FLIGHT TRAINING PROGRESSION GUIDE

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A. ACRONYMS

AME Aviation Medical Examiner
ATO Aviation Training Organisation
ATPL Airline Transport Pilot License
CPL Commercial Pilot License
FSTD Refers to Simulator at FTC
FTC Flight Training College
GR III Refers to Grade 3 Instructor

IR Instrument Rating
ME Multi Engine
NR Night Rating

SACAA South African Civil Aviation Authority
SA-CARs South African Civil Aviation Regulations

SA-CATS South African Civil Aviation Technical Standards

GEORGE

SE Single Engine
SPL Student Pilot License
PIC Pilot in Command
PPL Private Pilot License

B. THE PRIVATE PILOT LICENCE (PPL)

The first step for anyone wanting to become a pilot is to obtain a **Private Pilot Licence** (**PPL**). This type of licence will allow you to fly the type of aircraft listed on your licence with passengers on board but you as pilot may **not** be rewarded for the flight in any way (i.e. receive any form of payment). Though a **PPL** is useless to start a career with, it is a necessary step to be able to enroll for a **Commercial Pilot Licence (CPL)**. However, for an aircraft owner or aviation enthusiast wishing to fly for the fun of it (recreational only), this will be the only licence you need!

Financials

Aviation is an expensive industry. Aircraft are delicate and expensive to operate and maintain and the increase in Fuel Prices, SACAA (South African Civil Aviation Authority) and ACSA (Airports Company of South Africa) Fees makes it even worse. Some banks do offer student loans for almost all Pilot Licenses however, sponsorships/scholarships are not always available.

Educational Requirements

Required Subjects (or sufficient knowledge thereof) to study towards becoming a pilot are (Reference: SA-CATS 61, Appendix 3.B, 1, 1.3):

Pure Mathematics: Essential for calculations, navigation, and understanding technical aspects of aviation.

Physical Sciences: Provides a foundation in physics, which is crucial for understanding the principles of flight, aerodynamics, and aircraft operations.

<u>Note:</u> Should a student not have the afore-mentioned subjects at GR12 level, FTC have an entry examination that can be taken on premises to assess general knowledge of these subjects.

Additional Recommended subjects are:

Geography: Useful for navigation and understanding meteorological information.

Proficiency in English is crucial, as it is the international language of aviation. Therefore, you would need to speak, write and read English at a high level.

Medical and Fitness Requirements:

Pilots must pass strict medical exams to ensure they are fit to fly, including vision, hearing, and overall physical health assessments before being allowed to apply for their Student Pilot License (SPL).

Medical Requirements

A Class I (required for a Commercial Pilot License) or Class II Medical Examination (required for a Private Pilot License) must be passed after which you can apply for a Student Pilot's Licence (SPL). Do not be misled by the old air force standards of medical evaluations. The standards are not as high in General Aviation. For example, people with bad eyesight are allowed to fly with glasses and there are no height requirements. You can go to a SACAA Accredited Aviation Medical Examiner (AME) for an examination to see if you are fit to be a pilot.

After you have passed the medical examination and are in possession of a valid Class I or Class II medical certificate, you will be able to apply for a **Student Pilot License (SPL)**. This License enables you to start your flight training towards the PPL and to write the SACAA online examinations. You must be 15 years of age or older.

You will need the following in order to apply for the **SPL** (which will be done on your behalf through the Flight School you join):

- Valid Medical Certificate (Class I or Class II)
- Copy of ID/Passport (if underaged, you will require the ID/Passport copy of your Parent/Guardian)
- An electronic ID/Passport Photo
- SACAA SPL Application Form

The PPL Syllabus

The **PPL** course consists of a well-worked out syllabus consisting of 8 theoretical knowledge subjects and 45+ hours of flight lessons (some with an instructor, some solo (on your own)). You have to attend Ground School classes at a SACAA accredited Aviation Training Organisation on all of the subjects and write and pass the SACAA online examinations before applying for a **PPL**. (Students are not allowed to take the online examinations unless they have proof of having attended a ground school for any subject at an ATO approved by the SACAA).

