabulous little machine...." Ranald's favourite for air racing and personal flying. G-AFSV is the train engine version.

Dalrymple, who was tragically killed on Christmas Day 1945 in a captured Fieseler Storch, his first flight since before the war, was, without exception, the most intelligent pilot I have ever known. His grasp of principles was instant and complete, and enabled him to put up a stirring exhibition of low-level aerobatics at an air display, with minimal experience and virtually no practice. On this occasion, shortly before the war, I had promised to do this, but was unavoidably prevented at the last moment. Determined not to allow the Chilton a "no-show," Dalrymple spent the previous evening with me, carefully mulling over all the factors involved in each manoeuvre. I read and heard later that his performance was faultless – and this on an aircraft with the characteristics of a baby Spitfire.

Early days at de Havilland – and “flying everything on offer”

At de Havillands the workshop and lecture room were happily complemented by Clem Pike's Reserve Flying School and by the London Aeroplane Club, where, by special arrangement, students could fly for one pound an hour! Needless to say, I took every advantage of this and, having obtained a private pilot's licence, wheedled my way into the cockpit of every light (and ultralight) aircraft on offer. Looking back, I am amazed how trusting their owners were.

Reminiscing across a gap of some sixty years, I can recall only brief snapshots of each of these machines. Perhaps the simplest of all was Lowe Wylde's and Robert Kronfeld's Drone, virtually a glider with a motorcycle engine, a Douglas twin. Kronfeld occasionally let me fly one of them at weekends to some club or other to 'show the flag' and I do not recall an anxious moment beyond worry lest the wind should increase and prevent me from getting home. I clearly remember hovering stationary, headed into a moderate breeze and saying to myself as I looked down on the earthlings: "I may not be getting anywhere, but I am flying – and enjoying every minute of it!"

An acquaintance at Hatfield acquired one of these machines, which he kindly lent to me one weekend for the avowed purpose of visiting friends at Bourne End, where there was a small grass landing field just behind the Quarry Hotel. This journey of some twenty-five miles was completed in just under an hour and the Drone was duly tethered down for the night before my host (an old rowing Blue) ferried me across the river. Next day we were horrified to find that cows, of whose presence I had been unaware, had chewed great lumps out of the Drone's tail. An engineer from White Waltham performed miracles and the Drone's owner was unexpectedly forgiving.

A young naval friend, Dawson Paul, occasionally lent me his Dart Kitten. This was an orthodox, low-wing monoplane, well-built by two immigrant engineers, Zander and Weyl. It was stable and solid, if perhaps a trifle underpowered by its Aeronca-JAP engine of 42 hp which for some reason I cannot recall was often most reluctant to start. Dawson Paul later became the first owner of the third Carden-engined Chilton, G-AFGI, which I vividly remember delivering to him at Broxbourne from Marlborough. He was delighted with it, appreciating its much higher cruising speed, greater range and far crisper handling; not to mention its powerful flaps.

After the war I acquired my original favourite, G-AFGH, the second Chilton and always, for some reason, the nicest to handle. This was professionally reconditioned by Air Schools Ltd of Derby, where I was doing a stint as CFI of the Aero Club. The Carden engine, based on a Ford 10, went simultaneously through the workshops of a local Ford agent, one Len Astle, who was a keen member of the Aero Club, which no doubt helped as 'GH served me well until, about a year later, my new position at Austers forced me sadly to say farewell to her.

Racing – “there was a loud bang, with oil and steam”

I had done all the original flying of the Chilton at Witney in 1937 and, in the 300-odd flying hours I had accumulated in this little craft, had suffered only one mechanical disaster, which was of our own making. We had skimmed the alloy cylinder head of the Carden engine excessively in preparation for some race or other. I was in transit across London, between Gatwick and Luton, at about two thousand feet on a fine, clear evening (imagine this nowadays!) when there was a loud bang, with oil and steam – and a limply windmilling propeller. A.P. Herbert later wrote:

“London is a funny place; “Nine-tenths of it is open space . . .”

Luckily for me there was some truth in this. The open space which beckoned was Hurst Park racecourse and a few 'S'-turns brought me gently down on to firm, smooth ground between various bushes in the no-man's land inside the race track itself. End of story? Not a bit of it. My problem was yet to come. Off season, the racecourse was closed and totally deserted. I plodded wearily around inside various fences and barriers for what seemed an age, quite unable to find a way out or indeed to detect signs of human life. Apparently, nobody had seen the Chilton land, or had attached any significance to it. I recall a growing sense of panic and even visions of news headlines: "Promising young aviator starves to death in London wilderness!"

But this was not to be. Eventually I found an opening which led to the back garden of a suburban house, complete with owner and telephone. A replacement engine was brought in next day and the little Chilton had no difficulty in clearing the surrounding trees – so all was well.

After the war, when I had in effect two Chiltons, one ('GH) mine, the other the Train-engined 'SV, lent to me by Reggie Ward for safe keeping and flag-flying, I had a great tussle with the authorities over the question of reviving the pre-war ultralight permit-to-fly and recall passionately importuning the Minister, Lord Pakenham, at an air display. He took this in good part, seemed interested and promised to examine the matter. It apparently worked, as permits were shortly granted and the two Chiltons flew officially once more, spinners held high. I remain under the impression that these were the first postwar permits but will gladly stand correction if the record shows otherwise.

Prior to the first flights of the Chilton in 1937 I had become involved with Luton Aircraft (C.H. Latimer-Needham) and had undertaken to fly their Buzzard around flying clubs etc. at weekends. Like Kronfeld's Drone, this machine had glider ancestry but was of low-wing, semi-cantilever layout with a much more sophisticated monocoque wooden fuselage design and spatted undercarriage. The engine was a V-twin Anzani, of Morgan three-wheeler ancestry, delivering (well, sometimes) about 34 horsepower. Its carburettor was fed by gravity from an "Autovac" culled from an old Buick car and drawing its petrol from a 5-gallon drum, mounted vertically in the fuselage below.

For the benefit of the Very Young (i.e. below about sixty-five), the "Autovac" was a small cylindrical tank, usually mounted on the bulkhead behind a car's engine and connected to the induction manifold, whose suction it used to lift petrol up into its reservoir, whence it could flow by gravity to the carburettor. In practice this crude system worked reliably on the Buzzard (as indeed did the "Autovac" in cars of the time), in sharp contrast to the rest of the power plant, which suffered endless failures, usually due to valves overheating, sticking, seizing, and breaking their springs. On my last flight in this machine, from Hatfield to Christchurch, I suffered four engine failures! The first three forced landings were simple but the fourth failure, on a test flight in windy, rainy weather, after alleged repairs at Somerford, connected me somewhat violently with an oak tree on the edge of the airfield, of which I was just out of reach. In view of its known unreliability, I was an idiot to have been flying the machine at all in such conditions, let alone to be doing a low circuit in a hurry.

I believe it taught me a lesson and that, after a spell in hospital with various pain ful fractures (including five vertebrae), I emerged as a much more cautious pilot. Latimer-Needham developed another ultralight single-seater, the Luton Minor, a braced parasol tractor monoplane, owing nothing to the Buzzard or its sailplane derivation. It also used the Anzani V-twin, replaced in its later versions mainly by the much more reliable Aeronca-JAP horizontally-opposed twin of some 40 hp. I recall that, some four months after my disaster in the Buzzard, Latimer-Needham invited

me to fly the Minor prototype (G-AEPD) at Hanworth to pose it for photographs by "Shell Aviation News." I felt that this might be a gesture to indicate that he did not blame me for the Buzzard crash.

This time the Anzani ran for thirty minutes without failure and the experience was enjoyable, despite an unusually windy cockpit and marginal stabilities.



Invited to fly the Luton Minor prototype G-AEPD (photo Wikimedia commons)

The tiny machine had a simple undercarriage consisting of a straight-through axle trussed by bungees. This was derived from Henri Mignet's Pou-du-Ciel and allowed the fuselage almost to slither along the grass, so low was it and so small the angle of attack. Whoever invented the term "ducks' disease" must have had the early Minor in mind. All this had a fascinating effect upon the take-off characteristics, as I recall them. On an average grass surface the little machine, lacking the ground-effect benefits enjoyed by the Buzzard, would rush forward eagerly but was unable to attain anything near to a take-off angle of attack until the front was bumped upwards by some unevenness of the ground, whereupon it would leap up quite startlingly, giving a false impression of a healthy rate of climb. Forewarned by experience, one had then to nurse it through a transition period, slowly increasing speed until a modest climb could be sustained. I recall standing next to the great and good C.G. Grey at the Royal Aeronautical Society garden party at Heathrow (then a grass flying field!) in 1938. We were watching the Minor being demonstrated when he suddenly exclaimed: "See, it loses height in a climbing turn!" Such, indeed, seemed to be the case and it released a diatribe by "C.G.G." against ultralights in general, to which he was fanatically opposed, referring to them in "The Aeroplane," of which he was Editor, as "silly pop-bottles."

The Minor was later developed in much more satisfactory form by Arthur Ord-Hume (as Phoenix Aircraft), mainly in home-build kit form. One of the first and most obvious improvements was an orthodox undercarriage with compression struts and reasonably-sized wheels, giving the machine an adequate ground angle for normal take-offs.

Later in the same programme I had the unnerving experience of seeing Robert Kronfeld crash "my" Luton Buzzard, rebuilt laboriously since the disaster of some eighteen months before. C.G.G.'s only laconic comment was: "What did I say . . .?" This time the Anzani engine could not be blamed. As far as I could see Kronfeld merely misjudged some spectacular crazy-flying and inadvertently dug a wing into the ground, causing the machine to slew round violently, snapping the fuselage clean off just aft of the engine pylon. The two parts came to rest at an angle of some forty-five degrees to each other, the cockpit, deprived of support, canted steeply backwards, with poor Kronfeld sitting there and the Anzani still ticking over. I really felt for Kronfeld then and imagine his face to be as red as his dark-tanned Southern European complexion would allow. I always liked him immensely and heard with real sadness of his death a few years later test-flying an Armstrong Whitworth tailless prototype.



