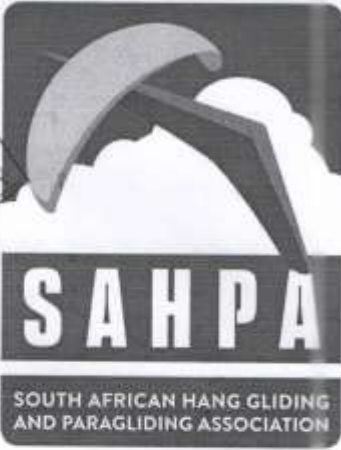


**MANUAL OF OPERATIONS AND PROCEDURES**





**SAHPA**  
SOUTH AFRICAN HANG GLIDING  
AND PARAGLIDING ASSOCIATION

**MANUAL OF OPERATIONS AND  
PROCEDURES**

**ORIGINAL**

**This MOP has been reviewed and meets all the necessary requirements**

ARO Name	SAHPA	MOP recommended for Approval <input checked="" type="checkbox"/>	MOP not Recommended for approval
Inspector	B KHUMALO		31-01-2019
	Name	Signature	Date
Ops Manager	Inspector recommendation accepted <input checked="" type="checkbox"/>		Inspector recommendation not accepted
Ops Manager	A Lambacher		31-01-2019
	Name	Signature	Date

Amendment no: Original      Page |1-1

Effective date: 10 DEC 2018

**TABLE OF CONTENTS**

<b>PART</b>	<b>Title</b>	<b>Page</b>
PART 0	CONTROL AND GENERAL	3
PART 1	RULES	8
PART 2	LICENSES - GENERAL	10
PART 3	LICENSES – REQUIREMENTS	10
PART 4	LICENSES – RENEWALS	10
PART 5	PERSONNEL	10
PART 6	ACCIDENT REPORTING	12
PART 7	COMMUNICATION WITHIN SAHPA	12
PART 8	SCHOOLS AND TRAINING	13
PART 9	DISCIPLINARY PROCEDURE	13
PART 10	COMPETITIVE FLYING	16
PART 11	DISPLAY FLYING	16
PART 12	SITE and SITE RULES	16
ANNEXURE A	Organogram and Personnel	17
ANNEXURE B	Constitution/and or MOI	20
ANNEXURE C	Code of Ethics and Conduct	21
ANNEXURE D	Quality Management System	24
ANNEXURE E	Competitive flying	26
ANNEXURE F	Display Flying	30
ANNEXURE G	Sites and Site rules	35
ANNEXURE H	Foreign License Acceptance	37
ANNEXURE I	South African Aerotow Manual	38
ANNEXURE J	Missing Pilots Procedure	66

**PART 0: CONTROL AND GENERAL**

**1) DISCLAIMER**

- i. 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.
- ii. SAHPA remains responsible for ensuring that the provisions, content, accuracy and currency of the manual, and to make any necessary amendments and/or additions.
- iii. This manual is issued and revised under the authority of the Accountable Manager, by the Quality Manager, and shall be reviewed when required, at least once in **12 months**.

**2) CONDITIONS OF USE**

- i. Dissemination of this document shall be with prior permission of the Accountable Manager or his/her designate.
- ii. This manual shall be placed in an accessible place for the use of all applicable SAHPA members.

**3) INTRODUCTION**

- i. This Operations & Procedures Manual has been developed in accordance with the South African Civil Aviation Regulations and Technical Standards Part 149 and contains aspects relating to the control and regulation of flying of all paragliders and hang gliders and powered versions thereof inclusive of any with tricycle undercarriage. as well as aerobatics or display flying (and for the remainder of this document will be hereafter be understood to be inclusive when referred to as Paragliders and hang gliders) as applicable in South Africa
- ii. It should be read in conjunction with the following documents:
  - a) The Civil Aviation Regulations (CARS).
  - b) The Civil Aviation Technical Standards (CATS) of the Civil Aviation Authority (CAA).
  - c) The Constitution of SAHPA.
  - d) Training and Procedures Manual (TPM)
- iii. SAHPA is the approved body for all forms of paragliding or hang gliding in South Africa as per the SA-CARS, Part 149.
- iv. SAHPA members shall adhere to the provisions of this manual.
- v. The term "SAHPA", whenever used herein shall mean South African Hang-gliding and Paragliding Association.

- vi. The term "SAHPA Executive Committee" shall mean the elected members who form the executive committee of SAHPA.
- vii. Amendments to this Manual shall only be approved by the SAHPA Executive Committee and details of changes shall be notified to the applicable authorities
- viii. **Information contained in this manual of procedure**  
This manual complies with CAR 149.02.2(b), which contains the following:

A statement signed by the accountable manager on behalf of the organisation confirming that the manual of procedure and any included manuals defining the organisation and demonstrating suitable ability and methods for compliance as required in Part 149.

- a) The personnel required by CAR 149.02.4 and their duties and responsibilities of the personnel required in CAR 149.02.4 including their responsibility's and are if required, empowered to deal directly with the Director on behalf of the organisation. are contained in this MOP (Part 5) and non-key personal are contained in Annex A
- b) An organisation chart showing channels of responsibility of the personnel specified in CAR 149.02.4 a (Annexure A)
- c) Our constitution or MOI as applicable (Annexure B)
- d) Details of the procedures required by:
  - i. CAR 149.02.4 regarding the competence of personnel (Annexure A)
  - ii. CAR 149.02.3 regarding quality control of the organisation. (Annexure D),
- e) Procedures to control, amend and distribute the manual of procedure

#### **4 OVERVIEW**

SAHPA undertakes to conduct all operations where applicable in accordance with the following Acts as amended and applicable 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.

#### **5. COMMITMENT AND STATEMENT BY THE ACCOUNTABLE MANAGER**

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



**Statement**

This is to certify that I, Pete Wallenda,  
**the Accountable Manager (Chairperson) of the South African Hand Gliding and Paragliding Association**, know and understand the contents of this SAHPA, Manual of Procedures and all other manuals and documents referenced in this manual of procedures comply in accordance with document SA-REG and SA-CATS Part 149.

