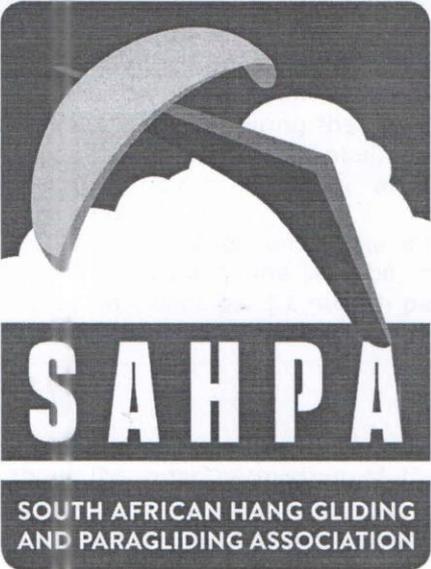


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SAHPA
SOUTH AFRICAN HANG GLIDING
AND PARAGLIDING ASSOCIATION

**A CERTIFIED TRUE COPY
OF THE ORIGINAL**

I hereby certify that this is a true copy of the original document.
Sign: _____ Date: 11/12/2018

APPROVED
P. van der Merwe
19/03/2019

TRAINING AND PROCEDURES MANUAL

ATO approval number:	RAA/005
Physical address:	4 Oost road Mnandi Centurion
Postal address:	PO Box 191 Celtis Ridge 0130
Telephone:	+27 (0)74 152 2505
Email:	office@sahpa.co.za



0.1 DISCLAIMER

- 0.1.1 This manual has been written for the exclusive use of the South African Hang Gliding and Paragliding Association hereto referred to as ["SAHPA"]. The copyright to this manual rests with SAHPA. Access to the manual does not imply permission to reproduce and/or distribute the manual or any portion thereof without the prior permission from SAHPA.
- 0.1.2 SAHPA remains responsible for ensuring that the provisions, the adequacy of content, accuracy and currency of the manual, irrespective of the source, are appropriate to each particular operation and to make any necessary amendments and/or additions.
- 0.1.3 This manual is issued and revised under the authority of the Accountable Manager, by the Quality Manager, and shall be reviewed and revised as and when required, but at least once per **12 month period**.

0.2 CONDITIONS OF USE

- 0.2.1 This document contains proprietary information and may not be disclosed to third parties without the prior permission of the Accountable Manager or his/her designate.
- 0.2.2 When not in use this manual should be kept in a secure place.

0.3 FORWARD

- 0.3.1 The purpose of this Training and Procedures Manual, ["TPM"] is to provide guidance in respect of SAHPA's, Aviation Training Organizations, ["ATO"] training and administrative objectives. The TPM takes into account the requirements of the South African Civil Aviation Regulations, 2011 ["SA-CARs"], South African Civil Aviation Technical Standards, ["SA-CATs"] and all other applicable Civil Aviation Legislation.
 - 0.3.2 SAHPA is an organization that takes safety seriously and as such shall endeavor to promote a "just culture" as detailed within their Safety Management Systems ["SMS"].
 - 0.3.3 The policies and procedures contained in this TPM are presented to assist in the daily operation of SAHPA, as well as to put in place a structure conducive to safe and efficient operations.
 - 0.3.4 Users of this TPM are encouraged to cross-reference all statutory documentation relevant to the task at hand, this would include but not limited to; Pilot Operating Handbooks, Aircraft Operating Manuals, Standard Operating Procedures etc...
 - 0.3.5 The instructions set out in this TPM, particularly in the areas of pilot training and development should never replace the good judgment and the duty of care by staff members and students alike.
 - 0.3.6 SAHPA shall ensure that all staff members have knowledge of the policies and procedures set out in this TPM
 - 0.3.7 SAHPA remains responsible for content, accuracy and currency of this TPM.
-



0.4 OVERVIEW

Notwithstanding anything elsewhere herein contained, SAHPA undertakes to conduct all operations in accordance with the following Acts as amended and all the regulations made in terms of such Acts.

- Civil Aviation Act, No 13 of 2009;
- South African Civil Aviation Regulations 2011, and
- South African Civil Aviation Technical Standards 2011, as amended.

0.5 COMMITMENT AND CERTIFIED STATEMENT BY THE ACCOUNTABLE MANAGER

This TPM is compiled in accordance with document SA-CAR and SA-CATs, Part 141, Aviation Training Organizations.

Certified Statement

This is to certify that **the Accountable Manager of the South African Hand Gliding and Paragliding Association**, knows and understand the contents of this SAHPA, Training and Procedures Manual.

This Training and Procedures Manual contains our policies and procedures and shall be complied with.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change.

0.7 MASTER TABLE OF CONTENTS

Part	Title
Part 0	Control Pages
Part 1	General
Part 2	Aircraft Operating Information
Part 3	Sites
Part 4	Staff Training
Part 5	Training Plan
Part 6	Practical Training Syllabus
Part 7	Simulation Training Syllabus
Part 8	Theoretical Knowledge Syllabus
Part 9	Tests and Checks
Part 10	Records
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PART 2 AIR CRAFT OPERATING INFORMATION		
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2-0	Original	10/12/2018
2-1	Original	10/12/2018
2-2	Original	10/12/2018
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2-4	Original	10/12/2018
2-5	Original	10/12/2018
2-6	Original	10/12/2018
2-7	Original	10/12/2018
PART 3 SITES		
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3-1	Original	10/12/2018
3-2	Original	10/12/2018
3-3	Original	10/12/2018
3-4	Original	10/12/2018
3-5	001	02/03/2020
PART 4 STAFF TRAINING		
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4-0	Original	10/12/2018
4-1	Original	10/12/2018
4-2	Original	10/12/2018
4-3	Original	10/12/2018
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PART 5 TRAINING PLAN		
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PART 6 FLIGHT TRAINING SYLLABUS		
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6-1	Original	10/12/2018
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8-4	Original	10/12/2018
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9-3	Original	10/12/2018
9-4	Original	10/12/2018

**PART 10
RECORDS**

**PART 12
SMS**





0.9 DEFINITIONS

Definitions and abbreviations are the same as those referred to SA-CARs, Part 1.

For purposes of this TPM

Paraglider or Hang Glider means Paraglider or Hang glider and all powered versions thereof inclusive of powered para trikes and tricycle undercarriages and at times may be substituted with Glider/Aircraft in places

Head CFI or Regional CFI means the CFI appointed by SAHPA EXCO to handle training matters in a specific geographical region and may be per flying discipline

0.10 ABBREVIATIONS

AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
ATO	Aviation Training Organisation
ATC	Air Traffic Control
ATS	Air Traffic Service
ATSU	Air Traffic Service Unit
CEO	Chief Executive Officer (Sahpa Chairman)
CFI	Chief Flying Instructor
EXCO	The Executive Committee of SAHPA
HoT	Head of Training
NSO	National Safety Officer
QM	Quality Manager (Secretary)
RPA	Responsible Person Approved
SACAA	South African Civil Aviation Authority
SA-CARS	South African Civil Aviation Regulations
SA-CATS	South African Civil Aviation Technical Standards
TPM	Training and Procedure Manual
VFR	Visual Flight Rules

0.11 DISTRIBUTION LIST

0.11.1 The Quality Manager shall ensure that this Manual:

- a) is available to employees by means of easily accessible copies;
- b) ensure that all copies are kept up to date; and
- c) Ensure that each applicable contracted organisation has a copy or access to a copy.

0.11.2 The Quality Manager shall be responsible for the DISTRIBUTION LIST of the TPM.

- a) Each TPM issued shall be numbered; and
- b) Each recipient shall sign a receipt when issued with a copy.

Mandatory Distribution List

Copy Holder	Copy No	Parts Held
Main base	1 (manual copy)	Complete TPM
Applicable Authority	2 (manual copy)	Complete TPM
CEO (Accountable Manager)	3 (manual copy)	Complete TPM
Aviation Safety Manager (NSO)	3.1 (electronic)	Complete TPM
Quality Manager	3.1 (electronic)	Complete TPM
Head of Training	3.1 (electronic)	Complete TPM
Head CFI – Hang glider	3.1 (electronic)	Complete TPM
Head CFI – Paraglider	3.1 (electronic)	Complete TPM
Head CFI – Powered (PPG & Paratrike)	3.1 (electronic)	Complete TPM
All School Managers (CFI)	3.1 (electronic)	Complete TPM



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PART 1

GENERAL

PART 1: GENERAL

PART 1 TABLE OF CONTENTS

Section 1	General
1.1	Preamble
1.2	Amendment and Revision policy
1.3	Deviation Policy
1.4	Distribution Policy
1.5	Structure of Manual
1.6	Scope of Training
1.8	Approved Sites of Training
1.9	Organizational Structure
1.10	Personnel Qualification and Responsibilities
1.11	List of Flying Instructors
1.12	List of Paraglider or hang gliders

1.1 PREAMBLE

- 1.1.1 The SAHPA, ATO, is approved in terms of SA-CARs, Part 141.02.2 to conduct training for interested parties in order to equip them with the required skills and qualifications necessary for them to exercise the privileges of their respective licenses.
- 1.1.2 The ATO, was jointly developed by the members of the South African Hang Gliding and Paragliding Association in terms of SA-CARs, Part 149.01.1
- 1.1.3 The SAHPA Committee Members, ["Committee"], have resolved that the designated post holders as detailed shall be responsible for the ATO's day to day operational and statutory obligations, whilst the Committee will preside over key strategic decisions relating to the ATO.

1.2 AMENDMENT AND REVISION POLICY

- 1.2.1 This manual shall be issued and revised under the authority of the Accountable Manager. The Quality Manager shall be responsible for review and revision at least once per **12 month period**.
- 1.2.2 Any person within the organisation can propose an amendment. Any amendment to this manual shall be approved by the Accountable Manager in consultation with the Quality Manager and/or the relevant departmental head.
- 1.2.3 Amendments shall be submitted to the applicable authorities in duplicate copies and within 90 days as per Part 141.02.2.; for incorporation into the manual. Once approved by the regulator, they shall be distributed within the organization to all persons whom manuals have been issued.
- 1.2.4 Amendments shall be produced as new or replacement pages. Handwritten amendments to the TPM are only permitted in circumstances requiring immediate amendment or revision in the interest of aviation safety. The new or replacement page(s) must be allocated an amendment series number and the effective date.
- 1.2.5 Each amendment / revision shall be documented on the Record of Amendment Sheet; stating the amendment / revision number, effective date and a short description of the amendment / revision. The List of Effective Pages shall be updated with the amendment / revision number and effective date for each specific page.
- 1.2.6 Annexures shall not be submitted to the regulator as these do not contain any legislative information; but if there are any changes to the Amendment Record Sheet and the List of Effective pages, this will need to be submitted for approval.
- 1.2.7 The Quality Manager shall be the person responsible for this process with the assistance and guidance of relevant post holders.

1.3 DEVIATION POLICY

- 1.3.1 Any major deviation from the manual shall be approved by the Accountable Manager. Furthermore, the Accountable manager shall ensure that the relevant authorities and/or regulators are made aware in writing within **72 hours**.
- 1.3.2 Notwithstanding the above, SAHPA is cognizant of the dynamic and versatile environment in which it operates, and therefore, would not oppose TPM amendments and/or deviations provided that relevant due diligence is observed.

1.4 DISTRIBUTION POLICY

- 1.4.1 The Quality Manager shall ensure that this Manual:
- a) is available to every employee by means of accessible copies;
 - b) ensure that all copies are kept up to date; and
 - c) Ensure that each applicable contracted organisation has a copy or access to a copy.
- 1.4.2 The Quality Manager shall be responsible for the DISTRIBUTION LIST of the Training Procedure Manual with the master copy of such.
- a) each TPM issued shall be numbered; and
 - b) Each recipient shall sign a receipt when issued with a copy.
- 1.4.3 Mandatory Distribution List:

Copy Holder	Copy No	Parts Held
Main Facility	1 (manual copy)	Complete TPM
Applicable Authority	2 (manual copy)	Complete TPM
CEO	3 (manual copy)	Complete TPM
Safety Manager	3.1 (electronic)	Complete TPM
Quality Manager	3.1 (electronic)	Complete TPM
Head of Training	3.1 (electronic)	Complete TPM
Regional CFIs – Hang paraglider or hang glider	3.1 (electronic)	Complete TPM
Regional CFIs – Paraglider or hang glider	3.1 (electronic)	Complete TPM
Regional CFIs – Powered (PPG & Paratrike)	3.1 (electronic)	Complete TPM
Facility CFIs	3.1 (electronic)	Complete TPM

1.5 STRUCTURE OF MANUAL

This Manual is divided into thirteen (13) Parts plus Annexures:

1.5.1 Part 0: Control Pages

This part contains all the preliminary pages which include the manual control and tracking pages.

1.5.2 Part 1: General

This part comprises organisational structures, operational policies, instructions and procedures needed for a safe operation and complies with relevant South African Civil Aviation Regulations

1.5.3 Part 2: Paraglider or hang glider and Hang-Paraglider or hang glider Operating Information

This part provides operating information on the paraglider or hang glider's operated

1.5.4 Part 3: Sites

This part contains information on training sites and/or locations, performance criteria, flight planning procedures as applicable, weather minima, and practice areas.

1.5.5 Part 4: Staff Training

This part has details regarding all matters pertaining to staff training, competency and proficiency requirements.

1.5.6 Part 5: Training Plan

This part describes the flight training curriculum with the following sections; the aim of the course, the pre-entry requirements, crediting of previous experience and a description of the curricula. Training policies are also described here.

1.5.7 Part 6: Flight Training Syllabus

This part contains specific information about the Flight Training Syllabi i.e. air exercises, expected student performance, instructional methods, conduct of progress checks, documentation of progress checks and conduction of tests.

1.5.8 Part 7: Simulation Training Syllabus

This part is not applicable to SAHPA operation and has been intentionally left out.

1.5.9 Part 8: Theoretical Knowledge Syllabus

The theoretical knowledge syllabus is depicted here.

1.5.10 Part 9: Tests and checks conducted for the issuance of a licence or a rating

Information regarding testing and checking conducted for the issuing of an endorsement, licence or rating is described here.

1.5.11 Part 10: Records

All policies and procedures regarding record keeping records are covered here; as well as the checking, standardization and security of these records.

1.5.12 Part 11: Quality Management System

The Quality Management System is described here.

1.5.13 Part 12: Safety Management System

The Safety Management System is described here.

1.5.14 Annexures

1.6 SCOPE OF TRAINING

1.6.1 The following courses will be conducted under the auspices of SAHPA's ATO approval certificate and Operations Specification:

Qualification/ Course	Description
National Learner Pilot Certificate	Refer to part 5, 6 and 8
National Pilot License	Refer to part 5, 6 and 8
Category Ratings	Hang-paraglider or hang gliders Powered hang-paraglider or hang gliders Paraglider or hang gliders Powered paraglider or hang gliders Powered paratrikes

Class Ratings (Hang paraglider or hang gliders)	Novice Class A Class B Class C
Class Ratings (Paraglider or hang gliders)	Basic Sport
Type Ratings	Type 1 (note 1) Type 2 Type 3 Type 4 Type 5 Type 6 Type 7
Special Ratings	Tandem rating National flight instructor rating Tug and tow rating; Aero-tow rating for hang-paraglider or hang glider pilots

1.7 APPROVED SITES FOR TRAINING

- 1.7.1 SAHPA, is an ARO in terms of SA-CAR, Part 149.01.1 in addition holds an ATO certificate in terms of SA-CAR, Part 141
- 1.7.2 The ATO is established to satisfy all its members training and development needs as per the applicable regulations.
- 1.7.3 Due to diverse geographical location of our members and their respective areas of training speciality and/or needs, training occurs at a multitude of locations/sites.
- 1.7.4 Due diligence shall be applied in the selection of each training site to ensure best practice, safety and civil aviation regulations are always adhered to. Training sites will be approved by a Grade B instructor or above and if applicable be registered with SAHPA. Further to the above process SAHPA will endeavour to notify the regulator of the new site.
- 1.7.5 A list of registered training sites is contained in Annexure A or in the SAHPA MOP as per the applicable Annexure
- 1.7.6 Notwithstanding the above SAHPA recognises the following site as their Head Office:

Physical address: 4 Oost road
Mnandi
Centurion

Postal address: PO Box 191
Celtis Ridge
0130

Telephone: + 27 (0)74 152 2505
Email: office@sahpa.co.za

1.8 ORGANIZATIONAL STRUCTURE

1.8.1 For SAHPA official organogram, refer to Annexure B

NOTE: All declarations in this document will be adhered to and a confirmation letter will be provided indicating that these declarations will be complied with and upheld.

The letter will contain all these signatures

1.9 PERSONNEL QUALIFICATIONS AND RESPONSIBILITIES

1.9.1 Chief Executive Officer (Accountable Manager) shall be responsible for:

- The documentation, promulgation, distribution and control of all policies, duties and procedures.
- The documentation, promulgation, distribution and control of the ATO Training and Procedures Manual (TPM).
- The appointment and evaluation of personnel including developing the ATO qualification acceptance criteria for the post.
- The succession of command of management ensuring that the ATO under the supervision of a qualified member.
- The promulgation and maintenance of training syllabi and curricula accredited to the organisation.
- Compliance with the Operational Health and Safety Act.
- For ATO student administration, or responsible person, engage via a contract with each student for training and financial obligations in writing.

DECLARATION BY THE CHIEF EXECUTIVE OFFICER (CEO):

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and utilizing a paraglider or hang glider that complies with the requirements of the regulations in South Africa. The standard of the instruction will be monitored according to this Manual.

The CEO accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

1.9.2 Head of Training (HoT) shall be a person with suitable management and instructional experience; the HoT reports to the CEO and shall be responsible for:

- Advising the CEO on required changes to the TPM.
- Advising the CEO as to suitable personnel to be appointed or promoted.
- Advising the CEO on required changes to the training syllabi.
- Advising the CEO on relevant laws and acts pertaining to the ATO in conjunction with the Aviation Safety manager and Quality manager.
- All flight training.
- All ground training.

DECLARATION BY THE HEAD OF TRAINING (HOT):

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang glider that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The HoT accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

1.9.3 Regional and Facility Chief Flight Instructor (CFI)

SAHPA makes use of Regional CFI's and Facility CFIs across their 3 operations:

1. *Paragliding*
2. *Powered Paragliding*
3. *Hang Gliding and Powered Hang Gliding*

The Regional and Facility CFIs, shall hold a valid Grade A or B Flight Instructor rating; the Facility CFI shall report to the Regional CFI who report into the HoT and shall be responsible for ensuring:

- All training staff are versed in the content of the ATO Training and Procedures Manual.
- All training is carried out in accordance with the ATO training plan and that relevant regulations are complied with.
- The flight and theoretical training syllabi and curricula are adhered to.
- Records are kept in accordance with all relevant regulations and policies.
- The flight logbook is completed and controlled in accordance with the ATO Training and Procedures Manual.
- A high standard of flying discipline is maintained in accordance with the policy prescribed in this manual.
- Oversight is carried out over “junior” and/or recently qualified flight instructors to uphold training standards and mentor instructors in preparation for a instructor upgrades by:
 - Allocation of instructors to students and training flights.
 - Briefing of instructors on exercises to be carried out, recap on instructional techniques, common errors that may be expected from students and safety.
 - The regular monitoring of pre-flight and post-flight briefings.
 - Evaluate instructor progress in relation to student progress.
 - Monitoring and implementing the staff flight training in order assess if training is meeting the ATO and regulatory requirements prescribed in this manual.
- Oversight of student training with reference to:
 - Student progress, records and maintenance of student training files.
 - The training plan.
 - Flight training syllabus.
 - Theoretical knowledge syllabus.
 - Tests and checks

DECLARATION BY THE SECTIONAL CFI (Paragliding):

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang glider that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The Sectional CFI accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

DECLARATION BY THE SECTIONAL CFI (Powered Paragliding) :

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang glider that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The Sectional CFI accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

DECLARATION BY THE SECTIONAL CFI (Hang Gliding and Powered Hang Gliding) :

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang glider that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The Sectional CFI accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

DECLARATION BY THE REGIONAL CFI'S):

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang glider that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The Regional CFI accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

List of these person provided via annexure with signatures

The signatures are confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

1.9.4 **Quality Manager (QM) (Sahpa Secretary)** shall be a person with suitable aviation management experience and adequate knowledge in quality assurance. This person shall be directly responsible to the CEO for quality control as prescribed in SA-SA- CAR, part 141.02.3 and shall be responsible for the following:

- ensuring that SAHPA's quality assurance program is properly established, implemented and maintained and in particular –
 - the monitoring of compliance with, and the adequacy of, the procedures required to ensure safe operational practices and airworthy aircraft
 - the monitoring of activity in flight operations, maintenance, crew training and ground operations, to ensure that the standards required by the Director, and any additional requirements defined by the SAHPA or, are being met; and
 - Any additional tasks that may be assigned with respect to the financial and non-operational efficiency aspects of the company.
 - The documentation, promulgation, distribution and control of the ATO Training and Procedures Manual (TPM).

DECLARATION BY THE QUALITY MANAGER (Secretary) (QM):

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang glider that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The QM accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

1.9.5 **Aviation Safety Manager (ASM) (referred to as NSO)** shall be a person with suitable aviation management experience and knowledge in the areas of Safety Management Systems in aviation with specific knowledge for SAHPA type operations. This person shall be directly responsible to the CEO, furthermore, be responsible for the following:

- Safety oversight of all ATO operations.
- The co-ordination and management of a Safety Management System.
- The monitoring and implementation of the annual safety plan.

DECLARATION BY THE AVIATION SAFETY MANAGER (NSO):

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang gliders or hang paraglider or hang gliders that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The ASM accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

1.9.6 **Responsible Person Aircraft/ Paraglider or hang glider:** (RPA) shall be a person with a valid pilot licence or adequate paraglider or hang glider maintenance experience. The RPA reports directly to the CEO and shall be responsible for the following:

- Ensure that paraglider or hang gliders utilized by the ATO are well maintained and are complaint with all legal framework and legislations.
- Ensure that all paraglider or hang gliders are at all times airworthy and that the necessary logistical and maintenance support is provided for each kind of operation.
- Ensure that all maintenance personnel are properly trained and licensed and at all times fully comply with stipulations of this Training and Procedure Manual.
- Advice the Accountable Manager, Head of Training, Safety Officer and Quality Manager of any maintenance and/or engineering related changes required to this Manual.



- Liaise with SACAA on all technical matters related to the maintenance and airworthiness of the paraglider or hang gliders being operated.
- Ensure that safety and legal standards applicable to Paraglider or hang glider Maintenance and Engineering are current, available, and implemented.

**DECLARATION BY THE RESPONSIBLE PERSON AIRCRAFT/ PARAGLIDER
OR HANG GLIDER:**

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang glider that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The RPA accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

1.9.7 **Accountant/ Auditing Agency** reports directly to the CEO and shall be responsible for the following:

- Administer returns to SARS.
- To pay special attention to financial contractual obligations between sponsors and the ATO.
- Report irregularities.
- Supply information to SACAA as they request regarding irregularities.

DECLARATION BY THE ACCOUNTING/ AUDITING AGENCY:

South African Hang Gliding and Paragliding (SAHPA) is dedicated to conduct training in the classroom and/or outdoors and in the paraglider or hang glider that will comply with all the requirements of the regulations in South Africa. The standard of the instruction at every level will be monitored according to this Manual, and every effort will be made to maintain the highest standard possible.

The Accounting/Auditing Agency accepts the responsibility and acknowledges the authority of the TPM and commits to performing his/her duties as per this document.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

1.9.8 Facility Chief Flight Instructor (Facility CFI): as a result of SAHPA's broad domestic footprint and widespread training facilities across the country, we deemed it necessary to appoint suitably qualified Chief Flight Instructors, whom will be the person/s responsible for the day to day operation of a facility.

However, because of their over arching managerial responsibility they shall also have direct reporting lines to the other post holders, this would be determined by the prevailing circumstances at the time.

The Facility manager (School CFI) should have the following qualifications and attributes:

- Meet the qualification requirements of a CFI, see 1.9.3
- Have a thorough appreciation and understanding of SAHPA Quality Management System and Safety Management System. See part 11 and 12

The Facility CFI shall share some delegated duties from the ASM and QM, such duties shall primarily be centred on conducting skills tests, checking of documents/forms, including student and instructor training records.

List of Facility CFIs; refer to annexure E and each Facility's Operation Letter

1.10 LIST OF KEY PERSONNEL

1.10.1 List of key personnel by appointment, refer to Annexure C

1.11 LIST OF FLYING INSTRUCTORS

1.11.1 List of flying instructors; refer to each Facility's Operation Letter

1.12 LIST OF PARAGLIDER OR HANG GLIDERS/ SIMULATORS

1.12.1 SAHPA does not make use of any Flight Simulation Training Devices (FSTD)

1.12.1 List of paraglider or hang gliders; refer to each Facility's operation letter

1.13 POLICIES AND RELEVANT PROCEDURES

1.13.1 Approval of Flights:

The following policies and procedures will be in force regarding approval of flights:

- A student shall not fly unless authority is granted in his/her presence for each flight separately in accordance with Part 141 and related CATS and the instructor is competent and qualified to carry out the intended flight.
- The Student Flight logbook is an official document signed/counter-signed by the Facility CFI or appointed Grade A or B instructor (or Grade C for TFI flights).
- Flights that are entered in the solo student logbook must be initialled by the instructor.

1.13.2 Responsibilities of the SAHPA Instructor:

The responsibilities of the Instructor of SAHPA are as follows:

- Confirming that the paraglider or hang gliders performance will enable it to complete the proposed flight safely, including take- off, flight and landing.
- Confirming that the paraglider or hang glider is not loaded beyond its recommended weight limitations as per the paraglider or hang glider specific manufacturer manual.
- Confirming the weather forecast and reports for the proposed operating area and flight duration indicate that the flight may be conducted without infringing any minima's stated in this Manual.
- Taking all reasonable steps to ensure that the paraglider or hang glider/s and any required equipment is serviceable/airworthy.
- Ensuring the pre- flight inspection has been thoroughly and completely carried out.

