

Pilot Logbooks

By Jim Pitman, CFI/DPE

FlywithJim.com

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Introduction

This document provides information and resources to help improve the accuracy and usefulness of your pilot logbooks. Most of the FAA regulations related to logging time are straightforward and easy to understand, but there are a few items that are often misunderstood.

Most of my examples are directed toward airplane pilots following traditional training starting with the private pilot certificate. Sport pilot applicants/instructors and helicopter pilots will need to make adjustments as necessary.

Regulation vs. Opinion

Be careful who you ask for advice. Pilots often share their opinions as facts, which can be dangerous when those opinions differ from FAA regulations. Be especially wary of anyone that says you “can’t” log something. It’s your logbook. If you want to log every time you eat a peanut butter and jelly sandwich, go for it! What you can’t log is anything you have not actually accomplished. Putting things in your logbook that you have not done is fraudulent. The FAA and potential future employers take that very seriously. Now, if you’re planning to go for a pilot job interview in the future I recommend that you not do that sandwich thing. But that’s just my opinion 😊

Do your own homework to determine what is required and what is recommended, then decide the best way to keep your own pilot logbooks.

Much of what I share below is my opinion based on almost 30 years of managing my own logbooks and working with many other pilots and flight instructors. If you disagree with anything in this document, I invite you to [contact me](#) so we can discuss it together. I’m always open to learning new perspectives and ideas.

FAA Requirements

[14 CFR 61.51](#) covers the regulations related to pilot logbooks. All pilots should study this rule and address any questions with a qualified flight instructor and/or FAA representative. Anything beyond these regulations and other official FAA guidance should be considered personal opinion, preference, and/or suggestions.

Paper vs. Electronic Logbooks

[AC 120-78A](#) clearly outlines the fact that the FAA accepts electronic lookbooks, including electronic signatures. Many pilots still like to keep paper logbooks. There’s just something special about recording all of those important flights in a book where you can flip through the pages. I get it 😊 Just know that paper logbooks are not required by the FAA.

If you choose to only keep an electronic logbook, make sure you have a way to properly record the required instructor endorsements and electronic signatures. Most electronic logbook apps make this very easy. Also, be sure to backup regularly to multiple locations.

If you choose to only keep paper logbooks, I suggest also doing some kind of electronic record-keeping as a backup and to catch math errors. A simple spreadsheet will work. There are also many high-quality electronic logbooks available online for free or low-cost. It's also good to periodically photocopy your most recent totals for backup in a safe place.

When using an app like ForeFlight to automatically record your flights, be sure to carefully check that each entry is correct. The app may accidentally log times when you're driving your car. Often times the flight durations are also incorrect. It's important to follow the FAA's definition of flight time found in [14 CFR 1.1 "Flight time."](#)

Logging What's Required During Training

When you train in an FAA part 141 program, the school is required to keep all of the training records for you. This means that you are not legally required to even keep a logbook when you're in a 141 program, but that would not be a good idea because the school owns those records.

When training under part 61, your logbook is the official/legal record of your training. It's important to pay attention to the detailed requirements found in part 61. For example, [14 CFR 61.109\(a\)\(5\)\(ii\)](#) specifically requires private pilot applicants to accomplish "full-stop landings at three points" on that cross-country flight. The 150 nautical miles total distance requirement can be verified by looking at the listed airports, but many applicants and instructors fail to properly document the full-stop landings. The FAA would say, "If it isn't logged, it isn't done."

If you're a private pilot applicant and your heart just sank when you read that because you realized you did a touch-and-go at one or more of the airports on that flight, I feel for you. Your instructor should have made sure you understood the requirements before you did that flight. Carefully check to see if any of your other solo cross-country flights meet the requirements. If not, you need to do that flight again. I know it's tempting to pretend you did the full-stops, but don't go there. Your personal integrity should be worth a lot more to you than the cost of that flight. The good thing is that we caught this now instead of catching it at the beginning of your checkride (which would have become a late cancellation due to you not being qualified for the test).

