

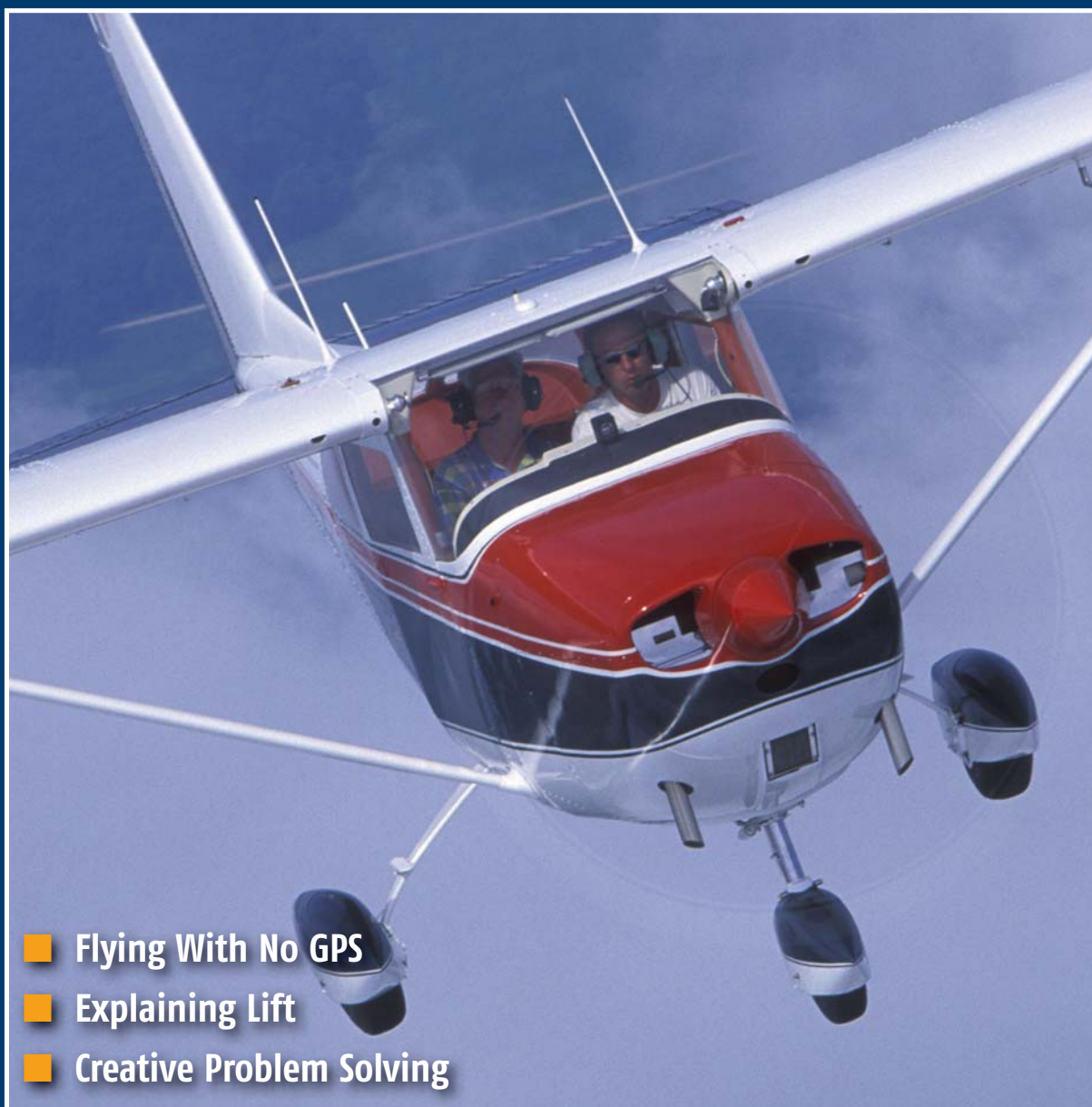
MENTOR

THE PROFESSIONAL FLIGHT INSTRUCTOR

FEBRUARY 2010



VOLUME 12 NUMBER 2



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position Report

Other Emergencies

Teaching students to handle the unexpected



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By the time a student goes to take his checkride, he's prepared for the examiner's simulated emergency. It's usually a simulated engine failure, and since he's drilled for this exact situation for hours, he's usually well-prepared.

As an examiner, though, I get bored with the same old thing (in spite of having a real engine failure or two of my own), so lately I've been presenting some other emergencies—to spice things up, if you will.

I'll let you in on one of my favorites: What should the applicant do if he's flying along, and, while going to move the throttle in or out, he finds that it no longer has any effect on the rpm setting? I explain that it seems that the throttle is loose, and that it's possible that the throttle cable has broken.

It's resulted in a variety of interesting answers; the applicants that concern me most describe how they'll choose a field to land in.

It seems that, instead of thinking their way through the situation and using good aeronautical decision-making skills, many applicants resort to what they thought would be on their checkride. Instead of thinking how they would handle the situation if it really happened,

they try to make the solution they're most familiar with fit any emergency I ask them to simulate.

Yet there are a variety of emergencies that can happen in an airplane—and not all of them require an immediate landing in the nearest field. This is one of these situations. All I'm looking for is a good decision-making process, as well as an awareness of how the aircraft functions. Ideally, the applicant would indicate he'd verify that, even with the throttle inoperable, he can maintain constant power. Next, I'd like him to explain that he'd maintain altitude and proceed to the nearest suitable airport. From there, I'd hope to see some indication that he'll check the aircraft's systems—the magnetos, mixture position, and fuel selector position.

Approaching the airport, I want him to enter the traffic pattern using normal procedures, make his regular radio calls, and prepare for his landing. If he's going to use an airport with an operating control tower, I want him to indicate that he'd notify the tower of his condition.

The last step for the "emergency" depends on the aircraft systems, but generally, it can be boiled down to the pilot positioning himself

in a place where he can safely glide to the runway. Once in position, he should tell me he'd shut down the engine, and if he's gotten this far, I'll retard the throttle to idle and have him complete the landing while maintaining best glide to the landing site and applying flaps or lowering the gear as appropriate. This gives me the chance to evaluate his ability to glide the aircraft to an intended landing site, just as if we were flying the old engine-out scenario.

I share this not to tell you to teach your students solutions to every possible emergency, but because teaching emergencies to students isn't just a matter of teaching any one specific situation. I've yet to have an applicant tell me he's ever practiced this kind of situation with his instructor. As a result, he's confused and mismanages the simulation.

Instead, teaching emergency procedures should involve teaching good aeronautical decision-making skills and good aircraft systems knowledge. That requires the student to be able to take his knowledge from rote and understanding levels—the level of basic application—to the level of correlative understanding.

Only when the student

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can think about how the systems work, how the situation is unfolding, and what his options are will he be able to act appropriately in the event of any emergency—even one he's never seen before.

When it comes to emergency scenarios, that's the most effective procedure he'll ever learn. ■