



***DEPARTMENT OF CIVIL AVIATION
MALAYSIA***

How to Be a Pilot



Second Edition 2013

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Introduction

The information in this pamphlet is only for guidance. It is meant for all those who have great interest in making flying a profession or a hobby. This guidance can assist them in making the right decision for their career while providing information on flying training organizations and the type of flying training available.

Any enquiry on the procedures or regulatory requirement can be forwarded to DCA, Flight Operation Sector, Level 2, Block Podium B, Lot 4G4, Precinct 4, Federal Government Administration Centre, 62570 PUTRAJAYA, Malaysia. The contact number is +603-88714000 and the email address is at janimd@dca.gov.my.

Becoming a Pilot

Flying is both fun and challenging. It will be a huge achievement to be able to fly an aircraft safely. In addition, flying fast is also a cost effective way to travel.

Whether you want to fly a small aircraft during the weekends, or a Boeing 737 daily for an airline, the process that you need to follow is similar. You will need to 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 will depend on what kind of pilot you want to be at the end of the day.

By having a Private Pilot License (PPL), you can fly throughout Malaysia and carry non-paying passengers but you are not allowed to charge for your services. With a Commercial Pilot License (CPL) or an Airline Transport Pilot License (ATPL), you can work as a pilot commercially, fly large aircraft and receive good salary.

These licenses are like steps on a ladder. You start initially by being a private pilot, then a commercial pilot, and finally an airline transport pilot. You have the option to become a commercial pilot by attending an integrated CPL course in an approved flying training organizations (AFTOs) whereas to become a private pilot, one can just enroll in a flying club.

Getting Started

For most people, their 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. Your flight instructor will control the aircraft and he/she will show you how to fly during that first flight. You do not need to know anything about flying to take an introductory flight.

Under Malaysian regulation, a student should have a Student Pilot License (SPL) prior to flying. There are about 12 flying clubs and 5 AFTOs around Malaysia that own aircrafts and employ flying 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 Organizations (AFTOs) focus on professional training, while others such as flying clubs only

focus in a recreational atmosphere. It is advisable to do some background research prior to choosing the training organization that best meets your needs. In addition, you can ask other pilot's from various training organizations about their flying experiences so that you will have more information before embarking on a flying career.

Becoming a Private Pilot

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

Currently, there are approximately 500 private pilots who fly different types of aircraft in Malaysia.

Medical

A Private Pilot must pass at least a Class 2 medical examination. This examination must be carried out only by specialist aviation doctors who are located throughout Malaysia. The list of these doctors can be obtained from your flying club, flying school or the DCA website. Your general health, hearing and eyesight will be tested during the Class 2 medical examination.

You must renew your medical every two years if you are below 40 years old. If you are between 40 and 60 years old, your medical lasts for one year, and if you are above 60 years old, 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 future disappointment, you should make sure you are able to pass your medical examinations before you even begin the flying training.

Fit and Proper

In order to qualify you to hold a PPL, you have to be assessed as a "Fit and Proper Person". The application form for the issue of your license includes questions on matters such as your court conviction history. Thus, you must demonstrate an acceptable respect for the law for DCA to have confidence in your ability to fly within the Civil Aviation Rules. You are required to remain a "Fit and Proper" person throughout your flying career. For further information contact DCA or view the DCA website www.dca.gov.my.

Flying Lessons

You will learn to fly progressively. Early lessons cover the basics like effects of primary and secondary controls, flying straight and level and climbing and descending. 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 all aspects of flying 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.

Each flying lesson typically lasts about 45 minutes. Your instructor will usually give you a briefing before each flight so that 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 record every flight in your flying logbook. The details include the date of each flight, the aircraft type and registration, the name of your instructor, the duration of your flight, where you went and what you did.

You can schedule your flying lessons as frequently as time and finances allow, but, it is advisable to plan for regular sessions. One lesson every 7-10 days will ensure cost effective training.

Private Pilot License Examinations

The six (6) papers for PPL examination are set at about the same level as SPM or O-level examinations. A passing 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 to prepare for these examinations.

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



Air Navigation and Flight Planning

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

Aircraft Technical Knowledge

This subject gives you an understanding on aircraft systems and the aerodynamic aspect of flying. This knowledge will enable you to make safe flying decisions. As a trainee pilot, you will learn about aerodynamics, engines, electrical systems, your flight instruments and loading on your aircraft. Helicopter and aeroplane pilots will sit different Aircraft Technical Knowledge exams.