The 8 Ground School theoretical knowledge subjects are as follows:

- 1. Principles of Flight
- 2. Aircraft Technical and General
- 3. Navigation
- 4. Flight Performance and Planning
- 5. Aviation Meteorology
- 6. Human Performance and Limitations
- 7. Air Law and
- 8. Restricted Radiotelephony

You should note that these examinations must be written and passed within a period of 18 months from passing the first examination. After completing the last examination, you have 36 months to complete your PPL flight test. If you fail to do so, you will have to re-do all your training.

Apart from the above you will also have to complete the following:

- Restricted Radio Practical Examination with a SACAA Accredited Radio Telephony
 Examiner, and
- English Proficiency Practical Examination with a Subject Matter Expert and Linguistic Expert.

The table below explains the minimum hours/flight time that you have to log before being recommended for the PPL Flight Test and subsequently applying for a **PPL**:

PPL - Aeroplane

Tot	45	
•	Dual Instruction Hours:	25
•	Solo Hours:	15
•	Simulator Hours	5

PPL Checklist

- You must be at least 17 years of age at the time of testing for your PPL
- You must have a valid Class I or Class II Medical Certificate

- You must have a valid Restricted Radio Licence
- You must have a minimum Level 4 Language Proficiency Certification
- You must have a valid **Student Pilot Licence (SPL)** OR have or have held one of the following within the previous 60 months:
 - o A Pilot Licence issued by a foreign country or state.
 - o South African Air Force Pilot qualification.
- > You must write and pass the **8 PPL theoretical knowledge exams** in the required time period.
- You must fly and log the **required hours** set out in the column above.
- You must pass the PPL flight skills test when you adhere to all of the above requirements within 36 months after you have passed the last theoretical knowledge exam.
- All your training must be done at an Aviation Training Organisation approved by the South African Civil Aviation Authority.



C. THE NIGHT RATING (NR)

The Night Rating Course is for PPL holders who wish to fly safely at night. The Night Rating is also a requirement, should the PPL holder wish to pursue a career as a Commercial Pilot.

1. An applicant for a Night Rating (NR) must -

- a) hold a valid private pilot licence;
- b) submit proof of having completed the training referred to in sub regulation 2. below
- c) submit proof of having passed the theoretical examination referred to in sub regulation 3. below; and
- d) have passed the prescribed skills test, referred to in regulation SACARs 61.10.4.

The Night Rating (NR) Syllabus

2. An applicant for a night rating must have completed under the auspices of an approved Part 141 ATO -

- a) not less than 5 hours of theoretical knowledge instruction on the material as prescribed in Document SA-CATS 61;
- b) not less than 10 hours of instrument instruction, of which not more than 5 hours may be accumulated in an approved FSTD;
- c) in the case of a night rating on aeroplanes, not less than 5 take-offs and five landings by night as pilot manipulating the controls of the aircraft whilst under dual instruction; or
- d) a dual cross-country flight by night consisting of at least
 - i. in the case of a night rating for aeroplanes a total distance of not less than 150 NM in the course of which full-stop landings at two different aerodromes away from base are made.

3. Theoretical knowledge examination for night rating

Complete the online SACAA Night Rating examination at a SACAA approved ATO (Based on a combination of PPL subjects).



D. BUILD A CAREER AS A PILOT WITH A COMMERCIAL PILOT LICENCE (CPL)

The **Commercial Pilot Licence (CPL)** is for pilots that want to make a career out of flying and/or earn money for piloting an aircraft. No pilot may act as pilot in command of a South African registered aircraft and receive reward (payment) in any form unless he is the holder of a valid **Commercial Pilot License (CPL)** or an **Airline Transport Pilot Licence (ATPL)**.

Educational Requirements

Required Subjects (or sufficient knowledge thereof) to study towards becoming a commercial pilot are (Reference: SA-CATS 61, Appendix 3.B, 1, 1.3):

Pure Mathematics: Essential for calculations, navigation, and understanding technical aspects of aviation.

Physical Sciences: Provides a foundation in physics, which is crucial for understanding the principles of flight, aerodynamics, and aircraft operations.

Additional Recommended subjects are:

Geography: Useful for navigation and understanding meteorological information.

Medical and Fitness Requirements:

Pilots must pass strict medical exams to ensure they are fit to fly, including vision, hearing, and overall physical health assessments. A Class I medical must be done before testing for the Commercial Pilot License.

The pilot must be the holder or have been the holder of a valid South African Private Pilot Licence (PPL) in the previous 60 months to begin with CPL training. Always remember that enough does not always mean that you will be the first to be considered when applying for a job. The more you have to show, the better your chances!