Another Porteous favourite – the Belgian Topsy S

Other memorable ultralight single-seaters which I recall flying at about this time include the Belgian Topsy 'S' and the Currie Wot. The former, a very clean, low-wing monoplane, was underpowered by its 600cc motorcycle-derived Douglas engine and lacked flaps, which it sorely needed. Nevertheless, it handled beautifully and, had it had flaps and more power, it would have become . . . well, a Chilton. The Wot, by contrast, was a neat little biplane, resembling nothing so much as a half-scale model of the D.H. Technical School's TK.1, or indeed a Moth. Its Aeronca-JAP engine powered it adequately and the controls and stabilities were normal and typical of its layout. I remember feeling exceptionally safe in this little machine, regretting only its rather high drag, which limited progress. Flapless, its glide angle approximated to that of the Chilton, it's very effective split flaps fully down!

In 1937 I enjoyed a spell of Service training at Montrose and Drifffield in an odd little cell of the RAF labelled "The Reserve of Air Force Officers – Class 'A'" (somewhere between the Volunteer Reserve and a Short Service Commission). This was mainly on Harts and Harrows, which latter huge and heavy bomber I recall treating as an outsize light aircraft – and enjoying it.

The Hart phase was marred by the death of my closest friend and co-pilot, Henry Peacock. For training purposes we were paired for the duration of the course and, for the first, last and only time Henry was flying with another pilot, I being unserviceable with 'flu. We used to alternate, pilot or observer, and this time Henry was in the rear observer's cockpit, being flown on what seems to have been a low beat-up of some boats in Montrose basin. I remain convinced that there would have been no crash if Henry had been flying the aircraft.

My instructor at Montrose was an extremely tough and jovial NCO named Heath who, I quickly and perhaps luckily sensed, was bent on catching me out. I had of course by this time done rather more flying than the other trainees, which made me easy game for "taking down a peg." He would surreptitiously move the trim-wheel or petrol cock just before take-off, claiming that I hadn't done my checks properly. This was perfectly legitimate, as it trained one to be on double-alert. Nevertheless, I eventually counter-attacked by closing the throttle just after we had started our take-off run, claiming that the aircraft was unserviceable. "Why?" he asked? "the trim-wheel

moves of its own accord as one opens the throttle. There must be a fault," I replied. He saw the joke, laid off thereafter and we got on famously.

After this (to me) exciting RAFO interlude, with its undertones of a rewarding social nature, Geoffrey Alington, another friend from DH days, invited me to join him and "Bunny" Spratt in their new venture "Air Touring" at Gatwick, which in those days was still a grass airfield, though increasingly busy, being blessed uniquely with its own station on the Brighton line and with customs facilities. Our aircraft comprised Geoffrey's luxurious 6-seat Short Scion, with its two Pobjoy Niagara engines and busy reduction gears, his Desoutter high-wing three-seater and Bunny Spratt's four-seat Miles Falcon Major.

Halcyon days indeed, enlivened by many enjoyable expeditions, including a quick return trip to Le Touquet carrying five Etonians who had a bet with their chums that they could visit France after lunch and be back by "bell" (or whatever it was called) with the evidence. They carried no passports but the Le Touquet authorities knew me well by now and accepted my explanation of the jape with much good-nature and wishes of "bonne chance!" We were back at White Waltham, via Lympne, in good time and the party left for Eton armed with date-stamped slips of paper headed "Le Touquet." With such a grounding they must have graduated later into MI6, justifying the revised claim that the war was to be won on the landing-fields of Eton!

An exciting and profitable sideshow to this Gatwick interlude was the opportunity to "moonlight" (literally!) with Air Dispatch at Croydon, owned and run by Mrs Victor Bruce, a most charming person, famous in her day as a racing driver at Brooklands. They held contracts to provide night-flying aircraft for the training of the Observer Corps (as it became) and other Army anti-aircraft units, embracing guns and searchlights. On receipt of a telephone call we would rush up to Croydon, report to "Mrs V.B." or her lieutenant, Eric Noddings, and be assigned to a (usually) triangular route, sometimes with an overnight base, as often as not Church Fenton.

On one such jaunt, on an exceptionally clear fine night, I found myself in the wee hours droning back south towards the still bright lights of London, heading for Croydon. The DH Dragon offered its pilot exceptionally good visibility and from quite a distance away I was able to identify most of the main roads radiating from the metropolis. When over the northern suburbs I clearly saw Piccadilly Circus, with Regent Street's hockey stick curving left into it. This, I thought, was too good a chance to miss and followed a gentle slope down towards the main north/south line of Regent Street, along which I flew at a few hundred feet, following the curve leftward into Piccadilly. From the comparative safety of the Dragon's cockpit, I could clearly see the colourful and immaculately dressed ladies of the night who still adorned the corners around Regent Street, Piccadilly and Shaftesbury Avenue, some equipped with frisky small dogs on leads.

A modicum of discretion then reasserting itself, I climbed gently away to the right and flew sedately down to Croydon at a respectable height. In those days one "reported in" in person and I rather expected to hear telephones ringing and to find myself the object of quizzical looks. But no; not a bit of it and I never heard a word thereafter, though there was some small mention of it in the press . . . "mystery plane," "German spy . . .?", etc. I hope the file is closed long since and can only say: "No, I wasn't a spy – just a young idiot enjoying himself!"

This altogether pleasant spell at Air Touring was made even more so by using Chilton 'GH, in which I 'showed the flag' whenever possible at nearby aero clubs such as Redhill and Shoreham. It was at the latter, one warm summer evening, that I first encountered the Miles brothers, whose home territory it was. They were joined in the club bar by Charles Lindbergh, who had just flown in from Germany in his immaculate black Nighthawk, which they had built to his specification. He seemed to be in serious mood and I listened intently to what he was saying. He had been lionised

by the Nazis and had been shown round their hugely developed aircraft industry, with which he was mightily impressed – as well he might be, and as they had intended. I gained the impression that he was not fundamentally anti-British, indeed that he wished us well but was exasperated by our government's lack of comprehension of the danger in which we stood and the unwillingness of Whitehall to listen to the warnings which he had repeatedly tried to convey.

Among our aircraft at this time was Geoffrey Alington's Desoutter monoplane, a boxy wooden three-seater with a Hermes engine and a reassuringly thick high wing. I believe that its original design stemmed from Koolhoven in Holland. It flew quite well, but lacked flaps and was only just adequately powered when three-up. Flecks of oil used to accumulate on the windscreen and the flat-sided cabin drummed

incessantly. It had, however, one endearing feature, namely a large, hinged skylight or trapdoor in the cabin roof, between the spars of the centre section. I doubt whether there are many people around nowadays who remember the rumbustious comedy pair Lucan and McShane. They were at that time filming an uproarious sequence in "Old Mother Riley in Paris." They were supposed to have panicked on a cross-channel flight, donned parachutes and jumped out of the Dragon which served as an "airliner" and was, I believe, provided by Hillman Airways. This led inevitably to a scene where "Kitty" McShane was blown along the ground, gesticulating and struggling, parachute still fastened and canopy billowing, by a Very Strong Wind. I claim proudly to have been that VSW. We had chocked the Desoutter's wheels and lashed its tail to the ground, my part in the operation being to kneel on the rear cabin seat-back, head protruding aft through the open trapdoor and working the throttle with the toes of my right foot, at full stretch. All went well, the VSW waxing and waning in accordance with signals made to me by the director, until at the height of a gale the catch on the forward-hinged trapdoor failed, allowing the not-insubstantial contraption to whip over and catch me plumb on the top of my head, with consequences which I do not clearly remember. I saw the film many years later, laughed a lot and could detect no hitch, so all must have been well. Thus ended my career in movies.

A chance arose to join the Miles organisation, starting as assistant to the famous, great and good (all three, in generous measure) Tommy Rose, who at that time ran the Reading Aero Club at Woodley. There was talk of occasional test-flying etc. within the firm so, brandishing my recently-acquired instructor's licence, I bade fond farewell to Geoffrey and Bunny and to the recently recruited Tom Brooke-Smith, later to distinguish himself with Shorts and the GAPAN. It had been a fun time but Woodley was a more serious challenge.

Tommy Rose was beyond all praise. Bluff, jovial, kindly and extrovert, he was nevertheless shrewd in matters of human nature. His considerable fame and seniority rested lightly on his shoulders and to me, a relative whippersnapper, he combined the functions of benevolent boss, father-confessor and merry uncle. He had, to an exceptional degree, the rare gift of giving one a feeling of his real interest and genuine concern. He had lost none of this when I stayed with him many years later in Alderney.

The club aircraft, all very modern for their day, consisted of two Miles Hawk Majors, one Hawk fitted with a Menasco engine of power (130 hp) and characteristics similar to the Gipsy Major, and one Miles Whitney Straight, a most civilised and roomy side-by-side cabin two-seater, developed for the eponymous Anglo-American millionaire, famed from his Brooklands motor racing era and now proprietor of a string of flying schools, shrewdly set up in advance of the now seemingly inevitable war.

All these Miles aircraft and their stablemates flew beautifully, due to exceptionally efficient wing design, coupled with simple and reliable split flaps which gave just about the ideal degree of

increased drag without unduly disturbing longitudinal trim. The Menasco engine, being American, rotated in the 'wrong' direction, which confused some novices no end as they experienced yaw and torque effects the reverse of what they had come to expect. In this regard it served as an excellent training tool.

I cannot look back on this very positive period, when I felt that I was learning so much (not all of it in the cockpit!) without remembering with horror one very nasty narrow squeak which may well (like the Buzzard incident) have frightened me out of any drift towards over-confidence. I was nearing Woodley in one of the Hawk Majors with a charming, youngish woman as pupil, after a routine training flight. Her progress had been excellent so far and her aptitude markedly above the average. As we began our final approach she remarked to me through the Gosport tube that we were a trifle high and should she go round again or sideslip some of the height off?

We had been practising sideslips during the previous week and she had become quite expert, so I agreed to the latter, whereupon, in a split second, she violently applied full rudder and opposite aileron with a considerable amount of up-elevator . . . and we had executed a half-flick-roll at what cannot have been more than about four hundred feet. Emitting what must have been a startled yelp, I managed to seize everything and nurse the Hawk downwards through its half-loop, steering at high speed between two rows of suburban houses on the edge of Sonning at below roof-top height. It was all very scary, not least to the lady in question, and I can only claim that, in thousands of hours instructing, nothing similar was ever allowed to happen again – thank God!