Meteorology

The weather has a major bearing on your flying. Often, flights can be cancelled or delayed because of bad 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 which are 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 factors in aviation. Areas of study will include topics such as aviation medicine and health, stress management and decision-making.

VFR Communications

Pilots keep in contact with air traffic controllers by radio. As a trainee pilot, you will learn the phraseology pilots used in making clear and concise radio calls in order to avoid misunderstanding in communications. You will also learn how

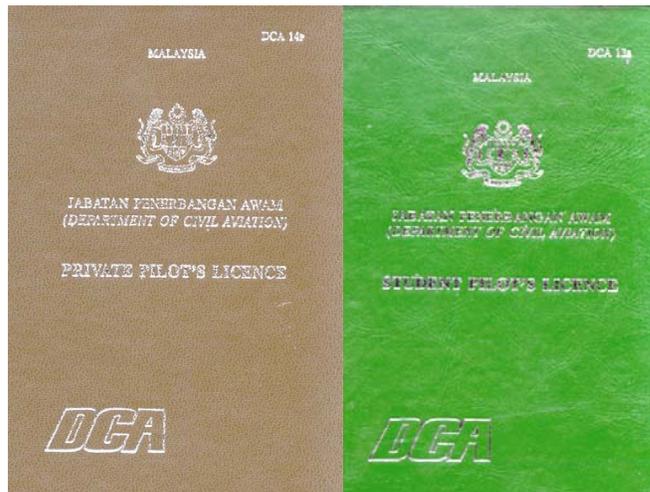
to operate your aircraft's transponder and emergency locator beacon.

Law

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

Issuance of Licence

When you have gained your medical certificate, passed all your exams, have the required flying experience, and passed all your flight tests, you are now able to apply for the issuance 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 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. However, to work as a pilot, you must at minimum 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 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.

The prerequisites for holding a PPL (R) are:

- At least 17 years of age,
- A medical declaration from your General Practitioner, and
- 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 any 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. All this information can be found by contacting

Tengku Abdillah Tengku Hassan, who is currently the President of Malaysia Aviation Sports Federation, at +6012-3853967.

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

Approved Flying Training Organizations (AFTOs)

Choosing the right flying organization is very important. You have to ask yourself two main questions. Are you going for a professional pilot licence or just flying as a hobby? Do you have sufficient fund for a professional training or a private training only? If financially, you can't afford for a professional flying, you may start fulfilling your ambition by joining the flying club. Be reminded that flying clubs are basically voluntary self-helped organization and it is not actively supervised by DCA.

Flying Clubs are only allowed to conduct PPL courses. DCA only ensures that the clubs conduct the PPL course in accordance to the approved syllabus with qualified flying instructors, suitable aeroplanes 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 has no control for money paid to be refunded in the case that the club cannot fulfill their obligation.

If you wish to take a professional flying training, it is recommended that you enroll yourself into an approved flying organization and to examine the agreement carefully. If in doubt, please do not hesitate to contact DCA. The list of flying training organizations is as annexure A.

Becoming a Commercial Pilot

There are over 5000 Professional (CPL and ATPL) Pilots in Malaysia. Professional Pilots are paid to fly. They may fly as pilot-in-command on aircraft with only one pilot, or as a 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 less than 40 years old, or every six months if you are

above 40 years old. The medical examination will include an ECG, general health, hearing and eyesight checks. There are certain medical conditions that may prevent you from passing this examination. Your specialist aviation doctor, will be able to explain this to you.

You can hold a Commercial Pilot License once you are 18 years old. DCA requires applicants of CPL to meet the minimum academic qualification as stated in the AIC 04/1995 and AIC 07/2005. The applicant must attained minimum academic requirement which is at least 5 credits at SPM level with credits 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 are on single-engine aeroplane and another 35 hours on twin-engine aeroplane. This is a mandatory requirement before you are allowed to sit for your flight test. The flying training has to be carried out in any of the AFTOs.

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

In Malaysia there are a few AFTOs that offer different aircraft types and training environments.

All AFTOs teach commercial pilots as full-time courses that involve both flight training and theory training. Training in flying clubs up to PPL can be given 30 hours credit hours but the rest of the training has to be done in an AFTO.

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

You are recommended to obtain information from several training organizations before choosing 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 that for your PPL.

