Coaching Corner…

David Cockburn, PCS Head of Training and member of the LAA Safety Committee, takes a close look at the loss of control…

Those of you who attended my CAA Safety Evenings years ago, should remember my main concern was loss of control. Yes, airspace infringements are a major problem for GA pilots, but generally the danger is to other people. If pilots lose control the consequences can be, and often are, fatal, and while pilots can lose control at high speed (that red line only gives you a 10% margin below the speed at which airframe damage is likely to occur), the fatal accidents seem generally to occur at the low speed end of the flight envelope – the stall/spin.

I can see no reason why a fit and qualified pilot in current practice, in a serviceable aircraft, should lose control of his or her machine in fair weather, because the training system teaches us all to avoid situations when we might do so. Nevertheless, statistics show that 'loss of control' has been the most common type of GA fatal accident for many years, and the numbers show no sign of reducing.

Perhaps it's because a lot of flying takes place when the pilot, aircraft or weather do not fit the criteria I described – and I'm not discouraging flying in less than perfect conditions, this is the UK after all! Every time I have lost control (you didn't think experienced pilots ever did that?) at least one of these criteria has been missing. I shall consider losing visual references another time, but unusual handling characteristics resulting from poor design, incorrect maintenance and unfamiliarity with the aircraft have caught me out more than once. I've got close, but I think I've managed to avoid actually losing control, on several other occasions, because I enjoy flying aircraft close to the edges of their flight envelope.

However, as a believer in the need for 'two out of three vital requirements', I've always been able to recover either before or just after control was lost. Oh sorry – there are three vital requirements for pilots – altitude, airspeed and brains – and we're only safe if we have at least two of them all the time. Exploring an aircraft's handling at or close to the stall needs not only skill but height to recover if things go wrong.

Hazardous situation

If the aircraft doesn't stall, it won't spin. I believe it's the unusual situation which leads pilots to stall their aircraft, so we coaches have to help them to recognise and avoid such a hazardous situation developing, and in the worst case, to realise what has gone wrong and recover without losing an excessive amount of height. Many years ago, when I had limited experience in modern light GA aeroplanes, a pilot owner very kindly took me flying in his pride and joy. As I levelled off at 3000ft, I asked him 'what is she like at the stall' – and was horrified when he told me he'd never stalled his aeroplane!

There are undoubtedly many others in the same situation, and I wonder if the training system may be at least partly to blame. I, and I suspect most of you, are aware of flying instructors who lack confidence in teaching stall recognition and recovery. You may have also heard the apocryphal tale of the accident pilot who said, "I can't have stalled – I hadn't done the HASELL checks."

In any case, as a flight examiner, I meet many pilots who seem to have been inadequately trained in stall recognition and recovery, and who are afraid of flying too slowly. They usually add extra speed on the approach, giving problems on landing but because they don't normally fly at low speed, they haven't any feel for when the aircraft is flying TOO slowly. We have to give these pilots confidence that they can fly the aircraft as it is designed, without fear, so we have to help them to recognise an approaching stall instantly, even when distracted in less than perfect flying conditions.

PPL training takes place in certificated aircraft with totally predictable stall characteristics. Our pilots' aeroplanes are unique, so even a well-trained PPL

Below A well-handled wheeler landing at a gusty 2019 LAA Rally **Photo: Nigel Hitchman**

graduate cannot be expected to avoid, or recover from, stalling their own machine unless they have experienced the individual symptoms in that particular aircraft, for which we must encourage them to seek our guidance. After construction, the test pilot will have checked that the stall characteristics are safe, so when we as coaches help the owner to explore the low speed end of the flight envelope, we can be confident that it will recover when we reduce the angle of attack (at a safe height!). I find it useful to carry out demonstrations before encouraging the owner to feel the symptoms themself.

Straight and level

The pilot needs to be able to recognise what the aircraft feels like when it is approaching the stall in all flight conditions, not just from straight and level. He or she should also be able to recognise the actual stall, and recover from it, in all flight conditions. A few years ago, EASA introduced the need for pilots under test to recognise and recover from an approaching stall in the short field take-off configuration. The first time I actually stalled a certified aeroplane with full power on, I recognised some of the crash videos I had shown – and I thought the aircraft was in a balanced climb!

I mentioned the fear that some pilots have about stalling, and those videos were certainly frightening, so we as coaches have to be very careful how we approach this subject. Remember, the main aim is for the pilot to recognise and recover from the approaching stall in their own aircraft, and do that when it is close to the ground and they are distracted by some problem which tenses them up so they can't feel light buffet or hear a warning horn. We should concentrate on that first and work up progressively, only putting the aircraft in a frightening situation if and when we're happy the pilot can cope with it – there's always another day.

Oh, and we need to remember the aim of the exercise and not get distracted like some flying instructors I know, who try to teach the pilot a set of safety checks before getting on to the essentials. You can do the checks (HASELL) in the air and debrief on the ground. The pilot needs to concentrate on the symptoms and the handling, not the checks.

The Honourable Company of Air Pilots have produced a booklet called *Teaching Stalling – A Guide for Instructors* intended for newly qualified flying instructors teaching stalling to PPL students, but there are some useful points for all of us. It can be downloaded through *www.airpilots.org/aviation matters/light instructors*.

Coaches meeting: 8 February

You will have seen in the previous issue of the magazine that Chris Thompson has taken over as the new National Coach. We'd like to thank Will Greenwood, who fulfilled the role previously for all his hard work, and we're delighted that he will be continuing to offer his extensive expertise as a coach into the future. Chris and I are hoping to meet as many coaches as possible at the Coaches Meeting at Turweston on 8 February. We're aiming to start at 1030, with coffee from 1000, and hoping to finish at around 1530. ■