

Instrument Proficiency Training (IPC) for PA46-310/PA46-350 Piston Models

The PA46 IPC training is designed for existing PA46 pilots, to maintain and improve their proficiency. The training consists of approximately 5-6 hours, which consists of approximately 2 hours of ground school and 3-4 hours of in flight training. . During the training we will cover the following topics:

- Preparation (regulatory review & cross-country flight plan)
- Ground Review
- Flight Activities
- Post Flight Debriefing
- Post IPC Instrument Flying Practice Plan

For the training you, trainee, will provide the following:

- Airworthy type-specific (PA46) aircraft
- A PDF copy of the Pilot Information Manual (PIM) or Pilot Operating Handbook (POH)
- Pictures of your cockpit (avionics) so your instructor can familiarize him/herself before the training begins

Frici's tip: In addition to your annual recurrent training I highly recommend a 6 month IPC training to maintain currency and proficiency. If possible fly with a PA46 expert CFII. You can find a list of CFII's in MMOPA's website or clicking on the below link.

[Click here](#) for a list of MMOPA approved CFII's.

Syllabus

Syllabus: In conjunction with the syllabus we will leverage the Live Pilot Training electronic training manual developed specifically for the PA46 piston airframe. Your instructor provided online access and requested to read the training manual, along with the POH prior your arrival to your IPC training

Description	Hours	Day
Preparation <u>Expectations:</u> Although the regulation for the flight review (14 CFR 61.56) requires a minimum of one hour of ground training	30 min	Day 1

<p>and one hour of flight training, we will plan for at least 90 minutes of ground time and two flights or approximately 4 hours of flight time. Instead of ‘rapid fire’ approaches we will leverage the <u>Line Oriented Flight Training (LOFT)</u> approach simulating real life experience.</p> <p><u>Regulatory Review:</u> In preparation for the IPC please review the following FAA publications:</p> <ul style="list-style-type: none"> → Aeronautical Information Manual (AIM) <ul style="list-style-type: none"> ◆ Click Here to download → Instrument Procedures Handbook (FAA-H-8083-16) <ul style="list-style-type: none"> ◆ Click Here to download → Instrument Flying Handbook (FAA-H-8083-15B) <ul style="list-style-type: none"> ◆ Click Here to download → Aviation Weather Services (AC 00-45H) <ul style="list-style-type: none"> ◆ Click Here to download <p><u>FAA Safety Team IPC refresher course:</u> In preparation for our IPC I highly recommend completing the FAA Safety Team free seminar:</p> <ul style="list-style-type: none"> → ALC-59 Instrument Refresher Course <ul style="list-style-type: none"> ◆ Click Here <p><u>Cross-Country Flight Plan:</u> Because IFR flying is almost always for transportation purposes we will structure the IPC as an IFR cross-country flight using LOFT approach. Within 24-48 hours your instructor will provide cross country flight plan and you will be expected to prepare in advance, including weather briefing, review of IFR routes, charts, and approach plates</p>		
<p>Ground Review: Knowledge is key to safe instrument operations. Scenario based training is an effective way for me to test your knowledge in the context of real-world IFR flying. Reference: 14 CFR 91.103 (Preflight)</p> <p>Topics covered:</p> <ul style="list-style-type: none"> → Weather (Standard Briefing): describe the weather for departure, en route, and arrival including discussion of convective activity, freezing levels, cloud bases → Evaluate current/forecast weather in terms of <ul style="list-style-type: none"> ◆ Personal minimums ◆ Aircraft equipment ◆ Terrain/obstacle avoidance 	2 hrs	Day 1

<ul style="list-style-type: none"> ◆ Distance, time and fuel to nearest VFR conditions → Expected performance & equipment required (airworthiness) <ul style="list-style-type: none"> ◆ Determine that aircraft is appropriately equipped for proposed flight (14 CFR 91.205(d), 14 CFR 19.171) ◆ Calculate expected aircraft performance ◆ Describe operations and failure modes of installed equipment → Alternatives: <ul style="list-style-type: none"> ◆ Determine if weather requires filing an alternate ◆ Designate alternates that are not only 'legal', but also appropriate for conditions and pilot experience → Length/lighting of runways to be used <ul style="list-style-type: none"> ◆ Determine that available runway length is at least 150% of values show in POH or at least 200% of POH numbers for wet/icy runway ◆ Explain LAHSO procedures ◆ Describe expected lighting → Traffic delays <ul style="list-style-type: none"> ◆ Determine whether traffic delays might require holding ◆ Describe holding procedures → Fuel required <ul style="list-style-type: none"> ◆ Calculate fuel requirements sufficient to fly the approaches at both destination and alternate ◆ Decide the amount of reserve fuel (legal reserve, plush safety margin) → Risk Management & Personal Minimums <ul style="list-style-type: none"> ◆ PAVE method ◆ Personal minimums checklist 		
<p>Taxi, Takeoff and Departure: Even at a familiar airport, departure under instrument meteorological conditions can be challenging. We will review the following topics:</p> <ul style="list-style-type: none"> → Taxi procedures and runway incursion avoidance → Instrument departures <ul style="list-style-type: none"> ◆ Obstacle Departure (OD) procedures ◆ Standard Instrument Departure (SID) procedures 		
<p>En Route:</p> <ul style="list-style-type: none"> → Airways and route systems 		

