

DEPARTMENT OF CIVIL AVIATION MALAYSIA

How to Be a Pilot (Abridged)

| TABLE OF CONTENTS | PAGE |
|-------------------------------------|------|
| Introduction | 2 |
| Becoming a Pilot | 2 |
| Getting Started | 3 |
| Becoming a Private Pilot | 3 |
| Private Pilot License Examinations | 6 |
| License Issue | 7 |
| Recreational Flying | 8 |
| Flying Training Organizations | 9 |
| Becoming a Commercial Pilot | 9 |
| Becoming an Airline Transport Pilot | 13 |
| Keeping Your Pilot License | 13 |
| Learning More Skills | 14 |
| What Does It Cost? | 15 |

Introduction

The information in this pamphlet is only for guidance. It is meant to all school leavers who have great interest in flying as a profession or hobby. This guidance material can assist the students to make the right decision for his/her carrier and providing a good choice for the flying training institution.

If there is any enquiry on the procedures or regulatory requirement it has to be forwarded to DCA, Flight Crew Licensing Office, Level 2, Block Podium B, Lot 4G4, Precinct 4, Federal Government Administration Centre, 62570 Putrajaya, Malaysia, for formal respond. The telephone number is at 603 88714000 and E-mail address is at yahaya@dca.gov.my

Becoming a Pilot

Flying is a challenge and it is a fun. To fly an aircraft ably and safely is a huge achievement. Flying is a fast, safe and cost-effective way to travel.

Whether you want to fly a small aircraft during the weekends, or a Boeing 737 for an airline, you will follow much the same process. You will learn about yourself, the aircraft, the weather, the flying environment, and the rules pilots use to keep their flying safe. How much you must learn depends on what kind of pilot you want to be. With a Private Pilot License (PPL) you can fly throughout Malaysia and carry passengers. But you are not allowed to charge for your services. With a Commercial Pilot License (CPL) you can work as a pilot. With an Airline Transport Pilot License (ATPL) you can fly as a captain on large aircraft and receive good salary.

These licenses are like steps on a ladder and must be worked through in the correct order. First you become a private pilot, then a commercial pilot, and finally an airline transport pilot. However you have the option to become commercial pilot by attending a CPL course in an approved flying training school.

Getting Started

You can fly right now. Most people's first taste of flying is an introductory flight at any local flying club or flying school. During an introductory flight you will sit in the pilot's seat and be given a flying experience, where your flight instructor will control the aircraft and will begin to show you how to fly during that first flight. You don't need to know anything about flying to take an introductory flight. Throughout your training you will not be asked to attempt anything you are not ready for. There is no need to own an aircraft. There are about 15 flying clubs and 4 approved flying training schools around Malaysia that own aircraft and employ flight instructors. Pilots hire these aircraft, with or without an instructor, at set hourly rates. You usually pay only for the time the aircraft is taxiing and flying.

Aviation Flying Training Schools (AFTS) focus on professional training, while others have a recreational focus in a 'club' atmosphere. It is a good idea to shop around and choose the training organization that best meets your needs. If possible, ask other pilot's from a variety of training organizations about their flying experiences.

Becoming a Private Pilot

Most pilots in Malaysia hold or have held a Private Pilot Licenses. We have about 500 private pilots who fly many different types of aircraft.

After enrolling yourself as a student pilot at any flying club, you can apply to DCA for a Student Pilot License (SPL). This license will authorize you to fly instructional (dual) sortie with an instructor. The prerequisite for SPL is only pass medical examination Class 2.

You can hold a PPL only at the age of 17 years old. **There is no minimum academic requirement to be a PPL pilot.** A Private Pilot cannot be paid or rewarded to fly.

You can hold a Private Pilot License when you are 17 years old.

A PPL is made up of several parts, both practical and written. The first step is a medical examination.

