IMSAFE Checklist

This IMSAFE tool helps you self-assess fitness for flying and ties directly into the ADM and GRM strategies covered in the August 14 FAASTeam seminar.

1. Illness

Pilots must evaluate any current health issues that could impair judgment or physical performance.

- Ask yourself: “Do I have symptoms (fever, congestion, dizziness) that could worsen under flight stress?”

- If any illness is noted, rate the likelihood of impairment as high and treat it as a go/no-go decision point.

- Tie-in: Integrate this row with the PAVE framework under “Pilot”—an unexpected illness shifts your risk matrix immediately.

2. Medication

Many over-the-counter and prescription drugs carry adverse effects not obvious at ground level.

- List every medication you’re taking and check FAA-approved aeromedical guidance or the Drug Aeronautical Information Manual.

- Consider side-effects: drowsiness, blurred vision, nausea. Even “mild” meds can raise your severity rating in the GRM matrix.

- Tie-in: Use DECIDE’s “Identify” step—spot medication as a hazard, then “Evaluate” its impact on flight tasks.

3. Stress

High stress drains cognitive bandwidth, making you prone to errors and biased judgments.

- Identify major stressors: work deadlines, family issues, financial concerns.

- Rate your stress: low (manageable), medium (occasional distraction), high (constant preoccupation).

- Tie-in: During your preflight GRM cost-benefit analysis, factor in stress as a multiplier on other risks—e.g., high stress + marginal weather = unacceptable risk.

4. Alcohol

FAA regulations mandate at least eight hours “bottle to throttle,” but residual effects may linger longer.

- Confirm last drink time and consider residual impairment—even small amounts can reduce situational awareness.

- If in doubt, treat alcohol risk as high probability until you’re absolutely certain you’re back to baseline performance.

- Tie-in: Use this row to enforce personal minimums beyond regulatory minimums, strengthening your go/no-go discipline.

5. Fatigue

Fatigue undermines every phase of flight—take it as seriously as any mechanical failure.

- Note hours slept in the past 24 hours, quality of rest, and recent duty periods.

- If you’re below your personal rest standard, assign a high severity rating and plan to delay or cancel.

- Tie-in: In real time, revisit this row at top-of-descent or halfway through your cruise—fresh fatigue checks prevent “just one more leg” syndrome.

6. Emotions

Emotional volatility (anger, grief, excitement) can hijack rational decision-making.

- Reflect on recent emotional events: conflicts, celebrations, distractions.

- Rate emotional intensity: low (neutral), medium (distracted), high (volatile).

- Tie-in: Call out your emotional state aloud in the cockpit and reenter the DECIDE loop—externalizing emotions stabilizes judgment.

Applying the PAVE Checklist

Pilot

The Pilot element centers on your personal readiness and proficiency. Before every flight, conduct a self-assessment covering health, currency, training, and mindset to ensure you can safely manage the workload and demands of the planned operation.

- IMSAFE check: Illness, Medication, Stress, Alcohol, Fatigue, Emotion

- Review recent training and recent flight experience to confirm currency

- Confirm familiarity with aircraft type, avionics, and emergency procedures

- Establish personal minimums (e.g., crosswind limits, night takeoff minima)

Aircraft

The Aircraft element addresses the condition and performance capabilities of the airplane you intend to fly. Thorough preflight planning and inspection confirm that the aircraft's airworthiness, equipment, and performance align with your mission profile.

- Verify airworthiness documents (certificate, registration, maintenance logs)

- Perform a detailed preflight inspection (fuel, oil, control surfaces, tires)

- Calculate weight & balance and ensure it falls within limits

- Reference POH performance charts for takeoff, climb, cruise, and landing

enVironment

The enVironment element examines all external flight conditions—weather, terrain, airports, airspace—that can affect safety. Use current, reliable sources to anticipate changes along your route and at destination.

- Obtain a full weather briefing (METARs, TAFs, winds aloft, AIRMETs/SIGMETs)

- Check NOTAMs, TFRs, and special use airspace along planned route

- Evaluate terrain elevation and obstacle clearance for departure and arrival

- Plan alternates and diversion routes in case conditions deteriorate

External Pressures

External Pressures cover the "human factor" influences—passenger expectations, time pressures, business demands, and personal ambitions—that can tempt you into unsafe decisions. Acknowledge and mitigate these before engine start.

- Identify passenger or organizational expectations (on-time arrival, schedules)

- Recognize personal goals (e.g., completing a long cross-country) that may add stress

- Build contingency plans and allow margin for delays or unplanned stops

- Establish a no-guilt go/no-go decision point and stick to it

By systematically walking through Pilot, Aircraft, enVironment, and External Pressures before and during flight, pilots build a robust risk-management habit. This structured approach not only highlights potential hazards, but also empowers you to make informed, safe go/no-go and in-flight decisions.