Details like this usually don't become a problem unless/until there's an accident or incident that leads to an investigation. Things can quickly go from "That's no big deal, no one will

care” to “This is required” and “Now everyone seems to care.” Once the attorneys get involved, things get real serious real fast. Don’t allow yourself to be put in that situation. Just read what the regulations say, follow them, and properly log everything that is required.

Logging Ground Time vs. Endorsements

Part 61 clearly states that applicants “must receive and log ground training from an authorized instructor or complete a home-study course.” For the private pilot certificate, this can be found in [14 CFR 61.105\(a\)](#).

Most flight instructors are good about logging flight instruction with their clients, but things seem to fall apart when it comes to logging ground instruction. [14 CFR 61.189\(a\)](#) clearly states that instructors are required to “sign the logbook” for everyone they give ground instruction to. My understanding is that this is to be done in accordance with [14 CFR 61.51\(b\)](#). This requirement to log all ground instruction given is applicable whether applicants complete a home-study course or not.

Sample endorsements are found in Appendix A of the current revision of [AC 61-65](#). For example, endorsement A.2 is required for most checkrides. The instructor is certifying that the applicant has demonstrated satisfactory knowledge of the subject areas in which [he or she] was deficient on the [applicable] airman knowledge test. Nothing about that endorsement is even close to satisfying the logging requirements of [14 CFR 61.51\(b\)](#).

I often see confusion about this when I’m checking everything at the beginning of a checkride and ask the instructor where they logged the applicant’s ground instruction. When the instructor points to the A.2 endorsement, I know we have a problem.

As you can see, logging ground instruction and receiving the proper logbook endorsements are two very different things and both are required by the FAA.

Acting as PIC vs. Logging PIC

There’s a lot of confusion on this topic. [This AOPA article](#) provides clear and helpful information. It doesn’t help that most logbooks only have one column for “PIC.” Here are a few examples that illustrate the difference between acting as PIC and logging PIC:

1. Flight instructors always log PIC when giving instruction, even when the learner is acting as PIC.
2. When an instrument training flight is conducted on an IFR flight plan, the CFII must act as PIC when the pilot is not instrument rated. The pilot should log PIC as sole manipulator of the controls in an aircraft in which they are rated (meaning category and class).

3. A private or commercial pilot with a single-engine land rating should log PIC during the time they are the sole manipulator of the controls while receiving training for a high-performance, complex, and/or tailwheel endorsement in a single-engine airplane. That pilot cannot act as PIC until receiving the appropriate endorsement(s), but they should log PIC as the sole manipulator of the controls in an aircraft in which they are rated.
4. When a single-engine pilot conducts multiengine training they are not able to log or act as PIC until passing their multiengine checkride to get that class of aircraft added to their pilot certificate.

When logging PIC (other than dual instruction given) without acting as PIC, I recommend at least adding a note in the remarks. If you are using an electronic logbook (or have room in your paper logbook), you may want to use two different columns. It's easy enough to add them together to get total PIC time.

Logging Solo Time

Many pilots also get confused between solo and PIC time. Solo is short for "sole occupant of the aircraft." This means you can only log solo time when you are the only human on board the aircraft (your dog might be a legitimate family member, but animals don't count for this definition). By definition, if you are solo, you are also PIC. Conversely, there will be many times that you are PIC, but not solo. The problem is made worse because many paper logbooks only have one column labeled "PIC (inc. solo)." This works fine during private pilot training but quickly gets confusing after the checkride (the pilot's first time acting as PIC, but not flying solo). For this reason, I suggest using separate columns for solo and PIC.