Medical

Private Pilots must pass a Class 2 medical examination (Same requirement as SPL medical). This examination must only be carried out by specialist aviation doctors, located throughout Malaysia. Your flying club, flying school or the DCA will provide you with a list of these doctors in your area. During the Class 2 medical examination your general health, hearing and eyesight will be tested. If you are aged under 40, you must renew your medical every two years. If you are between 40 and 60 your medical lasts for one year, and if you are 60 or older it is valid for six months only. If you are unable to pass your medical examination, you can continue to fly with an instructor, but you cannot hold a PPL. So, to avoid possible disappointment later, you should make sure you are able to pass your medical before beginning flight training.

Fit and Proper

Another thing to consider before you begin your flight training is that the PPL is an aviation document requiring that you be assessed as a "Fit and Proper Person" to hold this license. The application form for the issue of your license contains questions on such things as your court conviction history. To be considered "Fit and Proper" to hold an aviation license you must have demonstrated an acceptable respect for the law, such that the DCA may have confidence in your ability to fly within the Civil Aviation Rules. You are required to remain a "Fit and Proper" person throughout the operating life of your license. For further information contact DCA or view the DCA web site www.dca.gov.my.

Flying Lessons

You will learn to fly progressively. Early lessons cover the basics, like controlling the aircraft in straight and level flight. The structure and sequence of lessons creates a building block process, where previous learning is reinforced and developed in succeeding lessons. Eventually you will cover everything you need to be a capable and safe pilot.

Learning about the flying environment, and your aircraft, is part of being a safe and competent pilot.

Most students will fly solo for the first time after about 10 to 15 hours of flying lessons. A full PPL requires a minimum of 45 hours of flying, but most students have about 70 hours before they are ready for the flight test.

Alternatively, you could train for a PPL that limits you to flying near the aerodrome at which you are trained. This license requires a minimum of 40 hours flying, as it does not include cross-country training. You could choose to gain this license first, and then move on to gain your full PPL later. Your flying club or flying school will discuss these options with you.

Each flying lesson typically lasts about 45 minutes. Your instructor will usually give you a briefing before the flight so you will know what to expect, and what is required of you. A debriefing after the flight helps to consolidate what you have learned. You must log every flight. Your flying club or flying school will sell you a pilot's logbook to record the date of each flight, the aircraft type and registration, the name of your instructor, the length of your flight, where you went and what you did. You can take your flying lessons as frequently as time and finances allow, but, it is advisable to plan for regular sessions. One lesson every week or 10 days will ensure cost effective training.

Private Pilot License Examinations

The six (6) PPL examinations are set at about the same level as SPM or O level examinations. A pass mark of 70 percent or greater is required. Learning about the flying environment, and your aircraft, is part of being a safe and competent pilot. Your flying club or flying school will help you prepare for these examinations.

You do not have to pass these examinations before you begin your flying lessons, but it is advisable to sit them progressively while learning to fly, as examination passes are required before you can fly solo cross-countries.

Air Navigation and Flight Planning

You will learn to calculate the distance of your planned flight, what compass heading you will need to fly, how long it will take you, and how much fuel you need to get there. You will also learn to use maps that are specifically designed for aviation.

Aircraft Technical Knowledge

Understanding how your aircraft flies, and its systems, enables you to make safe flying decisions. As a trainee pilot, you will learn about aerodynamics, engines, electrical systems, your flight instruments and loading your aircraft. Helicopter pilots and aeroplane pilots sit slightly different Aircraft Technical Knowledge exams.

Meteorology

The weather has a major bearing on your flying. Often flights will be cancelled or delayed because of the weather. You will learn about Malaysia's weather patterns, about cloud formations, and about how different weather conditions affect the performance of your aircraft. With this knowledge, you will be able to develop decision-making skills essential to safe flying.

Human Factors

Human error is one of the most common causes of air accidents worldwide. It is, therefore, important to understand the human element in aviation. Areas of study include: aviation medicine and health, stress management, and decision-making.

