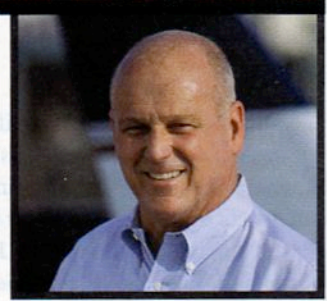


# Confession

Changes are inevitable *By Ralph Butcher*



**O**K, I'll confess. I detest political correctness, the lack of common sense, and the term *situational awareness*. When it came into being a few years ago, I gagged and said, "Another aviation pundit is trying to reinvent the wheel."

Competent pilots demonstrate proper awareness—and proper judgment, proficiency, and knowledge. Why single out awareness? The other factors are equally important.

My change of heart occurred because our flight school just acquired a technically advanced airplane (TAA), and I had to develop a suitable training syllabus. With more than 5,000 hours flying "glass cockpits," I knew this training would be a pivotal change for general aviation, and subsequent research led me to the FAA-Industry Training Standards (FITS) Web site ([www.faa.gov/avr/afs/fits/](http://www.faa.gov/avr/afs/fits/)).

FITS seeks to address problems known to cause accidents and incidents. It adds scenario-based training and examining to the skill-based training and examining of the past, and it integrates risk management (RM), aeronautical decision making (ADM), situational awareness (SA), and single-pilot resource management (SRM).

Good. They integrated these important factors rather than isolating them. So what caused these changes? The expansion of pilot resources. Prior to TAA, you obtained weather information during preflight planning, and then used HIWAS and Flight Watch in order to validate that information while en route. With TAA, you'll still do that, but you'll have additional resources displayed in the cockpit: moving map, terrain, airspace restrictions, traffic, weather data, checklists, terminal procedure charts, ground-based radar returns, and lighting locations. And there's more to come.

Managing these resources forces your eyes inside the cockpit, which creates a significant flight safety problem. The smart solution is to now say, "autopilot, navigate, and communicate" instead of "aviate, navigate, and communicate." I'm not saying that hand-flying is out. Personally, I prefer hand-flying to punching buttons and twisting knobs. However, when cockpit resource management becomes intensive, I can maintain my traffic watch if I let the autopilot do the flying.

FITS training starts off with skill training, which is just like past training where you hand-fly the airplane until you can demonstrate proper proficiency and knowledge. Now, however, you're not finished. You must add scenario training, and that means autopilot on

for proper single-pilot resource management.

My research also led me to the 3P time-critical risk management model that was developed by Kathleen O'Brien and Kevin Clover. O'Brien is the FAA safety program manager at our local FSDO, and Clover is the FAA's national safety program manager.

FITS and the 3P model complement each other perfectly. To use 3P for risk management, you must *perceive*, *process*, and *perform*, as detailed on the FITS Web site.

You *perceive* hazards (what factors and conditions might create risk?) by using the PAVE checklist:

**Pilot**—experience, recency, currency, physical and emotional condition.

**Aircraft**—fuel reserves, experience in type, aircraft performance, aircraft equipment (e.g. avionics).

**enVironment**—airport conditions, weather, runways, lighting, terrain.

**External pressures**—allowance for delays and diversions; alternative plans, personal equipment.

You *process* PAVE hazards (evaluate the level and severity of risk) by using the CARE checklist:

**Consequences**—evaluate the consequences (risks) of hazards that could arise while en route.

**Alternatives**—continuously evaluate all available options and alternatives.

**Reality**—Acknowledge and address the reality of your situation (weather, aircraft, etc), and avoid wishful thinking.

**External pressures**—Be mindful of external pressures, especially tendencies toward get-home-itis or promised ETAs.

You *perform* risk management decisions (deal with the PAVE hazards) by using the TEAM options:

**Transfer**—Should this risk decision be transferred to someone else? (e.g., do you need to consult the chief flight instructor or a more experienced pilot?)

**Eliminate**—Is there a way to eliminate the hazard?

**Accept**—Do the benefits of accepting risk outweigh the costs?

**Mitigate**—What can you do to mitigate the risk?

There's no need to memorize the 3P model, just study it and learn to think about it conceptually. It will make a difference in your ability to fly safely. ✈

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