Logging PDPIC

The initial commercial pilot aeronautical experience requirements include, "Ten hours of solo flight time ... or 10 hours of flight time performing the duties of pilot in command ... with an authorized instructor on board." This second option is commonly referred to as "PDPIC." My understanding is that this option was created when schools started doing multi-engine initial commercial training and their insurance companies were not willing to provide coverage for student solo flights, especially at night. I'm disappointed to see some schools doing the PDPIC option in single-engine aircraft. There's something special about flying solo and I would like to see everyone maximize that option. Regardless of my opinion, PDPIC is allowed by regulation. It's important to note that this flight time (with all of the associated details outlined in the regulations) must be solo **or** PDPIC, not a mix of each. Both the instructor and the learner should log total time and PIC, but no dual-given or dual-received is logged. If you do this option, I recommend keeping a separate column for PDPIC in your logbook. More information and guidance can be found in [this FAA Letter of Interpretation](#).

Logging Cross-Country Time

The FAA definitions of cross-country time are found in [14 CFR 61.1\(b\)](#) “Cross-country time.” Most airplane pilots only log cross-country time when they land somewhere more than 50 NM from their departure point. It’s important to note that paragraph (i) does not say anything about a distance requirement. This will not apply to most pilots until they are finished with commercial pilot training and decide to go on to a professional pilot job and/or earn their ATP. Just know that when you are asked for “Cross-country time” on something like a job application or insurance form, you should put your total cross-country time per paragraph (i), not the 50 NM definition that only applies while you are in training for a certain certificate or rating. To complicate the matter even further, paragraph (vi) allows cross-country time to be counted for ATP aeronautical experience requirements without making a landing at another location.

To help with this, I recommend using three columns for cross-country time:

1. All CC with landing. This is cross-country time when a landing was made at any point other than the point of departure (regardless of the distance flown).
2. More than 50 NM with landing. This is cross-country time when a landing was made more than 50 nautical miles from the original point of departure.
3. ATP. This is cross-country time that counts for ATP certification requirements. It includes all flights where you navigate the airplane more than 50 nautical miles from the original point of departure, regardless of whether you land or not.

Other definitions apply for sport pilot, powered parachute, flying helicopters, and military pilots.

Logging Instrument Approaches for Currency

The FAA provides detailed information about logging instrument approaches for currency in this [2015 InFO document](#).

Logging Sim Time

This is probably where I see the most confusion, errors, and misinformation. The FAA now refers to each device as a “full flight simulator, flight training device, or aviation training device.” I use the abbreviation “sim” as a generic term. Be sure to clarify the type of each sim in your logbook. The easiest way to do this is to simply use a separate column for each type of sim you log time in (FFS, FTD, or ATD).

The regulations related to logging sim time are also contained in [14 CFR 61.51](#). My best quick advice is to keep all of your sim time separate from your flight time. It’s easy to add

them together later when you have situations that it's appropriate to count your sim time as part of your "total pilot time" (which is different than flight time).

Be sure to include the:

1. Type and identification of the sim being used
2. Location where the lesson occurred
3. Time that was simulated instrument conditions.

To help with that the last one, I suggest you either ensure all of your time in the sim is simulating instrument conditions or keep a separate column for "Instrument time in a sim." You'll thank me later when you're filling out job applications and need to differentiate between airplane instrument time and simulator instrument time.

Sim time should never be logged as PIC, SIC, single-engine, multiengine, day, night, or cross-country. Takeoffs and landings should also not be logged unless the sim you're using is specifically certified to allow those to be counted for whatever it is you're doing.

When sim time is logged as instruction received, be sure to have the instructor properly endorse each entry. It's also important to note that this is not dual flight instruction, so it's best to keep it separate.

I have not been able to find clear FAA direction related to logging sim time in a multi-crew situation, but here are two points to keep in mind:

1. A sim is not an aircraft that requires a PIC and SIC.
2. If an instructor chooses to log the time they are teaching in a sim, it's recorded as ground instruction given, not flight instruction.

Based on those two points, it's my understanding that it is only appropriate to log sim time when you are the pilot flying. The pilot monitoring does not log anything because they are not a required crew member for the sim (that's an aircraft situation). The only exception would be if/when the pilot monitoring is the instructor and chooses to log ground instruction given.