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

<b>Signature:</b> <i>P. Wallenda</i>	<b>Date:</b> <b>28 February 2019</b>
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## **6. DEFINITIONS**

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

Paraglider and Hang-gliders means Paragliders and hang gliders and powered versions thereof inclusive of any with tricycle undercarriage for purposes of this document

Accountable manager means the Chairperson whom is also the CEO

## **8 ABBREVIATIONS ( FOR THIS MOP)**

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
EXCO	Executive Committee of SAHPA
HG	Hang gliding and powered versions thereof inclusive of tricycle undercarriage
HoT	Head of Training
MOP	Manual of Procedures
NSO	National safety officer
PG	Paragliding and powered versions thereof inclusive of tricycle undercarriage
PPT	Powered parachutes
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

## **9 MISSION STATEMENT**

Act responsibly as an ARO for pilots who fly paragliders and hang-gliders as an approved organization in accordance with SA-CARS, Part 149 to:

- i. Monitor and set the safety standards relating to this form of aviation recreation
- ii. Advise the applicable authority of such safety standards, or the improvement thereof.
- iii. Analyze accident data for the promotion of safety.
- iv. Remain active in the regulation of applicable aviation activities through representation at CARCOM or any other regulatory forum and to engage when necessary with any other body which may impact on the activities under this ARO.
- v. Promote airmanship and safety awareness.
- vi. Co-operate with any other organisation or body to enable the SAHPA objectives



- vii. Provide members with collective representation in all matters affecting them.
- viii. be a non-profit and non-political organization and shall not exercise any sexual, racial or any other discrimination.
- ix. encourage, develop and promote private, sporting and recreational paragliding and hang gliding
- x. Apply disciplinary procedures where required as per the approved guidelines, regulations, by-laws and or this Manual of Procedure.
- xi. Conduct any other activities as may be agreed with the Director for Civil Aviation or a body designated in terms of Part 149 when necessary.
- xii. promote and/or participate in paragliding and hang-gliding events and competitions

CHAIRMAN Name: PM Wallenda

Signature: *P. Wallenda*

Date: 27-2-2019

## **0.10 ORGANOGRAM**

See Annexure A

## **PART 1: RULES**

### **1.1 MEMBERSHIP**

- i. To be accepted as a member, the applicant shall complete an application form and forward it to SAHPA together with the yearly fees as determined by SAHPA.
- ii. Membership is renewable bi annually.
- iii. SAHPA is at present a valid section of the Aero Club of South Africa, and Members of SAHPA shall be members of the Aero Club of South Africa unless decided otherwise by the SAHPA committee.
- iv. All members will abide by SAHPA's Constitution, ethics and Code of Conduct.

### **1.2 PILOT QUALIFICATION**

- i. As Per Part 62 or applicable part of the SA CARS.

### **1.3 FLIGHT AUTHORISATION**

- i. As per Part 141 or applicable of the SA CARS.

### **1.4 GENERAL AIRWORTHINESS**

- i. As per Parts 24 and 94 of the CARS as applicable.

### **1.5 AIRWORTHINESS**

- i. As per Parts 24 of the CARS as applicable.

### **1.6 CIVIL AVIATION REGULATIONS**

- i. Civil Aviation Regulations shall be complied with by all members.

### **1.7 TYPE AND CLASS RATING OF PARAGLIDERS AND HANG GLIDERS**

- i. Definitions - As per Part 1 of the CARS
- ii. Type rating - As Per Part 62 or applicable part of the SA CARS.
- iii. Class rating - As Per Part 62 or applicable part of the SA CARS.

### **1.8 RULES OF THE AIR**

- i. As per Part 91 as applicable.

### **1.9 INSTRUCTION AND INTRODUCTION**

- i. As per Part 62 SACARS and SA CATS and per the SAHPA TPM or any other approved TPM in these disciplines.

### **1.10 USE OF RADIO COMMUNICATION**

- i. As per Part 91 SA CARS and the current Electronic Communications ACT.

Not with standing this above

- i. All paraglider pilots shall comply with SA CAR 91.05.1(5).
- ii. Paragliders may carry 2m Band Commercial FM transceivers licensed by ICASA
- ii. ICASA has allocated SAHPA frequencies of 141.600MHz and 141.625MHz countrywide \*\*Note shared with taxis & farmers.
- iii. All competitors in a SAHPA sanctioned competitions are required to fly with a radio capable receiving and transmitting on the SAHPA frequencies of 141.600MHz and 141.625 MHz.
- iv. All paragliders will adhere to any radio carriage or radio use requirements if the site rules require.
- v. Radio licenses and call signs are obtainable from SAHPA on payment of an annual licence fee.
- vi. Radios must comply with ICASA regulations.
- vii. Radio users should observe good radio etiquette and procedure at all times.
- viii. Pilots using Air band radios must comply with the relevant CAA provisions.
- ix. Base stations must be operated with the relevant licence.

### **1.11 EQUIPMENT**

- i. A person shall not operate a paraglider and hang glider unless it is equipped with the basic equipment required by the class of airspace the flight will take place in.

### **1.12 CONDUCT**

- i. Members shall conduct themselves in a manner that will not bring the SAHPA or SAHPA's ATO for paragliding or hand-gliding, or the sport into disrepute.
- ii. Members shall not make a nuisance of themselves to persons or property as per Part 91 SA CARS



## MANUAL OF OPERATIONS AND PROCEDURES

- iii. By signing the application form members agree to abide and comply with the SAHPA constitution (Annexure B) and Code of Ethics and Conduct (Annexure C).

## **PART 2: LICENCES – GENERAL**

### **2.1 MEDICAL CERTIFICATE**

- i. As per Part 67 SA CARS.

### **2.2 AGE LIMITATIONS**

- i. As per Part 62 SA CARS or any applicable part

### **2.3 NEW LICENCE APPLICATIONS**

- i. As per Part 62 SA CARS or any applicable part

### **2.4 FEES**

- i. As per Part 187 of the CARS.

### **2.5 FOREIGN LICENCE ACCEPTANCE**

- i. As per this MOP Annexure H.