1.13.3 Flight planning:

Basic paragliding or hang gliding flight planning must be done prior to any flight; the Instructor shall be held responsible for all applicable flight planning. This company only operates under VFR, if compliance with VFR is not possible, then no flight may take place unless permission is obtained from the Director of Civil Aviation.

The following should be taken in account for planning a training flight:

- Fuel/oil calculations for duration of flight (for paraglider or hang gliders equipped with engines)
- Traffic patterns
- Weather minima's
- Authorisation given
- Applicable equipment

1.13.4 Operational control and supervision:

- The Head of Training is the executive responsible for the day-to-day implementation of the ATO's policies and procedures as contained within this manual.

- The Facility CFI shall be responsible for implementing and monitoring the ATO's flight training standard on a day to day basis and shall report any deviations and/or areas of concern to the Regional CFI who will then report to the HoT.
 - The ATO shall at all times during its operation have a senior person as determined by the Facility CFI, present to oversee the operation
- 1.13.5 Accident and incident reporting:
- SAHPA, has established a compliant and comprehensive Safety Management System, refer to part 12 of this manual.
 - All matters relating to safety are adequately addressed within this section including but not limited to; Hazard identification, risk mitigation, accident and incident reporting etc.
 - SAHPA has also resolved to convene organizational safety meetings on an annual basis, where all safety related matters shall be addressed.
- 1.13.6 Flying duty periods:
- Flying duty periods, flight time limitations and rest periods for staff and students will be monitored and controlled by the Facility CFI
 - All instructors and students will have at least one day of rest from flying or ground instructional duties every 10 days.
- 1.13.8 Amendments of controlled publications:
- Amendments of the applicable controlled publications, AIC, AIP and AIP-SUP are the responsibility of the Facility CFI's via the SAHPA channels to the Hot.
- 1.13.9 Feedback regarding all training aspects:
- Feedback regarding all training aspects will be given during the monthly instructor's and student's meetings/briefings by the Facility CFI's
- 1.13.10 Discipline:
- Discipline will be monitored by the HoT, Regional and Head CFI's and Facility CFI's and dealt with as soon as possible; any issues involving discipline, whether it be flying related or not, must be reported to the Facility CFI; details of a policy of continued neglect of discipline by an instructor or student, will be reported to the Regional CFI and thereafter to the HOT, who will decide on further action to be taken.
- 1.13.11 Suspension:
- Student's training will be suspended or terminated in compliance with Part 141 and according to the HR suspension policy and the following aspects will be considered:
- Social aspects.

- Attitude.
- Behaviour within the ATO.
- The student concerned will be issued with a letter warning of a proposed suspension; the student will be allowed 14 days in which to put forward any argument towards mitigation; every opportunity will be given to the student to give his or her point of view for consideration.

1.13.12 Description of facilities:

- Due to the remote locations of some of SAHPA's training sites, it is understood that not all theoretical training shall be confined into a "conventional" classroom. However, SAHPA shall make every practical effort to provide adequate flight and theoretical training facilities.
- For a description of training facilities refer to each facilities operations letter and annexure 13.1 & A



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PART 2

PARAGLIDER AND HANG GLIDER OPERATING PROCEDURES



PART 2: PARAGLIDER AND HANG GLIDER OPERATING PROCEDURES

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2.2	Paraglider and Hang Glider Handling
2.3	Paraglider and Hang Glider Maintenance Procedures
2.4	Paraglider and Hang Glider Loading, Weight and Balance Policy
2.5	Paraglider and Hang Glider Fueling Procedures
2.6	Emergency Procedures



2.1 CERTIFICATION AND OPERATING LIMITATIONS

2.1.1 SAHPA shall endeavour, in the interest of safety and compliance to operate all Paraglider and Hang Gliders as prescribed in their applicable Paraglider and Hang Glider Operating Manuals, TPM, and the latest SA-CAR and/or SA-CATs.

2.1.2 SAHPA shall ensure that Paraglider and Hang Gliders utilized within its operation are at all times considered airworthy as per the applicable SA-CAR and SA-CATs.

2.1.3 SAHPA makes use of the following Paraglider and Hang Glider category within its operation:

- Hang Paraglider and Hang Glider
- Powered Hang Paraglider and Hang Glider
- Paraglider and Hang Glider
- Powered Paraglider and Hang Glider
- Paratrike & Powered Paratrike

2.1.4 Hang Paraglider and Hang Glider Categories

<p>Training Hang Paraglider and Hang Gliders</p>	<p>These must have forgiving flight characteristics and be undemanding to fly. Large, positive feedback must be experienced in both pitch and roll inputs. It is highly recommended that even on forgiving surfaces that the control frame base bar is fitted with large wheels to make up for any mistakes.</p>
<p>Beginner Hang Paraglider and Hang Gliders</p>	<p>These Paraglider and Hang Gliders offer a significant performance increase with an associated increase in handling skills required, but are considered suitable for experienced beginner pilots moving into the intermediate phase. Use factory recommended pilot experience guidelines</p>



Intermediate Hang Paraglider and Hang Gliders	These Paraglider and Hang Gliders offer a significant performance increase with an associated increase in handling skills required, but are considered suitable for experienced beginner pilots moving into the intermediate phase. Use factory recommended pilot experience guidelines
Intermediate High Performance	These are intermediate Paraglider and Hang Gliders, which offer an incremental increase in performance and handling, which are suitable for intermediate pilots moving into the advanced phase. Use factory recommended pilot experience guidelines.
High Performance competition Hang Paraglider and Hang Gliders	These high performance Paraglider and Hang Gliders, which demand a high degree of pilot experience and skill suitable only for pilots. Use factory recommended pilot experience guidelines

2.1.5 Powered Paraglider and Hang Glider and Powered Paratrike

- Wings designed for Powered Paragliding and Paratrikes are certified by the EN 926 system for Paraglider and Hang Gliders as well as new EARP and DGAC systems. The latter systems do not have categories, only Pass or Fail status.
- The intended use or target pilot for these wings will be described in the user manual and/or on the manufacturer's web site.

2.1.6 Paraglider and Hang Glider Categories

Trainee	AFNOR-Standard or LTF 1 or EN A
Beginner	AFNOR-Standard or LTF 1 & Low end 1-2 or EN A & Low end B

Intermediate	AFNOR-Standard or High end LTF 1-2 or High end EN B
Sport	AFNOR Performance, LTF 2 or C
High Performance	Sport, LTF 2-3 or EN D, competition, uncertified
Tandem	Dual place rated by SAHPA accepted approved Certification

- SAHPA utilises the LTF and EN Paraglider and Hang Glider classification list. Paraglider and Hang Gliders flown on a Basic Licence may be further classified into the Beginner or Intermediate Paraglider and Hang Glider categories. For Higher level Paraglider and Hang Gliders, a Sport licence is required.
- Paraglider and Hang Gliders not classified as per the above categories shall be graded by the National Safety committee and approved by the SAHPA Executive Committee. It is each member's responsibility to obtain a class rating, failure to do so will automatically default the Paraglider and Hang Glider into the High Performance/Competition Class rating.
- Pilots may only fly a Paraglider and Hang Glider class with the appropriate class license.
- The HOT and/or the NSTO for paragliding shall have final say on Paraglider and Hang Glider suitability for ab-initio training.

2.2 PARAGLIDER AND HANG GLIDER HANDLING

- 2.2.1 No Paraglider and Hang Glider shall be operated outside its performance limitations, as stated in the Paraglider and Hang Glider Operating/manufacturer Manual. It will also not be operated outside the limitations as stipulated in the applicable SA-CARs and SA-CATs.

2.3 PARAGLIDER AND HANG GLIDER MAINTENANCE PROCEDURES

- 2.3.1 The RPA with the assistance of the Facility CFI are responsible for ensuring training equipment utilised at all SAHPA facilities are maintained. This includes procedures for the regular checking of; documentation; check frequency, which will include annual porosity checks, line length, as well as checking the condition of the canopy.
- 2.3.2 Certification systems and manufacturers require these checks to be performed

once every two years or 600 flights, whichever comes first, to maintain airworthiness. These checks also need to be carried out if the Paraglider and Hang Glider shows any flight characteristics differing from the standard.

- 2.3.3 Notwithstanding the above conditions, it needs be mentioned that it is the responsibility of the Pilot in Command ["PIC"] to ensure that their Paraglider and Hang Glider is well inspected during the pre-flight checks and that any defects are corrected.

2.4 PARAGLIDER AND HANG GLIDER LOADING, WEIGHT AND BALANCE POLICY

- 2.4.1 SAHPA shall ensure that all their Paraglider and Hang Gliders are loaded in the manner prescribed in the applicable regulations and/or Paraglider and Hang Glider manufacturer manual.

2.5 PPG MOTOR FUELING PROCEDURES

- 2.5.1 Fuelling should be done outdoors.
2.5.2 the engine shall be switched off, and the motor adequately secured.
2.5.3 The applicable fuel for all training equipment that utilizes an engine shall be used.

2.6 EMERGENCY PROCEDURES

- 2.6.1 All emergencies shall be reported to the management of SAHPA.
2.6.2 It is the responsibility of all instructors to ensure that a pre and post flight emergency briefing is conducted for all flights.
2.6.3 Demonstration and practicing of emergencies for training purposes shall be executed at a safe height and in accordance with the relevant regulations, Paraglider and Hang Glider manufacturer manual and/or TPM, whichever is more restrictive.
2.6.4 No situation shall be simulated if the Paraglider and Hang Glider, the crew or any other person/s may be at risk of damage or injury.
2.6.5 Failures must be simulated in such a way, that they can be restored to normal conditions, simply and quickly.
2.6.6 Whenever a real or complicating factor is encountered during abnormal/emergency condition training, such training must be discontinued immediately.



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PART 3

Sites



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3.2	Flight Planning Procedures
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3.4	Training Sites

3.1 PERFORMANCE CRITERIA

- 3.1.1 In this section, the term "take-off" could also mean "launch" depending on the context.
- 3.1.2 In this section, the term "maintain height" (PPG) could also mean "soaring" depending on the context. (note paragliders or hang gliders without engines cannot maintain height)
- 3.1.3 SAHPA will authorize training flights only under VFR conditions.
- 3.1.4 The PIC/Instructor authorizing any flight shall ensure that the paraglider or hang glider used will have the necessary performance to successfully meet all applicable performance requirements as stipulated in the SA-CAR and SA-CATS for that particular flight.
- 3.1.5 The PIC/Instructor shall ensure (if applicable) that the paraglider or hang glider shall be able to take off from the intended departure point, climb to the required altitude, maintain the required altitude, maintain the prescribed/planned flight, execute a controlled descent/approach and land safely.
- 3.1.6 Should the PIC/Instructor have doubts regarding an glider's performance for a specific flight – such a flight must be regarded as unauthorized and shall not be flown on that specific Paraglider or Hang Glider.

3.2 FLIGHT PLANNING PROCEDURES

- 3.2.1 As far as practically possible, SAHPA shall base the calculation of the amount of Fuel/Oil required for each flight on SA- CATS, part 91. 07. 12.
- 3.2.2 The amount of useable fuel remaining in-flight must be enough to execute a safe landing at a suitable landing place.

3.3 WEATHER MINIMA

- 3.3.1 SAHPA will only authorize flights under VFR conditions and in conditions as a contained in SA CARS and CATS 91 .
- 3.3.2 Notwithstanding (3.3.1) above, in the case of Hang gliding and Paragliding for conditions of low cloud and the landing site is clearly visible from take off and it would be easy to stay clear of cloud, then VMC shall be assumed.
- 3.3.3 With the exception of "local" flights, flights shall not be commenced unless current meteorological reports and/or forecast are available and indicate that the meteorological conditions along the route, or that part of the route to be flown under VFR, will, at the appropriate time, be such as to render compliance with VFR.
- 3.3.4 Ab-initio training flights are not permitted if the gust variance is more than 10 kph (PG, PPG) and directional changes of more than 45 degrees of optimal wind direction required for the training site. The wind speed may not exceed 28 km per hour for any training. It is suggested that the wind speed maximum should remain 25 km/h and below for ab initio Solo trainees.



3.4 TRAINING SITES

- 3.4.1 Due to the complex nature of our operation SAHPA often uses diverse geographical location for training sites.
- 3.4.2 SAHPA utilizes the training sites as contained in annexure A (Registered Training Sites and other sites detailed in the AIP's) and on their website however is not limited to these .
- 3.4.3 Due diligence shall be applied in the selection of each training site to ensure best practice, safety and civil aviation regulations are always adhered to.
- 3.4.4 All ab-initio training flights may occur at any of the basic rated flying sites documented in the SAHPA site register or on any site that a suitably rated instructor deems suitable based on our Sahpa's site selection criteria.
- 3.4.5 Sites used for training must be suitable for the type of launch technique being used, i.e. suitable gradient and surface for the exercise in progress, free of dangerous obstructions, proximity of obstructions or other potential hazards etc. Refer to annexure 13.1 (Training Site Approval Policy)
- 3.4.6 All instruction at any training site shall be conducted with the instructor positioned on the ground with clear view of take off and landing. Should the landing not be visible, or the take-off not be visible to the instructor an assistant instructor or an extra instructor should be present on that take off and landing. In the case of cross-country requirements in PPG the powered paragliding instructor may accompany the student on the flight for observation only.



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PART 4

STAFF TRAINING



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4.2	Procedures To Determine Competency of Instructional Personnel
4.3	Instructor Ratings and their Privileges and limitations

4.1 PERSON RESPONSIBLE FOR STANDARDS AND COMPETENCY

4.1.1 The Head of Training (HoT) is responsible for the management of all staff training, competency and standards. Staff training, competency and standards will be coordinated and executed by the Facility CFI and/or delegate at each facility who will report to the Regional CFI and then into HoT. SAHPA will make use of suitably qualified full time and/or part time Flight Instructors.

4.2 PROCEDURES TO DETERMINE COMPETENCY OF INSTRUCTIONAL PERSONNEL

4.2.1 SAHPA, may employ persons with a valid South African National Pilots license (HG, PHG, PG, PPG or PPT) with a valid National Flight Instructor rating and an appropriate medical certificate as prescribed in the SA-CAR and SA-CATs. The Chief Flying Instructor and/or delegate are responsible for maintaining an up-to-date record of the validity of staff and student licenses, ratings and certificates. He is to ensure that personnel are not permitted to fly if relevant qualifications are not valid.

4.2.2 It does however remain the responsibility of each instructor to ensure that all licenses, ratings and certificates necessary for the conduct of his/her duties always remain valid .

4.2.3 All newly appointed instructors shall give the Facility CFI and/or delegate a demonstration of their respective abilities.

4.2.4 The Facility CFI and/or delegate shall complete a company "Instructor Training Record" form, which will be retained in the instructors' file.

4.2.5 Should the Facility CFI determine that the standards and/or competency of a newly appointed instructor below standard, he/she shall report it to the Head of Training and a meeting will be held to identify solutions to rectify the problem.

4.2.6 All SAHPA instructors may be subject to a combination of ad-hoc and/or scheduled proficiency checks which would be conducted by the Facility CFI or his/her delegate. Remedial training shall be given to such an instructor should there be any deviations noted from the acceptable competency or standards during such checks.

4.2.7 All SAHPA instructors are required to attend at least one Instructors Training Seminar presented in their region by the applicable authority, regardless of the grade of instructor rating held during a two year period.

4.3 INSTRUCTOR RATINGS BY TYPE AND THEIR PRIVILEGES/ LIMITATIONS

4.3.1 SAHPA recognizes the following National Flight Instructor ratings and their privileges as part of their operation:

Instructor rating	Category/ Classes	Privileges and Limitations
National Assistant Flight Instructor ["NAFI"]	<ul style="list-style-type: none"> • Hang glider • Paraglider • PPG 	<ul style="list-style-type: none"> • May conduct training of students under direct supervision of a Grade B or Grade A rated instructor that shall remain on the ground, at the same site at the same time, and in radio contact. • The instructor shall take responsibility for the actions of a trainee instructor during all Training sessions. • May give theory lectures and ground control instruction unsupervised after having been supervised for at least 2 lectures and 2 days of ground control instruction. • A trainee instructor shall hold a current SAHPA membership and C licence (HG) Sports Licence (PG) or Basic licence (PPG, PPT). If his/her association with the school is terminated, the rating shall fall away.
National Flight Instructor, Grade C (Tandem rating)	<ul style="list-style-type: none"> • Paraglider • PPG 	<ul style="list-style-type: none"> • Tandem Flight Instructors may take members of the public for an instructional flight experience for remuneration. • Tandem Flight Instructors may take students on instructional flights. • Tandem Flight Instructors may not be a facility CFI.
National Flight Instructor, Grade C	<ul style="list-style-type: none"> • Hang Glider 	<ul style="list-style-type: none"> • May serve on the SAHPA Hang Gliding Committee • May only instruct ab-initio hang gliding training courses and supervise and guide assistant instructors. • May conduct any training exercise, provided the trainee instructor has been trained and signed off by the Facility CFI of the school. <ul style="list-style-type: none"> • May not sign off license renewals • May not act as a Facility CFI of a hang gliding school.
National Flight Instructor, Grade B	<ul style="list-style-type: none"> • Hang glider • Paraglider 	<ul style="list-style-type: none"> • All privileges of C grade Instructor (HG only) • May act as a Facility CFI in a school



		<ul style="list-style-type: none"> • May give final sign-off for endorsements, Licenses and ratings as per ratings held
National Flight Instructor, Grade A	<ul style="list-style-type: none"> • Hang glider • Paraglider 	<ul style="list-style-type: none"> • All privileges of B grade instructors • Allowed to present National instructors seminars and instructor training courses • Able to qualify Grade B or Grade C instructors



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PART 5

TRAINING PLAN

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5.1 AIM

5.1.1 The aim or objective of the course is to train students to a level of competency required for each of the licenses or ratings that are required by the SA-CAA and RAASA. In addition develop pilots who are responsible airmen and can apply their skills and knowledge to enhance safety throughout the entire aviation industry. The aforementioned objectives and/or qualities will be built into our courses, to ensure we produce a well rounded, highly skilled and safety conscious pilot.

5.1.2 All our students shall be expected to perform at the best of their abilities at all times and not just during a flight revalidation or tests.

5.2 PRE ENTRY REQUIREMENTS

The following are the minimum requirements a student must conform to before he/she may be permitted to commence training for this course (in accordance with SA CAR 62) where they shall be permitted to fly solo or PIC: Should they wish to fly with a TFI there is no age limit and may be issued with a temporary learners certificate but are not permitted to fly solo or be PIC

NATIONAL PILOT LEARNERS CERTIFICATE (NPLC)

Minimum age	14 years
Education Requirements	N/A
Medical Requirements	Medical Fitness Certificate
Linguistic Requirements	Must be able to speak, read and write English fluently.

National PILOT LICENSE (NPL)

Minimum age	16 years
Education Requirements	N/A
Medical Requirements	Medical Fitness Certificate
Linguistic Requirements	Must be able to speak, read and write English fluently.

CATEGORY, CLASS, TYPE RATING AND/ OR SPECIAL ADD ON RATING

Minimum age	14 years (NPLC) and 16 years (NPL)
Education Requirements	Valid NPLC or higher license
Medical Requirements	Medical Fitness Certificate
Linguistic Requirements	Must be able to speak, read and write English fluently.

NATIONAL ASSISTANT FLIGHT INSTRUCTOR RATING (NAFI)

Minimum age	18 years
Education Requirements	Valid NPL, in the case of Paragliding, hold a valid Sport class rating



Medical Requirements	Medical Fitness Certificate
Linguistic Requirements	Must be able to speak, read and write English fluently.
NATIONAL FLIGHT INSTRUCTOR	
Minimum age	20 years
Education Requirements	Valid NPL or higher license
Medical Requirements	Medical Fitness Certificate
Linguistic Requirements	Must be able to speak, read and write English fluently.

5.3 NATIONAL PILOT LEARNERS CERTIFICATE

- 5.3.1 An applicant for the issuing of a national pilot learner’s certificate shall:
- a) be not less than 14 years of age
 - b) complete a Student learner's certificate application
 - a) Self declared Medical Fitness and Indemnity Certificate
 - b) Pay the prescribed temporary membership fee, (unless the applicant is already a full member of SAHPA)
 - c) Provide a copy of their ID/passport prior to any logging any flight training
 - d) This permits the registered student to under-go training in hang gliding or paragliding under direct supervision of a SAHPA licensed Instructor. It also validates the insurance covers from the first day of training
 - e) Registration for students must be received by SAHPA not later than 3 days after commencing the training course.
 - f) To obtain the Learner certificate, the pilot along with their instructor shall complete and submit following to the SAHPA Office:
 - Student application form
 - Medical as per SA-CATS
 - Student fees
 - g) An applicant for a flight experience flight (where they shall not be PIC or fly solo) shall complete and sign the required documentation and shall be considered a student while under instruction from TFI (grade C instructor) in the case of paragliding, PPG, PPC and PPT; and tandem rating with instructor or assistant instructor in the case of hang gliding,

5.3 NATIONAL PILOT LICENSE

- 5.4.1 An applicant for the issuing of a national pilot license shall:
- (a) Be not less than 16 years of age
 - (b) In the category hang-glider or paraglider, a valid medical fitness certificate;
 - (c) Hold a valid national pilot learner’s certificate, or a valid pilot license issued in terms of Part 61; and
 - (d) Qualify for the issue of at least one of the category ratings, referred to in regulation 62.01.5.

5.4 TRAINING CURRICULA – HANG GLIDERS

5.5.1 Novice license shall:

5.5.1.1 Successfully complete the applicable requirements on the Training Proficiency Card, which include:

- (a) Pass the Novice License written test.
- (b) The pilot shall have undergone at least four days of training with a SAHPA rated Instructor.
- (c) The pilot shall have logged at least 5 solo flights of at least 60 seconds duration each.
- (d) Demonstrates the ability to accurately assess conditions which allow for safe launch (weather, field conditions, wing weight range and rating, etc.)
- (e) Be capable of demonstrating the following to a satisfactory standard:
 - Thorough pre-flight check
 - Take off in wind of less than 28kph
 - Ability to maintain correct flying speed
 - Partial stall and recovery
 - Controlled 180 degree turns in both directions with pre-determined entry and exit without marked slip or slide
 - 5 out of 5 landings in a designated area
 - Good take-off technique
- (f) Knowledge of back-up reserve deployment
- (g) Complete all applicable sections of the SAHPA Training Proficiency Card.
 - Rigging and de-rigging
 - Pre-flight check
 - Ground handling
 - Harness hang check
 - Position, grip and attitude for take off
 - Short hops – take-offs and landings (assisted)
 - Ground skimming - extended straight-line flights
 - Incipient stall correction - importance of airspeed
 - Gentle turns – use of legs
 - Higher nursery slope flights with turns – unassisted
 - 90degree turns – response to wing-ups
 - At least five high flights from over 300 ft (100 m) or of more than 60 seconds duration. The flight must include proper co-ordinated turns and a controlled landing.
 - Where tandem flying is used for training, the pilot will be taught to launch solo in similar manner as described above.
 - Where winch or tow launching is used for training, the pilot will have gained a hill launch endorsement before any mountain or hill launching sites are flown before the A-License is applied for.
 - It is recommended that ground to air communication must be provided for at least the first three high solo flights and for the first ridge soaring flight.

5.4.2 Training by Tandem flying

5.4.2.1 In addition to the Novice requirements above...

5.4.2.2 Students, who are trained by tandem instruction, should complete at least 10 flights of a minimum of 2 minutes each as Pilot 2 (P2) with the instructor (PIC) before flying solo.

5.4.2.3 The student will complete a minimum of 5 solo flights of at least 2 minutes duration each and 100m ground clearance.

5.4.2.4 Recommended Operating Limitations for Novice License Pilots:

5.4.2.5 It is highly recommended that all flights (after obtaining the Novice/Basic license) be made under the direct supervision of a SAHPA rated Instructor or senior pilot, but the Novice/Basic license pilot may fly unsupervised at Novice rated sites.

5.4.2.6 Should launch only on slopes of 2:1 to 7:1, where wind is no more than 25 degrees of being straight up the slope.

5.4.2.7 Novice licenses can be issued with a hill, tow, powered hang gliding or aero tow endorsement. This is to facilitate training by means of all alternative launch methods without having to make use of hill launching. These endorsements are only applicable to Novice Licenses. All Novice Pilots need to be fully endorsed for hill launching when applying for the A-License.

5.4.2.8 To obtain the Novice license, the pilot will submit the following to the SAHPA Office:

- Marked and passed Novice License examination
- Membership Application form, duly completed and signed by the instructor and the pilot
- Completed as appropriate and signed Training Proficiency Card
- Copy of logbook
- SAHPA Membership fees

5.5.4 A – License shall:

5.5.4.1 Successfully complete the applicable requirements on the Training Proficiency Card, which include:

- a) The pilot having logged at least 25 solo flights of at least 60 seconds duration each or at least 15 flights if the accumulated airtime is more than 5 hours.
- b) Pass the A-License written test.
- c) Capability of demonstrating the following to a satisfactory standard:
 - Thorough pre-flight check
 - Take off in more than 24kph wind
 - Ability to maintain correct flying speed
 - Partial stall and recovery

- Controlled 360deg turns in both directions with pre-determined entry and exit without marked slip or slide.
- 4 out of 5 controlled landings within a 50m-diameter circle.
- Flight in conditions, which require quick control responses for safe flight.
- Good take-off technique
- Good general flying with proper mental attitude.
- Knowledge of back up parachute deployment.
- Must have hill launch endorsement.

