

THE JOY OF TEACHING (OR THE A-Z OF BC TO AD)

**ANTHONY PRESTON ON THE PRIDE,
PASSION AND PAIN OF PASSING ON
HIS LOVE OF FLYING**



MAN is a social animal. He owes his superiority as a species to communal action. It's in his DNA.

Shared passion, like shared belief, holds us together. There are exceptions. Sharing a passion for someone else's wife can be disruptive unless carefully handled, but our ability to think and work together lies behind our ascendancy.

When the passion is wholesome and productive, like a love of good music, there is nothing more satisfying than passing it on to others. That, to some extent, is what our highly developed minds are for.

I love flying so much that it has left me with two puzzles: why aren't the skies full of like-minded addicts? And why are flying schools in decline?

Perhaps the demise of community spirit, brought about by contemporary mistrust of religion in the civilized world and by self-gratifying technology, has kept us at home, etiolated, when we should be healthily socializing and getting about.

Young and naïve, once upon a time I assumed that a powerful bond existed between all those who flew. And it was mostly true: easy to foster when at the end of the flying day you lounged at the club bar and, over a pint, shot the breeze. A real camaraderie flourished.

It wasn't that most of us were playing at being Douglas Bader or Bob Stanford Tuck. Most of us hadn't been aircrew in the RAF. But we certainly lived in a fantasy world. We shared a passion. That passion was flying. That passion still exists. But it needs reviving.

There are more genuine laughs to be heard in a flying club than anywhere else: more shared joy. We fly. Like angels. Those of us responsible for introducing others to flying enjoy a sublime privilege.

At the instructors' seminar at Sywell in February, Geoff Weighell invited participants to write of their experiences for *MF*.

Let me tell you about two case studies that, although not altogether representative, typically transform the lives of both learner and instructor. They reveal the challenges and rewards.

Tich – for that's what they call him and that's how he spells it – ran his own successful business.

In a T-shaped hangar on an abandoned aerodrome, once home to the USAF with their B17 Fortresses, sat an early CFM Shadow CD, G-MNVJ.

On 1 December 2009 the two became acquainted. I had the pleasure of making the introductions, unaware at the time

that I was party to the beginning of a long and loving relationship.

David Cook's first Shadows flew in 1983. Victor Juliet, I believe, was originally a BD fitted with Rotax 447, later converted to CD with a 503 and streamlined struts. The D denoted dual controls. Unless I'm mistaken, early Shadows were not designed as trainers, with the rear compartment intended for baggage or small passengers. There should, by right, have been a further letter or number, as suffix, to denote the maximum dimensions of the instructor in the rear seat. It would have ruled me out.

CONTORTIONISM

Tich was so enamoured of Victor Juliet that he went and bought it. I was there at the time and, in an unguarded moment, agreed to teach him. He had no previous experience of flying other than brief periods airborne from his competition off-road motorbike.

Until the introduction of the DD, with Rotax 582, wider body and deeper footwell, the space in the back was limited. Getting in is the most difficult, requiring the agility of a youthful contortionist of slight construction. Entry for me entails the passing of the body in from one side and mostly out from the other, allowing the legs, assuming they're undetachable, to be prised into the small footwell (available on pre-D models as a Crosby add-on).

Returning the protruding torso into the confines is no easier, as there are two internal bracing struts occupying the space where the head is hoping to reside. It proved possible, but the head, clamped between the struts, is denied lateral movement, demanding the peripheral vision of a chameleon.

Worse is the situation with regard to operation of the rudder pedals.

Swaddled, foetus-like in the rear, knees jammed hard against the back of Tich's seat, posterior jammed hard against the engine bulkhead, I soon discover that lacking the ballet dancer's point it is impossible to apply full rudder, despite the encouragement of furious engine vibration transmitted through my body.

Sound like a nightmare scenario? Tich and I had a whale of a time. How come?

Firstly there's the question of tandem or side-by-side. From the student point of view, sitting in front has the huge advantage of being both central (no asymmetric distortion) and independent (in control

from the start). Side-by-side raises the issue of student/instructor interaction.

There are two schools of thought. Perhaps the tandem layout appeals more to the motorcyclist than to the car driver: a conceptual consideration. But the practical benefits do appear irrefutable. The role of the instructor is both aural and physical: the disembodied guiding voice, god-like, combined with unobtrusive, corrective input.