## **PART 3: LICENCES – REQUIREMENTS**

- i. (As per Part 62 SA CARS or any applicable part)

## **PART 4: LICENCES – RENEWALS**

- i. (As per Part 62 SA CARS or any applicable part)

## **PART 5: PERSONNEL**

### **EXECUTIVE COMMITTEE**

**5.1** SAHPA is run by an executive committee.

### **5.2 ELECTED PERSONNEL**

- i. The personnel mentioned below are all elected positions which the members vote for at the Annual General Meeting. Annexure A contains names, duties competence and responsibilities of the elected personnel as per organogram ANNEXURE A

(**Note** letter will be sent to the applicable authorities and kept on file as well as placed on the website as to the names of personnel)

### **5.3 REQUIREMENTS, DUTIES AND RESPONSIBILITIES OF KEY PERSONNEL**

#### **5.3.1 Chairman (CEO and ACCOUNTABLE MANAGER and Director)**

#### **5.3.2 Requirements**

- i. Has a general knowledge of the aviation sector falling applicable to SAHPA.

- ii. Has a current and applicable Pilots License and has experience in all facets of aviation overseen by SAHPA.
- iii. Has good people's skills.
- iv. Has good managerial skills.
- v. Is computer literate.

### **5.3.2.1 Duties and Responsibilities**

- i. Seeks to promote the goals of SAHPA in all activities, and have the interests of SAHPA in mind in all decisions applicable
- ii. Has unrestricted access to work performed by the Executive Committee as well as persons performing contractual services to SAHPA.
- iii. Maintains and is in control of communication between the applicable authorities and SAHPA
- iv. Ensures that SAHPA functions and fills its positions as per the organogram
- v. Ensures all complaints addressed to SAHPA are dealt with either in person, or ensures that the correct person deals with the complaint satisfactorily
- vi. Ensure the QMS is functioning as per Annex D.
- vii. Attend meetings, events and visit geographic areas in South Africa, to further the aims and goals of SAHPA when necessary to the benefit of the organization and its members, or arrange for a SAHPA representative to unable to attend if unavailable.
- viii. Monitor any suspension or disciplinary procedures.
- ix. Set up via the SAHPA committee a safety committee convened by the Safety officer that shall comprise the head CFI's from the different disciplines
- x. Shall set up via the SAHPA committee the competitions committee and monitor its activities
- xi. Shall ensure that the ATO operates autonomously as per the ATO's organogram as documented in its TPM

## **5.4 National Safety Officer**

### **5.4.1 Requirements**

- i. Holds a valid applicable Pilots License.
- ii. Is appointed by the SAHPA executive
- iii. Promotes safety amongst all recreation aviation pilots.
- iv. Is computer literate
- v. Is contactable during all normal business hours, and after hours for emergencies up until 20h00 hours.

### **5.4.2 Duties and Responsibilities**

- i. Seeks to promote the goals of SAHPA and has the interests of SAHPA and sport flying in general at heart.
- ii. Remains up to date on developments in aviation Safety, which falls under the scope of this ARO.
- iii. Provides safety feedback to members.
- iv. Has direct access to the Chairman.
- v. Chair the Safety committee
- vi. Ensure the safety committee considers all accidents and makes recommendations to SAHPA and the ATO is necessary

### **5.4.3 Treasurer (Director)**

#### **5.4.3.1 Requirements**

- i. Has a good financial background.
- ii. Has knowledge of bookkeeping.
- iii. Is be able to ensure a full set of books draft financial statements for Sahpa are produced and available annually.

#### **5.4.3.2 Duties and Responsibilities**

- i. Ensure a full set of financial books are maintained, showing all transactions that have taken place during the financial year.
- ii. Make payments of necessary accounts as agreed upon by the committee.
- iii. Ensure that Sahpa maintains good financial health

## **PART 6: ACCIDENT REPORTING**

- i. (As per Part Chapter 4 of the Aviation Act No13 of 2009)

## **PART 7: COMMUNICATION WITHIN SAHPA**

### **MEMBERSHIP COMMUNICATION**

#### **7.1.1 Formal communication**

- i. Website postings on the SAHPA official website, E-mail and WhatsApp will be the main form of communication to members.
- ii. Internet and if applicable forums.
- iii. SAHPA will encourage all members to monitor the official SAHPA website page, where regular bulletins and safety notices shall be posted as applicable.

#### **7.2 INSTRUCTOR, PERSON APPROVED AND ATO SCHOOL COMMUNICATION**

- i. as per 7.1.1 above
- ii. Instructors and Persons approved are expected to visit the SAHPA website at least once a month.
- iii. The Association Office bearers and Executive and General committee will have full access and moderator to all content paced on the SAHPA website and any other SAHPA run forum that they may imbed.
- iv. Sahpa ATO members will utilize the SAHPA systems as applicable

#### **7.3 COMMITTEE COMMUNICATION**

7.3.1 Committee communication and voting will be through a Whats app group, email or via the website facilities as necessary. Records from these Whats app group conversations can be emailed to SAHPA's secretary and printed every 3 months to be kept on record.

7.3.2 Distribution of this Manual of Procedure, Code of Ethics and Conduct, Quality Management System and any other important and regulatory documentation shall be published for download on the SAHPA official Website Copies of the documentation are also available for inspection at SAHPA registered offices or if access is provided, within permission provided by SAHPA to access website documentation storage.

#### **7.3.3 Committee Meetings**

- i.** Committee meetings will be convened at least 4 times per year only if necessary.
- ii.** The committee meetings at a venue to be decided by the committee prior to the meeting.
- iii.** Meetings may also be conducted in part or completely by e-mail, telephone or other electronic/digital etc. means decided as acceptable by the SAHPA Committee provided proper minutes are taken and distributed to the General Committee.
- iv.** After approval the minutes may be published on the SAHPA web page, e-mail, newsletter or magazine (e-zine) which publication shall be at the discretion of the Chairman or any two Executive Committee members.
- v.** Minutes may be sanitized if necessary, at the discretion of the SAHPA chairperson
- vi.** The purpose of the meeting is to allow all the committee members discuss SAHPA matters as placed on the agenda or accepted to be added to an agenda at the discretion of the chairperson.
- vii.** The meeting's date, place and agenda will be available on WhatsApp least 14 days before the meeting.