Instructors Logging Takeoffs and Landings

Flight instructors are often confused as to whether or not they should log the takeoffs and landings performed by their clients during training. The quick answer is, it's up to you. As stated above, it's your logbook. You just need to decide how you want to use it. Are you just keeping your logbook to record your own required currency or do you also want your logbook to be an accurate record of what you and your clients accomplished on each lesson? For me, I have always used the takeoff and landings columns of my logbooks to record all of the takeoffs and landings that were performed while giving instruction. Back when I was only

using paper logbooks, I would then put a note in the remarks to record how many I was the sole manipulator of the controls for. Now with my electronic logbook, I have custom fields set up for sole manipulator flight time, takeoffs, and landings. However you decide to do it, I suggest you be consistent throughout all of your logbooks.

Understanding and Logging Night Operations

The FAA has made this very confusing. Many pilots think there are three different definitions of night. That's not really true. There's only one FAA definition of night and two other regulations related to darkness.

The definition of night is found in [14 CFR 1.1 "Night."](#) This is the one and only definition that should be used for entering time in the night column of your logbook.

The other two regulations that make this confusing are related to pilot currency for carrying passengers when it's dark [see [14 CFR 61.57\(b\)\(1\)](#)] and aircraft lights [see [14 CFR 91.209\(a\)](#)].

Many pilots mistakenly think that they are not allowed to log night takeoffs and landings unless they occur during the period beginning one hour after sunset and ending one hour before sunrise. This is not true. A night takeoff or landing is accomplished every time you takeoff or land at night, including the time between the end of evening civil twilight and one hour after sunset. Also, when an application or insurance form asks for your total number of night takeoffs and/or landings, you should include all of them, not just the ones performed during the period beginning one hour after sunset and ending one hour before sunrise.

When logging takeoffs and landings for the purpose of meeting the requirements of [14 CFR 61.57\(b\)\(1\)](#), I recommend including remarks to document that you performed the takeoffs and landings as the sole manipulator of the controls, they were performed at the appropriate time of night, and the landings were made to a full-stop. Another option is to have columns for total night takeoffs/landings and separate columns for [14 CFR 61.57\(b\)\(1\)](#) takeoffs/landings.

FAA IACRA Considerations

The FAA Integrated Airman Certification and Rating Application (IACRA) system will be used to generate and process the applications for most of your FAA certificates and ratings.

Section III. of the 8710-1 application asks for the following categories that are not specifically tracked by most paper logbooks:

- Cross Country Instruction Received
- Cross Country Solo
- Cross Country PIC/SIC
- Night Instruction Received

- Night Take-Off/Landing
- Night PIC/SIC

It's easy enough to figure these out for your first few checkrides, but it becomes much more difficult as you start to acquire several hundred hours of experience. It's good to develop a way to track these categories from the beginning of your training. Many electronic logbooks include an "8710 feature" that will easily generate the needed totals for you.

See my [IACRA Tips & Suggestions](#) for more information.

Considerations for Professional Pilots

Currency requirements for part 121 and 135 pilots are taken care of and documented by each company. This means that pilots that don't do any flying outside of their airline job are not technically required to keep any kind of logbook. If a pilot decided to do other flying as PIC, they would then need to accomplish and log at least the minimum items required by [14 CFR 61.56](#) and [61.57](#).

Beyond the legal requirements, it's also important to consider always being ready to complete an application for a job you desire in the future. Several of my suggestions above are to help you keep your logbook accurate and well-organized. This is important when you are going through the application and interview process. Different airlines are known for wanting things documented and presented in different manners. This information is readily available in various online forums and through paid interview preparation services. It's just important to remember that most of these things are simply preferences and not legal requirements.