It's not only the instructor who enjoys the freedom and comfort of immediate access to the controls, without being observed, but also the student, who is never discouraged by a nervous instructor's hand, either hovering anxiously over the stick or even sharing it, when reasonably convinced there's no need.

The problem of side-by-side is further exacerbated when the trainer is fitted with a central stick. A fellow instructor on C42s once advised that to avoid the daunting hand hovering over the control column I should grip it at its base where it might not be so noticeable. It isn't long before you discover that the lack of mechanical advantage, with so short a lever arm, is a serious handicap when, in extremis, real force has to be applied.

In all cases there is no substitute for experience. The wise, veteran instructor knows exactly when to bark: "I have control!" He knows exactly when to leave alone and when to intervene. The older and wiser he is, the more reliable his instinct and the longer he may leave his hand resting upon his left thigh, in a composed and manly way, poised for action.

I like to rest my feet on the rudder pedals but generally withdraw them as a measure of trust (mine and his or hers) when Exercises 12 and 13 approach Exercise 17A. The other day an observant and very bright student spotted my furtive feet moving at the threshold, when you'd think he'd be concentrating on other things.

Shifting feet and gently gripped stick can't be observed when the instructor is caged in the back. These are physical aspects.

There's also the attitude. The older and wiser instructor is probably older and wiser because he graduated to instructing and enjoyed it rather than took it up as a power trip. You get to being good at judging pilot raw material through applying some basic psychology. Shared passion has its own terminology. Passion has its markers.

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Photos Inspirations both: Douglas Bader (facing page) and Bob Stanford Tuck (above)

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▷ It's worth recalling great names: doyens of flying instructors. All renowned, all no longer in the first flush of youth, most now instructing fledgling angels with unaccustomed wings: Pashley, Wing Cmdr Arthur, C Nepean Bishop... Still presiding with distinction we think of Rainer Forster, Dave Garrison...

Tich is inscrutable when away from Victor Juliet, but in her vicinity, there is a jauntiness in his step and a gleam in his eye. It's no exaggeration to say it changed his life. Through difficult times he drew comfort and strength through achievement and prowess. Tich transformed to man of stature.

I'm proud of Tich, not only because he was quick to learn how to operate the rudder pedals and the awkward, individual brakes (without much assistance from the rear) but because he was also an ideal student who acquired an admirable passion for his aeroplane and respect and understanding of the unsubstantial air that it inhabits.

Tich approached flying holistically. His glorious path to becoming an intrepid birdman was paved with neatly interlocking stones. His mix of theory and practice meant that every exercise was comprehended in the mind before being put into practice.

DEVOTION

You'd think it obvious that to know what you're doing before you do it makes sense. But I've had students who treated theory like a punishment, who flew with the minimum of understanding, deriving little real pleasure from the true joy of conquering the skies.

They probably paid for others to keep their aeroplane shiny and only wished they could pay for others to sit theory exams in their stead.

Not so with Tich, who relishes time spent on improving life for his Shadow: fitting new propeller, new aluminium fuel tanks and constructing its own hangar. Every time I see it at Raveningham, I immediately mistake it for a shrine, then blink and see it's no more than a dark green hangar tucked in among the ever-green trees.

Each flight in his venerable, venerated Shadow is partly pure pleasure and partly an ongoing process of education. You could put his devotion down to a motorcyclist's obsession with his machine raised to higher elevation, its handling

subjected to a passion in pursuit of perfection.

Motorcyclists generally make good pilots. I guess it comes down to bank angle. It's a contented biker who arrives at a long, taut bend at speed, swiftly assesses the line, converts it to bank angle, shifts his weight, adopts and holds precisely his lean, clips each limit without adjustment, rights the machine without hesitation and finally rejoices in the involuntary smile lighting the inside of his helmet.

How often, as instructors, we sit praying that our students won't have one of their tentative days. They are in evidence mostly on base and final turns. Keen to please, they roll boldly in, hold the chosen bank angle for perhaps three-quarters of the turn, then start fiddling: a little less, a little more?

On a bike, the smile is likely to be less brilliant as machine and rider depart the road either into the ditch or the mouth of an approaching Eddie Stobart.

Not of their number our Tich. Early in our union he advanced from BC to AD. BC stands for Buttocks Clenched. It is an involuntary condition imposed upon the hapless instructor by a student who has yet to learn how to balance his mount. Relaxation of the muscles of my seat, as student masters the rudder, provides me with a more reliable measure of control coordination than the parallax-prone ball in a slip indicator. AD, as you may have guessed, stands for Ass Delighted. Proficient horse riders will recognize the importance of the seat, just as we may recognize the seat of a proficient horse rider. Hence, flying by the seat of the pants.