## **PART 8: SCHOOLS AND TRAINING**

- i.** (As per Part 141 of the CARS or applicable part) and SAHPA TPM or other affiliated schools TPM's in the same discipline

## **PART 9: DISCIPLINARY PROCEDURE**

### **GENERAL**

- i.** SAHPA member have the responsibility to adhere to all the applicable rules and regulations as specified in the SA-CARS, SA-CATS, this manual of procedures and the SAHPA constitution (Annexure B) and Code of Conduct (Annexure C).
- ii.** Executive committee members of SAHPA will use all possible means to oversight and motivate the members as necessary.
- iii.** It is understood that all SAHPA pilots are responsible for themselves, their aircraft, their passengers, other people or property.
- iv.** SAHPA's role is to motivate its member to take responsibility for the participation in the sport, as a member of SAHPA and in their actions, by means of communication and their information support systems.

### **9.2 REPORTING OF BREACH OF RULES AND REGULATIONS**

- i.** The following procedure shall be carried out when undertaking disciplinary actions against members of the Association for contravention of rules and regulations documented in this Manual of Procedures and/or the SAHPA constitution (Annexure B) and the ethics and code of conduct, (Annexure C).
- ii.** SAHPA's role is to investigate any matter that is raised in written format, hold hearings and determine a course of action in cases of ethical, and/or Code of

Conduct transgressions, i.e. in the event of a suspension this shall be undertaken against the person's membership of the association

- iii.** Applicable authorities shall be informed of the decision including providing access or if necessary, provision of applicable evidence and minutes of the hearing
- iv.** An applicable authority may decide to take further action against a person license, rating or an aircraft.
- v.** Any transgressions against the regulations and or illegal activities shall be reported to the applicable authority, whom shall deal with the matter and if necessary report it to other applicable authorities.
- vi.** SAHPA may not suspend or revoke any licenses or ATF's
- vii.** All hearings and disciplinary actions shall be conducted in accordance with PAJA and all correspondence, meetings and hearings shall be minuted.
- viii.** Individuals not part of the association will be that may be in contravention of the aviation rules and regulations and any other applicable regulations may be handed over to the applicable authorities to be dealt with and prosecuted if necessary.
- ix.** Reporting will occur as follows:
  - a.** A written and signed complaint shall be received by the Executive Committee of SAHPA within three months of any alleged infringement having taken place to enable SAHPA to investigate and decide whether disciplinary proceedings should be implemented.
  - b.** Clubs taking action against a member for continuous breach of rules should provide documentation to back up the allegations and detail the warnings issued to the member and show that SAHPA was notified in writing.
  - c.** The Chairman, after consultation with the executive committee shall determine the date of commencement with proceedings giving meetings dates, appoint members to serve on an ad hoc disciplinary committee (should one be required), to investigate the matter and be convinced by the evidence available that an infringement of the rules and regulations has taken place.
  - d.** For any violation, at the discretion of the SAHPA executive committee, a verbal warning may be given followed by a written warning if necessary or if the infringement warrants, hand alleged infringer immediately over to RAASA and/or SACAA. If there is continued infringement then written notification of a Formal Disciplinary Hearing shall be communicated via our communication systems to the alleged offender normally via email or registered letter, giving at least 14 days' notice of the time, date, venue of the hearing and the charge/charges.
  - e.** The SAHPA executive committee will appoint a person to chair the disciplinary hearing.
  - f.** At a formal disciplinary hearing the charges will described and against which rules there is contravention and the defendant is given the opportunity to offer their defense. The defendant is responsible for their own cost to attend the hearing.
  - g.** All meetings shall keep records of proceedings.



- h.** If, after considering the presented and gathered evidence as well as any mitigating factors, the chairman of the disciplinary hearing shall provide its findings to the General Committee for ratification and if the defendant is found guilty, then an appropriate action/penalty will be applied.
- i.** The General Committee shall hand a final decision on the matter to the relevant authority for record and/or further action.
- j.** Should the defendant wish to take the matter further then, upon receipt of a written request from the defendant, within 7 days of the hearing, the SAHPA Executive Committee will review the case and make a final decision.
- k.** The defendant may further appeal to the applicable authorities for review of the decision.
- l.** The severity of the disciplinary action taken should take into account the seriousness of the offence, the consequences of the action, the defendant's past offences and the circumstances under which the offence took place.
- m.** Corrective action should always be a first resort is possible at the expense of the defendant if found guilty of the transgressions.
- n.** Should the defendant not attend the formal hearing and/or not offer a valid excuse for his failure to appear, a decision will be handed down by the Chairman of the hearing, after review by the SAHPA Executive Committee, in the absence of the defendant, which will be binding.

**9.3 GOVERNING REGULATIONS:**

The procedures are governed by the CARS, CATS and SAHPA MOP and the penalties and regulation infringements will be as per Part 185 of the Civil Aviation Regulations.

**9.4 RECORD KEEPING**

SAHPA will keep record of all infringements and rulings for a period of 2 years unless a gross violation or a part 185 prosecution has taken place, wherein this will remain upon the pilot's record for a period of 10 years.

**9.5 EXAMPLES OF OFFENCES THAT CAN BE HANDED OVER TO THE APPLICABLE AUTHORITIES FOR IMMEDIATE ACTION INTER ALIA, A PERSON:**

- i.** Hindering any inspection by an authorised person.
- ii.** Providing false information to an authorised person.
- iii.** Preventing any person from performing his duty or enjoying his privileges.
- iv.** Operates or authorises the operation of any aircraft which is not airworthy, without a valid SAHPA membership, without a license or without a valid medical.
- v.** Acts in any way to affect the airworthiness of an aircraft.
- vi.** Acts in any way to affect the safety of any person.

- vii. Operates an aircraft without the necessary license or who has obtained a license in a fraudulent manner.
- viii. Ignores or does not adhere to a decision made by an authorised person or body, such as SAHPA, also during a process of appeal or arbitration.
- ix. A person who knowingly and willfully does damage to 3rd party property or ignores rules pertaining to 3rd party property.

#### **9.6 DISCIPLINARY ACTION**

- i. Disciplinary action by SAHPA should be consistent and follow the following process:
  - a. First offence: verbal warning which will also be noted on members file
  - b. Second offence or non-compliance with the verbal warning: written warning via email or in the case that a member/non-member has no email address, a posted letter. Copy of this written communication will be placed on the members file.
  - c. Third offence or a Gross Violation: final written warning with immediate handover to Applicable authority for application of part 185 regulations with up to one-year suspension of membership.

#### **9.7 CONTINUING VIOLATIONS**

- i. Should any member or non-member continue to contravene the rules and regulations and/or fail to respond to disciplinary action, then the executive committee shall report the matter to Applicable authority for further action and may suspend membership permanently.