A favourite club member, with whom I greatly enjoyed flying, was Veronica Innes, lately 'Queen of Beauty' at the Runnymede Pageant. She had a charmingly insouciant way of tackling things, as I shall show. When war came, she quickly graduated from the Civil Air Guard (which the club had served) into the Air Transport Auxiliary, in which she flew almost every type of RAF aircraft, from Spitfires to Mosquitos and Lancasters. Her vivid air-focussed book "The Sky and I" by Veronica Volkerz (her married name) makes wonderful reading even today; in fact, perhaps more so by having acquired historical significance. It makes a splendid lens through which to view from a distance many fascinating aspects of the war period and embodies the full story of the Air Transport Auxiliary.

I have mentioned Veronica's "insouciance" and can only relate the following. In her Civil Air Guard days at Woodley she was largely my responsibility – no hardship to me. One late afternoon she was authorised to do a triangular cross-country navigation exercise which, as far as I can remember, should have taken her to Suffolk, Cambridgeshire and home after about an hour and a half. When she was more than an hour overdue and a thickening haze warned of the approach of evening we were all decidedly anxious, the famous furrows on Tommy Rose's forehead being much in evidence.

Just as we were on the point of initiating all sorts of emergency procedures by telephone, the Hawk's engine was heard and the aircraft appeared through the haze, clearly identifiable. My feeling of relief cannot be described. Apart from the responsibility, I was really fond of Veronica, who by now had landed and was taxiing in to a clamorous reception embracing: "Where the HELL have you been?", "What went wrong?", "Thank God you're back!", "Join us in the bar." Veronica's reply to all this was calm and clear. "The visibility was very poor and I'm afraid I got lost for a while but I found myself among some barrage balloons so I knew it was Cardington and remembered a friend who farms near there, so landed in one of his fields for a chat." . . . Bless her!



Another favourite, the Miles Monarch. Randal demonstrated the prototype at Le Bourget

At about this time I was, to my delight, entrusted with the prototype Miles Monarch (G-AFCR) for a demonstration to the French civil aviation authority at Le Bourget. The Monarch was a quiet and comfortable three-seater, somewhere between the four-seat Falcon and the two-seat Whitney Straight, which it resembled most closely. To my way of thinking, the controls and stabilities were perfectly harmonised and the machine was a pleasure to fly. My contacts at Le Bourget turned out to be a couple of gravely important Garlic-and-Gauloise gentlemen in blue pin-stripes and wearing Homburg hats. They spoke (or pretended to speak) no English so my halting schoolboy French was stretched to its limit. Having taken off into a smoggy autumn haze which, at two thousand feet, prevented one from seeing anything of the ground save vertically downwards, they proceeded to perform a series of lurching gyrations, timing various recoveries with a stopwatch.

Sitting there helplessly in this grey horizonless void I suddenly felt an increasing panic lest I should be airsick for the first time in my life, thus disgracing myself, Miles Aircraft, King and Country . . . in that order. Great was my relief when Mafia Boss No.1 gestured to me to take over and return to Le Bourget, which I found in the murk more or less by luck. In reply to my innocent query as to their opinion of the aircraft, their only comment was “Ce n’est pas assez stable transversellement . . .” This, I remain convinced, was “une charretée de savetiers” – to coin a phrase.

I returned to Woodley feeling that I should have done better but George Miles generously dispelled this and explained that the exercise had been something of a “long shot” anyway. Some months before the war I was transferred from the club to the Flying Training School (No.8 EFTS). The training of pilots had by now become desperately urgent and we flew our Magisters, Hawks and even a Hart or two in all weathers for long hours. Our particular version of the Hawk trainer had one noteworthy failing: its carburettor float tended to stick when subjected to negative ‘g,’ as in a slow roll, thus cutting off the petrol from the jet. Sometimes it could be shaken loose by violent “jinking,” but more often one had to execute a model forced landing, with full “patter” as a matter of honour! Consequently each instructor had to choose his field or area, over which alone he could teach aerobatics. There were plenty of good fields within range of Woodley. My chosen plot was on a hillside between Henley and Wargrave.

The surface was concave, the slope increasing markedly as one went uphill, rather like a ski-jump in reverse. In all but extreme winds, therefore, one landed uphill. The ensuing take-off downhill was always fun. Meanwhile life was restored to the Gipsy Major by opening its cowlings and striking the carburettor sharply with a stone or, failing that, with one of the easily removable control sticks.

This resulted in an audible metallic ‘clink’ as the errant float dropped down into its proper position. This was scarcely high technology but I recall one training course during which no less than ninety-one dead-stick forced landings were recorded without any aircraft suffering so much as a scratch.

“Spinning” was of course an important item in the training syllabus of those days and the pressure of events forced us sometimes to carry on with this in appallingly unsuitable weather. Accordingly, to help us and our charges to keep track of the number of turns completed, we were in the habit of counting aloud: “Reading one – Reading two – Reading three . . .” as the brick-red blur on an otherwise green landscape flashed by. A story which my wife picked up many years later has it that on one such occasion my patter ran: “Reading one – Reading two – Reading three – recover . . . Bloody Hell; it’s Basingstoke!” I vaguely remember this but had no idea that it would survive as folklore. Sic transit Gloria . . . whoever she may be.

During my spell in hospital after the Buzzard disaster I had read “Sagittarius Rising” by Cecil Lewis. It was and is a truly marvellous book and Cecil Lewis instantly became – and remains – my literary hero. There is a charming section late in the book in which Lewis vividly depicts his time in China after the First World War, charged with training their embryonic air force – initially with no aeroplanes! His social life in Peking and Shanghai seems to have been idyllic and in one passage he describes how, after a movingly romantic encounter of almost supernatural intensity, he later muses: “On what white pillow lay that head? So close, so far away, so dear, yet so estranged by one brief step of time.” When I read this I sat up in bed with such alacrity as my painful back would allow. It remains the most perfect gem of poetic prose (save perhaps for David’s lament for Jonathan) I have ever read and it seared its impression instantly in my mind and memory.

This leads me to relate that, George Miles having kindly suggested that I join him, Tommy Rose and one or two others for a drink in the White Hart at Sonning, I found myself at the bar there enjoying a pre-prandial gin in this august company, which included Victor Burnett of the “Daily

Express.” Suddenly the door opened and in it stooped a massively tall, impressive figure in an astrakhan-collared greatcoat.

“Come in and join us, Cecil,” said George Miles; “I think you know everyone here . . .” then, looking round, he added, “Oh! this is Ranald Porteous: Cecil Lewis.” I don’t think the word “gobsmacked” had yet been coined, but that is exactly what I was. My literary hero . . . himself . . . in the flesh . . . I took refuge in another large gin. After two or three further such fortifiers, my courage welled up and, having caught Cecil Lewis’ eye, I solemnly intoned: “On what white pillow lay that head?”

So close, so far away, so dear, yet so estranged by one brief step of time.” For a moment he looked like a (very large) shot rabbit . . . then: “I wrote that!” he exclaimed. “I know. ‘Sagittarius Rising’,” I replied. For a few seconds he said nothing, then a slow smile spread across his face: “ . . . bloody good, wasn’t it?” . . . It was. Lewis died not long ago, within a year or so of his century. He had become a revered religious and philosophical guru, holding court at his exotic villa in the Aegean and his sonorous voice on the BBC’s “Thought for the Day” programme some years ago was most impressive. He must then have been well into his eighties.

After the war, mainly spent most unheroically instructing in the UK and Rhodesia, I intended to rejoin Dalrymple and Ward at Chilton, initially to set up a sales structure. Dalrymple's sad death, which I have mentioned earlier, put paid to this and I found myself in urgent need of a niche to fill while seeking an alternative opening in the aircraft industry. The Miles company was already running into trouble and Auster had filled its sales and test-flying slots. Nevertheless, George Miles remained as helpful as ever and gave me the use of a Sparrowhawk and of the M.18 prototype to help me remake my contacts here and there.

After a brief and unhappy spell with an embryonic charter company at Kenley, near Croydon, including a horrendous flight, seven aboard, from Croydon to Johannesburg in a heavily-laden Consul (civil Oxford), completed in 3 days and 23 hours (!), I engaged myself with voice recording (having done a certain amount of concert and radio singing in Rhodesia), setting up “Vox Recordists” at Wargrave, firstly with equipment which I had brought from South Africa. This soon brought me into renewed contact with Stephen Appleby, whom I had got to know at Heston before the war when he was involved with Henri Mignet’s “Flying Flea.” Appleby, who had changed not at all, ran a much more sophisticated recording business just off Piccadilly and was a tower of strength.

Eventually the grapevine signalled an opening as CFI of the Derby Aero Club at Burnaston. At least this was a chance to get into the air again, so I boarded the Sparrowhawk, flew up to Burnaston – and the job was mine.

The Derby club’s aircraft included a Miles Messenger 4-seater, an aerodynamic marvel and a monument to George Miles’ wing design, “my” old Monarch, G-AFCR, still presumably “pas assez stable transversellement”, and three Auster Autocrats, which I found tiring to instruct in and lacking control finesse, though one had to admire their impeccable serviceability.

My (then) wife, Elaine, had meanwhile acquired the closed-cockpit M.18, G-AHOA, which had been designed as a Chipmunk competitor and was a truly splendid aircraft, in my view a far better trainer than the Chipmunk in all but one respect, over-docility at the stall. This was, of course, a plus feature in a private aircraft, but not in a serious trainer. Its roomy cockpit and layout were far nearer to those of “grown-up” machines, as were its performance and general handling, which enabled me to give fairly effortless aerobatic displays at various airshows.

Its arrival at Burnaston caused quite a stir, for the wrong reasons. I had ferried it up from Woodley and, full of enthusiasm, took Elaine up for her initial flight in it. Halfway round our first circuit the engine (a Cirrus Major III of 155 hp) slowly died, leaving us with a windmilling propeller and no 'feel' to the throttle, whose linkage had in fact become disconnected. Luckily, although downwind, we were within gliding distance of the airfield, on which I landed cross-wind with no difficulty, trying hard to convey that such trifling inconveniences were part of the routine lives of competent, masterful flying instructors. G-AHOA, overhauled and glamorously painted by the folk

at Derby, never again gave cause for anxiety and was the source of great enjoyment. Eventually she was sold to Tom Hayhow, later of inter-city record fame, who crashed her terminally into a cloud-covered Pennine hillside, escaping with little more than a broken ankle and confirming my long-held view that, if you must crash, it is best to choose a wooden aircraft!