5.5.4.2 To obtain the A-License, the pilot must submit the following to the SAHPA Office:

- A-License Checklist, signed by the Club Safety Officer or by an Instructor
- Marked and passed A-License exam
- Copy of logbook
- License Application fee

5.5.5 B- License shall:

5.5.5.1 Successfully complete the applicable requirements on the Training Proficiency Card, which include:

- a) The pilot shall have logged at least 75 solo flights of at least 60 seconds duration each, or 50 flights provided the total airtime exceeds 25 hours.
- b) The applicant must have held the A-license for at least 3 months.
- c) The applicant shall have flown at least three different sites, one of which shall be inland.
- d) No reported accident involving pilot error on the part of the applicant within the 3 month period prior to the application.
- e) Pass the B-License written test.
- f) Application of discretion in assessment of flying conditions.
- g) Capability of demonstrating the following to a satisfactory standard:
 - Thorough pre-flight
 - Good general flying with proper mental attitude
 - Wire launch take-off
 - 5 out of 5 landings within a 50m diameter circle
 - Controlled landings feet first without the control frame touching the ground.
 - Perfect take-off technique. No evidence of a stall may be shown
 - Nil wind take off
 - Take off in 30kph or more wind
 - Must have completed at least one cross country flight of at least 40km.
 - The applicant will have flown at least four different sites of which at least 2 shall be inland.
 - Full stall and recovery.
 - Capability of demonstrating the following to a satisfactory standard:
 - Aero Medical knowledge, (appropriate to license)
 - Air space regulations, (appropriate to license)
 - Correct radio procedure, (appropriate to license)
 - Appropriate navigation

5.5.5.2 To obtain the B-License, the pilot must submit the following to the SAHPA Office:

- B-License Checklist, signed by the Club Safety Officer or an instructor.
- Marked and passed B-License exam
- Copy of last 2 pages of logbook
- License Application fee

5.5.6 C-License shall:

5.5.6.1 Successfully complete the applicable requirements on the Training Proficiency Card, which include:

- a) The pilot shall have logged at least 150 solo flights of over 60 seconds' duration OR 100 flights of over 60 seconds duration if the total accumulated airtime exceeds 50 hours.
- b) At least 10 flights shall have been in excess of 30 minutes duration each, and shall include at least one flight over 1 hour duration.
- c) No reported accident involving pilot error on the part of the applicant within the 6 month period prior to the application.
- d) Will have held a B-License for at least one 6 months prior to applying for the C-License.
- e) Pass the C-License written test.
- f) The applicant will have flown at least six different sites of which at least 3 shall be inland. At least one site shall be coastal site.
- g) At least two logged cross-country flights of at least 100km in total, out of ridge lift. Each flight must be no less than 10km.
- h) Capability of demonstrating the following to a satisfactory standard:
 - Aero Medical knowledge, (appropriate to license)
 - Air space regulations, (appropriate to license)
 - Correct radio procedure, (appropriate to license)
 - Appropriate navigation

5.5.6.2 To obtain the C-License, the pilot must submit the following to the SAHPA Office:

- C-License Checklist, signed by the Club Safety Officer or Instructor, after agreement by the Club Safety Officer
- Marked and passed C-License exam
- Copy of last 2 pages of logbook
- License Application fee

Notes: All pilots holding a hang glider license are able to utilise any launch method provided they have the required endorsement to do so in their log book and are entitled to make use of the privileges of that endorsement from the moment the instructor signs of the endorsement in the logbook.

5.6 HANG GLIDER LICENSE RATINGS

5.6.1 Tandem Rating

- 5.6.1.1 Pilots wishing to apply for their Tandem rating should check that they have all the requirements by filling out the Tandem rating application check list. All exercises must be signed off by a Tandem rated A or B Hang gliding instructor. Tandem pilots wanting to convert to alternative methods of launching need a sign-off from an appropriately rated HG Tandem instructor.
- 5.6.1.2 Applicant shall successfully complete the applicable requirements on the Training Proficiency Card, which include:
- a) The Applicant must have logged 300 solo flights of minimum 60 seconds duration each, and
 - b) Have a minimum of 150 hours of total solo airtime
 - c) Be in possession of a C-License
 - d) Provide a Medical Fitness certificate; (form Appendix R62.22)
 - e) Have read the SAHPA Tandem recommendations
 - f) Must have done at least 10 tandem flights, of which the first three must be with a SAHPA tandem rated instructor, 3 of which must be as passenger and 5 as pilot in command, total of at least 3 hours flight time. All 10 flights must be supervised by a Tandem rated grade B or A instructor.
 - g) Must have passed the theory exam for tandem hang gliding.
 - h) Must apply to the SAHPA hang gliding Committee for final approval
 - i) For all tandem flights conducted above 450ft AGL tandem reserves are compulsory
- 5.6.1.3 For the Tandem rating to be considered by the SAHPA Hang Gliding Committee, the pilot must submit the following to the SAHPA Office:
- Tandem Rating Application Checklist, signed by the instructor,
 - A Class 4 Medical Fitness Certificate
 - Copy of last 2 pages of logbook
 - License Application fee
-

5.7 HANG GLIDER ENDORSEMENTS

5.7.1 General Tow Launch endorsement

- 5.7.1.1 This endorsement includes all towing systems (boat, winch, auto static etc) except for aero towing.
- 5.7.1.2 Applicant shall successfully complete the applicable requirements on the Training Proficiency Card, which include:
- Minimum of 5 Tow flights to at least 300ft AGL supervised by tow rated instructor.
 - At least 1 tow flight in moderate thermic conditions
 - Satisfactorily demonstrated the following:
 - Inspection and lay out of towing system used.
 - All signals used for communication between pilot, launch marshal and tow vehicle.
 - Accurate description of general towing procedures.



- Accurate description of most likely emergency situations and their remedies.
- Must understand the differences between foot launch and dolly/platform launch techniques.

5.7.1.3 To obtain the hang gliding tow launch endorsement, the pilot must submit the following to the SAHPA Office for recording on members file:

- Copy of log book page with signed endorsement from Instructor.
- Completed and signed checklist for hang gliding tow launch endorsement.

5.7.2 Aero tow launch endorsement

5.7.2.3 Applicant shall successfully complete the applicable requirements on the Training Proficiency Card, which include:

- A minimum of 8 Aero tow flights to at least 1000ft AGL of which 4 must be supervised by an Aero tow rated Instructor and 4 must be in moderate thermic conditions.
- It is recommended that Novice and A-licensed pilots do at least one tandem aero tow for familiarization purposes. (All flights must be supervised by an aero tow instructor)
- In case of an applicant being trained solely on aero tow for Novice rating then:
 - Minimum of 10 of Aero Tows as P2 with tandem Aero tow Instructor
 - Minimum of 10 solo aero tows under direct supervision of tandem Aero tow instructor.

5.7.2.4 Satisfactorily demonstrate the following:

- Inspection and layout of towing system used
- All signals for launch marshal, aero tow pilot and tug pilot
- Accurate description of general tow procedures
- Accurate description of most likely emergency situations and their remedies
- Written and passed SAHPA aero tow endorsement theory exam.

5.7.2.5 To obtain the hang gliding aero tow launch endorsement, the pilot must submit the following to the SAHPA Office

- Copy of log book page with signed endorsement from Instructor.
- Aero tow theory endorsement exam

5.7.3 Hill Launch endorsement

5.7.3.1 Applicant shall successfully complete the applicable requirements on the Training Proficiency Card, which include:

- The pilot must have undergone at least two full days of foot launch training with a HG instructor which must include at least 10 logged training hill foot launched flights which must include ground skimming.

5.7.3.2 Pilot must show competency in hill launching techniques with experience in:

- gradual slope
- steep slope launches

- Understand the principles of wire assisted launching as both pilot and wireman.

5.7.3.3 Satisfactorily demonstrate the following:

- Correct and safe take off sequence.
- Appreciation of safe launch area
- Appreciation of safe launch conditions.

5.7.3.4 Pilot must be well versed on the dangers of flying close to big mountains. To obtain the hang-gliding hill launch endorsement, the pilot must submit the following to the SAHPA Office:

- Copy of log book page with signed endorsement from Instructor.
- Completed and signed hill launch endorsement application checklist.

5.7.4 Powered launching endorsement

5.7.4.1 Applicant shall successfully complete the applicable requirements on the Training Proficiency Card, which include:

- Minimum of 10 flights of at least 1 min each with a minimum total of 3 hours airtime...
- At least one Cross country flight with an out landing and re-launch.
- Pass the Novice, A-license and powered hang-gliding theory exam
- Thorough pre-flight check.
- Ability to maintain constant climb under power.
- Ability to maintain straight and level flight under power.
- Controlled 360 degree turns in both directions with pre-determined entry and exit without marked slip or slide while under power.
- 4 out of 5 controlled landings within a 50m diameter circle.
- Flight in conditions which require quick control responses for safe flight.
- Knowledge of back-up parachute deployment pertaining to PHG.

5.7.5 Use of wheels

5.7.5.1 To improve safety under certain circumstances the use of wheels are highly recommended. The main criteria is that one may only use certified hang gliding wings that upon removal of said wheels can demonstrate safe foot launching and flying of the hang glider.

Notes:

- The pilot may partake in the privileges of endorsements once endorsed into the pilots log book on condition that the checklist and other required documents are posted to SAHPA within 7 days of the awarding of the endorsement.
- It is the responsibility of the endorsing licensing officer to post this checklist to SAHPA with the appropriate fee, if applicable
- It is strongly advised that pilots keep a copy of this check list for their record.

5.8 TRAINING CURRICULA – PARAGLIDERS

5.8.1 Basic License shall:

5.8.1.1 Successfully complete the requirements on the Training Proficiency Card, which includes:

- a) Must have received a theoretical and practical instruction training course in accordance with the SAHPA Training Manual.
- b) Achieve an 85% pass of the Basic License written test.
- c) Submit a copy of the logbook signed by a rated Grade A or Grade B instructor to confirm that the applicant completed all requirements.
- d) Demonstrates the ability to accurately assess conditions which allow for safe launch (weather, field conditions, wing weight range and rating, etc.)
- e) Completed a minimum of 35 flights, 10 flights on PG if already qualified as a PPG pilot, of minimum 60 seconds duration each, of which 20 solo flights must be from over 100m height difference, and a total time of at least 4 hours solo flight time logged, and at least one solo soaring flight of a minimum 20 minutes.
- f) At least 2 solo flights shall be in light thermic conditions and will be at least 10 minutes duration each and each will include some thermalling turns (consecutive 360s in rising air).
- g) A maximum of 5 flights as passenger on an instructor piloted tandem glider can be included in the initial 35 flights. These flights must be at least 5 minutes duration.
- h) All flights shall be signed in the logbook by the Instructor on a daily basis.

5.8.1.2 Practical requirements: A Student shall:

- Have flown from at least 2 different mountain sites.
- Have demonstrated the parachute-landing roll technique.
- Must have knowledge of reserve parachute deployment.
- Pass the practical flight test consisting of:
 - Demonstration of good layout and pre-flight checks, including the 5-point check
 - Demonstration of good unassisted forward and reverse pull-ups/inflation's and ground control
 - Demonstration of the ability to hold a canopy inflated directly overhead in sufficient wind
 - Good unassisted forward take-offs in wind strengths of 0 - 10 km/h (pilot must be able to run in a straight line while controlling the canopy, without assistance) (at least 10 flights)
 - Demonstration of good forward and reverse pull-up and take-off technique in at least 10 of each flight. Pilots will use the cross-brake method (or similar) in all cases, i.e. no swapping and/or letting go of toggles in hands allowed.
 - flights demonstrating S-turns or figure 8's
 - 90° and 180° turns, left and right (separate flights permitted)
 - 360° turns, left and right (separate flights permitted)
 - Demonstration of good landing approach set-up and technique
 - Demonstration of landing accuracy by landing 3 out of 3 attempts in a 50m diameter circle
 - Must have experience of flying with several pilots sharing a ridge.

- Must be able to demonstrate the Big Ears manoeuvre, with and without speedbar, and know the dangers.
- Must be able to demonstrate the speed-bar system and know the dangers.
- Demonstration of flight and landing with back risers and know the dangers.

Note:

- No student training flights or training (ground handling) with a paraglider should be conducted in winds of greater than 24 km/h.
 - No student training flights or training (ground handling) should be conducted if the gust variance is greater than 10 km/h
-

5.8.2 Winch-trained pilot endorsement

5.8.2.1 Successfully complete the requirements on the Training Proficiency Card, which includes:

- a) The pilot will have flown at least 5 solo flights from a mountain site of at least 100m height difference over a minimum of 2 days, which will include a ridge soaring flight in company of several other pilots, in addition to the winch training.
- b) The pilot will have been thoroughly briefed on the dangers of mountain flying and the accompanying micrometeorology.
- c) The pilot will demonstrate good unassisted take-off technique on the mountain launches
- d) Note: Definition of a winch-trained pilot: Pilot who has done more than 50% of the required flights of their Basic License training syllabus from a winch with a registered school.

5.8.2.2 To obtain the Basic license, the pilot will submit the following to the SAHPA Office:

- Marked and passed Basic License examination
 - Membership Application form duly completed and signed by a Grade B or Grade A Instructor and the pilot
 - Medical as per SA-CATS
 - Completed and signed Training Proficiency Card
 - Completed and signed Practical Requirements Card
 - Completed and signed Basic License Theory Checklist
 - Copy of logbook signed by an A or B Grade Instructor
 - Certified Copy of ID
 - 2x colour id photograph
 - Membership fees
-

5.8.3 Sport License shall:

5.8.3.1 Successfully complete the requirements on the Training Proficiency Card, which includes:

- a) Pass the Sport License written test.

- b) Submit a completed Sport License Application Checklist which must show consent from the Safety Officer that the pilot has complied with all the requirements and is competent to fly from all sites.
 - c) Must have held the Basic License for a minimum of 12 months.
 - d) Must have a minimum of 50 hours airtime.
 - e) Must have completed a total of 200 solo flights, of which 50 flights must be thermic flights. Must have flown 1 flight of no less of 20km.
 - f) Demonstrates the ability to accurately assess conditions which allow for safe launch (weather, field conditions, wing weight range and rating, etc.)
 - g) Must have thorough theoretical knowledge of the following:
 - The performance limitations of the paraglider model in use
 - Cliff launches
 - Steep turns/spirals
 - Stalls
 - Spins
- 5.8.3.2 Must show thorough knowledge and be able to demonstrate:
- Good layout and pre-flight checks
 - Very good unassisted ground control in all conditions
 - Good reverse pull-up technique and take-off in soar-able winds
 - Top landing
 - Thermalling achieving a 500m height gain.
 - Landing accuracy by landing 3 out of 3 attempts in a 10m diameter circle
 - Must have flown at least 6 different sites
 - Supply a certificate from a SAHPA recognised establishment, that the pilot has successfully completed a Safety Course or SIV Course or completed the manoeuvres documented on the sports license application form under supervision of recognised school, detailing flights and dates with sign off's.
-
- 5.8.4 Safety or SIV Course:
- 5.8.4.1 The course is not a requirement but is aimed at the pilot progressing to the Sport License, or to improve flying skills.
 - 5.8.4.2 The course containing safety guidelines and parameters must be registered with SAHPA or may be a recognized course from an internationally accepted course provider accepted by SAHPA.
 - 5.8.4.3 Entry level for a Safety Course is a minimum of 80 flights.
 - 5.8.4.4 The minimum course duration must be at least 2 days with a minimum of 3 flights.
 - 5.8.4.5 Tasks must include the following:
 - Pendulum control
 - Point of stall
 - Asymmetric collapses up to at least 50%, at trim speed and accelerated
 - Frontal collapse at trim speed and accelerated speed
 - Approach to spin
 - B-riser stall

- Roll control
- Wing-overs
- Big ears landing technique

5.8.4.6 Theory must include the following:

- Aerodynamics/glider behaviour
- Flying techniques (manoeuvre set-up, entry, control and recovery)
- Dangers and appropriate glider recovery techniques
- Emergency procedures (abortive techniques and reserve chute deployment)
- Knowledge of the dangers of a Butterfly stroke landing (as emergency procedure)
- Knowledge and understanding of airspace.

5.8.4.7 To obtain the Sport License, the pilot must submit the following to the SAHPA Office:

- Sport License Checklist is to be signed off by a Grade A or B Instructor.
- Marked and passed the Sport License exam
- Safety Course certificate or sign off of manoeuvres
- License Application fee

5.9 PARAGLIDER TANDEM RATING

5.9.1 Tandem Rating shall:

5.9.1.1 As a minimum have the following:

- a) Minimum of 300 logged and recorded solo flights
- b) 150 hours total logged solo airtime
- c) Be in possession of a valid Sport License for a year.
- d) No incidents or accidents displaying negligence or incompetence
- e) Successfully complete the requirements on the Training Proficiency Card, which includes:
 - Must pass the SAHPA Tandem examination.
 - At least 40 flights to be flown in tandem paraglider
 - The first 10 flights to be flown with a tandem rated Grade B Instructor with an accurate logbook with the first 3 with the applicant as passenger and remainder of these flights as pilot in command.
 - Ten Flights as Pilot in Command (PIC) with Tandem pilots,
 - Issue of ATF (Authority to Fly) must be done before flying with non-tandem rated pilots. ATF may only be issued once theoretical exam is completed and passed, and medical certificate is presented.
 - 20 Flights as PIC with at least basic rated PG pilots (Current), (ATF must be issued before commencing with this 20 flight section).
 - Must have flown with at least 2 different weighted tandem-rated pilots as passengers with a weight difference of at least 20kg, to experience the influence of different passenger weights on a tandem.
 - Must log a minimum of 3 hours as pilot in command.

- Winch trained Tandem Pilots are to complete at least 5 flights, one of which as a passenger with a Tandem Rated Instructor from a mountain site with at least 200m height difference.
- The initiating training instructor to do the final sign off.

5.9.1.2 Successfully completed the practical training course below and have done so within one calendar year from commencement:

- a) Demonstrate unassisted forward launch in less than 5kph wind.
- b) Demonstrate forward launch in more than 15kph wind (may be assisted).
- c) Reverse launch in minimum 12kph wind.
- d) Demonstrate pendulum control
- e) Demonstrate Big Ears
- f) Two 30min flights in thermic conditions flown at a site 11am and 3pm.
- g) Fly from at least three different sites
- h) Minimum five mountain launches, at least two of which with instructor as passenger
- i) Fly as close as possible to min and max weight range of wing by taking different weight passengers (to experience different wing loadings).
- j) Log 3 hours as pilot in command
- k) Accuracy: three out of three in 15m radius circle.
- l) Nil wind landing.
- m) Strong (20kph+) wind, unassisted landing with pilot and passenger staying on their feet while dropping the wing.

5.9.1.3 For the rating to be considered by the SAHPA Committee, the pilot must submit the following to the SAHPA Office:

- Tandem Rating Application Checklist, signed by the initiating Instructor.
- Must have passed a Level 1 First Aid course.
- Marked written examination
- Copy of logbook
- License Application fee
- Submit a Class 4 Medical declaration signed off by a medical practitioner.

Notes:

- Before Starting with a tandem Pilots License, the pilot must register with SAHPA as a Trainee Tandem Pilot. Upon registration, the trainee Tandem Pilot will receive an info pack that will include all the documentation required for the process.
- Only certified tandem rated glider, tandem rated reserve and equipment will be used for all tandem training flights (reserve compulsory for all flights).

5.10 POWERED PARAGLIDER AND PARATRIKE

5.10.1 Basic License shall:

5.10.1.2 Successfully complete the requirements on the Training Proficiency Card, wherein the Ground requirements shall include:

- a) Proper layout and pre-flight check of canopy, hang-point and motor (including harness).
- b) Understanding of proper canopy packing, storage and care.

- c) Site analysis including wind direction and velocity, terrain shape, obstructions and engine-out planning.
- d) Demonstrates the ability to accurately assess conditions which allow for safe launch (weather, field conditions, wing weight range and rating, etc.)
- e) Understands basic operation of the motor including at least two ways to shut it off and what to look for on pre-flight run-up.
- f) Demonstrate a method of establishing proper connection to the wing with cleared lines and risers prior to inflation.
- g) Has completed a minimum of 35 logged flights, 10 flights on PPG if pilot is already a qualified PG pilot.
- h) Completed a minimum of 4 hours airtime on a PPG, 3 hrs if it is a conversion course
- i) Completes 3 out of the last 4 forward inflations with visual canopy check each time followed by launch
- j) Completes 3 out of the last 4 controlled reverse inflations with proper surge dampening followed by launch
- k) Two minutes of controlled kiting overhead in a steady wind.
- l) Five safe, smooth power-on landings within 5 meters of a target and into the wind.
- m) Five safe, smooth power-off landings within 7 meters of a target and into the wind.
- n) Co-ordinated 90 deg, 180 deg and 360 deg turns

5.10.1.3 To obtain the Basic license, the pilot will submit the following to the SAHPA Office:

- Pass both PG and PPG written exams.
- Membership Application form duly completed and signed by a Grade B or Grade A Instructor and the pilot
- Medical as per MOP/CATS
- Restricted radiotelephony operator's certificate.
- Completed and signed Training Proficiency Card
- Completed and signed Practical Requirements Card
- Completed and signed Basic License Theory Checklist
- Copy of logbook signed by an A or B Grade Instructor
- Certified Copy of ID
- 2x colour id photograph
- Membership fees

Note:

- It is recommended that once a pilot has successfully completed their Basic License, that they join a club in order to improve on their existing skills, knowledge and experience.

5.11 POWERED PARAGLIDER RATING

5.11.1 Tandem Rating shall:

5.11.2 Successfully complete the requirements on the Training Proficiency Card, which includes:

- a) The pilot must hold a valid Powered Paragliding License
- b) 150 PPG flights logged after PPG licensing.

- c) 10 flights minimum to be flown with a tandem rated B grade Instructor or higher with at least one as the passenger.
- d) Demonstrates the ability to accurately assess conditions which allow for safe launch (weather, field conditions, wing weight range and rating, etc.)
- e) Completed 2 flights of over 30 minutes.
- f) Flown at an inland sites above 1200m ASL and at sea level
- g) Flown as pilot in command with two Tandem rated pilots of differing weights to experience and understands the influence/effect of different wing loadings.
- h) Complete maneuvers as documented in the SAHPA Manual of Procedures
- i) Complete Tandem Tests
- j) Equipment:
 - A Tandem Certified wing must be used.
 - A Tandem Rated Reserve Parachute MUST be carried on all tandem PPG flights over 500 ft AGL

5.12 POWERED PARAGLIDER AND PARATRIKE CONVERSION

5.12.1 Requirements:

- a) Demonstrates the ability to accurately assess conditions which allow for safe trike launch (weather, field conditions, wing weight range and rating, etc.)
- b) Demonstrates the ability to accurately pre-flight the trike and canopy prior to flight (motor/trike connection, canopy layout, avoiding wheel/line entanglements, etc.)
- c) Demonstrates the ability to center the canopy overhead using primarily break toggle input and minimal nose wheel steering.
- d) Demonstrates appropriate use of power to maintain canopy pressurization during launch.
- e) Demonstrates 5 successful no-wind launches.
- f) Demonstrates an understanding and control of higher approach speed due to greater wing loading.
- g) Demonstrates properly timed flare on landing.
- h) Demonstrates 5 successful landings with proper canopy control and deflation.
- i) Tandem flights are only allowed after a tandem rating has been obtained as covered in the Tandem License.

5.12.2 Equipment:

- Paramotor engine with protective cage including harness.
- Paraglider wing approved in terms of SAHPA regulations.
- Boots with ankle support recommended but not compulsory.
- Reserve parachute certified for pilot weight recommended but not compulsory.
- Air band radio and headset. Required as per aviation regulations i.e. for any flight or part thereof that exceeds 1500ft AGL, for all flights that approach within 10 nautical miles of an active airfield or within 10 nautical miles of any controlled airspace, for all flights that follow along or intersect with any known traffic route, including the entire coastline of SA.
- Some means of monitoring altitude and rate of climb/descent reasonably accurately, e.g. altimeter, vario, GPS receiver with GPS altitude indication.

5.13 NATIONAL FLIGHT INSTRUCTOR RATING

5.13.1 Overview:

5.13.2 The aim of the course must be to train a candidate national flight instructor to obtain a high level of theoretical knowledge, practical flying skills proficiency, safety, airmanship and the ability to convey and teach these to a learner pilot as required by SACAA and the SAHPA standards and as indicated in this TPM. This requires that the candidate should be able to safely and professionally act as flight instructor of any national aircraft for which he or she holds a valid class or type rating, and knowledgeably and confidently stand in front of a class of learner pilots as lecturer on the required theoretical subjects.

5.13.3 Main aspects of training course:

- a) Theoretical tuition;
- b) Practical flying tuition; and
- c) Proper attitude toward instruction

5.13.4 Theoretical tuition:

- a) The dedicated aspects of theoretical tuition shall be applicable for national flight instructor rating (Hang gliders, Paragliders and Paratrike).
- b) For a national assistant flight instructor rating. The theoretical phase must cover tuition to teach the candidate instructor to confidently lecture on all subjects required.

5.13.5 Practical tuition:

- a) Candidate instructor in the following categories paragliders, powered paragliders, powered parachutes, hang gliders and powered hang gliders where they shall complete the training detailed in SA-CATs, Part 62 and as per this TPM.

5.14 TRAINING CURRICULA – NATIONAL ASSISTANT FLIGHT INSTRUCTOR RATING

5.14.1 Paragliders shall:

- a) hold at least a Sport license (Paraglider) rating; and Learners certificate for at least one year;
- b) Submit a letter from a SAHPA registered school requesting that the pilot be registered as an Instructor Assistant by SAHPA.
- c) Pay the appropriate license application fee.
- d) Completed an Instructor course or have completed the theoretical and practical training requirements at 3 (three) different SAHPA approved facilities.

5.14.2 Operating limitations for Assistant Instructors

- a) Assistant Instructors may only do training of students under direct supervision of a Grade B or Grade A rated instructor at the same site at the same time, on the ground and within eyesight of the student and in radio contact.
- b) The instructor will take responsibility for the actions of the instructor assistant during all training sessions.
- c) Instructor's assistants may give theory lectures and ground control instruction unsupervised after having been supervised for at least 2 lectures and 2 days of ground control instruction.

5.14.3 Hang gliders shall:

- a) The trainee instructor must have a C license.
- b) The trainee instructor must register as an assistant instructor with a SAHPA registered hang gliding school
- c) Hold a certificate of competency in First Aid that is current and valid during the period of the license or rating issued or to be issued.
- d) Proper attitude, airmanship, responsibility, approachability and practical instructor potential to be displayed.
- e) Must have read and possess the USHGA Instructors manual.
- f) Satisfactory safety record.

