



The Jet Exceptions

Talking to a few of the turbine pilots in my “neighborhood” offers a great opportunity to stir up the old argument over pitch vs. power because in the realm of kerosene burners, those traditional pitch-and-power roles can—and should—reverse in practice. Instructors in and pilots of various jets revealed that as a general practice they control altitude with pitch—or attitude, as they often put it—and power to control airspeed.

It’s not difficult to grasp by hanging out on the final-approach path to an airport with lots of jet traffic. You’ll see aircraft with their noses held high using 65-70 percent thrust to sustain their speed on-target, with small pitch adjustments to stay on glideslope.

The main reason for operating a jet—and some turboprops—this way is the time it takes for a turbine engine to spool up from a low-thrust setting to go-around power. A piston engine—for all its faults relative to a turbine—usually responds instantly to throttle changes. The turbine variants? Not so much.

So, the technique of establishing a high-drag configuration—one requiring substantial power to maintain the stable, three-degree descent found on most ILS glideslopes, for instance—was developed after a few early jets ended up in the weeds short of the runway.

You can replicate this in a straight-wing piston airplane. When you do, you’ll discover you can descend at an angle much steeper than normal, using lots of power to keep up your speed. We’re flying then in the realm of reversed command (see the sidebar on the previous page), where to go faster, you have to lower the nose.

The best use for this technique in our piston-driven world is for obstacle clearance to short fields and for minimum-controllable airspeed approaches for short or soft-field landings. The risk, however, is in straying past the realm of reversed command and into a stall too close to the ground for recovery. Then you get a truly hard landing—or worse.

The cure, of course, is to practice establishing the attitude and power settings at altitude, followed by multiple passes to a runway with clear approaches, preferably at different weights.

Once you’re confident flying the airplane at those speeds and configurations, short/soft-field work will be child’s play—the guys at the FBO will wonder how you learned to land so short.