

## DECIDE: A Modern Cognitive Strategy for Complex Airspace

### D – Detect:

Scan for cognitive traps and stress signals before the flight begins.

Pre-flight, recognize your own mental state, fatigue, and potential biases. Monitor environmental and operational cues that may escalate complexity in high-density or Class B/C airspace.

### E – Evaluate:

Assess all relevant data—systems status, ATIS, NOTAMs, traffic—and your own capabilities.

With advanced avionics, don't just rely on what's displayed; question what may be missing. Consider external and internal pressures that could cloud judgment.

### C – Choose:

Select a course of action that balances safety, workload, and efficiency.

Avoid decision paralysis by anchoring your choice in training, recent experience, and scenario-based preparation. Use the automation to support—but not override—your judgment.

### I – Identify Resources:

Pinpoint tools and support networks available before and during the flight.

This includes digital checklists, automation modes, ATC communication strategies, and cockpit resource management. Know what tools are available and when to delegate to them.

### D – Do:

Carry out your decision confidently, monitoring for shifts that require recalibration.

Execute with discipline. Maintain cross-checks, use cockpit flows, and observe for any cognitive overload or task saturation.

### E – Evaluate Again:

After landing, take five minutes to debrief—mentally or with a mentor. What went well? What could have been done better? Embed lessons into your future preflight mindset and cockpit scanning patterns.

Next page is a practical scenario to illustrate the DECIDE model in action for a Part 91 pilot navigating complex Class C airspace in a G1000-equipped aircraft:

Scenario: Unexpected Weather While Entering Class C Airspace

Flight: VFR from Lancaster (KLNS) to Trenton (KTTN)

Pilot: 420 total hours, 75 hours in glass cockpit

#### D – Detect

Preflight briefing suggests scattered clouds at 4,500 feet, but approaching Philadelphia, the METAR updates to show a rapidly lowering ceiling to 3,000 feet.

You notice a subtle tension—tight grip, shorter scan pattern. Weather isn't aligning with forecast. Internal red flag: get-ahead-of-schedule bias may be creeping in.

#### E – Evaluate

You assess options using the MFD weather overlay, noting a cell building west of your route. ADS-B traffic shows congestion ahead. Your comfort level with scud running? Low. Your oxygen levels? Normal. Alternate airfields? Doylestown and Pottstown look favorable.

#### C – Choose

You decide to descend to 2,500 feet early, request vectors from Philly Approach for a deviation, and begin prepping for a potential diversion to Doylestown (KDYL).

#### I – Identify Resources

You use the autopilot to lighten workload while briefing the KDYL RNAV approach. You toggle the G1000's nearest airport function, confirm runway length and winds, and request a PIREP. ATC is helpful—they pass along updated conditions.

#### D – Do

You request and receive vectors around the weather, maintain situational awareness via synthetic vision, and stay in touch with ATC. Your decision feels solid, your workload stays manageable, and you're able to revisit the destination after weather clears.

#### E – Evaluate Again

Post-flight, you note in your logbook: "Caught early signs of weather shift—trusted the data and my gut. Used automation to manage workload. Next time, build in alternate planning sooner." You run through the scenario with your CFI next week to sharpen response options.