5.14.4 Privileges of trainee hang gliding Instructor:

- a) May only do training of students under direct supervision of a Grade C, B or Grade A rated instructor.
- b) Assistant instructors may not sign off license renewals.
- c) May conduct any training exercise, provided the trainee instructor has been trained and signed off by the Facility CFI of the school.
- d) A trainee instructor shall keep this rating, provided his SAHPA membership and C license is current, unless his association with the school is terminated at which time the rating will fall away.
- e) The instructor will take responsibility for the actions of the trainee instructor during all training sessions

5.15 TRAINING CURRICULA – NATIONAL FLIGHT INSTRUCTOR RATING

- 5.15.1 Successfully complete the applicable requirements on the Training Proficiency Card, which include:
- a) be the holder of a valid national pilot license issued in terms of part 62
 - b) hold at least a valid medical fitness certificate
 - c) have acquired the experience referred to in SA-CATs, part 62
 - d) have successfully completed the training referred to in regulation 62.09.3;
 - e) have passed the theoretical knowledge examination referred to in regulation 62.09.4

- f) have undergone the skills test referred to in regulation 62.09.5; and
- g) In the case of a national flight instructor rating (hang-glider or paraglider), be the holder of a valid certificate of competency in first aid.
- h) The applicant for the issue of a national assistant flight instructor (paraglider) shall in addition to the requirements of sub-regulation (1) be the holder of a valid Sport Class rating.
- i) The applicant for the issue of a national flight instructor (paraglider) shall in addition to the requirements of sub-regulation (1) have been the holder of a valid Sport Class rating for at least 12 months.

5.15.2 Grade C (Hang glider) Instructor:

- 5.15.2.1 The pilot shall have logged at least 200 solo flights and 100 hours airtime.
- 5.15.2.2 C-License held for at least 12 months.
- 5.15.2.3 Pass Instructor rating written test.
- 5.15.2.4 Pass the most recent compiled test papers for all license grades.
- 5.15.2.5 Hold a recognized certificate of competency in First Aid (for example but not limited to St. John Ambulance, Red Cross, Industrial, Military, or equivalent) that is current and valid during the period of the license or rating issued or to be issued.
- 5.15.2.6 Posses the proper attitude, airmanship, responsibility, approachability and practical instructor potential to be displayed.
- 5.15.2.7 Must have read and possess the USHGA Instructors manual.
- 5.15.2.8 Satisfactory safety record.
- 5.15.2.9 Minimum practical experience gained by acting as an assistant instructor for a SAHPA rated Instructor taking at least one student from start to the finish of the Novice rating course, which shall comprise not less than 10 full days of instruction.
- 5.15.2.10 It is recommended that the assistant instructor, in addition spends at least one day of training of student pilots with a different SAHPA registered school.
- 5.15.2.11 For the Instructor rating to be considered by the SAHPA Committee, the pilot must submit the following to the SAHPA Office:
 - a) Instructor Rating Application Checklist , signed by the National Safety and Training Officer, after agreement by the hang gliding committee..
 - b) Letter of recommendation by SAHPA rated hang gliding Instructor
 - c) Certificate of competency in First Aid that is current and valid during the period of the license to be granted
 - d) Proof of practical instructing experience gained as an assistant instructor
 - e) Copy of last page of logbook with a summary of last 12 months of flying.
 - f) License Application fee
- 5.15.2.12 Privileges and limitations of grade C instructors:
 - a) May serve on the SAHPA Hang Gliding Committee
 - b) May only instruct ab initio hang gliding training courses and supervise and guide assistant instructors.
 - c) May conduct any training exercise, provided the trainee instructor has been trained and signed off by the Facility CFI of the school.
 - d) May not sign off license renewals
 - e) May not act as the Facility CFI of a hang gliding school.



5.15.3 Grade C (Paraglider) Instructor:

5.15.3.1 The Grade C Instructor can also be referred to as the Tandem Flight Instructor.

5.15.3.2 Successfully complete the applicable requirements on the Training Proficiency Card, which include:

- a) Tandem License held for minimum one year.
- b) Total of 500 Flights (tandem and solo combined).
- c) 200 Tandem flights logged.
- d) 50 Tandem hours logged.
- e) At least five different sites flown on tandem.
- f) 25km Tandem XC flown (preferably in thermic conditions).
- g) Must be current (at least 20 tandem flights flown in past 6 months).
- h) Must have signed and adhere to code of conduct (Airmanship).

5.15.3.3 Practical Flight Test:

- a) Two Check Flights as pilot in command, done at different sites, with two designated tandem instructors.
- b) Present SIV certificate from registered school, for following manoeuvres, or demonstrate on a Tandem glider:
 - Pendulum control
 - 50%+ Asymmetric collapse (trims off)
 - Front collapse (trims off)
 - B Line Stall (demonstrate theory only)
 - Point of Spin
 - Point of Stall
 - Big Ears Landing
 - Butterfly Landing
 - Spiral (8 – 12m/s) demonstrating controlled exit
 - Two consecutive 360Deg Turns within 20sec with accurate on heading exit.

5.15.3.4 Other Requirements:

- Pass Theory Exam
- Application must be signed off by two Grade A or Grade B instructors.
- In the case of powered versions addendum the criteria that must be complied with until the DTO development and manual rewrite will be appendix 62.39

5.15.3.5 Operating limitations for Tandem Flight Instructors:

- a) Tandem Flight Instructors may take members of the public for an instructional flight experience for remuneration.
- b) Tandem Flight Instructors may take students as passengers on instructional flights where the instructor is PIC.

5.15.4 Grade B (Hang gliders) Instructor shall:

5.15.4.1 Successfully complete the applicable requirements on the Training Proficiency Card, which include:

- a) The instructor must have held a C grade Instructor rating for at least 1 year.
- b) The instructor must have completed at least 2 hang gliding training courses acting as instructor.
- c) These courses must be signed off by at least a B or A grade instructor.
- d) Pass the most recent compiled test papers for all license grades.
- e) Hold a certificate of competency in First Aid that is current and valid during the period of the license or rating issued or to be issued.
- f) Proper attitude, airmanship, responsibility, approachability and practical instructor potential to be displayed.
- g) Must have read and possess the USHGA Instructors manual.
- h) Satisfactory safety record.

5.15.4.2 For the Instructor rating to be considered by the SAHPA Committee, the pilot must submit the following to the SAHPA Office:

- a) Instructor Rating Application Checklist, signed by the National Safety and Training Officer, after agreement by the hang gliding committee
- b) Letter of recommendation by SAHPA rated hang gliding Grade B or A Instructor
- c) Certificate of competency in First Aid that is current and valid during the period of the license to be granted
- d) Proof of practical instructing experience gained as a grade C instructor
- e) Copy of last page of logbook with a summary of last 12 months of flying.
- f) License Application fee

5.15.4.3 Privileges of Grade B hang gliding Instructor:

- a) All privileges of C grade Instructor
- b) May act as Facility CFI in a hang gliding school
- c) May give final sign-off for licenses and ratings

5.15.5 Grade B (Paraglider) Instructor shall:

5.15.5.1 Successfully complete the applicable requirements on the Training Proficiency Card, which include:

- a) The pilot must have logged a minimum of 500 solo flights and 100 hours and shall have held a Sport license pilot for more than 2 years.
- b) Pass the Instructor Rating written exam and practical requirements at a SAHPA Instructor training facility.
- c) Hold a certificate of competency in First Aid, which is current and valid for the period of the license to be granted.
- d) Have a satisfactory safety record, as determined by the PG Regional CFI and HOT
- e) Practical experience gained by attending an approved SAHPA Instructor Training Course



- f) The applicant must show proper attitude towards airmanship, safety, responsibility, approachability and practical instruction ability.
- g) In the case of powered versions addendum the criteria that must be complied with until the DTO development and manual rewrite will be appendix 62.39

5.15.6 Grade A (Hang glider) Instructor shall:

- 5.15.6.1 The pilot shall have logged at least 500 solo flights and 300 hours of airtime.
 - 5.15.6.2 Minimum of 5 years as a grade B Hang gliding instructor.
 - 5.15.6.3 Must have independently completed the training of a minimum of 30 students from ab initio to novice license standard
 - 5.15.6.4 Hold a certificate of competency in First Aid that is current and valid during the period of the license or rating issued or to be issued.
 - 5.15.6.5 Posses a proper attitude, airmanship, responsibility, approachability and practical instructor potential to be displayed.
 - 5.15.6.6 Satisfactory safety record, i.e. not found guilty of an incident displaying negligence or incompetence in the preceding 12 months.
 - 5.15.6.7 Must have presented at least one National instructor seminar under supervision/guidance of an A Grade hang gliding instructor, including showing competence in CAR's, CAT's, Appendices, MOP's, TPM, ARO and ATO interpretation and reviewing of latest international instructing trends.
 - 5.15.6.8 For the Instructor rating to be considered, the pilot must submit the following:
 - a) Instructor rating Application Checklist, signed by National and Training officer, after agreement by the Hang gliding Committee
 - b) Letter of recommendation by SAHPA rated hang gliding instructor
 - c) Certificate of competency in First Aid that is current and valid during the period of the license to be granted
 - d) Proof of practical instructing experience gained as an instructor
 - e) Copy of last page of logbook with a summary of the last 12 months of flying
 - f) License Application fee
- Privileges of A grade hang gliding Instructor
- a) All privileges of B grade instructors
 - b) Allowed to present National instructors seminars.

5.15.7 Grade A (Paraglider) Instructor shall:

- 5.15.7.1 Successfully complete the applicable requirements on the Training Proficiency Card, which include:
 - a) The pilot must have held a Grade B Instructors license for a minimum of 24 months.

- b) Pass the Instructor Rating written exam and practical requirements at a SAHPA Instructor training facility.
- c) Must have assisted in at least 2 Instructor training courses at a recognized ATO or at SAHPA seminars.
- d) Hold a certificate of competency in First Aid, which is current and valid for the period of the license to be granted.
- e) Have a satisfactory safety record, as determined by the PG Regional CFI and HOT.
- f) Practical experience gained by attending an approved SAHPA Instructor Training Course,
- g) The applicant must show proper attitude towards airmanship, safety, responsibility, approachability and practical instruction ability.

5.16 POWERED PARAGLIDER TO PARAGLIDER CONVERSION

5.16.1 Requirements:

- a. Demonstrates the ability to accurately assess conditions which allow for safe launch (weather, field conditions, wing weight range and rating, etc.)
- b. Demonstrates the ability to accurately pre-flight of equipment and canopy prior to flight
- c. Demonstrates the ability control glider.
- d. Demonstrates 6 successful launches (3 Forward 3 reverse).
- e. Demonstrates Ridge soaring and adherence to ridge rules
- f. Demonstrates Thermalling with a height gain achieved of 500 m (5 flights)
- g. Demonstrates 5 successful landings with proper canopy control and deflation.
- h. Demonstrates successful use of big ears and landing with big ears
- i. Completes 10 flights

Note :In the case of powered versions addendum the criteria that must be complied with until the DTO development and manual rewrite will be appendix 62.39

5.17 ENDORSEMENTS

5.17.1 Requirements:

- a. Any form of additional flying attribute or skill that is deemed necessary can be endorsed in the pilots logbook to ensure they can operate with this permission by an A or B grade instructor .



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PART 6

PRACTICAL FLIGHT TRAINING

SYLLABUS



PART 6: Practical Flight Training Syllabus

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6.1 GENERAL

6.1.1 In the interest of convenience and ease of amendments, SAHPA shall retain detailed Training/lessons Plans for all offered courses within each Facility and individual Student Training File. These include but are not limited to:

- The exercises with a brief description of each exercise;
- The courses phases;
- Estimated flight time assigned to each phase;
- Minimum requirements; and
- Expected Results

6.1.2 The Training Files referred to above shall be updated after each flight or at the end of the day to indicate whether competency has been achieved in each exercise; this record will be signed by both the Instructor and the student pilot in addition be retained with SAHPA for a period not less than **5 (five) years**.

6.1.3 All training and associated syllabi shall comply with the provisions set on in the SA-CAR's and SA-CAT's.

6.2 FLIGHT TRAINING PHILOSOPHY

6.2.1 Introduction

The aim of our courses is to train "student" pilots to the level of proficiency required for the issue of a class and type rating for Hang gliders and Paragliders; all relevant launch methods, and to provide the training necessary to act as pilot-in-command of any glider, engaged in flights under visual flight rules.

This can be broken down into the following 4 (four) critical teaching elements:

1. Knowledge

- Knowledge is predominantly acquired or transferred through theory and in the participation of lectures. It is considered the bedrock/foundation in which learning takes place. The importance of effective knowledge transfer in our courses is a "teaching" imperative.

2. Skill

- Since hang gliding and paragliding is a practical activity, a pilot's ability can best be measured by his skill, which means his way of performing maneuvers, links of maneuvers and tasks, and how he masters flying conditions and new situations.

3. Experience

- This part is also critical in learning and primarily measured by the amount of time spent practicing and being exposed to flying. It is also during this stage where the students self confidence is developed. Special emphasis should be made in mentoring and monitoring students particularly during solo flights.
4. Airmanship
- Airmanship is the intangible aspect of pilot character, developed over time from a combination of knowledge, skills and experience. Airmanship is about developing a mature and responsible attitude towards the sport. It includes the pilot's conduct in the air as well as on the ground. This conduct comprises, but is not limited to, aspects such as good judgement, uncompromising flight discipline, a high state of situational awareness for self and others, a deeper understanding of the relationship between risk, knowledge, skills and practical proficiency and being able to apply these to accomplish flight objectives

6.2.2 Training Objectives

The objective is to aid and assist the participants to progress safely in, and enjoy the sport of hang gliding and paragliding, and become true airmen, which means that they must be able to enjoy the beauty and freedom of the sport, and not risking injury or restrictions due to their own and others lack of will and ability to take care their safety, enjoyment and freedom.

6.2.3 Stages of development

The stages are arranged in a building block method of learning which is based on a logical and progressive transfer of knowledge and skill that ensures the most effect means of learning.

Hang Gliding and Paragliding training consists of the following natural stages, on which the development of the student is structured, and which provides systematic progression based on the building block principle of learning. Students progress gradually from easy to more difficult activities, from low to high altitude, from basic to advanced skills, from simple to complicated tasks, being careful not to leave any gaps on the way. The program also divides the participants into students and pilots, which indicates whether they are able to operate alone or not. Hang gliding has an extra stage. This is stage number 2 – Medium altitude gliding.

The 5 (five) Stages: (Paragliders)

1. Ground handling
2. Altitude gliding
3. Ridge Soaring
4. Thermal Soaring
5. Cross country

The 6 (six) Stages: (hang gliders)

1. Ground skimming
2. Medium Altitude Gliding
3. Altitude gliding
4. Ridge Soaring
5. Thermal Soaring
6. Cross country

During training, the student pilot is assessed by his/her respective Instructor for each exercise taught. The ability of the student pilot to understand and demonstrate correctly the exercises being taught is monitored and recorded daily, or as soon as conveniently possible, by the Instructor on the Trainee Proficiency card or Practical Requirements card. At various stages during training, the Instructors are required to submit these cards to the Chief Flying Instructor for review and corrective action where required. Thereby ensuring that training is effective and the student is making the expected progress.

Student Flight logs, Trainee proficiency and practical requirements cards, are filed in the relevant Pilot Training Folder which when not in use are placed for safe keeping at the affiliated schools place of operation.

6.3 NATIONAL PILOT LICENCE – HANG GLIDER

6.3.1 Flight Training Syllabus

The following is the list of exercises that will be followed (in accordance with SACAR 62):	
Exercise 1	Introduction to Hang Gliding
Exercise 2	Practical Familiarization with glider and related equipment
Exercise 3	Air Experience
Exercise 4	Effects of controls
Exercise 5	Ground handling
Exercise 6	Take-off runs/launching
Exercise 7	Flare action
Exercise 8	Straight and level flight – ground skimming
Exercise 9	Gentle turns and corrections – ground skimming
Exercise 10	Airspeed recognition - ground skimming
Exercise 11	Medium altitude glides
Exercise 12	Approach and landing patterns/set-up
Exercise 13	Stalls
Exercise 14	Tethered flying
Exercise 15	High Altitude gliding



Exercise 16	360 degree turns
Exercise 17	Ridge soaring
Exercise 18	Thermalling

6.3.2 Flight Training lessons shall be arranged in the following format. Flight Instructors are encouraged to conform to the set syllabus however, they are at liberty to use their discretion in changing the structure/sequencing of lessons to suit the prevailing conditions at the time.

6.3.3 Practical Training course: Hang glider

Lesson 1: Introduction to Hang Gliding

Aim: To provide a theoretical background of:

- a) the history of hang gliding
- b) the rewards and potential dangers
- c) hang glider and related equipment specifics
- d) the three phases of flight
- e) The regulatory overview (Hierarchy from Minister of Transport to student pilot).

Lesson 2: Practical Familiarization with Hang glider and related equipment

Aim: To familiarize the student with the hang glider rigging and de-rigging procedures and pre-flight inspections

- a) Wind/weather consideration for set-up and parking of glider
- b) Rigging sequence
- c) Preflight checks – importance of symmetry, being systematic and uninterrupted
- d) Harness, helmet, instruments inspection
- e) Personal evaluation
- f) Weather considerations

Lesson 3: Air Experience

Aim: To expose the student to the sport with a real flight experience. The instructor can demonstrate any of the following exercises pending on conditions and student experience/ability.

- a) Student membership issued
- b) Flight planning

- c) Launch and landing review
- d) Flight controls
- e) Straight and level flight
- f) In flight terrain and positioning
- g) Airspeed vs. ground speed demo
- h) Crabbing flights
- i) Diving turns/Slipping turns
- j) Landing approaches

Lesson 4: Effects of controls

Aim: To introduce the student to weight shift input

- a) Introduction to hang check
- b) Experience the effect of forward and rearward weight-shift on pitch control and airspeed
- c) Experience the effect of left and right weight-shift on roll control and turning
- d) Demonstrate pivoting and its effect on weight-shift

Lesson 5: Ground handling

Aim: To understand the effect of wind and terrain while lifting and carrying the hang glider to launch

- a) Proper holding and body positioning for lifting and carrying
- b) Moving the glider from tail down into the wind to nose into wind position
- c) Carrying the glider into wind, in a cross wind and downwind.
- d) Risks of being hooked into the glider.
- e) The use of wiremen

Lesson 6: Take-off runs/ launching

Aim: Introducing the various aspects for a safe launching

- a) The 5 "Look and See" – pre-launch checks (Hook in, helmet, chest buckle, waist buckle, leg straps)
- b) The 6 "Golden take-off rules"
 - 1. Hook in check
 - 2. Proper eye focus – looking ahead
 - 3. Nose into wind (importance of running straight down the slope)
 - 4. Wings level and balanced
 - 5. Angle of attack slightly positive to relative airflow
 - 6. All clear

- c) Running with hang glider unhooked
- d) Running with hang glider hooked in
- e) Light wind and strong wind launch techniques

Lesson 7: Flare action

Aim: Familiarizing the student with the techniques of slowing down and landing a hang glider

- a) Introduction to 7 "Golden rules for landing"
 1. Plan your approach
 2. Land straight into wind
 3. Have excess airspeed
 4. Keep wings level and balanced
 5. Looking ahead and eye focus
 6. Hold your flare
 7. Be ready to run
- b) Proper hand and body position
- c) Proper flare action
- d) Flare timing/when to flare
- e) Airspeed vs. speed/aggression of flare

Lesson 8: Straight and level flight – ground skimming

Aim: To transition the student from running with the glider into straight and level ground skimming flights into the flare action/landing exercises. The student must exercise and become familiar with the effect of pitch control.

- a) Importance of the actions to be taken after lift-off
- b) Actions and perceptions prior to flare

Lesson 9: Gentle turns and corrections – ground skimming

Aim: To introduce the student to the practical effects and importance of weight-shift when executing roll and balance control inputs

- a) Ensure effective weigh-shift technique and problems of pivoting

Lesson 10: Airspeed recognition - ground skimming

Aim: To make the pilot become aware of the sound and feel of airspeed during ground skimming flights

- a) Point out and practice the connection between pitch input and airspeed
- b) Point out the difference between feeling airspeed vs. visual reference to ground speed

Lesson 11: Medium altitude glides

Aim: To separate the student's reference between airspeed and ground speed. Introduce medium turns

- a) Introduction to flight planning
- b) Practicing smooth control of pitch and airspeed
- c) The importance of correct weight shift technique
- d) The importance of maintaining a light grip and being relaxed
- e) The importance of the correct eye focus, avoiding object fixation and being aware of the landing field position and the pilot surroundings

Lesson 12: Approach and landing patterns/ set-up

Aim: Introduction to approach patterns, correct position in relation to landing field and importance of landing into wind.

- a) Figure of 8 and S-turn landing approach
- b) Standard glider approach (DBF)
- c) Alternative/combination approaches
- d) Dangers of low turns and importance of long final approach

Lesson 13: Stalls

Aim: To instill confidence in the student by experiencing of the built-in pitch stability features of a modern day hang glider. To familiarize the student with the sensations and flight characteristics of the glider during a stall and understand the corrective actions.

- a) Differentiate between gentle stall and whip stall (i.e. flaring)
- b) Space, height and traffic considerations
- c) Staying straight and level prior to stall demonstration
- d) Gentle progressive pushing out on the control bar
- e) Listening and feeling airspeed changes
- f) Control bar back to trim during recovery
- g) Pitch and attitude adjustment to prevent secondary zoom or stall (Pitch/Attitude/Trim - PAT)

Lesson 14: Tethered flying

Aim: To allow the student to practice roll and pitch inputs in strong wind conditions while remaining attached to the ground with control ropes, and gain pitch and roll reflexes. To gain ground handling ability of the hang glider in strong conditions as well as understanding the effects of strong wind on the hang glider.

Practical: The student experiences input and control used through the entire range or flight – from take-off, in the air and landing.
Each student will participate +/- 5 minutes, then rotate due to high intensity of concentration required by this exercise.

Lesson 15: High Altitude gliding

Aim: To introduce and expose students to higher altitudes. To reinforce the separation of ground and airspeed and to connect altitude flights with landing approach and set-up patterns. To introduce ridge soaring flight patterns and preparation for exercise 13 (Stalling)

- a) Flight planning
 - b) Transition to prone flying
 - c) Importance of proper weight shift
 - d) Importance of airspeed monitoring and recognition
 - e) Importance of constant position and other traffic awareness
 - f) Left and right 90 and 180 degree turn
-

Lesson 16: 360 degree turns

Aim: To become proficient at executing controlled and efficient 360 degree turn.

- a) Wind, drift, space, height and traffic considerations
 - b) Eye focus and selecting land marks
 - c) Roll initiation, monitoring and maintaining a constant bank
 - d) Pitch initiations and monitoring and maintaining constant speed.
 - e) Visual cues, landmarks and roll-out initiation.
 - f) Judging and adjusting your rate of turn
-

Lesson 17: Ridge soaring

- Aim:** Introducing and familiarizing pilot to fly in ridge lift
- a) Importance of positioning on the mountain
 - b) Appropriate speeds to fly
 - c) Appropriate direction and efficient 180 degree turns
 - d) Space and traffic considerations/rules of the air

Lesson 18: Thermalling

- Aim:** Introducing and familiarizing the pilot with flying in thermals
- a) Consecutive 360 degree turns in rising air
 - b) Appropriate bank angle adjustments
 - c) Appropriate air speed control and hang glider attitude adjustments
 - d) Identifying the center/strongest areas of lift and adjusting 360 degree turns accordingly
 - e) Space and traffic considerations/rules of the air

6.4 TANDEM RATING – HANG GLIDER

6.4.1 Flight Training Syllabus

The following is the list of exercises that will be followed (in accordance with SACAR 62):	
Exercise 1	Familiarisation with hang glider
Exercise 2	Flight preparation - Ground control
Exercise 3	Take-offs
Exercise 4	Air experience
Exercise 5	In flight tandem positions
Exercise 6	Effects of controls
Exercise 7	Basic in-flight training methods
Exercise 8	Control and weight shift limitations
Exercise 9	Suspension considerations

6.4.2 Practical Training Course, Tandem Rating – Hang glider

- 6.4.2.1 Only B or A grade HG Instructors with a tandem rating may present tandem HG courses and train pilots for the HG tandem rating. This is the SAHPA syllabus for A and B grade Instructors to follow in training new pilots to qualify for their tandem HG rating. Applicants must pose and have read the SAHPA HG Tandem flying guidelines paper. The Tandem rating is a

conversion and therefore only exercises that are different from solo flying are introduced. Exercises comprises of both theory and practical training. It is up to the discretion of the Instructor to give credit for previous flight experience and weighing this in the balance of where to focus training. For example tandem candidates wishing to instruct will focus more on exercise 5, 6 and 7.

Lesson 1: Familiarisation with hang glider

Aim: To familiarize and introduce pilots to the wing and related equipment used for tandem flying.

- a) Differences and performance factors of the wing
- b) Reserves - limitations
- c) Harnesses - The pilot must be introduced to the suitability of harnesses to be used for tandem flights for both pilot in command and the passenger.

Lesson 2: Flight preparation - Ground control

Aim: Introducing ground control factors that are different to that of solo flight.

- a) The pilot must be made familiar with the need for proper indemnities and keeping of flight logs for tandem flying prior to flying.
- b) Wind considerations – understand the wing surface area difference and the effect of wind on it during rigging and walking. Advantages of using wiremen in walking the glider to the launch area – with the pilot and pax not hooked in.
- c) Pre-launch passenger briefings and landing briefings

Lesson 3: Take-offs

Aim: To introduce the P2 to the various factors to consider and the differences in launch techniques for tandem flying.

- a) Foot launch positions for P1 and P2
- b) Briefing techniques for passengers
- c) Importance off awareness of passenger hand positions during the launch
- d) Site and launch area considerations
- e) Weather considerations for tandem flying
- f) Importance of exercise 10 (f).

Lesson 4: Air experience

- a) The pilot is taken on a tandem flight and introduced to an in air experience. Here the pilot is exposed to a similar experience that the pax will undergo.

- b) The Grade B or A Instructor can introduce any of the exercises as they deem fit, according to conditions and flying experience
-

Lesson 5: In flight tandem positions

Aim: The pilot is introduced to the various in-flight positions that will allow the pilot in command (P1) to hand over control to the pilot in training (P2) in the most effective manner.