Flight Radiotelephony

Pilots keep in contact with air traffic controllers, and with each other, by radio. As a trainee pilot, you will learn the terms and phrases pilots use to make these communications clear and free from misunderstanding. You will also learn how to operate your aircraft's transponder and emergency locator beacon.

Law

Everyone in aviation follows the same set of standards when they are flying. These standards are set out in the Civil Aviation Regulations 1996. As a trainee pilot, you will develop a working knowledge of these rules.

License Issue

When you have gained your medical certificate, passed all your exams, have the required flying experience, and passed your flight test, you can apply to DCA for the issue of a PPL.

Think Ahead

Before gaining your PPL, it is important to plan your flying beyond the initial issue of your license. It is necessary to budget for sufficient funds that will allow you to fly often enough to remain both current and competent. Information on how to stay current can be found on page 19. Many very experienced pilots in Malaysia are content to fly simply for fun. To work as a pilot, you must hold a Commercial Pilot's License.

Recreational Flying

If you want to fly for fun, then flying microlights or gliders is another option open to you.

The first thing to do is contact the local microlight or gliding club. You can contact Malaysian Sport Aviation Federation (MSAF) at telephone number 03 78737377 and Fax. 03 78755378 for club contact details. The pilot will be issued with PPL (Restricted) on completion of 30 hours program.

You will fly with an instructor, or under the supervision of an instructor, until you have gained the skills needed to pass your Pilot License flight test. This normally takes around 40 hours flying to become fully qualified.

The prerequisites for holding a PPL (R) are:

- You must be 17 years of age to hold a PPL(R)
- You require a medical declaration from your General Practitioner
- You must pass written examinations (Same subjects as PPL except Navigation & Meteorology, Aircraft General and Radio Telephony)

A PPL (R) allows you to fly privately, under Visual Flight Rules (VFR), by day within the flight park (5km radius). If you want to carry passenger you have to achieve at least 30 hours of experience.

Another way to fly for recreation is to take up hang gliding or paragliding. Information on these clubs can be found with the MSAF or at telephone number 03 89436571/019 2167526 [Lt. Col. (R) Basir bin Hj Abdul Rahman]

If you are a thrill seeker at heart, you may be interested in parachuting. Information about this sport is also available with MSAF or surf the web site at skydive@po.iaring.my

Flying Training Organizations

Choosing the right Flying Institution is very important. You have to ask yourself two main questions. Are you going for professional pilot or just for experience in flying as a hobby. Your budget whether you have sufficient fund for professional training or private training only. If you can't afford financially for professional flying, you may start fulfilling your ambition by joining the flying club. It is reminded that flying clubs are basically voluntary and self help organization and it is not actively supervised by DCA. Flying Clubs are only allowed to conduct PPL courses. DCA only ensure that the clubs conduct the PPL course in accordance to the approved syllabus with qualified flying instructors, suitable aeroplane and adequate classroom facilities. The overall running of the clubs is governed by the club constitution, as such payment and the amount charged for the flying instructions are decided by the club members. You are advised to pay for the flying lessons on hourly basis. You only pay when you fly. DCA does not protect or guarantee money paid to be refunded in the case that the club cannot fulfil their obligation.

If you wish to take a professional flying training, it is recommended that you enrol yourself to any approved flying training school and to examine the agreement carefully, if you are in doubt please do not hesitate to conform with us in DCA. The list of flying training schools and flying clubs can be found in Annexure A.

Becoming a Commercial Pilot

There are about 2500 Professional (CPL and ATPL) Pilots in Malaysia. Professional Pilots can be paid to fly. They may fly as pilot-in-command on aircraft with only one pilot, or as a Pilot or co-pilot on a multi-crew aircraft. You cannot hold a Commercial Pilot License until you are 18 years old.

The requirement for CPL includes both theoretical and practical training. Again, the first step is your medical certificate.

Medical

Commercial pilots must pass a Class 1 medical examination. This is more stringent than the Class 2 examination that private pilots undergo, and you should ensure that you are able to pass your medical before beginning flight training.

