CFI Bootcamp

Flight Instructor Training

Welcome to the

Bootcamp Pilot Training Network

Today's Bootcamp+ Network Programming

What's on for Today?

Live Show – 1st Hour – Wings Credit

Open Mic – 2nd Hour – End

Monitor the Chat – Links/Info

Wings Credit - End of the Live Show

CFI Bootcamp
Flight Instructor Training

Today's Bootcamp+ Network Programming

What's New?

- PH Rebroadcasts Wed evenings 8pm Eastern
- Powerhour Podcasts – Full shows
- New CFI Aeronautical Knowledge Gaps Course set for release

CFI Bootcamp
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CFI Bootcamp

Flight Instructor Training

Weather

Setting Your Personal Minimums

Keeping it Safe

CFI Bootcamp
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C F I B O O T C A M P

Setting Personal Minimums

Building the safety margins that keep you out of accidents — for every pilot, every flight

Approx. 45 minutes · All certificate levels · Ground / Briefing-room

WHY THIS MATTERS

Most GA accidents are weather and decision-making — not bad luck

Personal minimums are the single highest-leverage tool you have to reduce your accident risk

75%

OF FATAL GA ACCIDENTS

involve pilot decision-making, weather, or both — per AOPA Air Safety Institute Nall Report.

80%

OF VFR-INTO-IMC EVENTS

occur with a pilot who held a current instrument rating but made a poor go/no-go call.

1

PERSONAL MINIMUMS CHART

is what most accident pilots did NOT have. Their gut said "go." The chart would have said "no."

AGENDA

What we'll cover today

Five modules · 45 minutes · Walk out with a draft personal-minimums chart of your own

1	**Why personal minimums matter**	The accident data, what they ARE, and what they're NOT
2	**Foundations**	Capability vs proficiency · skill decay · PAVE / IMSAFE / 5P
3	**Building your minimums**	5 categories: Weather · Pilot · Aircraft · Environment · External pressure
4	**The minimums table**	Sample chart, build-your-own, updating over time
5	**Application**	Three real go/no-go scenarios + common mistakes

MODULE 1

Why personal minimums matter

The accident data is unambiguous. Pilots who set and respect personal minimums don't end up in NTSB reports.

What personal minimums ARE — and what they ARE NOT

WHAT THEY ARE

- **Self-imposed limits you set BEFORE the pressure of the moment.**
- Tighter than legal/regulatory minimums.
- Specific to YOUR experience, currency, and the airplane you're flying.
- A written chart — not a memory test.
- Updated as you build experience and let skills decay.
- A go/no-go decision support tool — not a guarantee.

WHAT THEY ARE NOT

- **NOT regulatory limits — those exist (Part 91); these are tighter.**
- NOT a one-size-fits-all chart from the FAA.
- NOT something you set once and never revisit.
- NOT a substitute for good go/no-go judgment in the moment.
- NOT something you bend just because conditions are "close."
- NOT optional. Every active pilot needs one.

Bottom line: personal minimums = pre-decided rules you commit to before adrenaline takes over.

Legal minimums are the FLOOR — not the goal

LEGAL MINIMUMS (Part 91, ACS, manuals)

3 SM viz · 1,000 ft ceiling for VFR · 5,280 ft from clouds in Class B / 152s elsewhere · ACS-graded checkride standards.

INDUSTRY / TRAINING MINIMUMS (your school, AC 60-22)

"Don't fly below 5 SM" type guidance from your school or insurance company. Better than legal — still generic.

YOUR PERSONAL MINIMUMS (this is the GOAL)

Tailored to YOUR experience, currency, fatigue level, and the specific airplane and route. Tightest of the three.

Each layer is tighter than the one below. You always operate within YOUR layer — never to the floor.

MODULE 2

Foundations

Capability vs. proficiency · skill decay · the risk-management frameworks personal minimums build on.

MODULE 2 · KEY DISTINCTION

Capability ≠ Proficiency

Confusing them is one of the most common — and most dangerous — mistakes pilots make

CAPABILITY

What you have learned to do — once. Listed on your certificate. Doesn't decay.