- a) P2 in flight hand and body positions as passenger
 - b) P1 hand positions and body positions as pilot in command.
 - c) Methods of control change between P1 and P2.
 - d) Dual control methods – P1 and P2
 - e) Conditions for handing over flight control
-

Lesson 6: Effects of controls

Aim: Allowing the passenger/P2 to experience the control and/or differences between the tandem gliders and the solo they are used to.

- a) Pitch
 - b) Role
 - c) Relaxed grips
-

Lesson 7: Basic in-flight training methods

Aim: The P2 is introduced to basic methods of in-flight instruction and passenger management by the P1

- a) Importance of relaxed grip
 - b) Eye focus area – not to look straight down
 - c) Cultivating awareness of surroundings and other traffic
 - d) Small gentle role inputs versus big short ones
 - e) Importance of exercise 10
-

Lesson 8: Control and weight shift limitations

Aim: To instill the limitations of control with additional weight.

- a) Passenger/P2 weight limitations
 - b) Launch and run capability limitations
 - c) Landing and run capability limitations
-

Lesson 9: Suspension considerations



- Aim: To understand the various methods of hang strap support
- a) The importance of separate support straps
 - b) Combined back-ups
 - c) Forward and rear-ward hang positions – P2 and P1 separation
 - d) Hang height considerations
 - e) Parachute deployment considerations
 - 1. Risk management
 - a) Passenger pre-flight risk profiling
 - b) Importance of briefings
 - c) Over-briefing risks
 - d) In-flight risk management
 - e) Landing passenger risk management
 - f) Launch method advantages and limitations – towing, aero-towing, powered launches and foot launching.
-

6.5 POWERED HANG GLIDER RATING

The following is the list of exercises and the sequence that will be followed (in accordance with SACAR 62):	
Exercise 1	Familiarization with hang glider
Exercise 2	Flight preparation - Ground control
Exercise 3	Air experience
Exercise 4	Effects of controls
Exercise 5	Taxiing
Exercise 6	Straight and level flight
Exercise 7	Climb
Exercise 8	Descending
Exercise 9	Stalling
Exercise 10	Medium turns
Exercise 11	Gliding and climbing turns
Exercise 12	Take-offs
Exercise 13	Approaches and launchings
Exercise 14	Low flying
Exercise 15	Take-off and landing out of wind
Exercise 16	Precautionary landings
Exercise 17	Action in the event of fire
Exercise 18	Restarting engine in flight
Exercise 19	Navigation
Exercise 20	Using lift with the power unit – ridge lift and thermal lift
Exercise 21	Maintenance

6.5.1 POWERED HANG GLIDER TRAINING COURSE

6.5.1.1 The pilot will convert from either hang gliding onto powered flying or from a WCM to hang gliding. Training will then be concentrated around these areas only.

Lesson 1: Familiarization with aircraft

- Aim:** The pilot must be introduced to the wing and the differences between what they have been used to
- a) factors that are different
 - b) The wing used
 - c) The motor used - The pilot must be introduced to the motor and the differences from what they are used to.

Lesson 2: Flight preparation - Ground control

- Aim:** a) Rigging Specifics:
Point out the differences between either the wing or motor with a practical rigging and starting sequences.
- Aim:** b) Wind Considerations:
Illustrate the positioning of the wing taking in consideration the wind effects during rigging.
- Aim:** c) Prop-wash
Discuss and demonstrate walking or taxiing for take-off positioning, wind considerations and prop-wash safety aspects.
- Aim:** d) Walking and taxiing
Illustrate the positioning of the unit taking in consideration the safe prop-wash area during start.
- Aim:** e) De-rigging
Discuss and demonstrate the sequence for taxiing or walking to a safe area for de-rigging.

Lesson 3: Air experience

- Aim:** To introduce pilots to the sport and make conversion easier.
- a) The instructor can introduce any of the exercises as they deem fit, according to conditions and flying experience

Lesson 4: Effects of controls

- Aim:** Allowing the pilot to experience the control differences between the aircraft they are used to and the powered hang glider.
- a) Pitch
 - b) Role
 - c) Throttle

Lesson 5: Taxiing

- Aim:** The pilot must become familiar with moving the PHG around along the ground before and after flying.

- a) The differences between what the pilot is familiar with to what is new (the size of wing, the power unit) must be pointed out.
- b) Understand that taxiing such as conventional aircraft around runways use is not the norm for PHG but the exception.

Lesson 6: **Straight and level flight**
N/A – the pilot should be familiar with this

Lesson 7: **Climb**

Aim: To introduce hang glider pilots to the concept of using a power unit to initiate and maintain a climb

- a) The importance of maintaining full power on launch
- b) The importance of smooth throttle control
- c) The importance of attitude control during climbs

Lesson 8: **Descending**

Aim: Introducing the effect of power on descending to hang glider pilots

- a) Power is used for altitude control
- b) Point out the danger of flying into own prop-wash during descending turns.

Lesson 9: **Stalling**
N/A

Lesson 10: **Medium turns**
N/A

Lesson 11: **Gliding and climbing turns**

Aim: To introduce the pilot to the effects of thrust during turns

- a) Understanding the movement of the power unit and the associated effect due to the changes in the thrust direction
- b) The importance of reducing power to regain directional control

Lesson 12: **Take-offs**

Aim: To introduce hang glider pilots to the use of thrust for launching and associated risks.

- a) Method of power application – smooth and gently
- b) Importance of maintaining full power

- c) Constant angle of climb and attitude corrections
- d) Aborting launches – safety considerations

Lesson 13: Approaches and launchings

Aim: For WCM pilots to understand the importance of motor off and glide approaches

- a) The risk of idle thrust and prop damage on landings
- b) Power on and off approaches.

Lesson 14: Low flying

Aim: Introducing the hang glider pilot to low flying accessibility

- a) Discuss hazards.
- b) Demonstrate controlled low flying – using constant power but pitch input for altitude control.

Lesson 15: Take-off and landing out of wind

Aim: Point out to WCM pilots the weight and vulnerability to cross wind landings that the PHG can have. For HG pilots discuss the safety options increases with the use of wheels and the ability to land in cross wind and even downwind situations.

Lesson 16: Precautionary landings

Aim: Point out the option that power gives a HG pilot to scout potential landing areas for suitability.

- a) First fly-past looking for higher obstacles
- b) Second fly past for low level hidden obstacles
- c) Procedures for a motor that does not want to switch-off

Lesson 17: Action in the event of fire

Aim: To introduce this danger to hang glider pilots.

- a) Causes of fire
- b) Discuss options and procedures in the event of fire - land as soon as possible flying as fast as is possible so the flames and heat will trail out to the rear.
- c) Actions after landing – move from wing as soon as possible and then only look at ways to extinguish or control the fire from spreading.

Lesson 18: Restarting engine in flight

Aim: Introducing the checks and actions needed for in flight engine start

- a) Ensuring all switches are live and on
- b) Time space considerations
- c) Importance of long periods of soaring with associated engine cooling and need for warm-up

Lesson 19: Navigation

Aim: to introduce basic navigation to hang glider pilots who can now fly to areas and destinations not always accessible to them

- a) Understanding the need to plan a route
- b) Understanding the need for fuel reserves
- c) Understanding the need for safe landing areas during flight

Lesson 20: Using lift with the power unit – ridge lift and thermal lift

Aim: introducing WCM pilots to ridge lift and hang glider pilots to the effect of thrust and power in thermals and ridge lift.

- a) The advantages of idle thrust on light days
- b) The danger of prop-wash in rising air
- c) Flight etiquette for non-power traffic on the ridge and in thermals
- d) For WCM the Novice license requirements

Lesson 21: Maintenance

Aim: Familiarizing hang glider pilots with basic motor maintenance skills

- a) Importance of factory recommendations
- b) General wear and tear parts.
- c) Propeller specifics.

6.6 NATIONAL PILOT LICENCE - PARAGLIDER

6.6.1 Flight Training Syllabus

The following is the list of exercises and the sequence that will be followed (in accordance with SACAR 62):	
Exercise 1	Familiarization with the paraglider and equipment
Exercise 2	Preparation for flight and action after
Exercise 3	Ground Handling
Exercise 4	Effects of controls
Exercise 5	Air Experience

Exercise 5a	Pre-flight inspections
Exercise 6	Launch
Exercise 7	Straight glide (ground skimming)
Exercise 8	Climbing
Exercise 9	Descending
Exercise 10	Turning
Exercise 11	Slow flight
Exercise 12	Climbing and descending turns
Exercise 13	Circuit, Approach and Landings
Exercise 14	Winch Launch Take Off and climb to release altitude (Theory only)
Exercise 15a	Steep Turns
Exercise 16	Use of instruments
Exercise 17	Air Law
Exercise 18	Cross-wind Take-off and Landing
Exercise 19	Out landings
Exercise 20	Top landing
Exercise 21	Unusual and dangerous attitudes / conditions
Exercise 22	Loose Formation / Gaggle flying
Exercise 23	Low flying

6.6.2 Flight Training lessons shall be arranged in the following format. Flight Instructors are encouraged to conform to the set syllabus however, they are at liberty to use their discretion in changing the structure/sequencing of lessons to suit the prevailing conditions at the time.

Lesson 1: Familiarization with paraglider and equipment

Aim: To become familiar with the parts and controls of the glider

- a) Explanation of the paraglider
- b) How the aerofoil is formed
- c) Controls
- d) Harness
- e) Emergency drills, consisting of –
 1. Aborting take off.
 2. Stabilizing/disabling the paraglider in strong wind.

Lesson 2: Preparation for flight and action after flight

Aim: To understand how to prepare the paraglider and pilot for flight, and how to leave the paraglider after flight.

- a) Setting up of Paraglider
- b) Daily inspection
- c) Required equipment, maps, etc.
- d) Harness adjustment
- e) Pre flight checks (5 point check)
- f) Suitable clothing
- g) How to put on the harness
- h) Maneuvering the glider on the ground
- i) Packing up of equipment

Lesson 3: Ground Handling

Aim: To safely control the paraglider while on the ground, but with the wing flying.

- a) Pre take off checks
- b) Correct grip on A risers (PG)
- c) Correct body position
- d) Inflating of canopy (PG)
- e) Keep wing balanced utilizing pitch and yaw control.
- f) Acceleration for take off
- g) Directional control.

Lesson 4: Effect of Controls

Aim: To explain how the control affects the paraglider in flight.

- a) The effects of the brakes/ speed bar relating to speed control
- b) Primary, secondary effects of the brakes/ speed bar relating to directional control. (roll/yaw/pitch)
- c) Effects of the following on glider performance
 - 1. Airspeed
 - 2. The use of brakes
 - 3. Effect of change in weight

Lesson 5: Air Experience

Aim: The aim of this sequence is to instil confidence in a learner who has previously flown very little or not at all, to impart some knowledge, and to familiarize the learner with the geography around the training site.

Lesson 6: Take Off

Aim: Correct Take off Run

- a) Pre-take-off checks
- b) Take off run
- c) Maintaining direction, Reference points
- d) Acceleration into the air. (don't stop running)
- e) Aborting take off.

The first take off exercise will, prior to flight, be conducted on the training slopes with a demonstrative lecture identifying the pre take off checks (PG)(Lecture time +/- 20 min)

Lesson 7: Straight glide

Aim: To attain and maintain flight in a straight line glide at best glide speed

- a) At best glide speed, attaining and maintaining straight line glide
- b) Demonstration of inherent stability
- c) Control pitch/brakes speed relationship
- d) Airmanship
 - 1. lookout
 - 2. spatial awareness

Lesson 8: Landing

Aim: To do a controlled and balanced flare

- a) Setting up into wind.
 - b) Getting upright in harness
 - c) Speed up
 - d) Even flare
 - e) Faults in the flare
 - f) Proper deflation
-

Lesson 9: Turning

Aim: To enter and maintain a medium (up to approximately 10-20° bank angle) turn whilst maintaining best glide speed and then to return to straight glide on a new predetermined heading.

- a) Entry and maintaining medium level turns
 - b) Resuming straight and level flight
 - c) Faults in the turn
 - d) Turns onto selected headings.
 - e) Judging bank angle by wing-tip reference
-

Lesson 10: Slow flight (Theory only – Practical to be incorporated in intermediate/sport licence)

Aim: The objective is to improve the student's ability to recognize inadvertent flight at critically low speeds and provide practice should this situation occur.

- a) Safety checks
 - b) Introduction to slow flight
 - c) Controlled flight just before the stall.
 - d) Resuming normal trim speed.
 - e) Airmanship
-

Lesson 11: Circuit, Approach and Landing

Aim: To accurately anticipate the circuit and carry out a safe approach and landing.

- a) Circuit procedures for landing relative to obstructions & wind.
- b) Pitch, and bank angles
- c) Setting up using S-Turns/Figure 8 turns
- d) Setting up using Standard glider approach.
- e) Importance of a long Final.
- f) Speed up
- g) The Flare
- h) Effect of wind Gradient on Approach.
- i) Effect of ground surface and gradient on the landing Approach.
- j) Ground Effect on gliders.
- k) Airmanship

The first landing exercise will, prior to flight be conducted in the classroom and/or in the landing field with a demonstrative lecture describing the landing field layout and circuit procedure.

Lesson 12: Climbing

Aim: To establish the best air speed in rising air to achieve the minimum sink rate or best rate of climb speed, as required.

- a) Enter rising air by slowing down to obtain the required speed for minimum sink.
- b) Anticipate approaching the right speed and selecting the nose attitude to obtain that speed.
- c) Rising air is normally encountered in thermals, ridge lift, wave formations and convergence.
- d) Lookout
- e) Airmanship

Note: Each form of rising air is utilised in a different manner and will be taught separately. In a glider, increase in altitude is dependent on rising air.

Lesson 13: Descending

Aim: To enter and maintain a steady glide-descent and then, at the required altitude, to return to trim speed.

- a) Entry, maintaining position
 - b) The use of Big Ears (PG)
 - c) Airmanship
-

Lesson 14: Descending and Climbing Turns

Aim: To enter and maintain a medium (up to approximately 20° bank angle) turn whilst maintaining a climb or descent, or to enter and maintain a turn from a straight climb or descent.

- a) Entry and maintaining medium descending and thermic climbing turns
- b) Resuming straight and level flight
- c) Faults in the turn
- d) Pitch control during turn.
- e) Turns onto selected headings.
- f) Lookout
- g) Airmanship

Note: Climbing turns can only be done in rising air.

Lesson 15: Winch Launch Take Off and climb to release altitude (Theory only – Practical dependent upon training site)

Aim: Take off run, transition to climb and release at top of launch

- a) Pre take off checks

- b) Signals and procedures prior to launch
- c) Take up slack and start of run.
- d) Take off and initial acceleration to climb speed.
- e) Transition to climb speed and control.
- f) Release at top of launch.
- g) Signals for high and low speed during the launch.
- h) Line break procedures:
 - 1. Low height line break
 - 2. Medium height line break
 - 3. High height line break
- i) Airmanship

The first winch launch exercise will, prior to flight be conducted in the classroom and/or on the winch site with a demonstrative lecture identifying the ground and airborne signals involved, and line break procedures with detailed winch field layout (Lecture time +/- 30mins)

Lesson 16: Steep Turns (Theory only – Practical to be incorporated into intermediate/sport licence)

Aim: To carry out a co-ordinated turn at steep angles of bank and to recognize and recover from a light spiral dive.

- a) Steep 360° turns (up to 30° bank angle), completing a minimum of 2 complete 360's,
- b) Recovering to straight and level flight
- c) Disorientation
- d) Recoveries from unusual attitudes, including spiral dives
- e) Lookout
- f) Airmanship

Lesson 17: Use of instruments (Theory only – Practical to be incorporated into intermediate/sport licence)

Aim: To develop the habit of checking constantly both navigational and flight instruments whilst keeping a good look-out for other aircraft.

- a) Flight instruments -Altimeter-Variometer
- b) Navigational instruments -GPS
- c) Scanning techniques
- d) Lookout for other aircraft
- e) Airmanship

Lesson 18: Low flying

Aim: To safely operate the paraglider at heights lower than those normally used.

- a) Emphasis on ground proximity whilst low flying
- b) Low-level familiarization
- c) Effect of drift- Crab angle
- d) Effect of terrain on lift
- e) Effect of terrain on wind
- f) Control of altitude in poor weather;
- g) Lookout
- h) Airmanship

Lesson 19: Cross-wind Take-off and Landing (Theory only – Practical to be incorporated into intermediate/sport licence)

Aim: To be able to handle both cross-wind take-offs and landings, including downwind landings in an emergency; to be able to input the correct amount of control to correct drift to ensure the track is a continuation of the take-off or landing path of the paraglider

- a) Aerodynamics and mechanical considerations
- b) Cross wind take offs (up to 20 deg for PG)
- c) The circuit – initiate take off run directly into wind
- d) Approach and cross wind landings – crabbing method
- e) Asymmetric flare
- f) Lookout
- g) Airmanship

Lesson 20: Out landings (Theory only – Practical to be incorporated into intermediate/sport licence)

Aim: To carry out a safe selection of landing field, descent, and approach and landing in the event of not being able to soar and glide to the intended landing.

- a) Out landing decision time
- b) Choice of landing area, provision for change of plan
- c) Judging the wind
- d) Descent/ approach plan
- e) Landing
- f) Use of radio, retrieve crew
- g) Lookout
- h) Airmanship

Lesson 21: Top landing (Theory only – Practical to be incorporated into intermediate/sport licence)

Aim: To teach how to identify safe top landing areas and how to approach, flare and disable a paraglider.

- a) Identifying rotor and rotor free areas
 - b) Set up of altitude for approach
 - c) Crab angle required
 - d) Adjusting the flare amplitude for varying wind strength
 - e) Putting the paraglider down/Disabling the glider
 - f) Airmanship
-

Lesson 22: Unusual and dangerous attitudes / conditions (Theory only – Practical to be incorporated into intermediate/sport licence)

Aim: To recognize potentially dangerous conditions of flight and to recover safely from unusual attitudes.

- a) Recovery from inadvertent stalls
- b) Recovery from collapses (PG)
- c) Active flying in turbulence
- d) Directional and pitch control
- e) Use of Reserve parachutes
- f) Lookout
- g) Airmanship

Note: Some of these exercises must not be physically practised by a student

Lesson 23: Loose Formation / Gaggle flying

Aim: To safely fly in loose formation with other paragliders and particularly ridge soaring and thermalling procedures.

- a) Positioning in front, behind or alongside other paragliders
- b) Ridge soaring pattern and turning
- c) Thermalling pattern and turning
- d) Awareness of other aircraft
- e) Blind spots scanning techniques
- f) Turning in front of other aircraft and the effect on them, wake turbulence
- g) Gliding in a gaggle
- h) Airmanship
- i) Visual Flight Rules (VFR)
- j) Air Law

Lesson 24: Passengers (Pax)

Aim: To make provision for flying with passengers where applicable

- a) Equipment
- b) Positioning
- c) Legal requirements
- d) Briefings

- e) Takeoffs and landings
- f) Emergencies

6.7 POWERED PARAGLIDER AND POWERED TRIKE RATING

6.7.1 Flight Training Syllabus

The following is the list of exercises and the sequence that will be followed (in accordance with SACAR 62):	
Exercise 1	Familiarization with the paraglider and equipment
Exercise 2	Preparation for flight and action after
Exercise 3	Air experience
Exercise 4	Effects of controls
Exercise 5	Ground handling
Exercise 6	Take Off
Exercise 7	Straight glide (ground skimming)
Exercise 8	Climbing
Exercise 9	Descending
Exercise 10	Turning
Exercise 11	Slow flight
Exercise 12	Climbing and descending turns
Exercise 13	Circuit, Approach and Landings
Exercise 14	Winch Launch Take Off and climb to release altitude
Exercise 15a	Steep Turns
Exercise 16	Use of instruments
Exercise 17	Low flying
Exercise 18	Cross-wind Take-off and Landing
Exercise 19	Out landings
Exercise 20	Top landing
Exercise 21	Unusual and dangerous attitudes / conditions
Exercise 22	Loose Formation / Gaggles flying
Exercise 23	Pre-flight inspections
Exercise 24	Low flying
	Test Prep

6.7.2 This practical training course is derived from the standard NPL courses; however please take note of the additional critical training elements as reflected below;

Lesson 1: Familiarization with paraglider and equipment

Aim: To become familiar with the parts and controls of the paraglider or hang glider

- a) Explanation of the paraglider or hangglider
 - b) How the aerofoil is formed
 - c) Controls
 - d) Harness
 - e) Emergency drills, consisting of –
 - 1. Aborting take off.
 - 2. Stabilizing/disabling the paraglider in strong wind.
 - f) familiarization with engine
 - g) familiarization with Trike (as appropriate)
-

Lesson 2: Preparation for flight and action after flight

Aim: To understand how to prepare the paraglider or hang glider and pilot for flight, and how to leave the glider after flight.

- a) Setting up of paraglider or hang glider
 - b) Daily inspection
 - c) Meteorology
 - d) Required equipment, maps, etc.
 - e) Harness adjustment
 - f) Pre flight checks (3 H's, 5 point)
 - g) Suitable clothing
 - h) How to put on the harness
 - i) Maneuvering the paraglider or hang glider on the ground
 - j) Packing up of equipment
 - k) Engine pre-flight checks
 - l) Start and warm up and check power if possible and or recommended
-

Lesson 3: Air Experience

Aim: The aim of this sequence is to instil confidence in a learner who has previously flown very little or not at all, to impart some knowledge, and to familiarize the learner with the geography around the training site.

Lesson 4: Effect of Controls

Aim: To explain how the control affects the paraglider or hang glider in flight.

- a) The effects of the brakes/ control bar relating to speed control
 - b) Primary, secondary effects of the brakes/control bar relating to directional control. (roll/yaw/pitch)
 - c) Effects of the following on paraglider performance
 - 1. Airspeed
 - 2. The use of brakes
 - 3. Effect of change in weight
 - d) The effects on the control of the paraglider or hang glider with engine
 - e) Effects of the engine on paraglider or hang glider performance
 - f) Effect of change in CoG
-

Lesson 5: Ground handling

Aim: To safely control the paraglider while on the ground, but with the wing flying.

- a) Pre take off checks
 - b) Correct grip on down tubes (HG)/brakes and A risers (PG)
 - c) Take off run/ Inflating of canopy (PG)
 - d) Keep wing balanced utilizing pitch and yaw control.(HG)
 - e) Acceleration for take off
 - f) Directional control.
 - g) Aborting/ stopping
 - h) Effects of wind
 - i) Effects of ground slope
 - j) Centering the canopy overhead using primarily break toggle input and minimal nose wheel steering.
 - k) Appropriate use of power to maintain canopy pressurization during launch.
-

Lesson 6: Take Off

Aim: To teach the correct Take off Run

- a) Pre-take-off checks
- b) Take off run
- c) Maintaining direction, Reference points
- d) Acceleration into the air. (don't stop running)
- e) Aborting take off.

The first take off exercise will, prior to flight be conducted on the training slopes with a demonstrative lecture identifying the pre take off checks and correct grip on down tubes (HG)/brakes and A risers (PG)(Lecture time +/- 20 min)

Lesson 7: Straight glide (ground skimming)

Aim: To attain and maintain flight in a straight line glide at best glide speed

- a) At best glide speed, attaining and maintaining straight line glide
 - b) Demonstration of inherent stability
 - c) Control pitch/brakes speed relationship
 - d) Airmanship
 - 1. lookout
 - 2. spatial awareness
-

Lesson 8: Landing

Aim: To do a controlled and balanced flare

- a) Setting up into wind.
 - b) Getting upright in harness
 - c) Round out
 - d) Even flare
 - e) Faults in the flare
-

Lesson 9: Turning

Aim: To enter and maintain a medium (up to approximately 10° bank angle) turn whilst maintaining best glide speed and then to return to straight and glide on a new predetermined heading.

- a) Entry and maintaining medium level turns
 - b) Resuming straight and level flight
 - c) Faults in the turn
 - d) Turns onto selected headings.
 - e) Judging bank angle by wing-tip reference
 - f) Wing-tip steering training
-

Lesson 10: Slow flight

Aim: The objective is to improve the student's ability to recognize inadvertent flight at critically low speeds and provide practice should this situation occur.

- a) Safety checks
- b) Introduction to slow flight

- c) Controlled flight just before the stall.
 - d) Resuming normal trim speed.
 - e) Airmanship
 - f) The effects of additional drag when engine is idling or powered
-

Lesson 11: Circuit, Approach and Landing

Aim: To accurately anticipate the circuit and carry out a safe approach and landing.

- a) Circuit procedures for landing relative to obstructions & wind.
- b) Pitch, and bank angles
- c) Setting up using S-turns / Figure 8 turns
- d) Setting up using Standard glider approach.
- e) Importance of a long Final.
- f) Round out
- g) The Flare
- h) Effect of wind Gradient on Approach.
- i) Effect of ground surface and gradient on the landing Approach.
- j) Ground Effect on Hang Gliders.
- k) Airmanship
- l) The effects of additional drag with engine

The first landing exercise will, prior to flight be conducted in the classroom and/or in the landing field with a demonstrative lecture describing the landing field layout and circuit procedure. (Lecture time +/- 15-20 minutes)

Lesson 12: Climbing

Aim: To establish the best air speed in rising air to achieve the minimum sink rate or best rate of climb speed, as required.

- a) Enter rising air by slowing down to obtain the required speed for minimum sink.
- b) Anticipate approaching the right speed and selecting the nose attitude to obtain that speed.
- c) Rising air is normally encountered in thermals, ridge lift, wave formations and convergence.
- d) Use of instruments
- e) Lookout
- f) Airmanship
- g) The use of engine power to climb

Note: Each form of rising air is utilised in a different manner and will be taught separately. In a glider, increase in altitude is dependent on rising air.

Lesson 13: Descending

Aim: To enter and maintain a steady glide-descent and then, at the required altitude, to return to trim speed.