The CPL Syllabus

The **CPL** course consists of a syllabus consisting of 10 theoretical knowledge subjects. It may also include a night- and instrument rating course. The night rating will allow you to pilot an aircraft at nighttime while the instrument rating allows you to pilot an aircraft in conditions where you don't have visual reference to the ground (flying in cloud, etc.).

The following 10 subject exams must be written and passed before applying for a CPL:

- 1. Flight Performance and Planning
- 2. General Navigation and Plotting
- 3. Radio Aids and Communication
- 4. Aircraft Technical and General
- 5. Instruments and Electronics
- 6. Aviation Meteorology
- 7. Air Law
- 8. Air Law Procedures (IR Ops)
- 9. Human Performance and Limitations
- 10. General Radiotelephony

(The content of these subjects is not the same as those in the PPL and ATPL syllabus!)

The **CPL** flight skills test must be undertaken within 36 months after the last theoretical knowledge examination was passed.

The table below explains the hours and flight time that you have to log before you can apply for a **CPL**.

CPL - Aeroplane

Total Hours: 155 + 45 PPL

• Dual Instructions Hours: 65+/-

• Solo Hours: 110+/-

• Simulator Hours: 25+/-

CPL Checklist

- You must be at least 18 years of age.
- You must have a valid Class I Medical Certificate.
- You must have a valid General Radio Licence.
- You must have a valid Night Rating.
- You must have written and passed the 8 theoretical knowledge examinations.
- You must have a valid Private Pilot Licence (PPL) OR have or have held one of the following within the previous 60 months:
 - A Pilot Licence issued by a foreign country or state.
 - South African Air Force Pilot qualification.
 - A Student Pilot Licence (SPL) in the case of an applicant having done an approved integrated training course.
- You must fly and log the required hours set out in the column above.
- You must pass the CPL flight skills test when you adhere to all of the above requirements within 36 months after you have passed the last theoretical knowledge exam.

Your training must be done at an Aviation Training Organisation (ATO) approved by the South African Civil Aviation Authority.



E. AIRLINE TRANSPORT PILOT LICENSE (ATPL)

This is the highest **Commercial Pilot's Licence** obtainable. An **Airline Transport Pilot** can act as pilot in command of an aircraft in any commercial air transport operation. All aircraft weighing more than 5 700kg, aircraft requiring a pilot and co-pilot and any aircraft undertaking public transport flights require an **ATPL** pilot in command.

Educational Requirements

Educational requirements are the same as for Commercial Pilot License and the pilot must at least be the holder or have been the holder of a valid South African **Private Pilot Licence** (**PPL**) or a valid **instrument rating** in the previous 60 months and show evidence of attending a **multi crew co-operation course** in the previous 60 months to begin with **ATPL** training. You must be at least **21 years of age** when applying for an **ATPL**.

The ATPL Syllabus

There are 6 theoretical knowledge subjects to be passed before you can apply for an ATPL:

- 1. Aircraft Technical and General
- 2. Navigation
- 3. Meteorology
- 4. Instruments and Electronics
- 5. Radio Aids
- 6. Flight Planning

(The content of these subjects are not the same as those in the PPL and CPL syllabus!)

The table below explains the hours and flight time that you have to log before you can apply for an **ATPL**.

ATPL - Aeroplane

Total Hours:	1 500 (may include 45 from PPL and 150 from CPL)
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• PIC Under Supervision: 500

PIC Hours (150 may be as PIC under 250 supervision):

• Cross Country Hours (100 may be as co-pilot or PIC under supervision):

• Instrument Hours (no more than 30 on 75 Flight Simulation Device):

• Night Flying Hours (PIC or co-pilot): 100

Financials

A pilot can start flying for reward (money + hours) once he/she is the holder of a **Commercial Pilot License (CPL)**. This means that all the hours obtained as a commercial pilot will be taken into account when applying for an **ATPL**.