Applying Enhanced DECIDE Checklist

This enhanced DECIDE model expands the classic aviation decision-making framework into six focused elements—Detect, Evaluate, Consider, Integrate, Decide, Execute & Reassess—to help pilots structure in-flight risk management. Each step is paired with concrete cockpit applications you can practice on your next flight.

1. DETECT

Detect means maintaining continuous, methodical vigilance for anything that can affect your flight. It starts long before you taxi and never stops until you've shut down.

- What it is:

  - A systematic scan of every flight domain: external (weather cells, traffic, terrain), internal (fuel state, systems status, workload), and personal (IMSAFE).

  - Rapid recognition of change or deviation: unexpected cloud buildup, ATC frequency change, cabin door unlocked light, rising workload.

- In-flight application:

  - Cross-check instruments and glance outside every 20–30 seconds; note any anomalies.

  - Use PAVE (Pilot, Aircraft, enVironment, External pressures) on the go: mentally tick off each corner of PAVE at level-off and at cruise.

  - Log emerging hazards on your kneeboard—e.g., "Turb at FL080," "MP outage," "FUEL LOF soon."

2. EVALUATE

Once a hazard is detected, quickly assess its severity and probability to gauge how much of a threat it poses to your safety margins.

- What it is:

  - A two-dimensional risk assessment:

    1. Severity (how big an upset or injury could be)

    2. Likelihood (how probable is that outcome)

  - Translate that into a simple risk score (low, medium, high).

- In-flight application:

  - Spot moderate chop ahead? Rate it “medium” if it causes altitude excursions under 100 ft, “high” if you’re straining harness straps.

  - Evaluate fuel state versus planned diversion (remaining endurance vs. alternate field distance).

  - Consider time pressure: how long until daylight ends, ETA to weather, or your personal alertness dips.

3. CONSIDER

With a clear picture of risks, brainstorm all viable courses of action—don’t lock onto the first fix.

- What it is:

  - Generating at least three workable mitigations or alternatives.

  - Engaging your crew or passengers: gather any additional input or local knowledge.

- In-flight application:

  - If a line of thunderstorms crops up, list options:

    1. Change altitude 3,000 ft lower

    2. Deviate laterally around cells

    3. Request vector to an alternate route

  - If a minor oil leak appears, consider: returning to departure, landing at closest airport, or continuing with an hour-limit flight plan.

  - Write your options on a scratchpad to keep them in view.

4. INTEGRATE

Merge your chosen mitigations into a coherent flight plan—balance them against performance, regulations, and passenger needs.

- What it is:

  - Aligning your proposed actions with aircraft limits (weight & balance, climb/descent performance).

  - Factoring external constraints: airspace, fuel requirements, approach minima.

  - Sequencing tasks into a logical flow.

- In-flight application:

  - Diverting around weather? Compute new heading, distance, fuel burn, and ETA.

  - Integrate ATC clearance: request IFR amendment, amend flight plan in the GPS, file a VFR flight plan if switching.

  - Update your mental and paper checklist: new altitudes, frequencies, approach brief.

5. DECIDE

Select the single best integrated plan and commit to it—then communicate promptly.

- What it is:

  - A clear yes/no commitment to one course of action.

  - Strong verbal call-out: “I’m diverting to MXY. Heading 180, squawk 1200, time enroute 12 min.”

- In-flight application:

  - Once you pick your maneuver, brief your passengers (“We’ll climb to FL100 and shift course 15° right to avoid buildups.”).

  - Tell ATC, transcribe the clearance, set radios and autopilot/modes.

  - A decision is only good if it’s shared and executed without hesitation.

6. EXECUTE & REASSESS

Put your decision into action, then monitor outcomes. If conditions change, loop back through Detect–Evaluate and repeat.

- What it is:

  - Flawless task execution: precise control inputs, checklist discipline, clear call-outs.

  - Continuous feedback loop: verify your plan's effect on safety and schedule.

- In-flight application:

  - After you initiate a descent, check vertical speed vs. Flight Mgmt Computer profile and crosscheck altimeter.

  - In turbulence, reconfirm seat-belt signs, reinforce secure items, watch oil and engine gauges.

  - Five minutes after a diversion, run another PAVE scan—if a new hazard emerges, restart DECIDE.

By working each element—Detect, Evaluate, Consider, Integrate, Decide, Execute & Reassess—you'll build a dynamic, self-correcting decision cycle that keeps you well ahead of emerging hazards. Use this model in your cockpit to turn complexity into clarity and elevate safety on every flight.