- Holding an instrument rating
- Having flown an ILS to minimums in training
- Holding a high-performance endorsement

PROFICIENCY

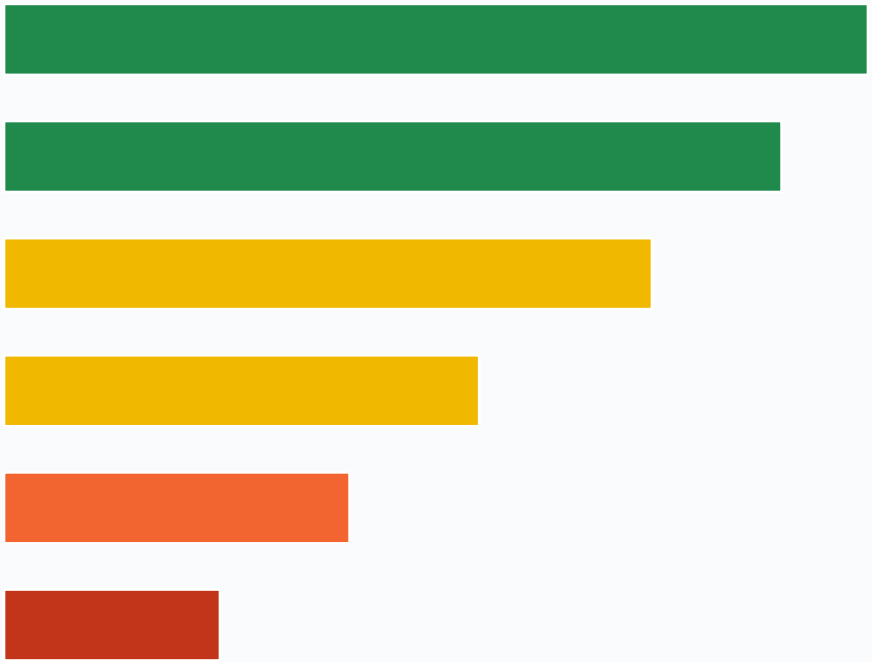
What you can do RIGHT NOW, today, without warm-up. Decays without practice.

- Last instrument approach: 18 months ago — NOT proficient
- Last full-stop landing in this make/model: 6 weeks — borderline
- Last crosswind landing > 12 knots: 4 months — likely not proficient

Personal minimums are about PROFICIENCY — not capability. The certificate doesn't fly the airplane.

Skills decay — fast and predictably

Days since last currency event vs. demonstrated performance — research from AOPA ASI and FAA



0–7 days	Sharp. Skills at peak. "Yesterday I flew" is the gold standard.
8–30 days	Still sharp for routine ops. Crosswind / IFR / night may need a warm-up.
31–60 days	Routine flight fine. Weather margins should TIGHTEN noticeably.
61–90 days	First flight back: severe-clear, light-wind, daytime only.
91+ days	Treat yourself like a beginner. Plan a CFI ride before solo.
180+ days	Currency-event territory. Do NOT solo until refreshed.

Personal minimums should TIGHTEN as the time-since-last-event grows.

Personal minimums fit inside the existing RM frameworks

PAVE

PRE-FLIGHT risk overview

- P — Pilot
- A — Aircraft
- V — enVironment
- E — External pressures

IMSAFE

PILOT self-check

- I — Illness
- M — Medication
- S — Stress
- A — Alcohol
- F — Fatigue
- E — Eating

5P

IN-FLIGHT update

- P — Plan
- P — Plane
- P — Pilot
- P — Passengers
- P — Programming

Personal minimums = PAVE/5P with NUMBERS attached. Generic frameworks become operational decisions.

MODULE 3

Building your minimums

Five categories. Each gets a number. Each number is yours.

Step 1: Take an honest skill inventory

Write down your CURRENT proficiency in each area. Use real dates from your logbook — not gut feel.