Making Corrections in Paper Logbooks

If you keep one or more paper logbooks, there's a good chance you will make several mistakes that need to be corrected. You may have even read something above that caused you to realize you need to make some corrections (like logging PIC as sole manipulator before you had a certain endorsement).

I recommend that you do not use white-out (or green-out) in your logbook. Most professional organizations that have standards about corrections on paper documents agree it's best to simply put one horizontal line through the incorrect information, write the correction information, and initial the correction.

For corrections to your total times, I recommend that you do not change all of your page totals. Instead, simply go to the last line of your current page and create a "corrections line." This line should have all of the + and - entries required in each column and notes to explain each correction. Once you total that page, everything is good 👍

Bonus Content

Here's a great article that my friend, Mike Jesch, wrote in 2017:

2017-06 Current Events

No, not the newsy sort of current events! This month, I thought I'd talk a bit about pilot currency. And no, not the currency that you used to fill the fuel tank after your last flight, either! We'll talk proficiency another time, but over the years I've had a few clients who were unaware of their state of legal pilot currency, and in several of these cases, they had been flying, with passengers, in this not legal status. Nobody is going to catch you until something happens, of course, but when that something happens, one of the things you'll be asked is to show the investigators how you were legal to be operating that flight.

Before we get into it, go grab your pilot logbook and check to see if you're current in all respects: Flight Review (or its equivalent) in the last 24 months; three takeoffs and landings in category and class in the last 90 days to carry passengers; full stop landings if at night or in a tailwheel airplane; instrument approaches (six of them), intercepting and tracking courses, and holding procedures in the last six months if the flight is to be under IFR. Go ahead and check right now, I'll wait.

Good! You're ahead of the curve! But, do you have both takeoffs AND landings logged? Most logbooks only have a column for landings. It should be obvious to even the most casual observer that you can't land without taking off, but what about that time you bounced before you landed? That'd be two landings for one takeoff!

Do you really have intercepting courses logged? Many pilots think it's enough to log an approach, because you couldn't fly an approach without intercepting and tracking, but I figure the regulation wouldn't say it unless you were expected to do it, so I just log it.

Unfortunately, most pilots still use the Flight Review for their currency. Formerly known as the BFR, or Biennial Flight Review - and sometimes incorrectly referred to as a Biannual, which means twice per year - the B fell off the definition years ago and it's now called simply a Flight Review. I say unfortunately because, in my opinion, that level of exposure to a Flight Instructor is wholly inadequate to be proficient. Still, the worst thing is that even if that's the only training you do, you have to remember when you have to do it again. It's not your instructor's job to keep you current - that's your job as a pilot. A good Instructor would keep this in mind and call when it's time, but how am I to know whether you did it with another Instructor?

What if you're one of the hip and modern pilots who uses the Wings Pilot Proficiency Program to maintain your currency? Congratulations! You're way ahead of the curve! Data shows that those who participate in this program, or even just do a bunch of classes at the Air Safety Institute, have a better accident record than those who simply do Flight Reviews. But how do you demonstrate that you're current? You don't get a logbook endorsement that you're current, so how? The answer is that you can go to the faasafety.gov web site and review your status, and even print out a certificate that you can slip in your logbook or wallet if you feel the need.

Unless you're a student pilot, or sport or recreational, you don't need to carry your log book with you. In fact, it is suggested that you don't. Some pilots do, and joke that they don't want to leave any evidence behind when they go down in a ball of flames. That just means there'll be a sentence in the final accident report that they "were unable to determine whether the pilot was current". If you end up under investigation for something, though, you'd better be able to prove that you are current, or you'll end up with another violation in addition to whatever else you did wrong.

After completing a flight with a client a while back, I asked him for his logbook so that I could log the instruction I had just given him. Imagine my surprise when he told me he didn't keep one! It's not mandatory to log every flight, but you do have to log enough to prove you're current and legal.

Fly Safe! Fly More! Have Fun!

Mike Jesch
ATP, Master CFI
2016 LGB District FAASTeam Rep Of The Year