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

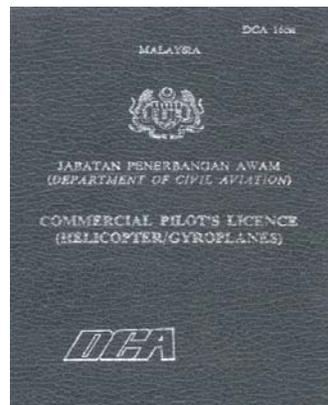
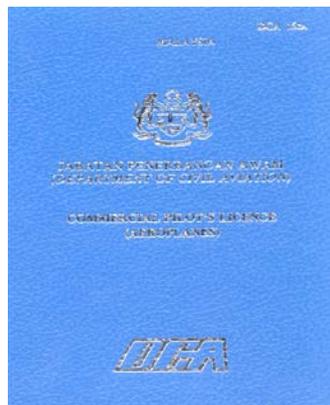


Examinations

Candidates shall pass the following subjects prior to issuance of CPL:

- a. Air Law 1
- b. Air Law 2
- c. Type Technical (Appropriate Class/Category)
- d. EASA Airframes and Systems
- e. EASA Mass and Balance
- f. EASA Performance
- g. EASA Human Performance
- h. EASA Meteorology
- i. EASA General Navigation
- j. EASA Operational Procedures
- k. EASA Principles of Flight
- l. EASA VFR Communication

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



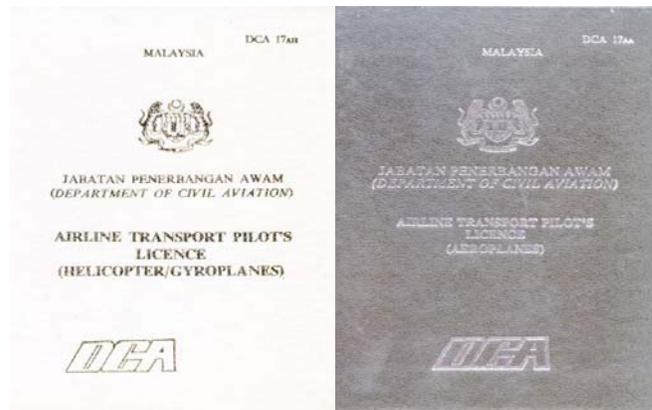
What Next?

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/ground to navigate. In other words, you cannot fly in clouds. Possible careers include VFR charter, scenic and agricultural flying. You could also consider training as a flight instructor or gain further aircraft ratings.

Instrument Flying

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 clouds while navigating with reference to the aircraft instruments. Possible careers include freight and charter operations, or you can fly for an airline as a first or second officer. In order to progress to being an airline captain, you have to work towards acquiring your Airline Transport Pilot License.

AFTOs will normally train you with an inclusion of an 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 the issuance of an 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 (ATPL(A)), or 1200 hours in a helicopter (ATPL(H)).

If the holder of a CPL has passed all ATPL papers (in possession of frozen ATPL certificate), he may convert the CPL to ATPL once he reaches the required flying hours.

However, if the CPL holder has yet to pass ATPL level papers, in addition to holding an Instrument Rating, he shall be required to pass the following papers:

- a. EASA Instruments
- b. EASA Flight Planning
- c. EASA Meteorology
- d. EASA General Navigation
- e. EASA Radio Navigation
- f. EASA IFR Communication
- g. Type Technical (Aircraft above 5700kg)

Keeping Your Pilot Licence

Getting your pilot license is only the first step. To keep it current you must carry out at least three takeoffs and landings in the preceding 90 days, with an aircraft type that you are currently flying. Every six months, you will need to carry out a flight test (Certificate of Test) conducted by DCA or an approved Authorized Examiner (AE).

This involves demonstrating to the flight examiner that your knowledge and flying skills are still maintained at the required standard for the type of licence you are holding. 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 Commercial Pilot or an Airline Transport Pilot, you will have ongoing competency checks to ensure you are flying with the required standard safely and confidently.

Learning More Skills

Once you have your pilot licence, you can develop many more skills.

In aviation, these qualifications are called ratings which include:

- Instrument Rating
- Night Rating
- Type Rating Examiner
- Assistant Flying Instructor Rating
- Flying Instructor Rating
- Authorized Flight Examiner

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 or required to learn to fly other types. Gaining a rating in a new aircraft involves practical conversion flying lessons and theoretical study of the new aircraft's systems and performance.

Becoming a Flight Instructor

Once you are a commercial pilot, you can also further your flying career by becoming a flight instructor. Newly qualified flight instructors are called Assistant Flight Instructor (AFI). As an AFI you may teach trainee pilots. However, you will be working under the supervision of an experienced flying instructor (FI). 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 clubs. The cost of flying also changes in response to fuel prices and inflation.