<ul style="list-style-type: none"> → En route navigation → En route weather <ul style="list-style-type: none"> ◆ Weather datalink vs. radar pod <ul style="list-style-type: none"> ● ADS-B in weather ● Satellite based weather ● Radar pod ● Latency of weather products ◆ Ground Based and/or Satellite weather - strategic planning ONLY ◆ Radar pod - can be used for tactical weather planning → Abnormal procedures and emergencies <ul style="list-style-type: none"> ◆ Loss of two-way radio communications ◆ Loss of avionics ◆ Loss of PFD/MFD/Autopilot 		
<p>Arrival & Approach Procedure: During the phase of the flight we will check your (pilot) understanding of the ways to fly an instrument approach:</p> <ul style="list-style-type: none"> → Standard Terminal Arrival Procedures STARs <ul style="list-style-type: none"> ◆ How do you file a STAR ◆ Navigating a STAR ◆ “Descend via” the STAR ◆ What is RNAV STAR → Terminal Arrival Areas <ul style="list-style-type: none"> ◆ How are TAA lateral boundaries identified ◆ When ATC clears you to enter the TAA what are you expected to do → Instrument Approach Procedures <ul style="list-style-type: none"> ◆ What is LPV ◆ What is LNAV/VNAV ◆ What is LNAV+V ◆ What is LNAV ◆ What is VDP 		
<p>Missed Approach Procedures: The missed approach procedure is one of the most challenging maneuvers a pilot can face, especially when operating alone (single pilot) in IMC. Safely executing the MAP requires a precise and disciplined transition.</p> <ul style="list-style-type: none"> → What what point must you execute the MAP <ul style="list-style-type: none"> ◆ Precision approach ◆ Non-precision approach → What is the proper procedure if the decision to miss is 		

<p>made prior reaching the MAP</p> <p>→ After executing the missed approach, what factors should you consider</p>		
<p>Flight Activities</p> <p>Depending on your (pilot) current proficiency we may break up the IPC into two flights.</p> <p>A proficient instrument pilot must possess knowledge and skill in three distinct, but interrelated areas:</p> <ul style="list-style-type: none"> → <i>Aircraft control skills</i> - basic attitude instrument flying (BAI), cross check (including effective scan), interpret, and control. → <i>Aircraft system knowledge</i> - knowledge and proficiency in instrument procedures and aircraft systems, including GPS, FMS, autopilot, datalink → <i>Aeronautical decision-making</i> - higher order thinking skills, flight planning & flight management, cockpit organization, weather analysis and anticipation 	3-4 hrs	Day 1
<p>Post Flight Debrief</p> <p>For this portion of the IPC we will leverage the ‘collaborative critique’ technique. We will not only discuss the aircraft control skills and system knowledge, but also the situational awareness and judgment for sound aeronautical decision-making (ADM)</p> <ul style="list-style-type: none"> → Replay - you (pilot) verbally replay the flight → Reconstruct - this stage enables you (the pilot) to learn by identifying the “would’a”, “could’a”, “should’a” elements of the flight → Reflect - reflection of the flight and learnings <ul style="list-style-type: none"> ◆ What was the most important thing you learned today ◆ What part was the easiest? Hardest? ◆ Did anything make you uncomfortable? ◆ How would you assess your performance? → Redirect - relate lessons learned in this flight to other experiences, and consider how they might help you in future flights <ul style="list-style-type: none"> ◆ How does this experience relate to previous flights? ◆ Which aspects of this experience might apply to future flights? → Personal Minimums 	30 min	Day 1

<ul style="list-style-type: none"> ◆ What personal minimums should you establish? ◆ What additional proficiency flying and training might be useful? 		
<p>Instrument Practice Plan</p> <p>We will discuss and develop a personalized IFR skill maintenance and improvement plan. The plan will include the following elements:</p> <ul style="list-style-type: none"> → Personal Minimum Checklist: One of the most important concepts I reinforce during IPC is that safe pilots understand the difference between what is ‘legal’ in terms of regulations and what is ‘smart’ or ‘safe’ in terms of pilot experience and proficiency <ul style="list-style-type: none"> ◆ Complete Personal Minimums Development (PMD) worksheet → Instrument Proficiency Practice Plan: develop a plan for maintaining and improving basic instrument flying skills 	30 min	Day 1