#### **9.8 PENALTIES**

- i. Should any member or non-member commit offences as detailed this MOP, SAHPA will hand over the member or non-member to applicable authority immediately to be dealt with under part 185 of the CIVIL aviation regulations.

### **PART 10: COMPETITIVE FLYING**

- i. See annexure E

### **PART 11 DISPLAY FLYING**

- ii. See annexure F

### **PART 12 SITE AND SITE RULES**

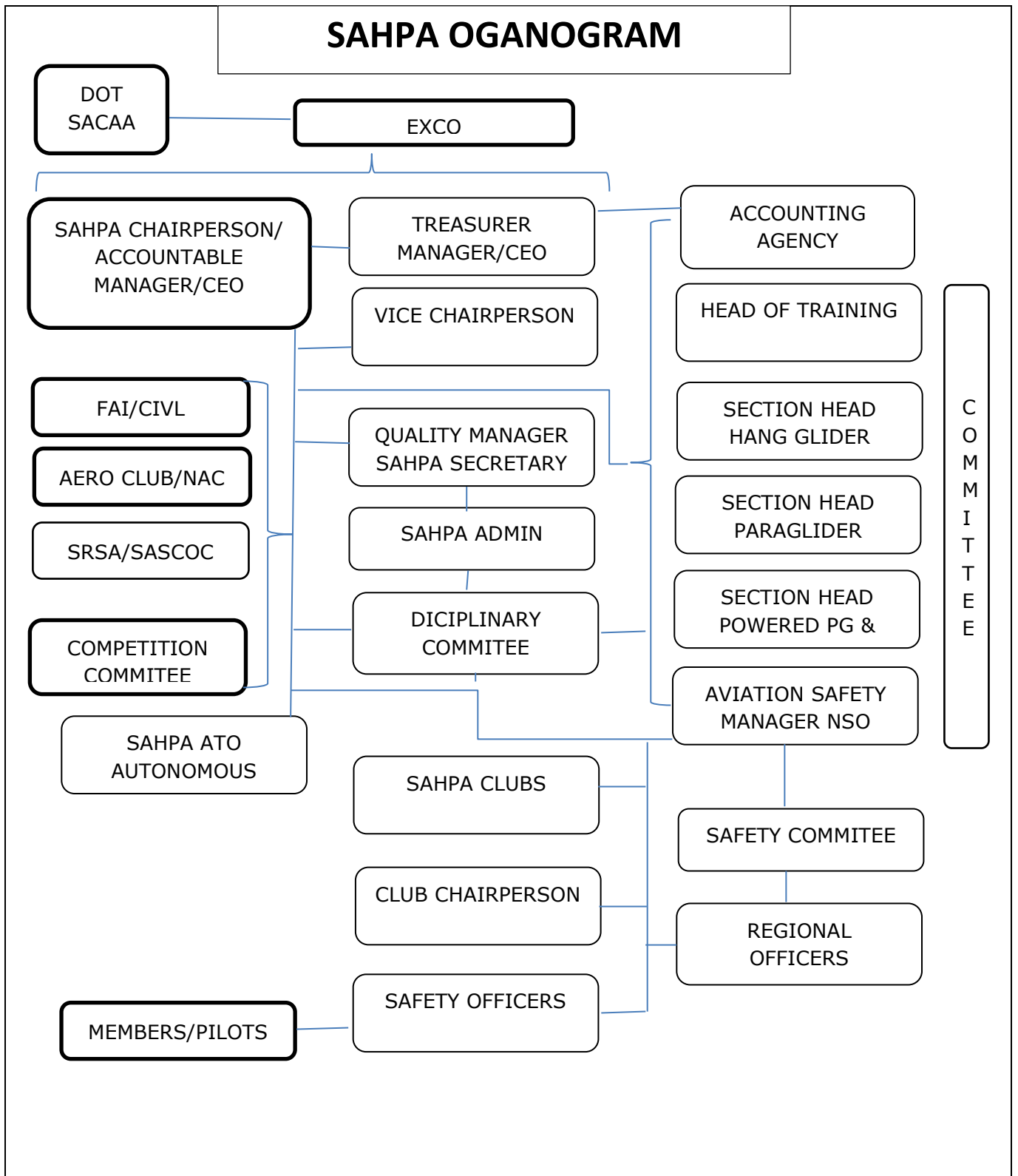
- i. See annexure G



**List of Annexures**

- ANNEXURE A – Organogram and Personnel
- ANNEXURE B – Constitution
- ANNEXURE C – Code of Conduct
- ANNEXURE D – Quality Management System
- ANNEXURE E – Competitive flying
- ANNEXURE F – Display Flying
- ANNEXURE G.- Sites and Site rules
- ANNEXURE H- Foreign License Acceptance
- ANNEXURE I - South African Aerotow Manual
- ANNEXURE I – Missing Pilot Procedure

**ANNEXURE A – Organogram and Personnel**





### **Pre-amble**

The Sahpa Committee is voted in as per the constitution and comprises this structure above. Its sole purpose is to manage the ARO as set out in this MOP.

The Exco (executive committee which are the directors of SAHPA as a company) is duty bound to lead the elected committee and ensure that Exco, both gives and takes direction as per company law leading enabling fulfilment of all functions and duties required of an ARO contained in this MOP

The committee is duty bound to ensure SAHPA and their members abide by this MOP and any other rules and regulations that may be necessary

Key personnel are covered in part 5 of this MOP

The remainder that are equally important are detailed in this annexure A

**1 SAHPA Secretary (Quality Manager)**  
**Post: Administration (employed position)**

**1.1 Duties**

- a. General office administration
- b. Maintenance member records and associated systems
- c. Filing
- d. Issuing of membership
- e. Maintenance of QMS
- f. General communication

**1.2 Responsibilities**

- a. Ensure records are up to date
- b. Complete relevant QMS check lists
- c. Secretarial functions
- d. Take direction from the Chairperson as per employment contract

**2. Marketing**

**Post: marketing (volunteer)**

**2.1 Duties**

- a. marketing
- b. Ensuring website maintenance
- c. General communication
- d. Press releases
- e. media

**2.2 Responsibilities**

- a. Ensure website and content are up to date
- b. Advertising of all SAHPA related matters
- c. Take direction from the EXCO