Only two M.18s were built: G-AHKY became the property of Brian Iles, an old pupil of mine, who became air-racing champion with her. She had Magister-like open cockpits, whereas G-AHOA was blessed with a really splendid sliding canopy, resembling that of a Harvard.

The Sparrowhawk, which I was still enabled to use from time to time for aerobatic displays, was a joy. It was immensely clean, with crisp controls and stabilities perfectly harmonised, cutting through turbulent air as straight as an arrow, without the slightest trace of "jinking," yaw or dutch-roll. It seemed to obey one's thoughts, always with effortless accuracy, and was by far the best and most enjoyable light aircraft I have ever known in the context of low-level aerobatic display flying. With most light aircraft one had to employ a certain amount of skill and downright cunning to achieve continuity while maintaining height during such displays, but in the Sparrowhawk the problem was to avoid accumulating more and more height as one's programme progressed!

In the Sparrowhawk I devised a pattern which suited its merits and which I called a "four-leaf clover." This required a display crowd arranged in 'L' form, which was quite usual. The Sparrowhawk would be flown very fast and low just inside one arm of the 'L,' parallel to the spectators, then brought up into an absolutely vertical climb, aileron-rolled through precisely 90 degrees, the loop then being completed to bring the aircraft down just inside the second arm of the 'L' . . . and so on, four times. Simple stuff, but easy for the Sparrowhawk and I was told that it "looked artistic"! Sadly, this gem of an aircraft ended its life when a Rolls Royce test pilot took off with the fuel tap wrongly set.

In the summer of 1948 the "DAILY EXPRESS" set out to organise at Gatwick the first major post-war international air display in this country. Victor Burnett was naturally at the hub of this and there were big names on his provisional menu. I had promised to be there with both the Chilton-Train and the M.18, as a flexible aerobatic slot-filler, and to see him in London to discuss other ways in which I might be able to help. On arrival at his office, I quickly saw the need for this. As in

American movies of the time, the scene was phrenetic. Phones were ringing all over the place and aides (with or without visitors) kept popping in unannounced every minute or so. Victor found time to confide that the mighty Women's World Aerobatic Champion, Betty Skelton from Tampa, Florida, had arrived early at Southampton and was due at any moment. Would I please take her off his hands, for lunch and longer if possible, as he was desperately busy and quite unable to cope with a leathery he-woman, as I think we both envisaged her.

Just then, through the open door, there wafted the most delightful vision of sunlit sea-spray in the shape of a demurely pretty, chic and graceful, young and slender woman, who announced in the most charming Southern drawl: "I'm Betty Skelton. I guess you're expecting me."

I can't actually remember being given smelling salts and helped off the floor but it must have been fairly near to that. Burnett, too, was clearly impressed and I recall a moment of dread lest he should renege on the take-her-out-to-lunch arrangement!

Betty Skelton seemed to like the idea of lunch in the Royal Aero Club, whither we repaired by taxi. During our meal the conversation naturally tended towards aerobatics and she seemed to be baffled by my use of the term "flick roll," asking me to explain it, whereupon she exclaimed: "Oh! you mean snap rolls!" . . . Then, musing: "Flick rolls . . . gee, that's a cute little British expression. I must remember that!"

Betty Skelton described to me her own various routines with what, when I came later to see them, I recognised as truly charming modesty. Her display was terrific, involving poles, streamers and multiple flick (sorry, snap) rolls and everything else in (and out of) the book; everything being flown very low and with almost unbelievable accuracy. I understood how she had become World Champion. Her background was interesting in that her nursery had been the highly-professional family flying school run by her father and embracing display flying as a speciality. Her aircraft "Little Stinker" had been designed to her specification and I believe that the later Pitts Special, which closely resembled it, was a direct offspring. To my diffident enquiry as to whether I just might be trusted with "Little Stinker" for a quarter of an hour or so, the reply, soothingly delivered, was: "I guess even my Pap ain't allowed to fly that one!" She later held the Women's World Land Speed Record. I'll wager that she was as charming and modest about that as well . . . bless her!

The "DAILY EXPRESS" had mustered an impressive array of interesting aircraft for this display, including a "flying motor-car" (never a successful formula – and never likely to be) and "The World's Smallest Piloted Airplane." This was a tiny metal monoplane, about half the size of a Chilton or Topsy 'S,' along the top of whose minuscule fuselage the pilot lay strapped prone, separated from the ground by a midget tricycle undercarriage. I can't recall any technical details – or even the machine's name or (American) origin, save that the engine was a horizontally-opposed twin two-stroke, probably of about 20 hp. The contraption flew – quite well, in fact – but, no, I didn't beg a ride!

Air Racing – from Schneider Trophy to King's Cup

Air racing, in its pure and immensely spectacular form, faded in this country with the demise of the Schneider Trophy events. At that time I was lucky enough to be at a prep-school not far from the Solent, where we could see the Supermarines, and others, practising out of Calshot and could argue (with zeal but almost total ignorance) about the relative skills of such as Waghorn, Webster, Orlebar, Atcherley,

Kinhead and d'Arcy Grieg. Kinhead's tragic death is etched on my memory. Some of

us had been watching events from a point of vantage on the edge of the school

grounds but had repaired indoors for our weekly "house singing" ("Forty Years On,"

"Tom Bowling" etc. etc.) under our admirable music mistress. It was a still, warm

evening and the penetrating yowl of the racing engines and their propellers (which

must have been supersonic) intruded from time to time and was sweeter music to our

philistine ears than the pallid tinklings of the piano. To our horror, however, one such yowl ended abruptly at its peak with a horrible “tunk” – then complete silence.

The music mistress rose slowly to her feet, closed the lid of the piano and said softly: “That will be all. Please go quietly.” We did, many in tears, as it was clear to all what had happened. In due course we learned that Flight Lieutenant Kinhead had flown straight into the glassy surface of the water on a very high-speed run.

A totally glassy surface, devoid of even vestigial ripples, is a rarity but on one or two occasions in later life, when one has offered itself, I have experimented close to it, with Kinhead in mind. It is very, very dangerous.

Long-distance air races, such as the MacRobertson race from Mildenhall to Melbourne and the later Portsmouth to Johannesburg race, both in the mid-to-late thirties, were, of course, a completely different matter. They could be of great news value but their spectator appeal was limited to a few aficionados at the start and perhaps a sizeable crowd at the finish, far away.

I was at the early-morning start of both these events, highly motivated as a de Havilland student who had watched the Comet take shape in the first case and by my friendship with Geoffrey Alington in the second. I shall never forget the sight of Geoffrey’s indomitable mother, heroine of an unscheduled parachute jump at Brooklands, calmly polishing the leading edges of Geoffrey’s BA Eagle, while everyone else seemed to be rushing about in a panic. If anyone ever slotted comfortably into Kipling’s “If,” it was she.

Air racing as typified by the King’s Cup, which was big and lively news in the thirties is, to the logical and disinterested mind, quite the silliest and most pointless sport ever devised. The same group of private (or semi-private) owners congregated to fly at full throttle round a cross-country course which was, as often as not, largely beyond the view of such spectators as may have gathered. The aircraft were lined up and flagged off one at a time in accordance with calculations made by a team of expert handicappers, whose object was to ensure that, given equal piloting skill, all the competitors arrived at the finish dead level. In the event the handicappers usually proved more fallible than the pilots, whose relative skills were marginally significant,

as between the best and the worst, though little would have separated the best few, one from another.

Flying “with desperate accuracy and zero height....”

This being said, air racing of this nature was a marvellous sport for its participants, a splendid bunch of enthusiastic and expert people, always a tonic to be with. I became hooked on it well before the war, being blooded in the little Chilton, entered for the Isle of Man and Tynwald races in June 1938.

Having left Hatfield as limit man, I recall flying my busy 32 horsepower with desperate accuracy and at almost zero height all the way to Speke (Liverpool) where I landed, still in the lead but closely followed by a gaggle of orthodox biplanes with four times the power, who were slowly but steadily catching me up. I remember also arriving at the refuelling Bowsers among these aircraft, whose vastly more experienced pilots were well-positioned and calling loudly for “Twenty-five gallons of Shell” . . . “Twenty gallons . . . etc. etc.” My own timid request for “two and three-quarter gallons of National Benzole Mixture and a little Redex, please” caused some amusement and rings in my ears today.

For this event the Chilton had been fitted with a new propeller, of “racing” design, i.e. of smaller diameter and coarser pitch, which certainly gave one or two extra miles per hour flat out, despite being a trifle sluggish in acceleration and climb. This was as expected. It had been completed just before the race and there had been no time to fit the usual metal leading-edges, essential to protect the wooden laminations against onslaught by rain, hail or grit. All was well at Speke. There had been no rain and the propeller was in pristine condition.

The second half of the race, to Ronaldsway via St Bees Head in Cumberland started well. The weather remained clear and dry and the little Carden-Ford engine hummed contentedly as we rounded the white lighthouse on St Bees Head, still in the lead. Ominously, however, the Isle of Man was not visible and, after what seemed to be a long time flying low across the water on a compass course, spots of rain started to strike the Chilton’s tiny windscreen, increasing rapidly. To my alarm the engine revs and the airspeed both fell noticeably and I began to ponder the aircraft’s ditching

characteristics, the best way of inflating the old inner tube, which was my sole survival kit, and the likelihood of being picked up at all. In short, I began to wish I were elsewhere. By now the rain was quite heavy beneath a lowering cloud-base but I drew a trace of comfort from the proximity of other competitors who were now looming out of the murk and passing me on either side, one with a cheery wave. At least I must be on the right track.