- a) Entry, maintaining and leveling off
 - b) Leveling off at selected altitudes
 - c) The use of Big Ears (PG)
 - d) Use of instruments
 - e) Airmanship
-

Lesson 14: Descending and Climbing Turns

Aim: To enter and maintain a medium (up to approximately 20° bank angle) turn whilst maintaining a climb or descent, or to enter and maintain a turn from a straight climb or descent.

- a) Entry and maintaining medium descending and climbing turns
- b) Resuming straight and level flight
- c) Faults in the turn
- d) Pitch control during turn.
- e) Turns onto selected headings.
- f) Use of instruments
 - 1. Lookout
 - 2. Airmanship

Note: Climbing turns can only be done in rising air.

Lesson 15: Winch Launch Take Off and climb to release altitude

Aim: Take off run, transition to climb and release at top of launch

- a) Pre take off checks
- b) Signals and procedures prior to launch
- c) Take up slack and start of run.
- d) Take off and initial acceleration to climb speed.
- e) Transition to climb speed and control.
- f) Release at top of launch.
- g) Signals for high and low speed during the launch.
- h) Line break procedures:
- i) Low height line break
 - 1. Medium height line break

- a) High height line break
- b) Airmanship
- c) The effects of additional drag due to engine

The first winch launch exercise will, prior to flight be conducted in the classroom and/or on the winch site with a demonstrative lecture identifying the ground and airborne signals involved, and line break procedures with detailed winch field layout (Lecture time +/- 30mins)

Lesson 16: Aero Tow Take Off and Climb to release altitude

Aim: To be towed behind a tug aircraft to release altitude (HG only)

- a) Pre-take-off checks
- b) Take off run behind tug
- c) Maintaining relative position behind tug. Reference points
- d) Preventing sags in the tow rope.
- e) Rope break procedures
- f) Unable to release procedures
- g) Release signals from the tug
- h) Emergency procedures
- i) Airmanship

Lesson 17: Steep Turns

Aim: To carry out a co-ordinated turn at steep angles of bank and to recognize and recover from a light spiral dive.

- a) Steep 360° turns (up to 30° bank angle), completing a minimum of 2 complete 360's,
- b) Recovering to straight and level flight
- c) Disorientation
- d) Stalling in the turn and recovery
- e) Recoveries from unusual attitudes, including spiral dives
- f) Lookout
- g) Airmanship
- h) increased G force due to wing loading

Lesson 18: Use of instruments

Aim: To develop the habit of checking constantly both navigational and flight instruments whilst keeping a good look-out for other aircraft.

- a) Flight instruments -Altimeter-Variometer
- b) Navigational instruments -GPS
- c) Scanning techniques

- d) Lookout for other aircraft
- e) Airmanship
- f) Engine Instruments

Lesson 19: Action in event of fire

- Aim:** Fire is extremely rare in Powered Paragliders and Trikes, but it is essential that a pilot has a thorough knowledge of the procedures to be adopted in his or her particular type of glider in order to extinguish a fire both on the ground and in the air.
- a) Switch off motor as soon as fire is detected
 - b) To land as soon and as safely as possible
 - c) If high, how to perform emergency descent
 - d) Getting out of Harness and get away
 - e) Methods to extinguish fire
 - f) How to save undamaged equipment without endangering oneself.

Lesson 20: Starting engine in flight

- Aim:** To be able to start the engine when required.
- a) Decision time and height
 - b) Selection of out landing field in the event of engine not functioning
 - c) Engine start procedure
 - d) Correct air speed
 - e) Airmanship

Lesson 21: Out landings

- Aim:** To carry out a safe selection of landing field, descent, and approach and landing in the event of not being able to soar and glide to the intended landing.
- a) Out landing decision time
 - b) Choice of landing area, provision for change of plan
 - c) Judging the wind
 - d) Descent/ approach plan
 - e) Landing
 - f) Use of radio, retrieve crew
 - g) Lookout
 - h) Airmanship

Lesson 22: Top landing

Aim: To teach how to identify safe top landing areas and how to approach, flare and disable glider.

- a) Identifying rotor and rotor free areas
 - b) Set up of altitude for approach
 - c) Crab angle required
 - d) Adjusting the flare amplitude for varying wind strength
 - e) Putting the paraglider/ hang glider down/Disabling the paraglider
 - f) Airmanship
-

Lesson 23: Unusual and dangerous attitudes / conditions

Aim: To recognize potentially dangerous conditions of flight and to recover safely from unusual attitudes.

- a) Recovery from inadvertent stalls
- b) Recovery from collapses (PG)
- c) Active flying in turbulence
- d) Directional and pitch control
- e) Use of Reserve parachutes
- f) Lookout
- g) Airmanship

Note: Some of these exercises must not be physically practised by a student

Lesson 24: Loose Formation / Gaggle flying

Aim: To safely fly in loose formation with other aircraft and particularly ridge soaring and thermalling procedures.

- a) Positioning in front, behind or alongside other gliders
 - b) Ridge soaring pattern and turning
 - c) Thermalling pattern and turning
 - d) Awareness of other aircraft
 - e) Blind spots scanning techniques
 - f) Turning in front of other aircraft and the effect on them, wake turbulence
 - g) Gliding in a gaggle
 - h) Airmanship
 - i) Air Law
-

6.8 NATIONAL FLIGHT INSTRUCTORS RATING

6.8.1 Paraglider and Hang glider Flight Training Syllabus



- 6.8.1.1 The National Flight Instructor rating across all disciplines offered at SAHPA follow the exact same practical syllabus as that of their National Pilot Licence category rating. E.g. National Flight Instructor (Hang Gliding) shall comply with National Pilot Licence (Hang Gliding) practical syllabus. Refer to the tables listed above for guidance and sequencing. In addition to these guidelines SAHPA also makes use of their own Flight Instructor Booklet which can be found on their website and available at all approved operational facilities.



PART 7

SIMULATION TRAINING

SYLLABUS



PART 7: Simulation Training Syllabus

PART 7: TABLE OF CONTENTS

Section 7	Simulation Training Syllabus
Not applicable to SAHPA operations	



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PART 8

THEORETICAL

KNOWLEDGE TRAINING

SYLLABUS



PART 8: Theoretical Knowledge Training Syllabus

PART 8: TABLE OF CONTENTS

Section 8	Theoretical Knowledge Training Syllabus
8.1	Overview of Theoretical Syllabus
8.2	Theoretical Subjects By Licence/ Rating
8.3	Description of Lesson and Hours Required

8.1 OVERVIEW OF THEORETICAL SYLLABUS

- 8.1.1 All theoretical lectures conducted at SAHPA shall be presented by an appropriately rated flight instructor or similar. Such a person should be duly trained and appropriately endorsed by the Facility CFI to undertake such a task.
- 8.1.2 Theoretical lectures will be booked in accordance to student and instructor availability.
- 8.1.3 The instructor shall ensure that his/her presentations are comprehensive and compliant with the provisions as laid out in the SA-CAR and SA-CATs, part 62. However, it remains the student's sole responsibility to ensure that he/she has studied for the exams in conjunction with attending the lectures. Ground school lectures is no guarantee to pass an exam.
- 8.1.4 All theoretical lectures shall occur congruently and be appropriate to the specific level/stage of the practical flight lesson. Refer to part 6 of this TPM for appropriate lesson sequencing.
-

8.2 THEORETICAL SUBJECTS BY LICENCE/ RATING

8.2.1 Hang Glider Category:

8.2.1.1 Novice rating;

- 1) General Knowledge
- 2) Basic air law
- 3) Basic meteorology
- 4) Flight and control
- 5) Glider design and equipment
- 6) Airflow
- 7) Airmanship

8.2.1.2 Class A rating;

- 1) Meteorology
- 2) Airflow
- 3) Glider design and Hang Glider Structure
- 4) Flying skills and airmanship
- 5) General Knowledge and Air Law
- 6) Aerodynamics
- 7) Aero-medical
- 8) Navigation and Airspace

8.2.1.3 Class B rating;

- 1) Meteorology and micro-meteorology
- 2) Equipment and flying skills
- 3) Hang Glider Structure and Aerodynamics
- 4) Airmanship
- 5) Aero-medical
- 6) Airspace and air law
- 7) Navigation and Airspace

8.2.1.4 Class C rating;

- 1) General and South Africa legal aspects
- 2) Air law
- 3) Navigation and Airspace
- 4) Flying skills
- 5) Medical aspects of flying
- 6) Meteorology (Including advanced micro meteorology)
- 7) Aero dynamics
- 8) Glider design
- 9) Aero-medical

Notes: Though the above theoretical subjects may seem homogeneous across the various licence spectrums. It needs be noted that the syllabus does differ depending on the level of the licence.

8.2.2 Paraglider Category:

8.2.2.1 Basic rating;

- 1) Principles of Flight
- 2) Basic Air law
- 3) Basic Meteorology
- 4) Glider design and equipment
- 5) Airmanship

8.2.2.2 Sport rating;

- 1) Meteorology
 - 2) Air law
 - 3) Glider design and equipment
 - 4) Principles of Flight
 - 6) Human Performance
 - 8) General Navigation and Airspace
-

8.2.3 National Flight Instructor Rating:

8.2.3.1 Grade C – Hang Gliding;

- 1) General Knowledge and Air Law
- 2) Hang Glider Structure and Aerodynamics
- 3) Navigation and Airspace
- 4) Flying Skills and Airmanship
- 5) Meteorology and Airflow
- 6) Aero-medical
- 7) Training methods

8.2.3.2 Grade B - Hang Gliding;

- No additional theoretical training required for this endorsement, it is purely based on acquired experience.

8.2.3.3 Grade C – Paragliding;

- 1) General Knowledge and Air Law
- 2) Paraglider Structure and Aerodynamics
- 3) Navigation and Airspace
- 4) Flying Skills and Airmanship
- 5) Meteorology and Airflow
- 6) Aero-medical
- 7) Liability Law
- 8) Proper attitude appropriate for the rating

8.2.3.4 Grade B – Paragliding;

- 1) General Knowledge and Air Law
- 2) Paraglider Structure and Aerodynamics
- 3) Navigation and Airspace
- 4) Flying Skills and Airmanship
- 5) Meteorology and Airflow
- 6) Aero medical
- 7) Liability Law
- 8) Training Methods
- 9) Proper attitude appropriate for the rating

Notes: In addition to the above theoretical subjects all flight instructor courses shall provide the following subjects which are specific for the flight instructor course only.

- a) General Instructing Fundamentals
 1. Qualities of an instructor
 2. Principles of learning
 3. The teaching process
 4. Principles of teaching the sport of Paragliding
- b) Responsibilities of a Complete Instructor

- c) Site selection
 - d) Weather conditions suitable for training
 - e) Equipment
 - f) Risk management
 - g) Aero-medical Information
 - 1. Physical factors
 - 2. Fatigue
 - 3. Hypoxia
 - 4. Alcohol
 - 5. Drugs
 - 6. Vertigo
 - 7. Other sports risks (eg scuba diving) and flying
 - 8. Psychological factors
 - 9. Anxiety
 - 10. Dealing with difficult mental attitudes
 - 11. Authority issues
 - 12. Fear
 - 13. Shyness
 - h) Inability to follow directives
 - i) Age related considerations
 - j) Licensing, the observer and sign-off system
 - k) License structure
 - l) License issuing procedure
-

8.3 DESCRIPTION OF LESSON TO COVER THE TRAINING

8.3.1 Hang glider:

8.3.1.1 GENERAL KNOWLEDGE

Cover the training

- a) Regulatory overview
- b) Record keeping
- c) Accidents and incidents
- d) License structure
- e) Peer supervision sign-off systems

8.3.1.2 BASIC AIR LAW

Cover the training

- a) Introduction to relevant CARs
- b) The need for flight patterns/right of way rules
- c) Right of way rules/principles
- d) Situational awareness
- e) Site establishment and registration
- f) Ridge soaring etiquette
- g) Thermalling etiquette

8.3.1.3 BASIC METEOROLOGY

Cover the training

- a) Macro-meteorology overview
- b) Micro-meteorology overview
- c) Three primary causes of turbulence
- d) Wind shadow and wind gradient

8.3.1.4 FLIGHT CONTROL

Cover the training

- a) Wind speed and associated risks
- b) Strong wind precautions
- c) Stall recognition and recovery
- d) Wind speed, Airspeed and groundspeed judgment
- e) Polar curves, glide ratio, sink rate, wing loading
- f) Speed to fly
- g) The effects of wing loading on handling and performance

8.3.1.5 AERODYNAMICS

Cover the training

- a) Three axis of flight – pitch, roll and yaw
- b) Definitions: Angle of attack, anhedral, dihedral, washout, sweepback, camber, reflex.
- c) Stability features in pitch, roll, yaw
- d) Airflow over wing and resultant forces (lift vector, resultant lift, drag, gravity and direction of flight)

8.3.1.6 HANG GLIDER DESIGN AND EQUIPMENT

Cover the training

- a) Harness types (knee-hangers, pod, cocoon, stirrup, supine and supprone)
- b) Rogallo wing hazards
- c) Modern hang glider features – washout battens, sprogs, flutter sticks, variable billow/geometry, carbon fiber tubing
- d) Disassembly and inspection of hang glider

8.3.1.7

PRE-FLIGHT CHECK PRINCIPLES

Cover the training

- a) Glider, harness, helmet, weather and pilot, the 3 H's and the 5 LC's.
- b) Effects of wing loading and hang point adjustments

8.3.1.8

AIRFLOW

Cover the training

- a) Terrain and wind – The shape of the hill/mountain - rotor, compression, venturi, gradient and wind shadow.
- b) Determinants of ridge lift
- c) Important safety considerations and precautions – identifying safe and danger areas for launch, in flight and landing

8.3.1.9

AIRMANSHIP

Cover the training

- a) Contributing factors (knowledge, skill, experience and pilot attitude - flying is more about attitude than altitude)

8.3.2 Paraglider:

8.3.2.1 GLIDER DESIGN AND INSTRUMENTS

Airframe:

- a) Structure
- b) Materials
- c) Wear and tear considerations

Power: (PPG; PT only)

1. Engines – general
2. Ignition systems
3. Carburetion and Fuel system
4. Fuel
5. Electrical system
6. Propeller

Instruments:

1. Altimeter
2. Variometer, visual and audio
3. GPS
4. Engine instruments
5. Pressure altitude, density altitude

8.3.2.2 GENERAL NAVIGATION

1. Distance and Altitude
2. Principles of Navigation
3. Flight Planning

8.3.2.3 HUMAN PERFORMANCE AND LIMITATIONS

Human performance limitations:

1. Introduction
2. Hypoxia
3. Hyperventilation
4. Air sickness
5. Epilepsy
6. Alcohol and drugs
7. Disorientation
8. Management of stress
9. The ego factor
10. Intermediate syndrome

Passenger Care: (Tandem only)

1. Harness and comfort
2. Briefing
3. Pilot attitude

8.3.2.4 BASIC AIR LAW

1. Applicable regulations and other documents
2. Airworthiness aspects
3. Personal flying logbook
4. Airspace classification
5. General flight rules
6. Visual flight rules
7. Incident/accident reporting

8.3.2.5 BASIC METEOROLOGY

1. Pressure, Density and Temperature
2. Pressure and Wind
3. Cloud Formation
4. Fog, Mist and Haze
5. Air Masses
6. Fronts
7. Thunderstorms
8. Flight over Mountainous Areas
9. Weather Analysis and Forecasting
10. Weather Information for Flight Planning

8.3.2.6 AERODYNAMICS

Forces:

1. Weight
2. Lift
3. Drag
4. Thrust (PPG)

Aerofoils

Flying Controls:

1. Yaw, Pitch, Roll
2. Wind direction, strength and topography

Paraglider Specific:

1. The Stall
2. Stability
3. Air speed, Ground speed, wind speed
4. Turning
5. Paraglider performance

8.3.2.7 FLIGHT CONTROL

1. Wind speed and associated risks

2. Strong wind precautions
3. Stall recognition and recovery
4. Wind speed, Airspeed and groundspeed judgment
5. Polar curves, glide ratio, sink rate, wing loading
6. Speed to fly
7. The effects of wing loading on handling and performance

8.3.2.8 PRE-FLIGHT CHECK PRINCIPLES

1. Paraglider, harness, frame (PG), helmet, weather and pilot, the 5 point check
2. Effects of wing loading and hang point adjustments (PPG)

8.3.2.9 AIRFLOW

1. Terrain and wind – The shape of the hill/mountain - rotor, compression, venturi, gradient and wind shadow.
2. Determinants of ridge lift
3. Important safety considerations and precautions – identifying safe and danger areas for launch, in flight and landing

8.3.2.10 AIRMANSHIP

1. Contributing factors (knowledge, skill, experience and pilot attitude - flying is more about attitude than altitude)

8.3.2.11 PRINCIPLES OF FLIGHT

Thermalling:

1. Introduction to thermals
2. Thermalling techniques.
3. Rules in a thermal and right of way.
4. Structure of a thermal and effects of prevailing wind and lapse rate.

Ridge Soaring:

1. Introduction to ridge lift
2. Lift and pressure bands.
3. Ridge Rules and right of way.

Cross Country flight:

1. Introduction to cross country flying
2. Out landings and recovery.
3. Flight planning.

8.3.2.11 Display and Aerobatic Flying

This is covered in our applicable annexures and are specific manoeuvres that are trained by SAHPA's display authorisation team.



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PART 9

TESTS AND CHECKS

PART 9: Tests and Checks

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Section 9	Tests and Checks
9.1	Introduction
9.2	Procedures for an initial, renewal or lapsed license or rating
9.3	Test Records/Documentation

9.1 INTRODUCTION

- 9.1.1 SAHPA conducts theoretical examinations and practical skills tests towards the issuance of a license and/or rating as per scope of training.
- 9.1.2 A person tasked to conduct any test at SAHPA shall have the responsibility to ensure that such a test is done as per the SA-CAR and SA-CATs, part 62.
- 9.1.3 All Skill tests shall cover items as documented on the relevant Skill test form.

9.2 PROCEDURES FOR THE INITIAL ISSUE OF A LICENSE AND/ OR RATING. RENEWAL OR LAPSED LICENSE OR RATING

- 9.2.1 Proficiency checks for the issue of an Initial License shall be conducted by an appropriately rated Grade A or Grade B instructor for the relevant discipline.
- 9.2.2 Proficiency checks shall be conducted as per the relevant skills test form.
- 9.2.3 All skill test forms/documents shall, upon completion of the test, be counter signed by both the student and instructor.
- 9.2.4 Renewal forms may be signoff by senior pilots (sport licensed) for the annual renewal provided that the minimum flights and hours as required are met as part of our safety peer system
- 9.2.5 Each discipline (license category and/or rating) has a theoretical open book test. The theoretical tests have a minimum 85% pass mark as applicable

9.3 TEST RECORDS/ DOCUMENTATION

- 9.3.1 All test and evaluation documentation shall be managed and stored in the manner prescribed in Part 10 of the Sahpa TPM.



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PART 10

RECORDS

PART 10: Records

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Section 10	Records
10.1	Introduction
10.2	Policy and procedures regarding the attendance records
10.3	Policy and procedures regarding the student training records
10.4	Policy and procedures regarding staff training and qualification records
10.5	Policy and procedures regarding the person responsible for checking records and student logs
10.6	Policy and procedures regarding the nature and frequency of record checks
10.7	Standardisation of record entries
10.8	Security of records and documents

10.1 INTRODUCTION

10.1 As a general rule, all operational facilities shall retain their own records and shall manage them in the manner prescribed in this part.

10.2 The Quality Manager (SAHPA secretary) is the person responsible for SAHPA's documentation management system which includes record management.

10.3 The Facility CFI is responsible for maintaining their respective facility's documentation/records. This process shall be overseen by the Facility CFI.

10.2 POLICY AND PROCEDURES REGARDING THE ATTENDANCE RECORDS

10.2.1 Lectures, flights and manoeuvres as required will be documented in the students records;

10.3 POLICY AND PROCEDURES REGARDING THE STUDENT TRAINING RECORDS

10.3.1 Student flying training records will be kept in a file dedicated to that particular student for each course;

10.3.2 If the student attends more than one course, then the file will be continued;

10.3.3 All forms completed (application forms etc.) or relevant to a student, will be copied and that copy kept in the file;

10.3.4 Copies of all skills tests and medical fitness will be kept in the file;

10.3.5 If any contract is drawn up between the student and SAHPA, a copy will be kept in the file;

10.3.6 Once student licensing requirements are met, the above original documents will be forwarded to SAHPA for processing within an acceptable time frame. Originals will thereafter be submitted to the applicable authorities for licensing and safe-keeping purposes. An electronic copy of such records will be retained by the instructor.

10.3.7 All student records will be kept for a period of 5 years as per requirement of SA-CAR, part 141.02.14.

10.3.8 If training is discontinued at SAHPA for any reason then SAHPA will supply the student with his/her original training file and a written report indicating the hours flown, the standard achieved and reason for the discontinuance/transfer of such training. An electronic copy of this file and report will be maintained for a period of 5 years by SAHPA;

10.4 POLICY AND PROCEDURE REGARDING STAFF TRAINING AND QUALIFICATION RECORDS

- 10.4.1 Each Facility CFI will have a file for record keeping that shall contain the following information;
- a) Personal details such as telephone numbers, address and next-of kin;
 - b) Any contract drawn up between the Instructor and SAHPA will have a copy kept in the file;
 - c) The duties and responsibilities of the Instructor will be recorded and signed by the Instructor and the Facility CFI;
 - d) A copy of the latest pilot license and medical fitness certificate will be kept in the file;
 - e) All other relevant data with regard to the instructor will be kept in this file;
 - f) Other staff members will also have files containing personal details, as well as any contracts or relevant documents.

10.5 POLICY AND PROCEDURE REGARDING PERSON RESPONSIBLE FOR CHECKING RECORDS AND STUDENT LOGS

- 10.5.1 The Quality Manager is responsible for the overall Quality Management and Assurance System at SAHPA. However the maintenance of each individual student training file shall be kept up to date by that student's instructor. The Facility CFI will ensure that the record management system is maintained at their respective facility.
- 10.5.2 The Facility CFI shall make notes in the QMS logbook of events that simple checks have been conducted i.e. checked the files for completeness and signature.

10.6 POLICY AND PROCEDURE REGARDING THE NATURE AND FREQUENCY OF RECORD CHECKS

- 10.6.1 Every 6 months checks will ensure that all documentation utilized by the ATO are compliant with the SA-CAR/CAT's, in addition, are compliant with the provisions of this manual.
- 10.6.2 Checking of documentation e.g. training files shall be conducted on a quarterly basis.
- 10.6.3 As far as possible all checks should be conducted by means of a checklist/s to ensure that all requirements are met.

10.7 STANDARDISATION OF RECORD ENTRIES

- 10.7.1 SAHPA will as far as possible maintain a uniform/consistent documentation format throughout their documents. Each file shall contain a checklist and be ordered accordingly

10.8 SECURITY OF RECORDS AND DOCUMENTS



10.8.1 All files will be kept in a safe place and only available to applicable persons.



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PART 11

QUALITY MANAGEMENT SYSTEM

PART 11: Quality Management System

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11.1	Quality Policy
11.2	Introduction
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11.4	Quality Assurance System
11.5	Quality Assurance Audit Program
11.6	Quality Inspection
11.7	Audit
11.8	Auditors
11.9	Auditors Independence
11.10	Audit Schedule
11.11	Monitoring and Corrective Action
11.12	Management Review and Analysis
11.13	Recording
11.14	Quality Assurance Training
11.15	Functioning of the Quality System
11.16	Sourcing of Personnel Training

11.1 QUALITY POLICY

Amendment no: Original

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Effective date: 10 December 2018



11.1.1 SAHPA is committed to deliver service excellence to their clients and stakeholders by ensuring that the flight training conducted is of quality and an acceptable safety standard.

SAHPA is committed to ensuring their staff members are well versed with the provisions and content of their manuals which include all policy and procedures.

The monitoring and evaluation of our Quality Management System shall be conducted in accordance with the Quality Assurance System overseen by the Quality manager.

COMMITMENT AND CERTIFIED STATEMENT BY THE ACCOUNTABLE MANAGER

This TPM is compiled in accordance with document SA-CAR and SA-CATs, Part 141, Aviation Training Organizations.

Certified Statement

The Accountable Manager of the South African Hang Gliding and Paragliding Association, knows and understands the contents of this SAHPA, Training and Procedures Manual.

This Training and Procedures Manual contains a true and accurate reflection of our policies and procedures and shall be complied with.

The signature is confirmed on an official Sahpa letter that is renewed with the authorities when necessary or there is a change

11.2 INTRODUCTION

11.2.1 This quality assurance system is developed to ensure that training and instructional practices comply with relevant requirements.

11.3 QUALITY MANAGER (SAHPA Secretary)

11.3.1 The primary role of the Quality Manager is to verify, by monitoring activities of training, that the standards established by the ATO and any additional requirements of the Director maintained;

11.3.2 The Quality Manager may employ an auditor to assist in assessing the application of the policies. They may monitor the application of the Training Procedure Manual, and access it is adequate to ensure safety and quality at the school.

11.3.3 The Quality Manager shall be responsible for ensuring that the quality assurance system is implemented, maintained and continuously reviewed and where and if necessary improved;

11.3.4 The Quality Manager shall:

- have direct access to the Accountable Manager
- have access to all parts of the organization;
- The Quality Manager shall be responsible for ensuring that personnel's training relating to the quality assurance system is conducted.

11.4 QUALITY ASSURANCE SYSTEM

11.4.1 The quality assurance system of the ATO ensures compliance with requirements, conformance to standards and adequacy, documented in TPM. Processes that assist the ATO to achieve applicable results may be identified and the activities and procedures documented. The ATO shall specify the basic structure of the quality assurance system applicable to all training activities conducted.

11.4.2 FEEDBACK SYSTEM

11.4.2.1 The quality assurance system shall include a feedback system enabling corrective actions are identified and addressed; the feedback system shall specify who shall ensure rectification of discrepancies and non-conformance and the procedure enacted should a corrective action not be completed within an acceptable period of time.