ATPL Checklist

- You must be at least 21 years of age.
- You must hold a valid Class I Medical Certificate.
- You must have a valid **Private Pilot Licence** OR have or have held one of the following within the previous 60 months:
 - o A valid South African CPL.
 - o A Pilot License issued by a foreign country or state.
 - o A valid **South African Air Force Pilot** qualification.
 - A Student Pilot Licence (SPL) in the case of an applicant having done an approved integrated training course.
- You must have a valid Instrument Rating (IR).
- You must have completed a multi-crew co-operation course within the previous 60 months.
- You must have written and passed the 6 theoretical knowledge examinations.
- You must pass the ATPL flight skills test when you adhere to all of the above requirements within 36 months after you have passed the last theoretical knowledge exam.
- Your training must be done at an Aviation Training Organisation approved by the South African Civil Aviation Authority.



F. RATINGS

A **pilot's licence** is much different from a driver's licence. Aircraft are much more complicated than cars thus the differences between different types of aircraft are much greater. Aircraft comes in many shapes and sizes and requires different ratings for pilots.

If you are the holder of a valid **South African Pilot Licence** and have completed training for the appropriate rating, you can apply for some of these ratings such as:

- Different Type and Class Ratings
- Night Rating (Allows you to pilot an aircraft at night-time.)
- Instrument Rating (Allows you to fly in conditions where there is no visual reference to the ground.)
- GR III Instructor Rating
- Post Maintenance Flight Test Rating.
- Tow or Tug Ratings
- Aerobatics Rating

It goes without saying that all of these ratings require additional training. The **South African Civil Aviation Authority** website explains these ratings and the requirements to apply for them in detail.

Type and Class Ratings

These ratings are required to pilot different types of aircraft in different classes. An aircraft class rating is required to pilot all types of aircraft within a particular aircraft class. Some aircraft requires class and type ratings to pilot others only require a class or type rating.

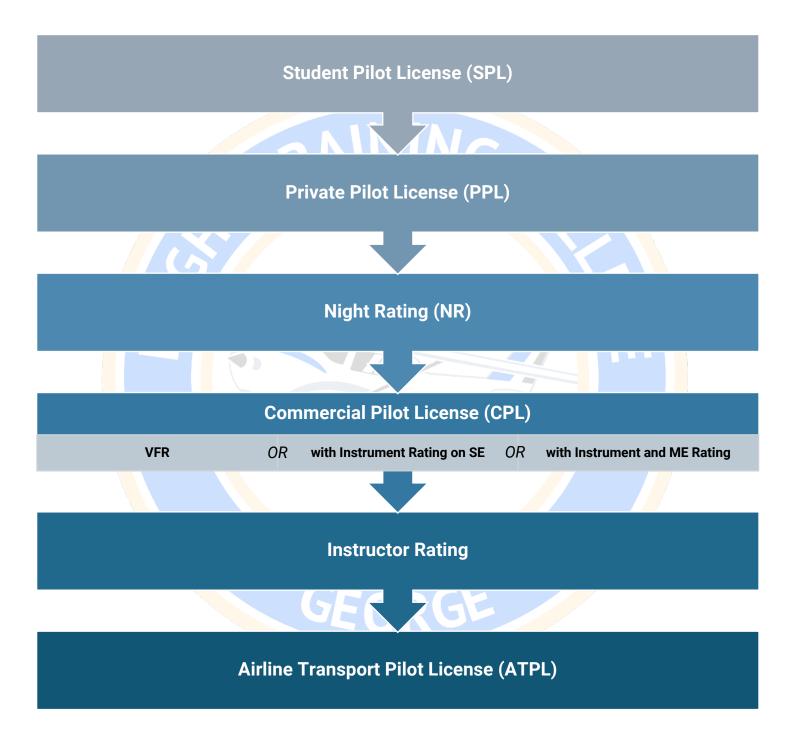
There are many kinds of Class Ratings including the following:

- All single-engine piston Aeroplanes (land)
- All single-engine piston Aeroplanes (sea)
- All multi-engine piston Aeroplanes (land)
- All multi-engine piston Aeroplanes (sea)
- Each manufacturer of single-engine Turbo-prop Aeroplanes (land)
- Each manufacturer of single-engine Turbo-prop Aeroplanes (sea)
- All touring Gliders
- All conventional Gliders

Type Ratings include the following:

- All Helicopters
- All Warbirds
- Aeroplanes with a maximum certificated mass exceeding 5700 kg
- Multi-engine Turbo-prop Aeroplanes
- Aeroplanes certified for operation with a flight crew of 2 or more

G. FLIGHT TRAINING PROGRESSION FLOW CHART



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