A Class 1 medical certificate must be renewed annually if you are aged less than 40, or every six months if you are 40 or older. This includes an ECG, general health, and hearing and eyesight checks. There are certain medical conditions that may prevent you from passing this examination. Your Designated Aviation Medical Examiner (DAME), specialist aviation doctor will be able to explain this to you. Your flying club, flying school, or the DCA will provide a list of aviation doctors in your area.

You can hold a Commercial Pilot License once you are 18 years old. DCA requires applicant for CPL to meet the minimum academic qualification as stated in the AIC. The minimum academic requirement is attain at least 5 credits at SPM level with credit in English, mathematics and a science subject. The applicant that does not meet the requirement will not be issued with CPL.

Flying

To be a commercial aeroplane pilot you must have completed a minimum of 200 hours of flying training, out of which 165 hours on single engine aeroplane and 35 hours on twin engine aeroplane. The training has to be carried out in an Approved Flying Training Organization. These training flying hours are a mandatory requirement before you are allowed to sit for your flight test. Most people, however, do not sit this test until they have about 230 hours.

To be a commercial helicopter pilot you must have a minimum of 150 hours of flying training. The initial 50 hours of flight training can be done in aeroplane and the rest 100 hours is on helicopters, before you are able to sit for your flight test.

Malaysia has few flying schools that offer different aircraft types and training environments.

All schools teach commercial pilots in full-time courses that involve both flight training and theory training. Others like flying clubs provide the training up to PPL can be given credit hours of 30 hours and the rest of the training has to be done in an approved training school.

Holder of a foreign CPL will be required to undergo an abridged course of flying before Malaysian CPL can be issued. They have to pass all the 'Navigation papers' and minimum of 35 hours flying training with a practical flight test by DCA examiners at the end of the training.

You can seek an advice from several training organizations and choose the package which best suits your needs and goals in aviation. Your commercial flight training will follow a set syllabus and will include cross-country flying and instrument flying. You will be expected to meet a higher standard than for your PPL.

Commercial pilots must pass examinations in Law, Navigation, Human Factors, Meteorology, Aircraft Technical Knowledge and Principles of Flight.

Examinations

Commercial Pilots must pass (score 75 percent and above) examinations in Law, Navigation, Human Factors, Meteorology, Aircraft Technical Knowledge and Principles of Flight. These are similar to tertiary (diploma) level examinations.

When you have passed your examinations, have the required flying experience, have passed your practical flight test, and you hold a current Class One medical certificate, you can apply to DCA for the issue of a CPL.

What Next?

You can now work as a pilot, but you can only fly under Visual Flight Rules (VFR). This means that you must be able to see the surface to navigate - you cannot fly in cloud. Possible careers include VFR charter, scenic and agricultural flying. You could also consider training as a flight instructor or gaining further aircraft ratings.

Instrument Flying and Basic Gas Turbine Rating

If you want to expand your employment options with a view to becoming an airline pilot, you will need an Instrument Rating. This allows you to fly in cloud, navigating with reference to the aircraft instruments. Possible careers include freight and charter operations, or you can fly for an airline as a first officer or second officer.

Airlines, some freight or charter companies, helicopter and agricultural companies, operate aircraft that are powered by gas turbine engines. These are different from the piston engine aircraft you will train in. In order to fly a turbine powered aircraft you will need to pass a Basic Turbine Knowledge examination. This is a prerequisite of a type rating in your first turbine powered aircraft.

In order to progress to being an airline captain, you can work towards your Airline Transport Pilot License.

Approved Training schools normally will train you with Instrument Rating and theoretically up to frozen ATPL level, whereby the theory examination is conducted using ATPL examination papers. Frozen ATPL is issued on your CPL license until you meet the flying hours for issue of ATPL.

Becoming an Airline Transport Pilot

To apply for an Airline Transport Pilot License (ATPL), you must be 21 years old, hold a current instrument rating, and have 1500 hours total flight time in an aeroplane, or 1000 hours in a helicopter. You must also pass seven written examinations and a flight test with a flight examiner.