### **3. Section heads**

**Post: Section heads (comprise 3 posts of elected representatives one per each discipline) (volunteer)**

#### **3.1 Duties**

- a. Serves on the SAHPA committee
- b. Manage all discipline specific matters
- c. Report to the EXCO and
- d. Liaises with the NSO as need be
- e. Liaises with the Quality manager
- f. Manage all matters of all members in the specific discipline

#### **3.2 Responsibilities**

- a. Ensure records are up to date
- b. Communicate with members
- c. ensure members feed back into the SMS and QMS system as applicable
- d. report on discipline specific matters
- e. Appraise the Chairman of any matter that may affect SAHPA

### **4. Competition Committee**

This committee deals with all matters relating to competitive flying and will operate as per the annexure E and feed back to the Sahpa chairperson

Members serving in this committee must have flown competitively for at least 2 years

### **5. Disciplinary Committee**

This committee deals with all matters relating to discipline and is only convened by the Sahpa chairperson as and when needed.

These members serving in this committee will be persons of good standing within Sahpa

### **6. Safety Committee**

This committee deals with all matters relating to safety and is only convened by the National Safety Officer as and when needed.

Member serving on this committee will have a safety oriented back ground



**ANNEXURE B – Constitution and or MOI**

(PDF document found on the SAHPA website but included in the printed version provided to the applicable authorities)



## ANNEXURE C – Code of Conduct

### **Ethics and Code of Conduct**

SAHPA has been established in order to:

- a) Promote, encourage and advance the sport of foot launched flying\* amongst all South African residents regardless of sex, race and religion.
- b) License and monitor the activities of its members.
- c) Foster and publicize the technical development of flying equipment and techniques.
- d) Represent the interests of its members in consultation with Government agencies and other regulatory authorities.
- e) Expand the number of flying sites and protect them against the introduction of any unfounded, inappropriate and unnecessary airspace limitations.
- f) Institute and enforce the ethics of foot launched flying as regards pilot responsibility within a framework of minimum regulation
- g) Record, investigate, evaluate and report on all safety related matters either involving or affecting its members
- h) Co-ordinate and supervise competitions within the various codes
- i) Maintain pilot ranking lists within each code
- j) Select the National Team(s) and officials
- k) Undertake fund raising and marketing activities

\* The generic term "Foot Launched Flying" currently includes Hang Gliding, Paragliding, the powered derivatives of both of these and Powered Parachuting inclusive of tricycle undercarriage.

#### **2. Code of Ethics and Conduct**

SAHPA expects its officials and members subscribe to an ethical code of conduct based upon the three tenets of beneficence (the duty to do good), non-maleficence (the duty to do no harm) and justice (offenders to be treated fairly and required to make good their wrongs and face the same sanctions for the same transgressions).

A code cannot cover every conceivable contingency and although it can be reasonably proscriptive in so far as the behaviour of officials is concerned, in the case of individual pilots one can only provide a guideline as to the type of behaviour that they should aspire to.

#### **3. Application**

The code should apply equally to all levels of the organisation from employed staff, committee members (both elected and co-opted), occasionally appointed officials such as Meet Directors and competition administrators such as those appointed ad hoc to the Task, Safety and Appeals Committees, as well as, School Staff, Instructors, Club Committee Members, Pilots and family members.

#### **4. SAHPA Officials.**

SAHPA Officials are expected to execute their respective portfolio responsibilities with alacrity, integrity and in accordance with the above principles by adhering to the following at all times:

- a) Maintain exemplary standards of personal, professional and ethical conduct in fulfilling all aspects of the position of SAHPA Committee Member and/or Officer, including while interacting with SAHPA Members and all external organizations and individuals.
- b) Act in the best interest of SAHPA while avoiding actions or decisions that could either bring the sport into disrepute or be unethical, illegal or contrary to the public interest.
- c) Communicate openly, honestly and in acceptable time frames, while respecting confidentiality and individual rights, with SAHPA members and any other individuals or organizations having a relationship with SAHPA.
- d) Ensure that all regulations, guidelines and licensing requirements are made freely available, applied, regularly reviewed and amended.
- e) Investigate, evaluate, act and report on any safety, technical, procedural or disciplinary matters brought to their attention timeously, scrupulously in accordance with current regulations and devoid of favouritism and unencumbered by any external influences.
- f) Exercise proper, legal and appropriate financial responsibility in all dealings with or on behalf of the SAHPA through maintaining accurate accounts and asset registers as well as being pro-active in pursuing debtors.
- g) Disclose any potential conflict of interest situation resulting from involvement in SAHPA activities, and where appropriate, exclude themselves from involvement in such activities.
- h) Keep privileged information confidential, except in circumstances when doing so would result in a breach of regulations or ethical conduct.
- i) Actively encourage diversity throughout the activities of the Society. Refuse to engage in or sanction discrimination on the basis of race, gender, age, religion, national origin, sexual orientation, physical appearance, or disability.

#### **5. Pilots**

Pilots are the most visible of all SAHPA members as regards exposure to public scrutiny and should therefore:

- a) Ensure that they are properly licensed for their class of glider.
- b) Maintain their logbooks accurately and up to date.
- c) Comply with all site regulations with regards to airspace restrictions, access controls, payment of fees and the avoidance of littering and smoking.
- d) Treat members of the public and other pilots with respect and common courtesy.
- e) Behave at all times in a manner that reflects credit to the sport.
- f) Report any safety related event accurately and timeously.
- g) Follow the correct protocol when either addressing the media or raising issues which require to be addressed by the sport's national or international authorities.

## **6. Tandem pilots**

Tandem pilots, whether amateur or professional, have the added responsibility of ensuring the safety of their passengers and to this end should, in addition to the above:

- a) Apply a much greater safety test to conditions before flying with passengers
- b) Meticulously maintain their flying equipment
- c) Thoroughly explain the risks of flying to potential passengers

## **7. Instructors**

Instructors also have additional responsibilities in introducing new members to the sport and must therefore ensure that they:

- a) Emphasize safety at every opportunity
- b) Only progress students who have comfortably achieved the required skills and knowledge taught in the earlier stages of instruction
- c) Ensure that the applicable training curriculum is fully adhered to as a minimum and to extend this whenever a student's ability and flying conditions are conducive to such.
- d) Maintain their personal training qualifications and strive to advance their own proficiency, knowledge and teaching skills.

