

### On Base as it is on Finals (Amen)

What controls what on base and finals? According to Englishmen, N. Birch and A. Branson, both Freeman of the Guild of Air Pilots and Navigators and co-authors of Flight Briefing for Pilots Volume One (circa 1961), power controls rate of descent and attitude controls airspeed. When Austers were all the go and glide approaches the normal approach method taught, may be something could be said for an attitude/airspeed relationship. As far as an 'engine assisted' approach is concerned, B & B provide the enlightening information that it 'is the method used by transport pilots since with larger aircraft it is important to touch down on the threshold of the landing area so that the full length of the airfield is available for deceleration and stopping'. Balderdash chaps!

In 1993, we have the technology and physiology to be able to define an approach angle or path. One wonders what the English do if they are 15 kts hot on the ILS glideslope going into Heathrow in the middle of Winter. No wonder they had to invent the Harrier!

The ILS defines the approach angle electronically. If you are on glideslope, power controls speed; elevator is used to maintain the angle. But also the human eye can only see in a straight line and by using visual clues, is capable of defining quite accurate approach angles. So, on a visual approach using the aspect of the runway and a fixed aimpoint on it, we can use exactly the same technique as we do on the ILS. If we were to straighten the base turn and make it an extension of finals, it makes even more sense to use this technique here too. It is slightly more difficult on base because the runway aspect is not in front of us. But the way to achieve the correct angle on base is to develop consistency in the base turn entry point and downwind spacing as the main factors in setting it up and, most importantly, flying the recommended speed (attitude)/power/flap combination on base in order to assess it. All things being equal, the aircraft should be pretty close to 750 ft at the half way point on base. That's a good point to be directing the student's eyes to the aspect of the runway.

So what we are doing is simply defining the technique to fly a constant visual angle of approach. It's like coming down the ramp in a car park if you like. Whenever the aircraft is off this angle, the aim is to regain it. Here, power and attitude will always work together, AND, the aimpoint will shift in the windscreen if this happens on finals. Even when on the correct angle, power inputs to achieve the correct airspeed will always require some elevator input to hold an aimpoint (or attitude) steady. On finals, the workcycle of AIM POINT, ASPECT, CENTRELINE, AIRSPEED (POWER) is the way to develop instinctive co-ordination of power and elevator.

The next edition of FEEDBACK will look at visual cues that can be used and the teaching process itself, including the flare and landing. As a warmer to this, it is difficult to resist a light-hearted look at how B & B view the flare and landing.

### "THE LANDING"

At the end of the approach lies the problem, and it is indeed a problem to most student pilots, yet without doubt one of the most satisfying experiences in flying is a really perfect landing. As is so often the case, more than one method is at the disposal of the pilot.

Common to both alternatives (it appears there are two methods ..... Ed.) the descent must first be checked by easing the stick back and bringing the aeroplane into the level attitude. The height at which this check is effected is the subject of much controversy among the experienced pilots. Some talk in terms of beginning the check at the height of a double-deck bus, whereas others refer to so many feet above the ground. The actual point is best demonstrated by the flying instructor."