Keeping Your Pilot License

Getting your pilot license is only the first step.

To keep it current you must have carried out at least three takeoffs and landings in the preceding 90 days, in the aircraft types that you wish to fly. Every six months, you will need to carry out a flight test (C of T) conducted by DCA approved Authorized Examiner.

This involves demonstrating to a flight examiner that your knowledge and flying skills are still maintained at the required standard for the type of license you hold. A C of T will also ensure that you remain up to date with the current operating environment. Many pilots continue to have occasional refresher flights with an instructor employed by the company. When employed as a CPL or an ATPL, you will have ongoing competency checks to ensure you are flying to the required standard.

Gaining a rating in a new aircraft involves practical conversion flying lessons and some theoretical study of your new aircraft's systems and performance.

Learning More Skills

Once you have your pilot license you can develop many more skills.

In aviation, these qualifications are called ratings:

- Instrument rating
- Type rating
- Night rating
- Assistant Flying Instructor rating
- Flying Instructor rating
- Authorized Flight examiner

You can also train in mountain flying, formation flying, or competition flying.

Aircraft Type Ratings

Pilots are only permitted to fly the aircraft types they hold ratings for. When first learning to fly, you will take your lessons in the same type of aircraft or simulator.

Once you have your pilot license, you may choose to learn to fly other types. Gaining a rating in a new aircraft involves practical conversion flying lessons and theoretical study of your new aircraft's systems and performance.

Becoming a Flight Instructor

Once you are a commercial pilot, you can do further flight training and study to become a career flight instructor. Newly qualified flight instructors are called Assistant Flight Instructor (AFI). As an AFI you may teach trainee pilots, although you will work under the supervision of an experienced instructor. There are several flying clubs and flying schools that offer AFI category instructor training.

What does it Cost?

The cost of learning to fly varies between training organizations, and may depend on the type of aircraft they use. Costs also vary from pilot to pilot, depending on how quickly trainees pick up flying skills, and reach the appropriate standard.

The cost of flying also changes in response to fuel prices and inflation.

It is best to contact a range of flight training organizations to find out the latest costs and compare their prices to the facilities they provide.

It is important not to judge your choice of training organization solely on cost. You should also look at how each organization can help you achieve your ultimate goals. An aspiring airline pilot has different training needs from an aspiring agricultural pilot, or an aspiring tourist sightseeing pilot, who will be flying in mountainous terrain.

For budgetary purposes a PPL training on aeroplane will cost from RM 24,000 to RM 26,000 at an approved training school and for CPL with IR (Frozen ATPL) will cost between RM150,000 to RM170,000 excluding accommodation.

Closure

Thank you for your interest in reading this guidance material, we hope that the information will give you a clearer picture and be able to decide the right way to fulfil your ambition to be a pilot.

Aviation Flying Training Organization

| S/N | Organisation and Address | Tel | Fax |
|-----|---|---|---|
| 1. | Malaysia Flying Academy Sendirian Berhad Professional Flight Training At Its Finest Malacca, Malaysia MFA Headquarters Address Ninth Floor, Tower Block Syed Kechik Foundation Building Jalan Kapas, Bangsar 59100 Kuala Lumpur MFA Campus Address No. 101, Lot 3224 Mukim Batu Berendam 75350 Melaka Website www.mfa.edu.my Email enquiries@mfa.edu.my Professional Aviation Courses Offered ⇨ Private Pilot Licence (Aeroplane) PPL/A ⇨ Commercial Pilot Licence (Aeroplane) CPL/A* ⇨ Instrument Rating IR* ⇨ Frozen Airline Transport Pilot Licence ATPL* ⇨ Integrated Direct Course (CPL/A, IR & ATPL)*** ⇨ Fast Track ⇨ Assistant Flight Instructor AFI ⇨ Flight Instructor FI | 6 03 2095 0066 6 06 317 4026 | 6 03 2095 7908 6 06 317 4362 |