### **Special note**

Becoming a member of SAHPA is upon the proviso that the pilot will abide and actively live up to this code of conduct. The pilot accepts that they will be held accountable for any deed or action that does not comply and this may result in eviction after following the SAHPA disciplinary process. Eviction from organisation automatically results in the immediate suspension of utilising the privileges of a license or rating.

It may also constitute handing over such cases to applicable for investigation of applying Part 185 legislation as per South Africa's Civil Aviation regulations.

**ANNEXURE D – Quality Management System**



**PART 11**  
**QUALITY MANAGEMENT**  
**SYSTEM**

**PART 11: Quality Management System**

Amendment no: Original

Page |1-28

Effective date: 10 DEC 2018

## Quality Management System for SAHPA ANNEXURE D

### Contents

- 1** Quality levels
- 2** Review and Audit Process
- 3** Procedures for recording findings and communications
- 4** List of Responsible Persons
- 5** Facility malfunction reports, incidents, occurrences and complaints
- 6** Management analysis
- 7** Inspections and Review Process.

### **1 Quality Levels**

This QMS is fully compliant with the quality control system referred to in CAR 149.02.3(3) SAHPA's officials and members subscribe to our code of ethics as per Annexure C

SAHPA expects members to practice good airmanship, compliance with the applicable SA CARS .and SA CATS and MANUALS as amended from time to time.

SAHPA officials be knowledgeable of the contents of this manual and annexures.

### **2. Review and Audit process**

The Organisation will subject itself to a minimum of one Audit per annum of its operations by an applicable designated body and at least one additional ad-hoc Audit conducted by the designated body or by its own elected officials to ensure compliance with this Manual of Procedures

### **3. Procedures for recording findings and communication.**

Any non-compliance of procedures identified in internal or external Audits shall be forwarded to the Accountable Manager for the Executive Committee of SAHPA.

Non Compliances may be minor or major.

In the case of minor findings, the Executive Committee of SAHPA will deliberate and ensure that applicable officials rectify the deficiencies within a suitable time frame In the case of Major Findings or findings related to Safety issues these will be dealt with as a matter of Urgency by the appropriate personnel. All findings will be listed and sent by secure e-mail to the applicable authority for record.

### **4. List of Responsible Persons**

Personnel employed or elected to serve on the SAHPA committee are listed in Annexure A. Requirements and qualifications of key personnel are documented in Section 5 .

Facility malfunction reports, incidents, occurrences and complaints, any reports of safety occurrences , malfunction, incidents, or complaints of any nature will be recorded by the secretary and discussed at next committee meeting,

The results of discussions and recommended remedial action will be sent to the relevant personnel and for distribution to members if applicable.

**6. Management Analysis.**

All data /reports /checklists accumulated at an Audit period will be analysed by Management prior to its Annual General Meeting and if necessary points placed on the agenda,

Statistical analysis on membership levels, Safety and Finances and reports standing items on the agenda of the Annual General Meeting.

**7. Inspections and Review Process.**

Subsequent to an Audit and development of a Corrective Action Plan along with applicable data, if necessary shall be prepared and made available to the applicable authorities

**ANNEXURE E – Competitive flying**

**Introduction**

- The purpose of this section is to provide organisers hosting Provincial, National and International competitions with the necessary regulations and authority to carry out the task.

**Validity**

- Only competitions sanctioned by SAHPA and run according to this Section will be recognised by SAHPA.

**Bids for staging competition**

**National and International Competitions**

- Any Club or person wishing to stage a National or CIVL Category II Championship or higher, must submit a bid to do so to the SAHPA Executive by 31 October of the previous year, or six months in advance of the planned date of the competition, if the competition is planned for between 1 December and 28 February. The SAHPA executive reserves the right to decrease the time required to apply to hold a national competition.
- All bids for Category II Championships or higher must be sanctioned by SAHPA before application may be made to the CIVL and FAI via the AeCSA as the NAC.
- Application for Category II Championships or higher must be made to the CIVL at least six months before the proposed date of the competition.
- All participants in Cat 2 of higher competitions must compete with valid FAI sporting licenses unless otherwise arranged via FAI with their NAC.
- The bid must include details such as proposed dates, site information, and maximum number of competitors, competition format, organisers, cost and available sponsors.
- The SAHPA will appoint an organiser to stage the competition after evaluation of the bids received, if any, and inform the members of the decision.

All competitions will comply with the AeCSA, SRSA and SASCOC requirements to be sanctioned.

- The organiser (via SAHPA) is requested to submit to AeCSA, for submission to SASCOC and SRSA approval, the following:
  - Endorsement letter from International Body confirming it is an authorised event. (In most cases the FAI confirmation)
  - Endorsement letter of financial support from the International body (If they are giving support or a letter from SAHPA to state they do are not receiving any financial support from the relevant international body
  - Endorsement letter from host province.
  - Endorsement letter from host city.
  - Budget for the event indicating that the necessary funds are available for the successful completion of the event.
  - Supporting documents from sponsors endorsing support of the event or a letter confirming that there are no sponsors and the event will be funded out of attendance fees or the like.
  - Project plan/business Plan for any FAI CAT2 or CAT 1 competitions
  - Letter from SAHPA confirming the competition.
  - Confirmation of adherence to FAI competition rules if a FAI CAT 1 or CAT 2 competition

### **Provincial Competitions**

- Any organiser wishing to stage a Provincial competition must submit a bid to stage such a competition to SAHPA.
- The bid must include details such as proposed dates, site information, maximum number of competitors, competition format, organisers, cost and available sponsors.
- SAHPA will appoint an organiser to stage the competition after evaluation of the bids received, if any, and inform the members of the decision.

### **Notification of competitions**

- SAHPA committee will compile a competition calendar and publish it in the SAHPA Newsletter or official website and notify AeCSA.
- The organisers will be responsible for sending out notification and/or entry forms prior to the event.

### **Results**

- It is recommended that the official results of competitions must be submitted to SAHPA immediately after the competition.
  - The results will be published.
  - If a FAI Category II or higher event results shall be submitted to the AeCSA as the NAC.