It is best to contact various AFTOs to find out the latest costs and compare their prices with respect to the facilities and aircraft they provide for the training.

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 effectively. 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 RM 250,000 to RM 270,000 excluding accommodation.

With the number of AFTOs and clubs available throughout the country, it is expected that there may be an abundance of newly grad pilots. Thus, it is suggested that these pilots seek job employment not only from the airlines companies such as MAS, AirAsia and Firefly, but they should also look into other companies such as Transmile, Berjaya Air, Gading Sari and many more. Career as a flying instructor is definitely another option for those who are interested to teach others to soar in the sky.

Thank you for your interest in reading this guidance material. We hope that this information will give you a clear picture and assist you in deciding the right way to fulfill your ambition to be a pilot.

Flight Crew Licensing, DCA, Malaysia

Annexure A

Aviation Flying Training Organization				
S/N	Organisation	Adress	Tel	Fax
1.	Malaysia Flying Academy Sdn. Bhd	No. 101, Lot 3224, Mukim Batu Berendam, 75350 Melaka. (PPL/A, CPL/A, IR, AFI & FI) Web site www.mfa.edu.my	+606-3174026	+606-3174362
2.	H.M.Aerospace Sdn. Bhd.	No 49, The Boulevard, Mid Valley City, Lingkaran Syed Putera, 60200 Kuala Lumpur. (HQ) Singgahsana, Jalan Kuala Muda Mukim Padang Mat Sirat 07100 Langkawi Kedah Darul Aman (PPL/A, CPL/A, IR &AFI)	+603-27305099 +604-9532000	+603-27305010 +604-9532001
3.	Asia Pacific Flight Training	Old Terminal Building Sultan Ismail Petra Airport Jalan Pengkalan Chepa 16100 Kota Baharu Kelantan www.asiapacificflighttraining.com	+609-7738722	+609-7738891
4.	KIST Aviation Academy (KISTAA)	Lapangan Terbang Sultan Mahmud, 21300 Kuala Terengganu, Terengganu, Malaysia. www.kistaa.edu.my	+609 6125284	+609 6125279
5.	International Aero Training Academy (IAT)	Bangunan Walai Tokou, Jalan Bunga Botan, Off Km 2.4, Jalan Utara, 90701 Sandakan, Sabah, Malaysia. www.iatac.edu.my	+6089 208331/2	+6089 208334

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Flying Clubs				
1.	Kelab Penerbangan 4B Malaysia	Hangar KP4B, Lpgn Terbang Batu Berendam Melaka	+606-3176717	+606-3176717
2.	Kelab Penerbangan Sabah	Old Airport Terminal, International Airport, Post Office Box 10747 Kota Kinabalu Sabah	+6088-55049/219406	+6088-219626
3.	Kota Bharu Flying Club	Sultan Ismail Petra Airport Pengkalan Chepa 16100 Kota Bharu Kelantan	+609-7444008	+609-7738891
4.	Subang Flying Club	Terminal 3 Sultan Abdul Aziz Salahuddin Airport Jln. Lpgn Terbang SAAS 47200 Subang Selangor	+603-78469134	+603-78472135
5.	Elite Flying Club	No 123, Jalan Seroja 39 Taman Johor Jaya 81100 Johor Bharu Johor	+607-3512831	+607-3526813
6.	ESB Flying Club	No. 22C, 3 rd . Floor Jln. SS 19/1D 47500 Subang Jaya Selangor	+603-78464733	+603-78464745
7.	FAS Udara Flying Club	113A, Block A, Kelana Business Centre, SS 7/2 47301 Petaling Jaya Selangor	+603-78052895	+603-78052817
8.	FRAS Flying Club	Cargo Complex Sultan Ismail International Airport 81250 Senai, Johor	+6019-7252843	+607-5995290

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9.	Royal Selangor Flying Club	Old Airport Road, 50460 Kuala Lumpur P.O. Box 11769 50756 K. Lumpur	+603-21411934	+603-21411982
10.	Johor Flying Club	Cargo Apron Sultan Ismail International Airport Senai	+607-5991255	+607-5990355
11.	Air Adventure Flying Club	Suite 184, G20, Jalan PJU 8/3 Bandar Damansara Perdana 47850 Petaling Jaya Selangor	+6012-7175712	
12.	EAA Malaysia Flying Club	No 16 Jalan SS 4A/4 47301 Petaling jaya Selangor	+603-78763069	+603-78771211