This is perhaps the moment for a minor digression to consider balance in greater depth. Francis Donaldson, a pilot with a deeper understanding of aircraft and flying than most, when asked what book I should read, found me a copy of Wolfgang Langewiesche's *Stick & Rudder*, first published in 1944, but still current today.

Brian Smith, Tiger Club aficionado, respected display pilot and man of few words, when checking out applicants in a Tiger Moth for enrolment in that august body, was known to limit advice to: "Watch the slip indicator!" It was a needle then, above the turn indicator, in a combined instrument. The ball had yet to find its role, as the rudder became tamed.

You might argue that today's instructor can almost ignore the rudder in aircraft like the Cessna 152 and C42, but you'd be wrong.



At the risk of being thought an old fogey, I urge my students to educate their feet from the start. They may find themselves qualified on a C42, relatively impervious to right rudder with application of power, left rudder when throttle back, and to adverse aileron drag. The ball may not be in the middle, wings not quite level, but in these liberal times, who really cares?

What if they then buy a Jabiru? More important, how do they master the approach and landing, or sort themselves out in an emergency?

Unless stick and rudder are coordinated on the approach, particularly in turbulent conditions, achieving alignment with the runway will take up the student's attention at the expense of judging round-out, flare and touchdown.

Roll-induced yaw and yaw-induced roll may entertain gremlins, but unless right rudder accompanies right stick and vice versa, it will send the combined blood pressures of instructor and student off the scale. It can be difficult to drive the message home: rudder matters.

A FAMILY AFFAIR

Case study number two features two students: father and son. It's a joyful team-effort in which any possible competitiveness is swamped by paternal and filial affection, and pride in each other's achievement.

Here the side-by-side configuration of the C42 is ideal, mainly for selfish reasons since I gain so much pleasure from their own. Quite different in their approach, they share one powerful advantage: both are steeped in aeronautical expertise, knowledge and experience. They are experienced aircraft designers and constructors.

They arrive at Beccles together for their lessons, almost as a collective entity, taking it in turns. One day father goes first, the next, son. Vigorous debate accompanies all the time on the ground, father quietly putting forward the finer aspects while son seeks out the contentious, exploring the limits of aeronautical theory and practice. It is his whole life: his ambition unconventional. At the culmination of their work on aircraft design and construction, 20 years in the making, the son has one target: to test fly their flying machines himself. He wants, in equal part, to do it for his father and for himself.

Undoubtedly he has the skill and more

than enough knowledge. His flying shows the hours spent on flight simulators and gliders, and he applies both intellectual and natural ability to every lesson. He bombards his instructors with esoteric observations and queries. In his case the instructor marvels at the ability but is only too conscious of the need for restraint.

The young man grew up under his father's wing, yet their flying is dissimilar. Father triumphs through the carefully considered application of engineering expertise. The son takes that expertise and, with an almost burning passion, adds to the brew a unique dedication. Chalk and cheese, but both will achieve their licences along different paths and with flying colours.

The dichotomy presents the instructors at Mid Anglia Microlights with stimulating challenges and vast entertainment. We can't fail to benefit from an experience of such novelty.

Novelty comes in many guises. At that instructors' seminar, on that day, some of us learned something that came as a novel surprise. At least I think it was a surprise to some. It was a surprise to me.

I had always understood that student records were *confidential*.

As pilots under training in the RAF we were informed that taking a gander at the notes our instructors made about us, and about our ineptitude at the controls of a Hunting Percival Provost, was tantamount to a death warrant, at least.

However, the CAA representative at the February seminar basically told us that not only should students have sight of our comments, but that, in fear of litigation, we should also get them to counter-sign as having read them.

Do we tone down our more acerbic comments as a result? Not in my book.

Notes that may have fallen into the hands of students should tell them what they need to know; painful, unwelcome, or no. Also, in a school where more than one instructor sees the records, they will be by consensus, not written by a hand that's still shaking with righteous indignation.

Teaching others to fly is a privilege and a joy. It's not for the faint-hearted. One taller, wiser and wittier than I, having seen a video of an instructor teaching in a C42, who was so relaxed it was hard to decide if he were awake, said: "How come, mate, you can look so relaxed when you know that the chap on your left is trying to kill you?" □



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Above All 5ft4in of Tich in his Shadow

Facing page Tich's Shadow, hangared and lavished with love