Time in this make/model (last 90 days)	_____ *hrs*	Less than 5 hrs = tighten
Last instrument approach to minimums	_____ *ago*	More than 60 days = visual only
Last crosswind landing >10 kt	_____ *ago*	More than 30 days = lower xwind limit
Last night flight	_____ *ago*	More than 90 days = day-only or CFI ride first
Total time in last 90 days	_____ *hrs*	Less than 10 hrs = tighten everything
Pilot certificate currency events	*(FR, IPC, MED)*	All current? If no — STOP
Recent challenging flight (in last 30 days)	*Yes / No*	If 'No' — start with easier conditions

Set minimums for each of these five categories

1

WEATHER

Visibility, ceilings, wind, gusts, crosswind, IMC

2

PILOT

Currency, recency, fatigue, IMSAFE

3

AIRCRAFT

Make/model time, equipment, performance

4

ENVIRONMENT

Terrain, airport, time of day, runway length

5

EXTERNAL

Schedule pressure, passenger expectations, get-home-itis

Visibility & ceilings — sample numbers

Build YOUR table by tightening these per your experience

Condition	Legal (Part 91)	Average pilot	New / low-time
VFR day visibility	3 SM	5 SM	8+ SM
VFR night visibility	3 SM	5 SM	10+ SM
Ceiling — day	1,000 ft	2,500 ft	4,000+ ft
Ceiling — night	1,000 ft	3,500 ft	5,000+ ft
Crosswind component (your make/model)	Demo'd in POH	≤ 10 kt	≤ 6 kt
Wind gust spread	—	≤ 10 kt	≤ 5 kt
Convective activity	—	Avoid by ≥ 20 NM	Avoid by ≥ 40 NM

"Average pilot" is for someone with 100+ hrs in make/model and recent currency. Adjust to YOUR experience.

Pilot factors — currency, fatigue, fitness

- **RECENCY-OF-EXPERIENCE THRESHOLDS (your floor — not legal)**
  - Time in make/model — last 30 days: minimum 3 hrs to fly with passengers.
  - Last full-stop landing in make/model — within 14 days for passenger flights.
  - Last instrument approach (if filing IFR) — within 30 days, even though §61.57 allows 6 months.
  - Last night T&L — within 60 days for night PIC (legal is 90 days; tighten).
- **FATIGUE & HEALTH (IMSAFE-derived)**
  - 8 hours of sleep within last 24, no sleep deficit > 2 hrs over last 3 days.
  - 12 hrs since last alcoholic drink (legal is 8); no medication in 24 hrs.
  - Last meal within 4 hours; hydrated; not battling illness or stress.
- **MENTAL/EMOTIONAL STATE**
  - Significant life stressor in last 7 days? — Tighten weather minimums by one notch.
  - Recent close-call or scared in flight? — CFI ride before next solo, regardless of currency.

Aircraft factors — what airplane, what equipment

- **MAKE/MODEL FAMILIARITY**
  - Less than 25 hours in make/model: cruise only in severe-clear, light-wind conditions.
  - Less than 10 hours in this specific aircraft: stay within 50 NM of base.
  - Type-specific endorsements (HP, complex, tailwheel) — within 10 hrs of last flight.
- **AVIONICS & EQUIPMENT**
  - Don't fly IFR with unfamiliar avionics — sim or chair-fly first.
  - All required equipment per §91.205 OPERATIONAL — not just legal-with-MEL workaround.
  - Fuel reserves 1 hour day VFR / 1.5 hour night/IFR (legal is 30/45 min).
- **PERFORMANCE**
  - Compute takeoff/landing distance for ACTUAL DA, weight, runway condition. Margin: 1.5x book.
  - Density-altitude > 5,000 ft? Verify climb performance can clear obstacles AND missed-approach.
  - If aircraft has been on the ground > 7 days — extra-thorough preflight.

Environment factors — terrain, airport, time of day

- **TERRAIN**
  - Mountain flying experience minimum: 5 hrs with mountain-qualified CFI before solo mountain XC.
  - Cruise altitude minimum: 2,000 ft AGL over ridges; 4,000 ft AGL over peaks.
- **AIRPORT**
  - Runway length minimum: 2x book takeoff/landing distance. (Legal is just "book.")
  - Unfamiliar airport: review chart supplement, hot spots, NOTAMs in flight planning.
  - First time at an airport: don't go solo at night; go with a CFI or in daytime first.
- **TIME OF DAY**
  - Don't fly into an unfamiliar field at night with under 10 night hours in make/model.
  - Avoid flying through the dawn/dusk transition (visibility weird, lighting awkward).
  - Bedtime arrival? Plan diversion early. Fatigue + tired airplane is a bad pair.