11.4.3 DOCUMENTATION

11.4.3.1 Relevant documentation includes the relevant part(s) of the TPM, which may be included if necessary in a separate manual. Documentation shall include the following:

- quality policy
- terminology
- specified training standards
- a description of the organization
- the allocation of duties and responsibilities
- training procedures to ensure regulatory compliance
- The quality assurance audit program, reflecting
 - Schedule of the monitoring process
 - Audit procedures
 - Reporting procedures
 - Follow-up and corrective action procedures
 - Recording system; and
 - Document control

11.5 QUALITY ASSURANCE AUDIT PROGRAM

11.5.1 The quality assurance audit program shall include planned and systematic actions necessary to confirm that training is conducted in accordance with the TPM, and upholds the applicable standards.

11.6 QUALITY INSPECTION

11.6.1 The primary purpose of a quality inspection shall be to observe a particular event/action/document, to verify if established training procedures and requirements are complied with, and the required standard is achieved. Subject areas for quality inspections shall include:

- actual flight and ground training
- maintenance
- technical standards
- training standards
- All procedures included in the TPM to ensure the processes instituted meet the ATO's intended goal and facilitate improvement in the processes.

11.7 AUDIT

11.7.1 An audit is a systematic and independent comparison of training and is conducted against the published training procedures. Audits may include the following quality procedures and processes:

- an explanation of the scope of the audit
- planning and preparation
- gathering and recording evidence
- analysis of the evidence

The following techniques may make up an effective audit:

- interviews or discussions with personnel
- a review of published documents
- the examination of an adequate sample of records
- the witnessing of the activities which make up the training
- the preservation of documents and the recording of observations

11.8 AUDITORS

11.8.1 The ATO shall decide, depending on the complexity of the training, to make use of an independent auditor that shall have appropriate training and/or operational experience. The responsibilities of the auditor will be defined in the documentation.

11.9 AUDITOR'S INDEPENDENCE

11.9.1 Auditors shall not have day-to-day involvement in operations or maintenance activity that shall be audited. The ATO may use the services of a part-time auditor. Any ATO with a structure or size may not justify use of a full-time auditor and may complete the audit function with the use of part-time personnel from within the organization or from an external source in terms of an agreement acceptable to the applicable authorities.

11.9.2 The ATO will develop suitable procedures to ensure that persons directly responsible for the activities audited are not selected as part of the auditing team. Where external auditors are used the specialist will be familiar with the type of training conducted by the ATO.

11.9.3 The quality assurance audit program of the ATO will identify the persons within the organization with applicable experience, responsibility, and authority to:

- perform quality inspections and audits as part of the ongoing quality assurance
- identify and record any concerns or findings, and the evidence necessary to substantiate such concerns or findings
- initiate or recommend solutions of concerns or findings through designated reporting channels
- verify the implementation of solutions within specific time scales
- report directly to the quality manager

11.10 AUDIT SCHEDULING

11.10.1 The quality assurance audit program will include an audit schedule to review all training for the calendar year and a periodic review cycle that is flexible incorporating unscheduled audits when trends are identified. Follow-up audits shall be scheduled when necessary to verify that corrective action is implemented and effective. The ATO will establish a schedule of audits to be completed during a specific calendar period. This will be provided to the applicable authorities before end January of each year.

11.11 MONITORING AND CORRECTIVE ACTION

11.11.1 The aim of monitoring within the quality system is to establish its effectiveness and ensure that defined policy and training standards are complied with. Monitoring involves quality inspections, audits, corrective action and follow-up. The ATO will establish and publish a procedure to monitor compliance with requirements and conformance to standards to eliminate unsatisfactory performance. Non-conformance identified will be communicated to the manager responsible for taking corrective action or, if necessary, the head of training. Non-conformance will be recorded, for the further investigation to determine cause and to enable the recommendation of appropriate corrective and preventative action.

11.11.2 The quality assurance audit program will include procedures to ensure corrective and preventative actions are developed based on findings and will monitor such actions to verify their effectiveness are completed. Organizational responsibility and accountability for the implementation of corrective action resides with the department where the finding is identified. The head of the training will have the responsibility for ensuring through the quality manager that corrective action has re-established conformance with the standard required by the ATO and any additional requirements applicable

11.12 MANAGEMENT REVIEW AND ANALYSIS

11.12.1 Management will accomplish a comprehensive, systematic documented review and analysis of the quality assurance system, training policies and procedures and will consider:

- the results of quality inspections, audits and any other indicators
- the overall effectiveness of the management organization in achieving stated objectives

11.12.2 Conclusions and recommendations made as a result of the review and analysis will be submitted to the responsible manager for action. He/she will have authority to resolve issues and take action. The head of the training organization shall decide upon frequency, format and structure of internal review and analysis meetings.

11.13 RECORDING

11.13.1 Complete and readily accessible records documenting the result of the quality assurance audit program shall be maintained by the ATO with applicable data to enable the ATO to analyze and determine causes of non-conformity to identify and address areas of non-compliance;

11.13.2 Records that deal with the corrective action below will be retained a period of 5 (five) years is recommended:

- audit schedules
- quality inspection and audit reports
- responses to findings
- corrective and preventative action reports
- follow-up and closure reports
- management review and analysis reports

11.14 QUALITY ASSURANCE SYSTEM TRAINING

11.14.1 Training is essential to optimize quality in every organization. To achieve effective outcomes of training, the ATO shall ensure staff understand the objectives of the TPM specific to QAS and those responsible for managing the quality assurance system shall receive training covering:

- an introduction to the concept of a quality assurance system
- quality management
- concept of quality assurance
- quality manuals

- audit techniques
- reporting and recording

11.15 FUNCTIONING OF THE QUALITY SYSTEM

- 11.15.1 The allocation of time and resources will be governed by the size and complexity of the ATO to train every individual involved in quality assurance and briefing of other employees

11.16 SOURCES OF PERSONNEL TRAINING

- 11.16.1 The ATO may consider whether have their employees attend QAS training courses. In-house training is considered to be sufficient, if the staff are suitably trained on the systems.



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PART 12

SAFETY MANAGEMENT SYSTEM

PART 12: Safety Management System

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12.13	Emergency Response Plan

12.1 ABBREVIATIONS

ALARP	As Low as Reasonably Practicable
ASM	Aviation Safety Manager
ASO	Aviation Safety Officer
BSO	Facility Safety Officer
CAP	Corrective Action Plan
CATS	Civil Aviation Technical Standards
CEO	Chief Executive Officer
EMP	Emergency Management Plan
ERP	Emergency Response Plan
FDA	Flight Data Analysis
FSO	Flight Safety Officer
ICAO	International Civil Aviation Organisation
ISO	International Organisation for Standardization
MOC	Management of change
NCF	Non Conformance Finding
NSO	National Safety Officer
OHS	Occupational Health & Safety
OHSE	Occupational Health, Safety & Environment
PPE	Personal Protective Equipment
QAS	Quality Assurance System
QMS	Quality Management System
RAM	Risk Assessment Matrix
SACAA	South African Civil Aviation Authority
SMS	Safety Management System
LCC	Local Crisis Centre (Scene of accident)
CCC	Crisis Control Centre

Definitions

Safety. The state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management.

Hazard is a condition or an object with the potential to cause injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.

Safety risk the assessment, expressed in terms of predicted probability and severity, of the consequences of a hazard, taking as reference the worst foreseeable situation

Safety risk management is a generic term that encompasses the assessment and mitigation of the safety risks of the consequences of hazards that threaten the capabilities of an organization, to a level as low as reasonably practicable

ALARP). Level of safety (is the degree of safety of a system. It represents the quality of the system, safety-wise. It is expressed through safety indicators;

Safety indicators are the parameters that characterize and/or typify the level of safety of a system;

Safety targets are the concrete objectives of the level of safety;

Acceptable level of safety is the minimum degree of safety that must be assured by a system in actual practice;

Safety measurement refers to the quantification of the outcomes of selected high-level, high-consequence events, such as accident and serious incident rates.

Safety performance measurement refers to the quantification of the outcomes of selected low-level, low consequence processes. It is a non-stop activity, involving continuous monitoring and measurement, by an organization.

Safety Assurance means a process of examining an organization's SMS and evaluating its effectiveness, based on the SMS components and elements. This extends from an evaluation for regulatory compliance; Organisation when used alone means all functions of service provision within the aviation industry. It refers to all certificate holders under Parts 141.

Within the organisation includes all business and support functions, such as Operations, Maintenance, Manufacturing, Finance and Administration.

Safety Management System (SMS) means documented processes for managing risk that integrates operations and technical systems with the management of financial and human resources as well as infrastructure and technology, to ensure aviation safety or the safety of the public.

1. Safety policy and objectives

- 1.1 – Management commitment and responsibility
- 1.2 – Safety accountabilities of managers
- 1.3 – Appointment of key safety personnel
- 1.4 – SMS implementation plan
- 1.5 – Coordination of the emergency response plan
- 1.6 – Documentation

2. Safety risk management

- 2.1 Hazard identification processes
- 2.2 Risk assessment and mitigation processes

3. Safety assurance

- 3.1 Safety performance monitoring and measurement

- 3.2 The management of change
- 3.3 Continuous improvement of the safety system

4. Safety promotion

- 4.1 Training and education
- 4.2 Safety communication

Step 1: Determine the safety indicator for the organisation, in other words the measure that would be used to assess safety performance (It defines WHAT will be measured).

Step 2: Determine the baseline (current) performance against this safety indicator (based upon current available data or information OR a best estimate of the current situation) (It defines the CURRENT SITUATION in relation to the indicator) Step

3: Agree on a Safety Performance Target that is specific, measurable, attainable, realistic and time based. (It defines what you want to ACHIEVE)

Step 4: Determine interventions (actions required to be taken) to assist achievement of the standard as well as who would be responsible to action them (by when).

12.2 SAFETY POLICY

SAHPA recognises Safety as one of its core values and to this end shall however it must be recognised as a volunteer organisation and not operated to the levels or an airline or like organisation thus requires simple and reasonable systems that are easily administrated:

To that end Sahpa will establish an efficient Safety Management System that is user friendly; comprehensive and compliant with all applicable statutory requirements.

It further recognises the following principles

- Compliance with known procedures produces known outcomes
- Compliance with standards helps guarantee repeatable results
- Bad rules produce bad results
- Complacency affects the safe operation of the aircraft and cannot be tolerated
- Standards are mechanisms for change
- The hardest thing to do and the right thing to do are often the same thing.

Though we understand and recognise that safety is everybody's responsibility, as management/executive we are committed to fulfilling all provisions as set out in our SMS Sahpa will with an acceptable means of compliance implement a safety standard and safety management system wherein the organization and its facilities would:

- Develop, establish and continually improve for all facets of the organization;
- Dedicate safety as a core value of the organization; Safety Management System for Aviation Organizations
- Make available the required resources for implementing and managing the SMS;
- Stipulate that safety requirements are applicable to all employees, contractors, and partners of the organization;

- Review the safety policy periodically;
- Promote participation of employees, contractors and partners in the operation of the SMS;
- Establish and practice formalized and interactive communication, and
- Establish a simple yet effective reporting policy for all employees and stakeholders;
- Actively participate in and support the SMS.

COMMITMENT AND CERTIFIED STATEMENT BY THE ACCOUNTABLE MANAGER

This TPM is compiled in accordance with document SA-CAR and SA-CATs, Part 141, Aviation Training Organizations.

Certified Statement

This is to certify that I, Peter Wallenda, the **Accountable Manager of the South African Hang Gliding and Paragliding Association**, know and understand the contents of this SAHPA, Training and Procedures Manual.

This Training and Procedures Manual contains a true and accurate reflection of our policies and procedures and shall be complied with.

Signature: 	Date: 28 February 2019
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12.3 INTRODUCTION

12.3.1. Addressing the underlying causal factors and attitudes towards safety both human and technological will prevent accidents. The term 'organisational accident' normally relates to a chain of events are under the control of the organisation that may lead to an accident impacting upon aviation safety within SAHPA, thus making the system safer will require action by an organisation.

Adopting a system approach to safety management is an efficient way to make aviation safer where in integration of operations and technical systems with financial and human resource management will reduce possible safety risk.



This SMS Manual is a compilation of practices and solutions that SAHPA management and personnel will implement and abide by to meet their safety obligations and will be reviewed on an annual basis.

12.3.2 SAHPA will concentrate on these areas

Pilot attitude (over-confidence) specifically in regard to weather conditions, close proximity flying and/or inadequate planning. Flying of equipment outside of acceptable parameters, and disregard of standard / safe operating procedures.

12.3.3 SAHPA is committed to implement a applicable aviation Safety Management System through various actions, to create a safety culture within SAHPA.

12.3.4 Accidents are often preceded by unsafe acts or conditions and/or occurrences which indicate accident potential or an unsafe environment. The SAHPA SMS strives to encourage proactive safety management practices, thereby reducing the risk of incidents and accidents.

12.3.5 The Management of SAHPA accepts responsibility for providing a safe and healthy working environment which meets where applicable relevant legal and regulatory requirements. Personnel are responsible to comply with our policies, procedures and regulations put in place to safeguard themselves, their co-workers, contractors, public and the environment.

12.3.6 Annual review of the effectiveness of the SMS will ensure that legislative compliance is adhered to and member and public satisfaction is maintained.

12.3.8 Rules and Regulations cannot address every contingency thus staff will be relied upon to use their discretion and sense of responsibility in times of emergency or abnormal circumstances. Any Pilot-In-Command has full authority in times of emergency or abnormal circumstances, to take any decisions necessary in the interest of safety for human lives and the aircraft itself.

12.3.9 Safety audits shall be conducted regularly reviewed by the Chief Executive Officer and the Aviation Safety Manager in consultation with the SAHPA Safety Committee.

12.4 SCOPE OF SAHPA SMS

12.4.1 This Safety Management System addresses various aspects of aviation safety within SAHPA's areas of operation, namely flight training provided under Civil Aviation Regulations. Our SMS recognises the following 7(seven) critical SMS ELEMENTS:

1. SMS Management Plan.
2. Safety Promotion.
3. Document and Data Information Management.
4. Hazard Identification and Risk Management.

5. Occurrence Investigation and Analysis.
6. Safety Assurance Oversight Programs.
7. Emergency Preparedness and Response.

12.5 SMS MANAGEMENT PLAN – ELEMENT ONE

12.5.1 Aviation Safety Principles

12.5.1.1 Management embraces the following Safety principles: -

- a) Always operate as safely as possible
- b) A culture reporting of all safety hazards in which management will not initiate disciplinary action against any personnel, who in good faith, due to unintentional conduct, discloses a hazard or safety occurrence
- c) avoiding unnecessary Risks
- d) Safe does not mean Risk free
- e) Everyone is responsible for the identification and management of Risk
- f) Familiarity and prolonged exposure without an occurrence, leads to loss of appreciation of Risk (complacency)

12.5.2 SAHPA Safety Committee

12.5.2.1 In order to facilitate frequent communication and a focus on safety, SAHPA has a Safety Committee chaired by the NLO. Core Safety Committee members will be:

- Chief Executive Officer
- Head of Training
- Quality Manager
- Aviation Safety Manager
- Geographical Chief Flying Instructors (i.e. heads of disciplines)
- Any other person / Management specialist deemed necessary for the specific issue/s at hand

12.5.2.2 The Scope of the Safety Committee is: -

- a) Review of safety matters reported, and actions taken previously.
- b) Safety Reports (ASRs) - hazards and incidents, with emphasis on the closing out of action items.
- c) Reviewing and Facility safety reports audit reports, with emphasis on the closing out of action items
- d) Safety issues pertaining to any Facility
- e) Review the effectiveness of any policies, procedures or practices in place to meet the intention of this SMS
- f) New documentation / literature available for distribution to operational and ground staff.
- g) Review matters as raised at Facility Flight Safety Meetings (As per feedback from Facility Flight Safety Meetings).
- h) The promotion of Safety, Health and Environmental protection

Safety Committee Meeting shall be held **annually**. The Meetings shall be minute with action column and circulated to relevant Committee Members via acceptable channels. Required actions shall be documented, identifying the responsible person for the action, together with the target action and completion date.

In order to effectively manage aviation safety, the aviation safety committee will satisfy the following criteria:

- a) be advisory in the management of aviation safety with respect to the operational task.
- b) hold primary status within the organisation.
- c) be manned accordingly with the organogram and Sahpa system.
- d) have executive authority regarding decisions in respect of aviation safety, operational safety and occurrence/accident prevention and investigation procedures.
- e) ensure Aviation Safety actions and plans are implemented.
- f) communicate safety information to the organisation via acceptable means

12.5.3 Safety and Quality Functions, Roles and Responsibilities

12.5.3.1 The following specific persons will be responsible for the respective aviation safety functions as described below: -

12.5.3.2 Chief Executive Officer:

- Ensure adherence by all members of Sahpa with the SMS system upholding the policy.
- Set guidelines for SAHPA's Safety Management System.
- Encourage management and personnel commitment towards aviation safety.
- Establish the required organisational structures to manage aviation safety.
- Ensure that all legal requirements with respect to aviation safety are complied with.
- Commit the required human, material and financial resources to effectively manage aviation safety within SAHPA.
- Give credibility to the Safety Management System through visible participation, concern, support and enforcement of standards and principles.
- Terminate or prohibit any operation, which is unsafe or has an unacceptably high-risk factor that could jeopardise aviation safety.

12.5.3.3 Aviation Safety Manager (NSO):

- a) The Aviation Safety Manager provides reports or if need be data to the Chief Executive Officer regarding major safety issues identified by the system. It is also the responsibility for informing the CEO of major safety deficiencies identified by CFI of each facility within their responsible area. Furthermore, whilst the safety office may be involved in discussions regarding possible corrective action, it is the responsibility of the functional Head of each facility to determine what the corrective action will be and to ensure the outcome is monitored and evaluated.
- b) The safety office does not have the authority to overturn operational decisions related to safety issues identified by the system or the safety management system itself.
- c) The ASM is responsible to inform and advise the CEO on all matters relating to the safe operation of SAHPA and facilities as follows: -
 - Implement and manage a dynamic Aviation Safety Management System.
 - Advise and liaise with Facility CFI and senior pilots on all aviation safety-related matters as required.
 - Evaluate the effectiveness of the Aviation Safety Management System.
 - Record, analyse and document any relevant aviation hazards/ occurrences/ incidents/ accidents.
 - Conduct or arrange investigations into selected hazards/ occurrences/ incidents/ accidents in order to determine causes and implement counter-measures in conjunction with AIID.
 - Stop or prohibit any operation, which is unsafe and could jeopardize aviation safety.
 - Ensure the safety committee reviews trends in order to predict future potential accidents or occurrences.
 - Ensure reports and safety briefings are made available to Sahpa members
 - Oversee aviation safety education, training and awareness programs.
 - In line with the principles of the Quality Assurance System, ensure regular safety audits are conducted in order to evaluate the safety state of SAHPA and the safety measures in place.
 - Liaise and co-ordinate with other sections within SAHPA with respect to accidents, incidents, occurrences and any other safety issues.
 - Ensure that Facilities develop and maintain an aviation safety Emergency Response Plan in line with Sahpa standards.
 - Ensure the aviation safety visits and audits are conducted within the various Facilities.
 - Liaise with the aviation safety persons of other aviation training schools.
 - Report all accidents and incidents to the applicable authority which are mandatory reportable occurrences in accordance with the CAR's.
 - Liaise with the Applicable authorities on all aviation safety related matters.

12.5.3.4 Safety Manager/Officer Requirements:

12.5.3.4.1 The selection criteria for safety managers or safety officers are senior pilots and should have the following suggested attributes and knowledge:

- a) Broad operational knowledge and experience in the functions of the organisation;
- b) Knowledge of safety management principles and practices;
- c) Written and verbal communication skills;
- d) Interpersonal skills;
- e) Computer literacy;
- f) The ability to relate at all levels, both inside and outside the organisation;
- g) Organisational ability;
- h) Capable of working unsupervised;
- i) Leadership skills and authoritative approach;
- j) Worthy of respect among peers and management;

12.5.3.4.2 Regarding safety matters, the safety manager has direct access to the Chief Executive Officer and appropriate senior and middle management.

12.5.3.4.3 The safety manager is authorized to conduct safety audits, surveys and inspections of any aspect of the operation. The safety manager has the authority to conduct investigations of internal safety events in accordance with the procedures specified in the safety management systems manual of the organisation. The safety manager has the authority to stop or prohibit any operation considered to be unsafe

12.5.3.5 HOT; Regional CFI and Facility CFI:

12.5.3.5.1 All managers/personnel who have staff reporting to them have the following responsibilities within their areas of concern:

- a) Promote a 'Just Culture' in the Air Safety Reporting system
- b) Implement aviation safety management system elements as required by SAHPA in their respective area of responsibility.
- c) Ensure a safe and healthy working environment with safe working procedures
- d) Report any safety concerns to Management.
- e) Ensure that safety training is provided to applicable personnel.
- f) Ensure safety standards applicable to their area of responsibility are current, available and implemented.
- g) Ensure all personnel under their jurisdiction receive briefing in safety standards, procedures and requirements for the safe conduct of their tasks.
- h) Ensure that facilities, equipment, work areas and work processes comply with established standards and manuals.

- i) Give support to the respective Aviation Safety Manager / Officer participating in the Aviation Safety Management System.
- j) Report via the SMS any a hazard and or risk in their area of responsibility. Encourage hazard-reporting via the SMS
- k) Initiate corrective and preventative actions promptly to correct hazards and safety deficiencies.
- l) Assist in any investigation into any hazard, occurrence, incident, or accident occurrence.
- m) Stop or prohibit any operation that is unsafe and that could jeopardize aviation safety.
- n) Implement the actions and recommendations determined by the Aviation Safety Manager / Officer as recommended.
- o) Assist with quality assurance checks when required by the QMS as required.

12.5.4 Intentional Non-Compliance with Standards

- 12.5.4.1 Corrective action with respect to non-compliance can include counselling, training, discipline, grounding or removal.
Corrective action must be consistent and fair.
- 12.5.4.2 Organisation management makes a clear distinction between honest mistakes and intentional non-compliance with standards. Honest mistakes shall be addressed through an appropriate forum, dependant on the reason/s and in accordance with the findings of the investigation.
- 12.5.4.3 Intentional non-compliance shall result in further actions being taken. This may include disciplinary action in line with the "Just Culture" principle.

12.6 **SAFETY PROMOTION – ELEMENT TWO**

12.6.1 Promoting Safety

Safety promotion aimed at changing behaviour to enable creating a safety Culture these factors as possible.

The following methods are used to promote safety:

- Displaying on the website the Safety Policy and ensuring an awareness and understanding of the safety policy (refer SMS Element 1)
- Safety Meetings or briefings shall be conducted or provided every quarterly on each facility as applicable and if necessary
- Safety feedback process.
- Senior management's commitment to the SMS published.
- Continuous participation by all employees and members in safety promotion.

12.6.2 Outputs of the SMS

Outputs of the SMS are communicated via Sahpa acceptable channels :

- notes of Safety Meetings or published briefings as applicable
- Summaries of Incident, Occurrence and Hazard Reports

12.6.3 Safety Training

- Initial and recurrent training is provided to all personnel as applicable.
- Training requirements are analysed and reviewed on an ongoing basis.
- Induction Training to all management and employees will provided as per SAHPA systems.
- Safety Recurrent Training: Periodic safety related recurrent training applicable to the individuals' role will be provided when necessary (management only)

12.6.4 Safety Feedback. Safety feedback system is established by:

- Facility safety meetings or Briefings
- Hazard and Incident reporting
- Anonymous reporting system
- Safety Office Open door practise.

12.6.5 A "Just Culture"

A Just Culture is fully promoted. Refer to Element 5 of the SMS.

12.7 DOCUMENT & DATA INFORMATION MANAGEMENT – ELEMENT THREE

12.7.1 Control of Documents

All safety documents are controlled by the SAHPA CFI of each Facility. This includes:

- SMS
- Training and Procedures Manual
- Maintenance and
- Training manuals

The Safety Manager is responsible for safety related data is maintained, including as applicable:

- The notes of safety meetings or briefings
- Information on hazard and risk analysis and safety cases

- Risk management and reduction strategies
- Occurrence, incident, and accident investigations and
- Safety audit reports and corrective actions
- The change control systems for applicable documents.
- The annual review of the SMS Manual.

12.8 HAZARD IDENTIFICATION AND RISK MANAGEMENT- ELEMENT FOUR

12.8.1 Definitions:

- Continual Improvement:

The process of enhancing the integrated Safety Management System to achieve improvements in overall safety performance in line with the SAHPA Safety Policy

- Complacency:

The reduction of level of awareness and defensive barriers to the extent that it may reduce the level of safety in operation

- Consequence:

The potential outcome of a hazard

- Hazard Identification:

The process of recognising that a hazard exists and defining its characteristics (The what, why & how)

- Latent Condition:

A product of decisions taken in the managerial and organisational spheres of SAHPA whose damaging consequences may lie dormant only becoming evident when they combine with workplace failures and human error to breach safety controls.

- Occurrence:

Any unplanned safety related event, including accidents that could impact the safety of guests, passengers, organisation personnel, equipment, property or the environment

- Probability:

Used as a qualitative description of frequency

- Risk Management:

The culture, processes and structures that are directed towards the effective management of adverse effects and potential opportunities

- Safety Controls:

Safety barriers imposed between hazards and potential loss and a means of containing and eliminating hazards should a situation escape these barriers

- Vigilance:

Watchfulness, caution, and circumspection, in matters relating to safety by all personnel while conducting their duties.

12.8.2 Hazard Identification and Risk Management

Risk management is the identification and control of Risk. This is the responsibility of every member of the organisation. The involvement of Management and Employees in Risk management will create a safe and healthy working environment. The first goal, however, of risk management is to avoid the hazard.

The organisation shall as applicable establish sufficient, independent and effective barriers, controls and recovery measures to manage any risk posed by hazards to a level As Low as Reasonably Practicable (ALARP)..

The organisation shall ensure that all individuals responsible for safety critical barriers, controls, and subsequent recovery measures are aware of their responsibilities to enable to carry them out the systematic identification and control of all major hazards.