Great was my relief when land appeared dimly, straight ahead and quite close. The little aircraft's battered propeller was just able to lift me over the promontory before Ronaldsway and so my first race ended with my being placed tenth, about halfway down the field. The propeller was a horrible sight, both leading-edges looking as though bashed with a meat hammer, so it was quickly removed in favour of a standard "touring" one, which was probably a blessing since we had entered the Chilton for the Tynwald race later in the weekend. The triangular course for this was somewhat hilly and there is little doubt that the greater diameter and finer pitch of this propeller gained more on the long uphill stretches than it may have lost downhill. Anyway, despite the handicappers having reassessed the Chilton's speed in view of its performance as far as Speke and St Bees Head, it acquitted itself well in the Tynwald, coming third and confirming me as "hooked on racing."

I have mentioned the relatively small part which pure pilot skill plays in such races, at least in comparison with the whims and vagaries of the handicappers. This does not imply that it is negligible. The three Carden-engined Chiltons were later joined by the Train-engined version, boasting 44 horsepower and a much more streamlined nose. During my sojourn as an instructor at Woodley, I surreptitiously "borrowed" our approved low-flying area after hours and, armed with a stopwatch, used the Chilton (and occasionally other aircraft as well) to experiment with different cornering techniques. I remember many conflicting views offered by "experts" at the time of the Schneider Trophy races and had watched spellbound the varying styles of the pilots during the races themselves.

To understand the main facets of the problem one needs a little knowledge of

aerodynamics, specifically “induced drag,” “profile drag” and “power loading.” The first is highest under ‘g’ loading in aircraft with short, squarish wings (low aspect-ratio) and minimal in the case of long, finely-tapered wings (high ditto). The second is a straightforward measure of the aircraft’s “cleanness” or slim, streamlined form. Thus one may have aircraft at opposite ends of the spectrum in the same race, typified by, say, the Chilton-Train, very slippery and free of profile drag, with finely-tapered high aspect-ratio wings, giving low drag under ‘g’ loading, but with very limited power, ergo thrust for acceleration or climb. At the opposite end was, say, an Auster AOP Mark 11, with huge drag, both “induced” and “profile” but with lots of power and thrust. With the former the important thing was to nurse the speed round (and especially out of) the turn, avoiding any coarse or inaccurate control movements or excessive loading which might reduce airspeed unnecessarily.

With the Chilton-Train my stopwatch convinced me that, in the absence of external governing factors such as a marked wind-gradient, the best technique involved a very slight increase in height before a meticulously smooth, gradual entry to the turn, which itself could be of fairly high ‘g,’ followed by an equally gradual recovery, slightly downhill at first, to help the aircraft to regain speed and re-establish its optimal high-speed airflow or, colloquially, to “get back on the step.” The “draggy,” higher-powered aircraft could, by contrast, be hurled quite coarsely into and out of the turn and benefited hardly at all from that little bit of extra height for a dive-out.

These principles could be projected right through the spectrum of possible racers, from jets through Spitfires and the Mew Gull to (God forbid!) the 260 hp Auster AOP Mark 11. They are, however, of relatively little account if the pilot does not follow an optimal track round the (always visible) turning markers. Generally this is approximately parabolic and the marker should lie just (and only just) within the apogee of the parabola. This calls for a good eye and much practice which, we tell ourselves, makes perfect. As a spectator I was often dismayed to see some competitors cornering with the marker more or less in the centre of their turn. A simple diagram will show that they must have lost a distance approximately equal to the diameter of their turn on each such occasion. But at least they avoided

disqualification! High-speed racing round short pylon circuits seems nowadays to have survived only at Reno – and thrilling it must be to watch. From the evidence of a recent TV film it seemed that the best of the pilots there adhere to the precepts outlined above.

“...in the bar enjoying our second drink when the next competitor arrived”

The handicappers were splendid people and the even-handedness of their fallibility can be illustrated by my results: one up, one down! In the first case the race, sponsored by Butlins, was over three or four laps of a triangular course inland from the North Yorkshire coast. I had promised a ride to three keen members of the Derby Aero Club, so accordingly we entered our rather smart 4-seat Miles Messenger (G-AILL) for the event. The Messenger had almost certainly not been raced before and without doubt the handicappers had dismissed it in their minds as a tubby, flappy dragbox, only just able to lug its four occupants round the course. In fact, the Messenger, despite its remarkable designed-in low-speed capability, was surprisingly “clean” and, when the handicaps were posted, I was amazed to find G-AILL seeded among various types which I was sure it could easily outstrip, four-up or no. Such proved to be the case. By the end of the first lap we had passed all the aircraft ahead of us and we continued to sail effortlessly round the course to win by roughly half a county. I am tempted to imagine that we were all in the bar, enjoying our second drink, when the next competitor arrived!

Alas! I never actually won another race, though as often as not I was placed among the first four. This leads me back to the handicappers and the (still) prestigious King’s Cup. In 1963, some time after Auster had merged with Miles to become “Beagle,” I was entered in the King’s Cup to fly our shiny new Airedale four-seater, developed from the Atlantic concept. My young wife, Susan, had already flown with me in this aircraft through Spain, Portugal and Morocco on various hot-weather development trials and business visits. She was delighted, therefore, to have the chance of riding shotgun in the King’s Cup – no less. However, I soon discovered that having us both in the front seats resulted in a degree or two of up-elevator, which inevitably must have caused an imperceptible amount of drag. Susan was therefore

banished to the quite comfortable rear seat, a demotion which she accepted with charm and grace, once we had verified that the elevator was now precisely in line with the tailplane and (was it imagination?) the airspeed indicator seemed to settle down at a bare needle's thickness higher reading. As none of the aircraft's services would be needed in the race and having previously ascertained that no harm would result, I planned to switch off the alternator after starting, in order to relieve the engine of most of its electromagnetic drag. This gave us another needle's-width of indicated speed, the two aggregating perhaps to one mile per hour, or a gain of about a thousand yards at the finishing line. With the close finishes that by this time the handicappers were achieving, a thousand yards could mean the difference between first and sixth!

The race, which was over an angular course starting and finishing at Coventry, progressed well. Susan, who had been given the title of "Official-Lookout-Astern-on-Both-Sides," continued to report no over-taking aircraft, while we gleefully ticked off the various slower machines as we passed them. These, to my delight, included my friend and colleague, the late Vyrell Mitchell, passed inside on a turn with an advantage of about a hundred yards.

At last, the final leg of the last lap. Susan was by now excitedly identifying various faster aircraft as they approached from behind, while I scanned the clear, empty air ahead, satisfying myself that we had passed everything there was to pass. Finally, the long, straight belt low across the airfield to the finishing line – and our excited yelps: "We've won! We've won!!" Alas . . . the handicappers (may their slide-rules shrivel) had massively underestimated a little Topsy Nipper, the limit man, who must have finished about three miles ahead of us all, as he was never in sight. Oh! well . . . second in the King's Cup was worth a brownie-point or two; but it would have been nice to have won!

One other race which remains vividly in my memory was the Folkestone Trophy in 1947. Reggie Ward had entered the Chilton-Train, G-AFSV, for me to fly and it had been arranged that I should put in an extra lap which, with the three of the race

itself, would qualify as an attempt on the “International 100 km Closed Circuit Speed Record – Class ‘A’,” this being for engines of less than two litres capacity. The little French Train engine just fell within this limit, by the skin of its piston-rings.

It was August, fine and warm, if a trifle bumpy. 'SV ran beautifully, won its heat and was third in the final, following which I began my last “solo” lap through the now empty air. I recall a strange feeling, almost of loneliness, as we sped on. This soon changed to anxiety as flecks of oil began to appear on the windscreen and a warm smell to permeate the cockpit. However, the lap passed quickly and I landed to find myself the possessor of an International Record and very little oil!

Sometime later the FIA (or whoever) abolished Class ‘A’ – and, presumably, me with it – but I was delighted a few years ago to see my name in some reference book, recorded as the final holder. Immortality? Well, not quite; but it gave my flagging ego a welcome boost!

The SBSC Airshow Farnborough and “the Porteous Loop”

The SBAC display was, in those days, held annually at Farnborough and was the lynch-pin of most of our activities. Indeed, the aircraft industry’s calendar was once designated: Jan., Feb., Mar., Apr., May, June, July, Aug., Farn., Oct., Nov., Dec.! For those involved it was immensely exciting and interesting, doubly so for myself, perhaps, as my responsibilities embraced both the sales efforts and flying – the latter being part of the former really. It involved me in some heroic, if futile, efforts to be in four places at once; the exhibition stand, the company “chalet,” our static aircraft exhibits and the test-pilots’ briefings as well as the flying programme – not to mention the lavish buffet lunches! I was glad occasionally to take refuge there from the madhouse of the exhibition.



Auster's publicity shot of the Aiglet aerobatic trainer. This is G-AMMS which Ranald displayed at Farnborough in the 1950s. Note the extreme aileron deflection.

For some years I enjoyed my status as a kind of faithful "Tail-end-Charlie" and I was for a while the only pilot allowed to fly in the display without a radio, an indirect compliment which was much appreciated. I remember one day (a Saturday, I think, as there was a large crowd assembled) when the weather deteriorated to such an extent that the whole flying programme had to be shelved. There was a misty drizzle falling from a very low, amorphous cloud-base. I was summoned and asked if I could do my best to entertain the disappointed spectators for as long as possible . . . "carte blanche, but don't kill yourself!" Accordingly I took off in the Aiglet Trainer and cavorted around in the rain, low down and mainly between the spectators and the runway. It was soon evident that, while the cloudbase allowed horizontal, straight rolls, attempting anything in the vertical plane, even simple loops, took one rapidly into the cloud, too near the ground for comfort. Nevertheless, donning my ill-fitting hero's cloak, I persevered, carrying out various rolls-off-the-top etc. more or less by

memory, emerging in each case dead on line. Just as I was beginning to feel smug about all this, I entered another such antic to find the cloud lower and thicker than before – and the rain heavier. Memory was increasingly stretched during this prolonged obliteration and I felt relieved when the runway appeared dimly, straight ahead, allowing me to do a couple of rolls carefully aligned with it, followed by a vertical reverse, which took me into the murk again for a short while.

As I dived back along the line it seemed to me that the crowd of spectators was larger than I remembered and, peering through the rain-streaked perspex, I was mortified to see dimly that this “crowd” was in fact a line of large military aircraft. I had in fact come out of the cloud at the runway intersection and had picked up the wrong runway! As I rather prided myself on meticulous placing and alignment, this was a matter for suicide or at least running away to sea. But worse was to follow. After landing I was thanked profusely and it soon became apparent that nobody, but nobody, had noticed!