External pressures — the silent killer

Often the deciding factor in accidents. Hardest to write a number for. Most important to address.

WARNING SIGNS

- "They're expecting me back tonight." (Get-home-itis)
- "This is the last good day before a stretch of bad weather."
- "My passengers paid for this trip."
- "I told them I'd be there."
- "I've never canceled before."
- "It's only one notch below my minimums."

YOUR ANTIDOTES

- Pre-decide cancellation criteria — written, signed before launch.
- Set a "hard turn-around" point: time, fuel, or weather.
- Tell passengers BEFORE the flight: "I might cancel — and that's OK."
- Build buffer: never depart on a deadline tighter than +2 hrs.
- Have a Plan B that DOES NOT involve flying.
- If you find yourself rationalizing — STOP. Cancel.

"Better to be on the ground wishing you were flying than the other way around."

MODULE 4

The minimums table

Sample chart, build-your-own template, and how to update it over time.

A sample personal minimums table

Built for a 200-hour PPL with 80 hrs in a Cessna 172, 12 hrs night, no IR — this is THEIR chart

CONDITION	DAY VFR	NIGHT VFR	MARGINAL VFR
Visibility (SM)	5	10	8
Ceiling (ft AGL)	3,000	5,000	4,000
Surface wind (kt)	≤ 15	≤ 10	≤ 12
Crosswind (kt)	≤ 10	≤ 8	≤ 7
Gust spread (kt)	≤ 8	≤ 5	≤ 5
Density altitude (ft)	≤ 6,000	≤ 4,000	≤ 5,000
Convective activity	≥ 30 NM	Cancel	≥ 40 NM
Currency in make/model	≥ 5 hrs/30 days	≥ 5 hrs/30 days + 1 hr night/30	≥ 5 hrs/30 days
Last flight	≤ 30 days	≤ 14 days	≤ 7 days

Pin this to the kneeboard. If a condition is below your number — cancel or modify. No exceptions.

Build YOUR own — 5-minute exercise

Fill this in now. We'll review at the end.

CONDITION	DAY VFR	NIGHT VFR	MARGINAL VFR
Visibility (SM)	_____	_____	_____
Ceiling (ft AGL)	_____	_____	_____
Surface wind (kt)	_____	_____	_____
Crosswind (kt)	_____	_____	_____
Gust spread (kt)	_____	_____	_____
Density altitude (ft)	_____	_____	_____
Convective activity	_____	_____	_____
Currency in make/model	_____	_____	_____
Last flight	_____	_____	_____

Two rules of the exercise: (1) be honest about CURRENT proficiency, not capability. (2) ALL three columns should differ.

Updating your minimums — the half-life rule

Personal minimums aren't a one-time exercise. Update them on a schedule.

- **REVIEW QUARTERLY**
  - Every 90 days, look at logbook and reconfirm: am I still in my categories?
  - Skill events (mountain training, IPC, BFR): adjust DOWN — you've earned more margin.
  - Long lapses (no flight in 30+ days): adjust UP — tighten until you re-establish.
- **AFTER ANY OF THESE — REVIEW IMMEDIATELY**
  - A close-call or scary flight (regardless of cause).
  - An unfamiliar new airplane added to your flying.
  - A long break (illness, injury, life event).
  - After getting an additional rating or endorsement.
- **ANNUAL DEEP REVIEW**
  - Once a year — typically on your flight-review month — rebuild from scratch.
  - Compare to last year's chart. Are you tighter or looser? Why?

MODULE 5

Application

Three real go/no-go scenarios — practice using YOUR chart in YOUR head.

Marginal VFR cross-country — go or no-go?