SAHPA will use the following strategies when accessing risk

a) Reactive –

- i. Identify action to take after the occurrence of an accident or incident. Not ideal

b) Proactive –

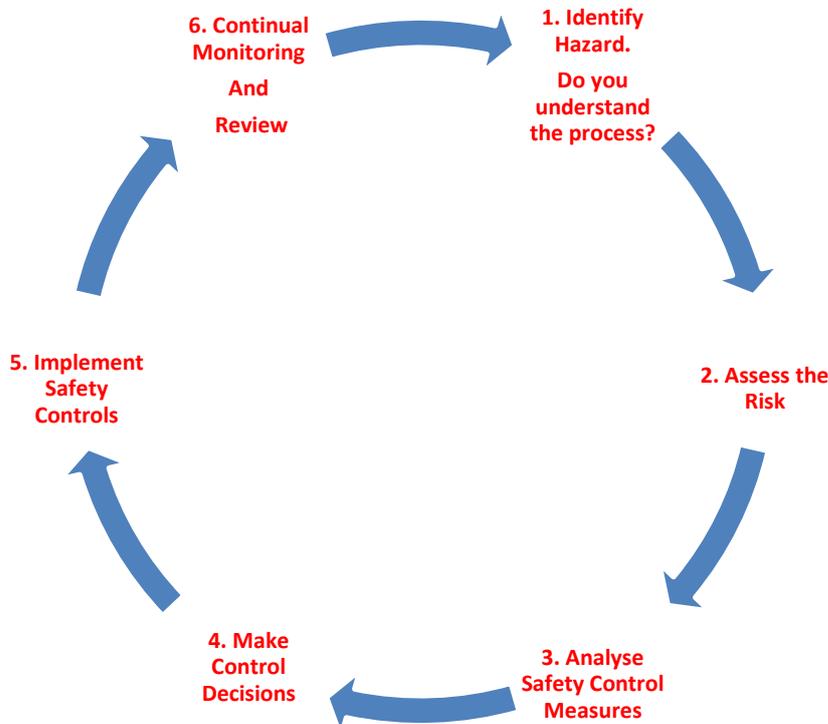
- i. Identify action to prevent an occurrence from happening. Better than Reactive approach.

c) Predictive –

- i. Identify actions based on trends from data of operations. The best approach, this does not work without an effective data collection system

The *Severity* of the risk and the *Probability* of the risk will be accessed

12.8.3 Routine Operational Risk Management



- 1) Identifying Hazards:
- 2) Assess Risks:
- 3) Analyse Safety Control measures:
- 4) Make Control Decisions:
- 5) Implement Safety Controls:
- 6) Monitor & Review:

12.8.4 Hazard Identification and Risk Assessment

Hazards are identified through employee reporting, safety meetings/ feedbacks, tool box talks, audits, inspections, incidents, accidents and job risk analysis. Reporting is done by Hazard Report Forms.

SAHPA requires that all members /employees are aware of the Risk Assessment process and that they use this process when reporting safety related events Sahpa reporting system .

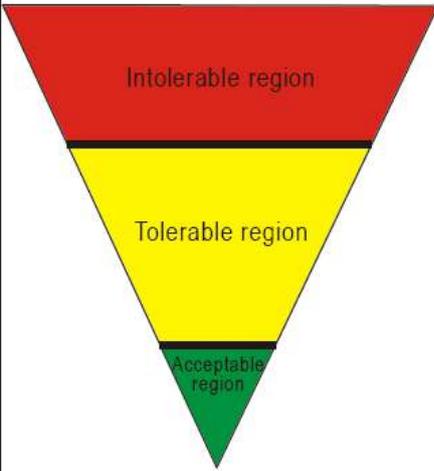
The Accountable Manager is responsible for accepting or denying operations, and manages risk through the Risk Assessment Matrix

12.8.5 Risk Assessment Matrix

	Meaning	Value
Frequent	Likely to occur many times (has occurred frequently)	5
Occasional	Likely to occur sometimes (has occurred infrequently)	4
Remote	Unlikely to occur, but possible (has occurred rarely)	3
Improbable	Very unlikely to occur (not known to have occurred)	2
Extremely improbable	Almost inconceivable that the event will occur	1

Severity of occurrence	Meaning	Value
Catastrophic	<ul style="list-style-type: none"> — Equipment destroyed — Multiple deaths 	A
Hazardous	<ul style="list-style-type: none"> — A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely — Serious injury — Major equipment damage 	B
Major	<ul style="list-style-type: none"> — A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in workload, or as a result of conditions impairing their efficiency — Serious incident — Injury to persons 	C
Minor	<ul style="list-style-type: none"> — Nuisance — Operating limitations — Use of emergency procedures — Minor incident 	D
Negligible	<ul style="list-style-type: none"> — Little consequences 	E

Risk probability	Risk severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent 5	5A	5B	5C	5D	5E
Occasional 4	4A	4B	4C	4D	4E
Remote 3	3A	3B	3C	3D	3E
Improbable 2	2A	2B	2C	2D	2E
Extremely improbable 1	1A	1B	1C	1D	1E

Suggested criteria	Assessment risk index	Suggested criteria
 <p>Intolerable region</p> <p>Tolerable region</p> <p>Acceptable region</p>	<p>5A, 5B, 5C, 4A, 4B, 3A</p>	<p>Unacceptable under the existing circumstances</p>
	<p>5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C</p>	<p>Acceptable based on risk mitigation. It may require management decision.</p>
	<p>3E, 2D, 2E, 1A, 1B, 1C, 1D, 1E</p>	<p>Acceptable</p>

12.8.6 The Safety Case

A Safety Case study maybe required when there is an identified hazard or threat, a change of method of operating, location and a Safety case may be completed and reviewed to accept commencement of an operation and/or change. If conducted the case study shall be approved by the Facility CFI

Safety case studies could be considered under the following conditions:

- Weather associated hazards related to the entire area of operation.
- Opening a new facility of operation.
- Changes in TCO.

12.9 REPORTING OF SAFETY EVENTS - ELEMENT 5
(Accident, Incident, Occurrence or Hazard)

12.9.1 Reportable Events

The following events as defined below must be reported at all times: -

- Aircraft accident or incident
- Hazard

12.9.2 Occurrence and Hazard Reporting

All occurrences, hazards identified shall be reported to the Aviation Safety Manager using the Sahpa system.

12.9.3 Air Safety Report Database

All Air Safety Reports (Accidents and incidents) will be submitted to the Safety Officer and records of reports shall be saved at SAHPA main facility. This goes the same for all Hazard reports/forms.

12.9.4 Processing of reports

The Aviation Safety Manager is responsible to ensure that all relevant comments from other managers and agreed actions are recorded in the report. Reports are closed when all actions have been taken. Safety Events shall be reviewed by the Safety Committee at the relevant meeting.

12.9.5 Just Culture

"An atmosphere of trust in which people are encouraged and even rewarded for providing safety-essential information, even if it is self-incriminating, so that hazards and risks may be more clearly understood, but in which all parties clearly understand which types of behaviours are acceptable and unacceptable...and persons reporting need not fear reprisal. However, gross negligence, wilful violations and destructive acts will not be tolerated".

A non-punitive approach to discipline does not preclude the use of a general progressive approach to discipline in cases where an employee is involved in similar, recurrent events. This might involve the following steps:

- First offense-Verbal warning
- Second offense-Formal written warning
- Third offense-final written warning (may include suspension)
- Fourth offense-Termination.

Written warnings can remain active for one year, after which a letter of recognition for positive change will be written and attached to the Formal Written Warning in the personnel file by the individual's direct supervisor.

12.10 OCCURRENCE INVESTIGATION AND ANALYSIS - ELEMENT SIX

12.10.1 Investigation Process

During the investigation process the Safety Manager, HOT and/or Regional CFI or Facility CFI may co-opt the services and / or advice from whoever is required within SAHPA and /or from whatever external sources he deems necessary. Management and Staff are required to co-operate and assist the ASM during the course of every Hazard or Occurrence investigation. Their input is a valuable part of the solution.

This will evaluate

Immediate and Contributory Causes
Analysis of Non-Compliance

Administration and Management

- Just Culture will be used.
- On receiving notice of a situation for possible non-compliance, the Aviation Safety Manager will record the NCR. (The Facility CFI will give his / her input to this situation).
- The ASM may conduct a risk analysis and assessment on any NCR, identifying any unsafe acts or conditions.
- If the ASM is not available, the NCR is to be handed to either the Head of Training, depending on availability.

The ASM, or in his absence, any of the other persons as mentioned in the above paragraph, will -

- evaluate the NCR and if necessary conduct a risk assessment
- formulate the necessary preventative actions
- direct the NCR to the appropriate person or section for the necessary action
- monitor the process until resolution

- Request feedback and / or audit if applicable, to ensure implementation has been appropriate.

The ASM is responsible to manage the NCR reporting system and will control the implementation of the preventative actions until resolution.

12.10.4 Closing Out of Corrective and / or Preventative Actions

Each and every corrective and / or preventative action must be closed. This action may place at the Aviation Safety Management meeting. A Corrective and / or Preventative Action

12.10.5 Feedback to Reporter

The ASM and / or Facility CFI shall provide feedback to the employee reporting a hazard, occurrence or incident.

12.11 SAFETY ASSURANCE OVERSIGHT AND QUALITY ASSURANCE PROGRAMME - ELEMENT 7

12.11.1 Annual Safety Audit Plan

The ASM is responsible for ensuring schedule to enable the annual Safety Audit Plan which will be included in the QA audit plan. This Audit Plan will encompass safety audits of all permanent facilities of operation and all sections of SAHPA that could affect the safety of flight. Provision for obtaining proof of inspections of SAHPA aircraft are to be included in the annual audit plan.

12.11.2 Safety Oversight and Operations QA Programmes

The SAHPA safety and quality assurance system shall evaluate and monitor the following audit areas as depicted in the annual audit plan:

- Annual Aircraft inspections
- Training and relative documentation
- Regulatory compliance
- Technical Audits
- Equipment registers
- All third party/ contracted goods and/or services rendered to SAHPA

12.11.3 Audit Findings, Recommendations and Records

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Records of audits and the resolution of Findings, Recommendations and Corrective Action Plans (CAPs) are maintained by the ASM and QA Manager. CAPs are documented.

Findings are categorised in terms of: -

- Severity – High / Medium / Low
- Period – recommended time to correct.

Positive findings (Observations) may also be recorded.

Issues identified in safety audits are included in the Aviation Safety Committee meeting.

12.11.4 Audit Outcomes

Audit Findings and Recommendations will be discussed at the Aviation Safety Committee meeting. Individuals will be allocated responsibility to close action items related to the audit.

The ASM and QA Manager should manage and store audit reports, which include Findings and Recommended corrective actions.

Findings and Recommended corrective actions should be communicated to all personnel via the notes of Safety Meetings and / or copies of safety audit reports.

12.12 EMERGENCY PREPAREDNESS AND RESPONSE - ELEMENT 8

12.12.1 Emergency Response Plan Policy

The emergency policy is that each facility of operations will develop and have an Emergency Response Plan.

The Facility CFI is responsible for assuring that applicable personnel are trained for emergencies at the various facilities.

Emergency contact numbers shall be kept current at SAHPA by the Safety Manager.

With regard to SAHPA preparedness: -

- The Emergency Response Plan template is readily available at all operational facilities.
- The Emergency Response Plan will be developed and implemented at each facility of operation
- The Emergency Response Plan is updated when contact and / or post holder details change
- Personnel are briefed on the Emergency Response Plan and their responsibilities during induction and prior to contract start-up.



12.12.2 Emergency Response Exercises and Drills

Emergency Response Exercises are conducted annually and briefing is done prior to exercises to ensure employees are adhering to the plan.

12.13 EMERGENCY RESPONSE PLAN

- 12.13.1 EACH facility or site will have emergency response plan that contains the specific procedural actions to be taken event of an emergency.
- 12.13.2 Emergency response plan will address the following aspects detailed in the table below
- 12.13.3 The plans will be available at each facility

INDEX EMERGENCY RESPONSE PLAN
PART 1 – Emergencies
A. Fire Plan
B. Injury or Illness Plan
C. Crime in Progress Plan
D. Severe Weather Condition
E. Evacuation plan
F. Emergency Contact list
G. Contact Persons
PART 2
1.1 AIRCRAFT ACCIDENT



F. EMERGENCY CONTACT NUMBERS

CEO	
QA	
ASM (NSO)	
RPA	
HOT	

12.13.5 PART 2

1.1 AIRCRAFT ACCIDENT IMPORTANT NOTES FOR PILOTS INVOLVED IN AN ACCIDENT:

The procedure for reporting and recording an accident is covered in the SAHPA MOP and will be reported on the relevant forms as provided for by SAHPA within their system. SAHPA's forms will appear in the SAHPA MOP appendices.

1.2 In the event of an accident has occurred the CFI at the relevant facility station/ senior pilots or a designee will manage a preliminary form of investigation, take witness statements, identify causal factors and submit the SAHPA incident / accident form for submission to the CCC.

Press / Public Relations must be dealt with by only one person, namely the SAHPA marketing manager.

THE FOLLOWING FACTS MAY BE RELEASED:	THE FOLLOWING <u>SHOULD NOT</u> BE RELEASED
Type of aircraft Route/Site of flight Time of accident Location of the aircraft Total number of survivors, injured and fatalities	Names of anyone Nature of injuries Text of any company communications Any known aircraft discrepancies or technical problems Weather at the time or scene of accident Speculation or opinion as to the cause of the accident.



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PART 13

ANNEXURE

PART 13: Annexure

PART 13: TABLE OF CONTENTS

Section 13	Annexure
13. 1	Site Approval Policy as per SAHPA MOP
A	List of Registered Training Sites
B	Organogram
C	Post Holders By Name

13.1 SITE APPROVAL POLICY

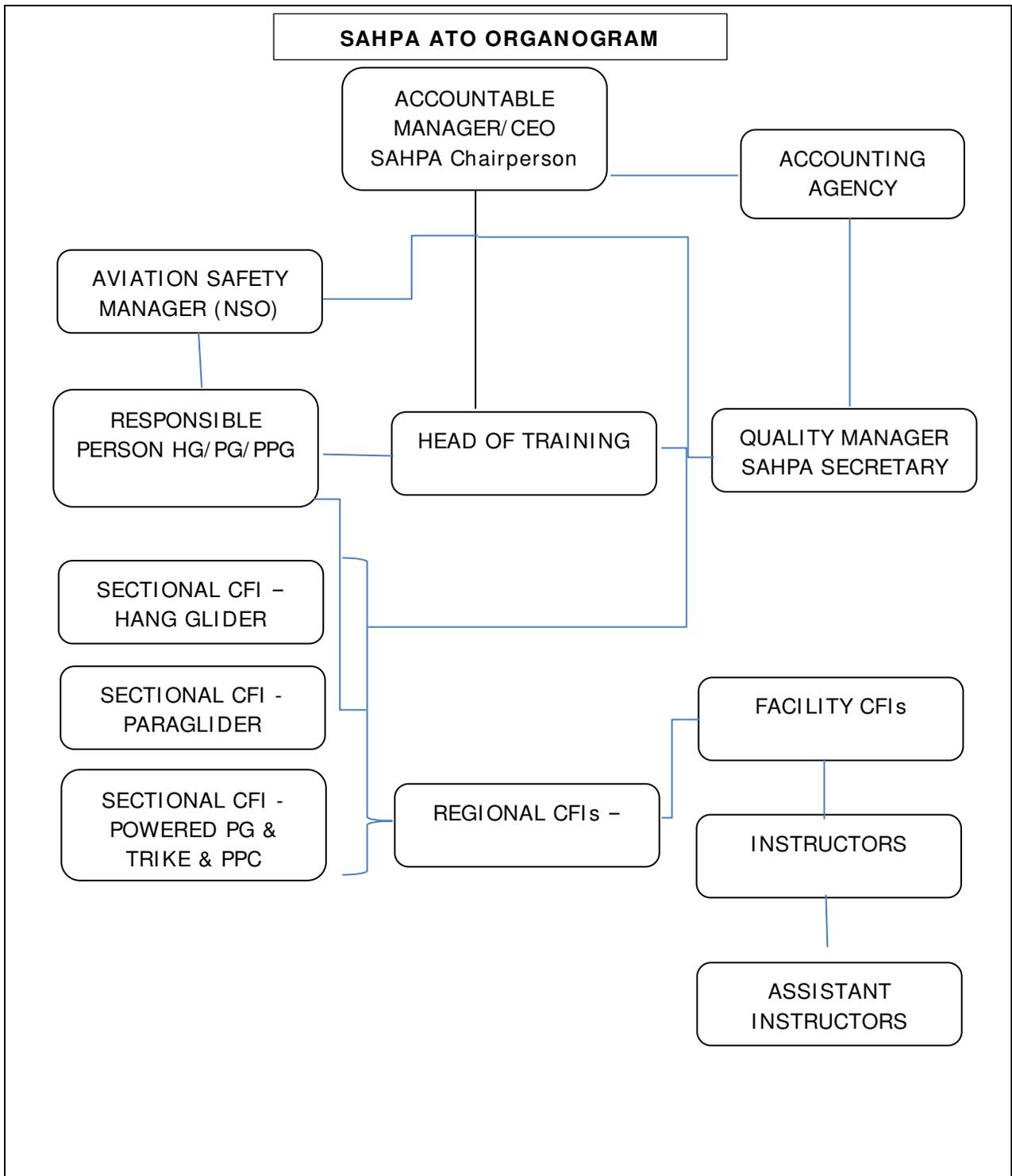
AS per the SAHPA MOP

A. LIST OF REGISTERED TRAINING SITES

ATO NUMBER	NAME OF ATO	FACILITY CFI	CONTACT	AREA
RAA-005/001	Wallendair Paragliding school	Pete Wallenda	info@wallendair.com	CAPE TOWN
RAA-005/002	Wildsky Paragliding School	Hans Fokkens	info@wildsky.co.za	BULWER
RAA-005/003	Cloudbase PG School	Jan Minnaar	info@cloudbase-paragliding.co.za	WILDERNESS
RAA-005/004	Blue Gravity PG School	Kevin Storie	kevin.bluegravity@gmail.com	GAUTENG
RAA-005/005	Birdmen Paragldiing School	Barry Pedersen	birdmen@xsinet.co.za	CAPE TOWN
RAA-005/006	LSSC Training	Anton Naude	NaudeA@TUT.ac.za	NELSPRUIT
RAA-005/007	Paraglide SA	Wayne Heuer	wayne@paraglidesa.com	CAPE TOWN
RAA-005/009	Hi 5 / SA Paragliding school	Grant Van Rooyen	grantvrooyen@gmail.com	CAPE TOWN
RAA-005/010	Border Paragliding	Alec Booth	alec.booth@kempston.co.za	EAST LONDON/ WILDERNESS
RAA-005/011	Free Fying Avdentures HG School	Shawn Fowler	shawnfhg@yahoo.com	PRETORIA
RAA-005/013	Flytime Paragliding School	Pete Wallenda	pete.wallenda@gmail.com	WILDERNESS
RAA-005/014	Dolphin/ SA - Paragliding School	Deon Borrett	deon@dolphinparagliding.co.za	WILDERNESS
RAA-005/015	Big Sky HG School	Lennox Olivier	lennox@thebranch.org.za	CAPE TOWN
RAA-005/016	Go Paragliding	Jan De Jager	info@goparagliding.co.za	CAPE TOWN
RAA-005/57	Cape Town Tandem Paragliding	Steven Burd 079-880-8757	steve.m.burd@gmail.com	CAPE TOWN
RAA-005/018	Icarus Paragliding	Jacques Du Plessis	info@icarusparagliding.co.za	CAPE TOWN
RAA-005/019	Parapente	Carolina Burd-Rocchinotti	carolina.r@gmx.net	CAPE TOWN
RAA-005/020	Airventures	Cal Dyker	cal@airventures.co.za	PORT ELIZABETH
RAA-005/021	Altitude PG School	Nigel Frith	nigelfrith@hotmail.com	CAPE TOWN
RAA-005/022	Fly Cape Town PG School	Stephan Kruger	stephan@flycapetown.co.za	CAPE TOWN
RAA-005/023	Skywalk PG School	Ronnie Beukes	info@skywalk.co.za	GAUTENG/ WC
RAA-005/024	Parapax Tandem Paragliding	Nigel Frith	nigelfrith@hotmail.com	CAPE TOWN
RAA-005/025	Attitude4Altitude PG School	Tracey King	tracey@paperplane.co.za	GAUTENG
RAA-005/027	Uturn PG School	Andre Steenberg	a@mako.co.za	RUSTENBURG
RAA-005/028	Cape Hope	Jacques Du Plessis	info@icarusparagliding.co.za	WESTERN CAPE
RAA-005/029	Xplorer Ultraflight	Keith Pickersgill	keith@explorer.co.za	CAPE TOWN

RAA-005/030	Winelands Paragliding	Mias De Klerk	mias@winelandsparagliding.co.za	CAPE TOWN
RAA-005/032	Pegasus Flight school	Gerhard Pretorius	pegasus@netactive.co.za	KZN
RAA-005/034	Let's Fly Paragliding Wilderness	Michail VD Walt	michailvdwalt@icloud.com	WILDERNESS
RAA-005/35	The tandem Flight company (TTF)	Tom Webb - 073-964-3218	tom.highland@gmail.com	CAPE TOWN
RAA-005/036	Fly High Paragliding	Johan Van Tonder	flyhigh.ct@gmail.com	WESTERN CAPE/SEDGEFIELD
RAA-005/037	Air2Air Paragliding (PTY) LTD	Steven Burd	steve.m.burd@gmail.com	CAPE TOWN
RAA-005/38	XCPargliding	Chris Van Noord	fezter@vodamail.co.za	MIDDELBURG
RAA-005/39	Paramotor Africa	Basjan Van Heerden	paramotorafrica@gmail.com	BLOEMFONTEIN
RAA-005/40	Skywings	Mias De Klerk 082-758-5845	mias@winelandsparagliding.co.za	HERMANUS
RAA005/42	Wild2Fly Paragliding school	Johan Anderson	info@wild2fly.co.za	WILDERNESS
RAA005/43	Ynot Fly (pty) LTD	Hendrik Theron	Htheron@csir.co.za	Bronkhorstspruit
RAA005/44	Signal Hill Paragliding	Frank Swanepoel	frank.swanepoel@gmail.com	CAPE TOWN
RAA005/45	Eagles Nest Paragliding	Mias De klerk 082-758-5845	mias@winelandsparagliding.co.za	CAPE TOWN
RAA-005/46	Table Mountain Paragliding	Tom Webb	tom.highland@gmail.com	CAPE TOWN
RAA005/47	Paraglide Africa	Theunis De Bruin	tdebruin111@gmail.com	CAPE TOWN
RAA005/48	Air School Paragliding	Ria Moothilal	ria@airschool.co.za	WESTERN CAPE
RAA-005/49	Paramotor South Africa (PTY) LTD T/A Epic Aviation Flight school	Riaan Struwig	riaan@epic-aviation.co.za	GAUTENG
RAA-005/50	MountAir PG School	Zelda Peenze	zpeenze@gmail.com	GAUTENG/WESTERN CAPE
RAA-005/51	Square One Paragliding school	Matthy Van Zyl	matthew@square1paragliding.co.za	GAUTENG/ WESTERN CAPE
RAA-005/52	MotherCity Paragliding	Jacques Du Plessis	info@icarusparagliding.co.za	WESTERN CAPE
RAA005/53	Rock On Adventures Paragliding	Handre Fouche	handrefouche@gmail.com	WESTERN CAPE
RAA-005/056	Toms instructional tandems - Trax Eng PTY LTD	Tom Webb	tom.highland@gmail.com	CAPE TOWN

B. ORGANOGRAM



C. POST HOLDERS BY NAME

TITLE	NAME
ACCOUNTABLE MANAGER	PETE WALLEENDA
AVIATION SAFETY MANAGER (NSO)	KEVIN STORIE
QUALITY MANAGER	LOUISE LIVERSEEDGE
HEAD CFI	KEVIN STORIE
SECTIONAL CFIs – HANG GLIDER	LENNOX OLIVIER
SECTIONAL CFIs – PARAGLIDER	KEVIN STORIE
SECTIONAL CFIs – POWERED PG & TRIKE	SEBASTIAN VAN HEERDEN
ACCOUNTING AGENCY	VERITAS

List of Sectional CFI's

Name	CFI section	Contact	email
Kevin Storie	PG		
Lennox Olivier	HG		
Sebastian Van Heerden	PPG		

List of Regional CFI's

Name	Region	Contact	email
Thomas Webb	Cape Town		
Kevin Storie	Gauteng		
Hans Fokkens	KZN		
Alec Booth	PE		

SOUTH AFRICAN HANG GLIDING AND PARAGLIDING ASSOCIATION

Incorporating Powered Paragliding & Hang Gliding



14 September 2020

SACAA
16 Treur Close, Waterfall Park
Bekker Street
Midrand
1685

Dear Mr. Durand

Change of SAHPA Post holders

We hereby wish to inform you that the 2020/2021 SAHPA postholders have changed. This was announced at the SAHPA AGM meeting held on 27 August 2020 as per our normal election process.

The new post holders are as follows:

Accountable Manager/Chairman	Pete Wallenda	083-300-1755	pete.wallenda@gmail.com	
Vice Chairman	Brett Ellis	083-655-1718	brett@teamattitude.co.za	
Treasurer	Steven Burd	067-405-0004	steve.m.burd@gmail.com	
Paragliding Head	John Henderson	083-252-1069	johnh@iafrica.com	
Hang Gliding Head	Lennox Olivier	083-230-8780	lennox@thebranch.org.za	
Powered Head	Basjan Van heerden	079-128-1234	basjan100@hotmail.com	
NSO/Compliance Officer	Kevin Storie	083-382-3276	Kev@caasa.co.za	

Kind regards



Louise Liversedge

Operations Manager

Non-Profit Organisation – empowering the Free Flight Community of South Africa
Company Registration number: 2005/028858/08 | Address: PO Box 191, Celtis Ridge, 0130
C: +27(0) 74 152 2505 | F: +27(0) 86 611 1005 | E: office@sahpa.co.za | W: www.sahpa.co.za

Directors: PM Wallenda (Chairman), R Moothilal (Vice Chairman), SM Burd (Treasurer)
Committee: LE Olivier (HG), MC Human (PG), N Petropoulos (Powered), R Beukes (Marketing) Secretary: LA Liversedge