The flying displays at Farnborough were run on a firm but loose rein, relying on the intelligence and absolute integrity of all concerned who were, after all, people of high calibre and standing. Time-keeping was immaculate and the very nature of it all allowed of some flexibility and rapid improvisation, should a hitch occur. Paris, on the other hand, was ludicrously over-organised and therefore inflexible. I once had the pleasure of persuading the RAF officer who had controlled the previous Farnborough to come with me to the pilots’ briefing meeting, lasting some two hours, as against Farnborough’s usual 15-20 minutes. He nearly died of laughing!

My only flippant memory of flying at Paris was of being told on my radio, halfway round a loop, to land immediately as the American Hustler was due. I complied by letting the Aiglet hurtle towards the runway in a series of flick rolls, sandwiched between the fronds of a “falling leaf,” proclaiming to the controller as I did so: “. . . X-ray Charlie on finals,” to which the reply came up: “Such a finals ’ave I nevair seen . . . nevair!”

There was truly wonderful flying to be seen at these displays and, even now, I am

sometimes asked which of the pilots or aircraft gave me the most pleasure to watch. Without hesitation I must name the late Bill Bedford in the Hawker Hunter. It was consummate artistry, real poetry in motion. Bill did nothing that the others did not and his perfect positioning was equalled by at least some of them, but it was the way he did it all. Any attempt to describe this tiny margin of super-excellence would involve hackneyed terms such as “harmony,” “flow” and “smoothness” – so I shall make no such attempt. I deny being influenced in this by the apocryphal (?) tale of the commentator who, in tones of rising excitement, proclaimed: “Look to the left . . . towards Laffan’s Plain . . . he’s coming in very low . . . very fast . . . here comes Bill Bunter in his Bedford!”

Two others whom I must mention were Duncan Mackintosh in the Miles Student jet trainer, whose performance was always of Bedfordian quality in grace and accuracy, and (surprisingly perhaps) a certain Flight Sergeant Harrison (I think, though I have no record of it) who gave an impeccable and comprehensive show of continuous aerobatics, perfectly placed over the runway in front of the crowd in, of all things, a Vulcan jet bomber. His whole performance was thoughtful and controlled, so that the huge machine stayed in the low-to-medium segment of its speed range and seemed never to come near to an excessive ‘g’-loading. Never mind that it may have been unauthorised and illegal. I have no idea what became of this chap, though I heard that there was a court-martial in the wind.

I can only hope that the RAF, whatever rap they may have administered to his knuckles, did not curtail his flying career. Failing this, my advice to him would be to ensure that, when he finally sets course for St Peter’s arrival desk, he goes armed with a video tape of his performance at Le Bourget. It should qualify him for immediate admission to The Great Flying School Beyond the Clouds.

International marketing and display flying

It was my good fortune later to work in the environment of my own choice,

concerned with the development and marketing of light aircraft. It is a fascinating business, in which Britain formerly held a proud place. That we lost this was tragic and totally unnecessary and is traceable to one or two wrong decisions made in the post-war years by people whose lack of the very necessary 'feel' for the business should have disqualified them from making these at all.

There are great misconceptions as to how aircraft are marketed and what a selling organization comprises – and how it is built up. I have used the term "marketed" rather than "sold," as the design and development of a machine, with control of its costs, are just as much a part of the "marketing" process as is the final putting of signatures to a contract of sale. Indeed, it is in just those facets that so many projects (and the companies which nursed them) failed.

Speaking as a former design student and with great diffidence and affection towards many good friends who were designers, I will say that they generally were the last people who should have decided what to design. Save in the military context (and even then, sometimes) such decisions should have been purely commercial. There were great and illustrious exceptions to this rule but, alas, not in the general run of things.

The marketing of aircraft, large or small, involved (and still involves) a degree of "vision" not derived entirely from statistics. It was necessary to build up a network of contacts in all relevant parts of the world. In the context of light aircraft, these might vary from listening posts to fully appointed distributors. They had to have two things in common, namely a material motive for furthering one's sales and roots in the market throughout their territory.

Once this had been done, market research of one's own became possible, quite independent of the many and excellent sources of statistical information available to industry "through the usual channels." Experience gave me a firm belief in this more direct method and I doubt whether there is any other industry in which block statistics are more capable of misinterpretation.

The small aircraft market in different countries has always fluctuated, sometimes in phase with saturation, obsolescence and changes in design, and sometimes under the influence of trade balances and exchange control. Some knowledge of these shifting sands had, therefore, to be maintained. Suitable agents and correspondents had to be found and terms agreed. Contact had to be established at Service, commercial and, if possible, diplomatic levels at the embassies, in order of potential, and these had constantly to be fostered. This naturally involved a great deal of travelling abroad and an alert ear to the ground in London. This modus operandi may suggest elegant life in exotic climates and such interludes did (thank God) happen. But they were the cream on the jelly, most of which consisted of hard, continuous and dedicated office work.

Japan “the programme?...you are the programme!”

One day during the early 1950s I found myself en route to Tokyo in connection with the possible sale of a number of aircraft to a prominent newspaper there. Our agent had been doing his spade-work excellently and had himself recently acquired a new Aiglet Trainer. I was warned that I might be expected to fly it in an air display and had agreed to do this.

On arrival I found that the display was scheduled for the following weekend at an airfield named Tamagawa, which bore roughly the same relationship to Tokyo as did Biggin Hill and Elstree to London. When the day came and I found myself at Tamagawa I naturally began to make enquiries as to the nature of the programme and my slot in it. My Japanese hosts looked surprised. “The programme?” they said, “Why, you are the programme . . .” I found to my utter horror that this was literally true and that, apart from a flypast by a few local Cessnas etc., I was expected to entertain the crowd, estimated at about twenty thousand, for about an hour and a half with only a short break in the middle for the aforementioned fly-past! It should be mentioned that one’s slot at Farnborough, Paris or any comparable Western air display was usually about three or four minutes.

Accordingly, with no option, I gritted my teeth and in due course took off, maintaining a flow of absolutely non-stop low-level aerobatics until I was utterly

exhausted. I think it must have been over half an hour and I remember that, on landing, I was just able to totter out of the aircraft and lie flat on my back in the grass, panting and sweating like an overweight marathon runner. My hosts said, in effect: “that was very nice and we look forward to the second half of your programme.” The Cessnas etc. meanwhile droned steadily overhead, dropping leaflets and what looked like flour bombs, to my intense relief taking rather longer than I had been led to expect. Nevertheless I had to remount and do my thing all over again, following which I was asked to lead the procession of light aircraft over the centre of Tokyo in honour of Crown Prince Akihito’s coming of age.

This was the last straw, but I had no option and again took off for the centre of the vast city of whose topography I had only scant knowledge. This time I was at the head of a motley and straggling squadron and the arrangement was that I would break off over the centre of the city and perform some more aerobatics. By this time I was totally punch-drunk and was in no state to care much what befell me. I am a timid fellow and the vast concrete jungle of Tokyo did not look to me at all a suitable place over which to perform low-level aerobatics in a single-engine aircraft, no matter how good or reliable it be. I remember, however, being just capable of a flicker of interest when my doubtless bloodshot eyes lit upon the Imperial Palace, which I recall as being a hollow-shaped (pentagonal?) building set upon a mound surrounded by a trough or moat. The courtyard occupying the centre of the building was spacious and I examined it, as carefully as I could, for obstructions such as electrical cable, but could see none.

The temptation was too great! Casting my last shred of sanity to the winds, I dived upon the building and arranged matters so that the bottom of my dives and loops were in fact virtually within the space enclosed by the palace walls. Feeling that honour had been satisfied and by now caring little for my fate, I staggered wearily back to Tamagawa, which I was relieved to find, having no map. As I taxied in I was nevertheless horrified to see two frock-coated, top-hatted officials walking towards me. Although I mentally christened them “Tweedledum and Tweedledee,” I felt that they must be harbingers of doom. What had I done? It must

be unforgivable. Tweedledum advanced to me and bowed. “His Imperial Majesty . . .
sssss . . .” he said, “has commanded us . . . sssss . . . to thank you for an excellent . . .
sssss . . . performance . . .”

All had ended well. They made me an honorary member of the Japanese Pilots’
Brotherhood (the “Otori Kai,” whose only other Western member was said to be
General Douglas Macarthur) and our customer confirmed his order for a substantial
number of aircraft. So it was all worth it – well, I suppose so!

Iran sales “Auster was a hard and an excellent school”

Some years ago, when we introduced the aerobatic Auster Aiglet Trainer at
Farnborough, its gyrations were noticed by a visiting team from Persia (Iran) who
saw in it a ‘plane suitable for their government training scheme. After the necessary
preliminaries in England I soon found myself out in Persia negotiating single-handed,
with our excellent agent as interpreter, a contract for a sizeable number of aircraft,
with spares. Daily sessions were held with the Persian team of specialists, each eager
to score a point before the others. One dealt with specifications, another with
performance, one with shipping, one with contract terms, and so on. The British
Embassy was gloomy. Ten weeks, they said, was the average for seeing this whole
rigmarole through. I had by then some experience in the East and knew the charade of
market-place bargaining through which one was expected to go, and in which the
Westerner is invariably outplayed and outsmarted. I thought I knew a better way.

“Gentlemen,” I said, “I know that in your country much store is set by the give-
and-take of bargaining. Clever people from big companies are accustomed to it and
will come here with margins in their prices and delivery estimates, from which they
can yield concessions. But we are a small company, simple country folk, who are not
well versed in these things; the prices I have given you are real ones and contain no

hidden margins which we can concede. Also, our delivery estimate is what we honestly think we can do. Sixteen weeks means sixteen weeks, not twelve or ten. Nothing on earth, even the risk of losing your valued order, will make me promise less, when I know we cannot achieve it. Surely you would think the less of me if I were to do so?"

This naïveté seemed to baffle the Persians, who retired for a couple of days apparently into a council of war. When next summoned I was asked whether I would accept a penalty clause on sixteen weeks. I replied: "No," but I would on twenty weeks, provided that it worked both ways. Late: penalty. Early: bonus. When this odd proposal was explained, a gust of gold-toothed laughter went round the room and, to my surprise, the grotesque wager was accepted, with much hand-shaking.