THE SCENARIO

100 NM XC. Origin: 4 SM viz, 3,500 ft ceiling, light winds. Destination: forecast 5 SM/2,500 ft ceiling at ETA. Pilot has 180 hrs PPL, 60 hrs in this 172, 8 hrs in last 30 days, no IR. Family expecting them at destination tonight. Sample minimums: 5 SM viz, 3,000 ft ceiling for day VFR.

- **TWO WAYS THIS GOES BAD**
  - 1. Visibility 4 SM at origin is BELOW the 5 SM personal minimum. Hard NO.
  - 2. Even if origin met minimums, en-route weather could close in — the 100 NM trip means weather changes mid-flight.
- **WHAT TO DO INSTEAD**
  - Cancel today. Reschedule with confirmed >5 SM/3,000 ft. Tell family before the flight: "I might cancel."
  - If timing is critical: drive, take commercial, or fly tomorrow. Removing the get-home-itis pressure clarifies the decision.
- **GET-HOME-ITIS WARNING**
  - "It's only 1 SM below." — That's the rationalization the chart was DESIGNED to prevent.

MODULE 5 · SCENARIO 2

Crosswind challenge — go or no-go?

THE SCENARIO

KOPF Runway 09-27 only. Wind 030 @ 15 gusting 22. Crosswind component on Rwy 09 = 13 kt steady, 19 kt in gust. Pilot's last crosswind landing > 12 kt: 2 months ago. Personal minimum says ≤ 10 kt crosswind, ≤ 5 kt gust spread.

- **TWO PROBLEMS, BOTH ABOVE LIMIT**
  - 1. Steady crosswind 13 kt > 10 kt limit. Hard NO on personal minimum.
  - 2. Gust spread 7 kt > 5 kt limit AND last crosswind practice was 2 months ago — proficiency is decayed.
- **WHAT TO DO**
  - Cancel solo flight. Schedule a CFI ride for crosswind practice — stand up the proficiency before going alone.
  - If THIS is the day you actually need to fly: try a different airport with an aligned runway, or wait for the wind to shift.
- **TEACHING POINT**
  - Demo'd crosswind in the POH (e.g., 15 kt for a 172) is NOT a personal minimum — it's the airplane's maximum. Yours should be lower.

Currency lapse — when can I fly?

THE SCENARIO

PPL pilot, 250 total hours, 100 hrs in M20J Mooney. Has not flown in 70 days due to overseas work. Spouse and another couple want to fly tomorrow — clear weather, light winds, 200 NM XC. Flight review is current; medical is current.

- **LEGAL VS PERSONAL**
  - LEGAL: pilot is current. §61.57 was met before the trip. They CAN take passengers right now.
  - PERSONAL: 70 days without flight = on the YELLOW/ORANGE part of the skill-decay curve. NOT proficient today.
- **WHAT TO DO**
  - Schedule a 1-hour solo refresher flight tomorrow morning. Three full-stop landings. No passengers.
  - If the refresher feels normal: take the spouse + couple the day after, but TIGHTEN minimums by one notch (lower xwind, higher viz).
  - If the refresher feels rusty: another solo session before the passenger trip — pushes the trip back by 24-48 hrs.
- **TEACHING POINT**
  - Passengers are the worst time for a rusty pilot to be flying. Refresh first. They will respect it.

Eight common mistakes — and how to avoid them

Setting them once and never updating	Quarterly review on the calendar. Annual deep-review on flight-review month.
Bending them "just this one time"	If you bend them once, you'll bend them again. The chart was DESIGNED for the moments you want to bend.
Confusing capability with proficiency	The certificate doesn't fly. Your hands and eyes from LAST WEEK do.
Setting them based on what you HOPE you can do	Set on what you DEMONSTRATED in your last flight in similar conditions.
Same minimums for day and night	Night is harder. Numbers should be tighter — without exception.
No external-pressure rule	Build a written cancellation policy. Tell passengers BEFORE the trip.
Trusting a checkride from years ago	PPL knowledge from 2017 doesn't reflect 2025 you. Re-evaluate.
Hiding your minimums from people you fly with	Tell them. "My minimum is X. Above that, we go. Below, we don't." Sets expectations.

Special Announcement!

Reminders!

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