Within a week the contract was completed bilingually and cross-vetted clause by clause at the embassy, who threw a party to celebrate this tiny triumph. Some of the clauses, including the sporting two-way penalty agreement, were "way out" and I felt some anxiety as I mailed the finished product home and departed for other lands. However, the cable of congratulation which shortly intercepted me rapidly dispelled this and gave me pleasure out of all proportion to the efforts involved. Such things did not come easily. In the commercial sense, Auster was a hard and an excellent school.

As a sequel to this, after all the aircraft were delivered, correctly and on time, I was invited back to Persia as a guest of the government to tour the country and see for myself how our machines were operated there. They told me frankly that it was more in the nature of a holiday, as a reward for straight dealing. I toured the whole of the country by car and airliner in fine state for a fortnight. The drive over the mountains from Tehran to the Caspian is one of the scenic wonders of the world and the long, rich coastal belt past Ramsar to Pahlevi is a Shangri-La little known to the ordinary tourist. My guide and mentor on this marathon turned out to be none other than the brother of Billy Sharvin, known to thousands of teenagers at that time as the

proprietor of “Whisky-a-Gogo” in Wardour Street.

While in Tehran I was happy to remember my good friend the late Ian Reid, Sales Manager of Scottish Aviation in Pioneer days. At that time I held a similar position with Auster Aircraft and we very successfully worked a mutual assistance pact, conceived at the Long Bar of the Park Hotel. We shared the same agent, who was misguided enough to try to keep the presence of each secret from the other, imagining for some reason that we must be deadly rivals! In the event we were both successful. I recall well the look of horror on our agent’s face when Ian and I, by previous conspiracy, walked arm in arm into his office one morning.

India in the Aiglet and the “Crazy Flying Championship”

On another occasion, during a visit to India, I found to my consternation that our agent there had entered his private Aiglet in the “Crazy Flying Championship of All India” at a big national flying event due to be held at Kanpur. He had put me down to fly it and I protested in vain that I had done little of this kind of thing for quite a while. Secretly, I was decidedly scared. “Crazy-flying” is a delicate art, involving some fairly marginal judgement near the ground, and it seemed risky to introduce a free-for-all element of competition, especially in such hot-blooded surroundings. The tragi-comedy unfolded in due course. The sun beat down mercilessly upon a packed crowd of about sixty thousand and the Tannoy system whipped up a great deal of interest and anticipation. I gathered that I was being cracked up as something of a visiting celebrity, which made me lament even more bitterly my lack of practice. However, the little Aiglet responded nobly. It lent itself remarkably well to this kind of display, having a self-aligning undercarriage which enabled it to be waltzed sideways from wheel to wheel, and its controls and characteristics generally were excellent, quite devoid of the sudden trim changes with yaw which were such a trap for the unwary in many other aircraft. The huge Indian crowd seemed to appreciate its antics and their applause was generous. I was eventually adjudged the winner, meriting (inter alia) an introduction to President Nehru, who had been at school with my brother.

The inevitable soon happened, however, and the next competitor stalled his aircraft and spun a half-turn straight into the ground. At this shocking moment, before the dust had settled and while ambulances and fire-tenders rushed across the parched earth to the smashed machine, an excited voice came stridently through the public-address speakers: "Ladies and gentlemen, you have just witnessed a terrible accident. We do not know whether the pilot is dead. Joy-riding will now commence."

Auster origins and variations

Austers of early post-war origin were derived from the wartime Mk.V. Although they were staunchly reliable and generously forgiving, they were characterless and wishy-washy in their handling. The Gipsy-engined AOP Mk.6 and T.Mk.7 of this period were downright nasty, with gross trim changes and some less-forgiving characteristics. These vices were only partly alleviated much, much later, in the AOP's civil derivative, the Terrier. The later J-series Austers were, however, steadily developed to a point where their control effectiveness and harmonisation were really excellent: well ahead of US contemporaries.

One of Auster's most interesting facets was the wide range of uses to which its aircraft were put and thereby the broad spectrum of interesting people whom one met. Spells with the Army Air Corps on Salisbury Plain and in Malaya were especially rewarding, as were the Flying Club and air racing fraternities at home. I recall having to arrange a flying-and-buns hospitality day at Rearsby for a horde of invited journalists covering the introduction of a new "sky-shouting" ("aerial address" to the dignified) set-up which we had developed and were promoting. At the end of a day given to various demonstrations, photography etc, most of the journalists seemed satisfied and began to disperse, only the duo from the "Daily Mirror" remaining and keenly requesting further flights, demonstrations, poses etc. Pleased by this show of intelligent interest, my colleagues and I complied willingly with everything they asked and eventually bade them a cordial farewell, feeling that some

helpful publicity might well result.

Sure enough, next morning the front page of the “Mirror” showed my manly features, I being seated in the aircraft holding a microphone and presumably flying the machine. So far, so good; but underneath was a bold headline: “Sky-Barker Porteous shouts at Britain,” with adjacent editorial whose gist was: “New Menace from the Skies” – “Should this be allowed?” and so on. Oh! well . . . in such matters any publicity is better than none. We all had a good laugh.

One sometimes hears aficionados arguing as to which was the best (or worst, or fastest, or slowest, or noisiest, or nastiest) of the Austers and, as I was lucky enough at one time or another to fly all of them, a trimmed patchwork of reminiscences may at least be provocative.

The fastest? Certainly the J/5E. This was prepared for air racing, in the days when these events carried some commercial prestige. It was basically a J/5G Autocar fuselage with a Cirrus Major 3 engine (nicely polished internally), flapless J/4 wings – cut down to a total span of only 30ft – and an Arrow undercarriage neatly faired to the fuselage. It did about 165 mph and I remember clearly the startled faces of the pilots of various Proctors, Geminis and the like which I passed with ease somewhere near Littlehampton in an air race which started at Bournemouth. Alas, the thrust-race housing bolts took a dislike to these un-Auster-like capers and the J/5E ended its brief but glorious dash by the skin of its tyres on Lympne airfield in a cloud of very expensive blue smoke, having frightened me quite badly below the level of Beachy Head.

The slowest? Without a doubt the J/2 Arrow. This flapless little aircraft, with its 75 hp Continental engine, was in many ways rather appealing, provided that one’s destination was either downwind or within ten miles.

The best? Unhesitatingly the Atlantic. This delightful and beautifully furnished

tricycle four-seater was an infinitely better aeroplane in every way than the later Beagle Airedale, which was both much costlier and heavier. The Atlantic, which flew about 10 hours in prototype form, was well ahead of the contemporary Tripacer. We had a market for a goodly number of these ready and waiting, had the disastrous Agricola decision not supervened.

The worst? Here I am beset with indecision between the Avis, a civil four-seater prototype which both taxied and flew like an inebriated porpoise, and the A2/45, a military prototype with a Gipsy Queen (or Six) engine, which looked like a Fieseler Storch but flew like a jellyfish in a vat of vodka.

The most interesting? Probably the Agricola. This low-wing specialist agricultural aircraft, after an inauspicious beginning, was developed into an excellent flying machine. It was well suited to its principal duty of top-dressing in New Zealand but was, however, a commercial white elephant, based on marketing misconceptions which should never have prevailed.

Auster Aiglet – and the Porteous Loop

The formula for the Aiglet Trainer resulted from a distillation of requirements found during a trip which I made through the Middle and Far East during 1950. The prototype first flew in mid-1951 and appeared at Farnborough that year. The ‘Avalanche’ was concocted for its second year. The origin of the ‘Avalanche’ was amusing. Realising that Farn-borough was approaching and having done little flying since the previous year, I took our demonstrator Aiglet Trainer up to see whether I could string an improved programme together, being reluctant to dish up “the mixture as before.” After some experimentation, it occurred to me that a flick roll from inverted to inverted at the top of a loop would look spectacular from the ground and might help attract the attention of wandering overseas customers which, in the event, it did.

The Aiglet’s flick/spin recovery characteristics were crisp and consistent and, after a little practice, I found that this manoeuvre could be done accurately and without undue stress, the entry speed corresponding nicely to what was attainable at the top of a slightly fast loop.

After some further practice at a discreet height, I returned overhead Rearsby aerodrome and noticed that the workforce was trooping over to the canteen for lunch. It seemed a good opportunity to try out my new programme on these captive but willing spectators. At the end of this rehearsal I landed and taxied towards the canteen, feeling that lunch had been at least mildly deserved. Upon dismounting I noticed that our Managing Director, Frank Bates, was himself heading for lunch on a converging path, so I joined him and, reminding him about Farnborough, asked whether he had by any chance seen what I had been doing overhead. He paused in his stride and then looked at me quizzically, saying: "Are you trying to tell me that that was intentional?" . . . Oh well! Incidentally, I dreamt up the name 'Avalanche' on the spur of the moment and without any special significance, save that I suppose the manoeuvre reminded me somewhat of a lump of snow tumbling head-over-heels down an Alp. I remember having my leg pulled at the time, it being alleged that the name stemmed from The fact that we were about to "'ave lunch."

The 'Avalanche,' incidentally, found its way into the RAF training manuals under the title "The Porteous Loop." I knew nothing about this until, years later, Charles Masefield strolled cheerily into my office in flying suit to tell me that he had been practising "Porteous Loops" in a Chipmunk. "Practising what?" I asked. He explained and seemed amazed that I did not know.

"There I was . . ." stories have always been a big yawn . . . and best avoided.

Nevertheless since, after much of a lifetime spent in 'personal' flying, I am sometimes asked for tales of fright, one or two alarming reminiscences may be in order, even though dredging them up may be blamed for my likely nervous breakdown. 'Personal' flying, as I define it, includes all peacetime flying in small aircraft: private, sporting, testing, demonstrating, instructing and the like. The Luton Buzzard disaster of student days happened so quickly that I can't recall having time for fear. The same can be said of the very narrow squeak with the half-flick-rolling pupil at Reading, though this shook me badly for a while

afterwards. The wooden propeller of some Auster variant (I forget which) disintegrated on the top of a low loop during a display rehearsal at Rearsby. I was over the airfield anyway (albeit low) and nothing seemed more natural than a downward half-roll out followed by a gently curving arrival on the grass. All very dull so far: terror – nil.

Ah! but I do recall one bad fright during my spell at Auster. I was carrying out spinning trials, CG aft, on the prototype of the (then) new AOP Mark 9. This was equipped with a tail parachute which could be relied upon to check any spin which ‘went flat’ or otherwise proved uncontrollable. Sure enough, the first spin of any length which I attempted flattened dramatically and resisted every recovery action in the book – or in my head. Eventually I reached up to the overhead lever which was connected to the parachute release mechanism and began to push it forward. Just then there was a loud “bang” and the seat structure collapsed, whereupon I found myself sprawling on the floor, firmly centrifuged into the rear of the cabin, well out of reach of any controls and quite unable to move towards them. Worst of all, I did not know whether my efforts with the lever had succeeded. Certainly nothing had happened after what seemed an age, though it was probably only a few seconds.

Suddenly the rotation stopped and I was catapulted (seat wreckage and all) forwards, feet firmly on the instrument panel. Between them and past the nose I could see the United Kingdom, directly ahead and approaching quite rapidly. I had to struggle hard to reestablish myself at (or near) the controls. Again, this seemed to take an age – far longer than it can really have done – but I eventually found myself, at floor level and therefore quite unable to see ahead, easing the aircraft out of its dive, squinting sideways past the bottom of the cabin window panel. The flap control was out of reach, as was the tail parachute lever, which did not matter since the parachute had gone, probably released involuntarily by me during my struggles to get forward. Levering myself up awkwardly on the edge of the flattened seat-frame enabled me to see through the corner of the windscreen just enough to guide the aircraft back to Rearsby and to do a flapless landing, completed to my immeasurable relief. The nature of my predicament had meanwhile filtered down to Rearsby via the

radio and there was something of a reception committee waiting on the tarmac. From its ranks there emerged my charming young secretary, bearing towards me a glass of sherry on a tray! This almost made the whole thing worthwhile bless her! The cause of all this was found to be a missing securing-pin, overlooked during assembly. This had concentrated all the stress on the opposite pin and seat leg, which failed comprehensively.

My worst scares were suffered during flying of a quite different nature. Firstly, my 3 days 23 hours flight from Croydon to Johannesburg, seven-up in a Consul, found me at night over the vast North African desert and heading in a dramatically wrong direction, due to spurious bearings being received from Wadi Halfa on an ancient W/T set. Our bacon was only saved by their letting off a massive display of pyrotechnics at our request. These we saw as a tiny pinprick of light some eighty miles away and almost at right angles to our instructed heading, which would have taken us right into the heart of the desert, where our chances of a safe landing or of rescue would have been nil. On landing I blew my top to the 'Gonio' operator, an African corporal, whose grinning reply was: "Yes, baas, there's something very funny about the bearings from here. We lost a Dakota last week!"

Later on the same trip, at Kasama in the north of what is now Zambia, we suffered an undetected fracture of the Bowden cable operating the engines' hot/cold air selectors. This resulted in a take-off in very hot conditions, some distance above sea level, with the air intakes effectively at "hot," though set for "cold." We were well past the point of no return on the 1,000 yard runway when I began to realise that the loss of power from both engines was due to something other than the extreme heat. As we were by now just airborne there was no option but to continue. With hundreds of hours instructing experience on Oxfords in comparable conditions in neighbouring Rhodesia, I trusted to my "feel" and it paid off, but only just. The terrain sloped slightly upwards as we went and at no time for the first two miles or so were we ever more than about 20 feet from the rocks and bushes. One mile an hour too slow and we would have sunk into them; one too fast and we would have flown in. I wished I had gone fishing.

On the subject of frighteners....

Later, in Rhodesia, where there were identifiable landmarks, I found that, once again, we were heading in a vastly wrong direction, due this time to our magnetic compass having suddenly developed a huge deviation, over 50° as I discovered later. This was apparently caused by the reversal of the Earth's magnetic dip as we moved into the Southern Hemisphere, allowing the fairly massive built-in corrections to take charge. As I knew the country and as the weather was clear, the whole of the rest of the trip (some 700 miles) was flown by map-reading, setting the directional gyros by landmarks such as roads or distant hills.

Lastly, on the subject of "frighteners," I must give pride of place to the Beagle 206(S) which I took from Shoreham to Buenos Aires in 1966. My route took me via Prestwick, Iceland, Greenland and Baffin Land and it was a very scary experience. First of all, over the sea between Scotland and Iceland, our HF radio packed up. This did not worry me unduly, as I believed that someone would be found at Reykjavik who could replace or repair it and also that our dual VORs would serve us in the USAF-dominated Arctic. Both assumptions proved wrong. The HF lay dead until Florida while, more seriously, the Americans were found to have removed their network of VOR beacons from the arctic wastes, without any information about this having been fed to our civil authorities who had briefed me.

Trouble began over the Greenland ice cap, invisible because of cloud, interminable due to a massive headwind. The oil pressure gauges began to fluctuate, slightly at first then more noticeably. My very able companion and engineer on this trip, Ian Aslett, suggested that we increase power settings as he rightly suspected "coring" (partial freezing) and believed that anything which might raise the temperature of the whole installation might help. It seemed right to do so since the oil pressure remained reasonable, though not yet entirely stable. At last, to my great relief, we came out of cloud almost within sight of Sondreström Fjord and found the airstrip, tucked into the head of this great cleft, with the aid of their VOR. After some minor modifications suggested by cable from Shoreham, test flights seemed to indicate that our oil coring problem was solved and we took off a few days

later for Frobisher in Baffin Land, Canada's frozen, treeless wilderness of rock, ice – and mountains.

Our track to the first waypoint, an ADF beacon on the Baffin Island coast which “might or might not be operating as it is believed to be smothered in snow,” took us over an area of rocky mountains, some 9,000 feet high and about 90 miles away. Accordingly I climbed to 14,000 feet and set course on a VOR back-track, still in a milky-grey cloud with zero visibility and no variations of texture or light and shade. After half an hour or so we estimated that we must be over the mountains but, as warned, had so far failed to pick up the Baffin Island coast beacon, now some fifty miles ahead. All, otherwise, seemed to be going well when our relative serenity was suddenly shattered by coughs and hesitations, first in one engine then the other. No amount of jugglery with the various engine and propeller controls had the slightest effect and within a few minutes we were reduced to a powerless glide, with no more than an occasional weak “chuff” from either engine. I turned immediately left on to a course at roughly right-angles to the line cut by Sondreström Fjord, which I guessed to be some twenty miles away, and continued the nightmare glide. Eleven, ten, nine thousand feet . . . we must now be level with the mountain tops . . . eight, seven, six . . . now the milky void around us began to darken, first on one side then the other as we presumably passed perilously close to rocky mountain faces . . . five, four, three, two . . . and I thought I caught a momentary glimpse of rocky terrain passing beneath us . . . fifteen hundred feet and – bingo! – we emerged into clear air, over the water, well towards the middle of the fjord. Both engines immediately began to pick up and within a minute we were humming evenly back up the long fjord to the airstrip, mightily relieved. They told us there that our weak transmission faded and we disappeared from their radar when we descended into the mountains and that they had mentally written us off. I suppose the chances of threading “blind” down through those mountains must have been about 1:6, so Someone had been good to us. I gave thanks where due.

Ian Aslett, normally good-humoured and possessed of a refreshingly caustic wit,

went ballistic on receipt of some rather unimaginative advice by cable from Shoreham and we agreed that progress thereafter would be slow and cautious. The truth of it all was that not nearly enough research had been done on flight in low-temperature dry-ice cloud as it affected the big Continental TSIO 540 engines supplied by Rolls-Royce and installed by Beagle. The air induction trunk incorporated a 180o U-bend, before which the air had to pass hot regions of the engine, warm enough in fact to liquefy instantly the microscopic grains of dry ice ingested. When these tiny droplets reached the U-bend, itself very cold, they naturally tended by inertia to travel straight on, refreezing instantly on the wall of the bending trunk. This ice accretion could build up rapidly, with results as described. Foreseeable? It can be made to sound so but the real problem had probably been that ultra-cold dry-ice cloud conditions are seldom found in Britain.

During our penultimate stop, in Uruguay, Ian received disquieting news of family illness and had to abandon ship and jet home. He was much missed on the last leg to Buenos Aires. Ian, a most talented engineer, later went to Japan and I believe was largely responsible for the design of the much-admired Mazda 2-seater sports car, no stranger to our roads. He died in 1994.

Following this monumental excursion, which had included a great deal of flying about the USA and the “netting” of a good agent with a substantial order, my long and enjoyable years of ‘personal’ flying drew gradually to a close, to be superseded by a great deal of jetting around the world on company business, I having become Director of Marketing at Scottish Aviation, whose motto (well justified) was “The World O’er” . . . I recall more than once sitting back in the luxury of a 747, aperitif in hand, surveying the vast premises around me and thinking: “This thing is an aeoplane and we’re actually flying – I can’t believe it!”, following which my mind would inevitably travel back to my little Chilton.

Now, in total retirement, I pilot our small motor cabin cruiser about a loch in

Galloway, seeing some strange relationship between curving gently in to a smooth arrival at the marina jetty and a well-judged approach and landing in a small aircraft. Indeed an African General, basically a pilot who had become C-in-C of his country's defence force, remarked when put in charge of the wheel: "My goodness! It's just like flying an aircraft, isn't it?" Well . . . at six knots . . . not quite!

Shining a lamp back along the corridor of memory has been fun. Its beam has inevitably been very narrow, concentrated by the lens of my love of 'personal' flying. I hope that, in picking out a few of the images which it has illuminated most brightly, I have avoided most of the distorting mirrors.

My wife, Susan, won't let the urge to fly quite extinguish itself. Every year, on my birthday, she has presented me with a neat little green ticket from the local flying school entitling me to a "30-minute Trial Flying Lesson with a fully-qualified instructor, during which you will be allowed to handle the controls." As in the King's Cup she comes along in the rear seat of the Grumman Cheetah, but nowadays armed with a video camera.

So far I have not disgraced myself but, at 82, who knows?