### **Entry**

- Notification must be distributed to the members at least one month before the competition.
- The following information is required on the entry form:
  - Licence Requirements
  - Entry Fee
  - Deadline for registration
  - Venue, dates and time
  - Arrangements for transport/recovery/film/GPS
- A copy of the competition regulations must be available for all those requesting it.

### **Licence requirements**

- Minimum licence requirements for Provincial and National and International Competitions a basic licence or higher.
- Organisers may give preferential entry to higher graded pilots.
- Minimum age for competitors is sixteen years old.
- All competitors must have FAI sporting licences with the exception of local pilots participating in local competitions.

### **Competition regulations**

- The aim of any SAHPA -sanctioned competition is for recreational activity only. Any claim for commercial loss due to a competition or task being cancelled or being invalid or due to a decision by the task committee or organisers will not be tolerated.
- The competition rules or regulations must be submitted to SAHPA NSTC or relevant competition committee for the relevant discipline **at two (2) months** before the start of the competition for approval.
- Competition regulations must be available to all competitors at the start of the competition.
- Certain mandatory regulations regarding format, safety, etc, are stipulated this annexure, and must be adhered to and also contains suggested rules, which should be included in the competition regulations.



**Accident emergency arrangements**

- The organisers of an International competition shall provide on-site medics and ambulance facilities during the competition. Emergency arrangements for National and Inter-Provincial competitions will be at the discretion of the competition organisers unless otherwise arranged.

**Take-off judges**

- Organisers of Paragliding competitions shall ensure that appointed take-off judges or launch assistants are briefed on the importance of competitors carrying out a leg strap check and reserve handle check prior to obtaining launch clearance.

**Selection of national teams**

- The selection of National Paragliding Teams to compete in World Championships and other International events will be made by the SAHPA Paragliding competition committee.

**Development of rules/scoring requirements for local competitions and the SAPC**

In the case of paragliding the national competition committee chosen by the SAHPA executive will, after consultation via forums and other methods with the competition pilots in South Africa (i.e. the top 15 ranked pilots on the WPRS system) will put in place the formats, scoring criteria and national selection criteria along with suitable documentation will be ratified by the SAHPA executive.

## **Airspace permissions / approvals**

- It is every pilot's responsibility to ensure they comply with airspace regulations.
- The competition organisers are responsible for implementing NOTAMS and informing nearby GA, clubs and applicable ATSUs of planned activities.
- Applications via the applicable authorities to CAMU must occur at least 180 days before the event to meet the AIRAC cycle.

## **ANNEXURE F – Display Flying**

### **SAHPA - Airshow procedures – Paragliding/ Hang Gliding**

This document details in brief the operations, procedures, manoeuvres, equipment, safety considerations and ratings for paragliding pilots participating in an Air show in South Africa..

### **Display Flight Plan**

A display flight plan must be submitted to the SAHPA Display committee for approval and list of details to be included in flight plan. Display flights must be done in accordance with the SAC Display rules, and within the approved Display Box, and completed within the allotted time slot.

If Aerobatics form part of the display, then the aerobatic portion of the display must be explained (briefly), and the sequence will then go on the members file inclusive of the Display Authorization as well as the Aerobatic Rating issued by the applicable authority on recommendation by the SAHPA display Committee. Any display rating only be issued once SAHPA has given the go-ahead by issuing a Competence Certificate.

Grandfathering of Display examiners that performed these checks and issued/ signed off Competence Certificates for display ratings in the past may be retained by those holders if they supply acceptable proof.

### **Pilot Qualification**

Any Pilot wishing to participate in an Air show in South Africa must be approved by SAHPA, and issued with a Competence Certificate. The following minimum requirements must be met by the pilot. Some are launch technique specific, so if for instance the pilot will be doing a winch launch, he or she does not need to meet the other launch technique requirements. The SAHPA Display Flight subcommittee has the right not to issue a competence certificate to a pilot that they deem, for whatever reason to be unsuitable for display flights, even if they meet the minimum requirements for the rating below.

## **Aerobatic Display requirements for PG**

1. Min. Years flying: 3
2. Min. flights Logged: 600 (1200 for advanced aerobatics)
3. Min. hours Logged: 300 (600 for advanced aerobatics)
4. Licence held for Min. one (1) year prior to display
5. SAHPA Registered SIV Course completed
6. D-Bag exit: Min 6 successful prior deployments done
7. Rollover (Balloon): Min 3 successful prior deployments done
8. Winching: Min 40 tow launches logged prior to display flight
9. Min. one (1) year incident / accident free record
10. Approved by SAHPA Display committee (Competence Certificate issued)

### **• Display requirements for PG**

1. Min. Years flying: 2
2. Min. flights Logged: 200
3. Min. hours Logged: 100
4. Club licence held for Min. one (1) year prior to display
5. Winching: Min 20 tow launches logged prior to display flight
6. Min. one (1) year incident / accident free record
7. Approved by SAHPA Display committee (Competence Certificate issued)
8. Appropriate licence held for craft flown

## **Aerobatic Display requirements for HG**

1. Min. Years flying: 3
2. Min. flights Logged: 600 (1200 for advanced aerobatics)
3. Min. hours Logged: 300 (600 for advanced aerobatics)
4. Club licence held for Min. one (1) year prior to display
5. Drop (Balloon): Min 3 successful prior deployments done
6. Winching: Min 40 tow launches logged prior to display flight
7. Min. one (1) year incident / accident free record
8. Approved by SAHPA Display subcommittee (Competence Certificate issued)

## **Standard display HG**

1. Min. Years flying: 2
2. Min. flights Logged: 100
3. Min. hours Logged: 100
4. licence held for Min. one (1) year prior to display
5. Winching: Min 20 tow launches logged prior to display flight
6. Min. one (1) year incident / accident free record
7. Approved by SAHPA Display committee (Competence Certificate issued)
8. Appropriate licence held for craft flown

## **Launch / Deployment techniques**

Brief descriptions of each launch technique with safety requirements and considerations.

### **i Winching**

Two types of winches may be used, the payout or pulling type, payout is recommended because of its quick and simple operation. Several pilots may be towed aloft simultaneously, in parallel or in series.

### **ii Balloon Drop (Rollover)**

Min. exit altitude 2000' Agl.

Glider must be gathered with entire leading edge outwards / exposed, NOT in a 'rosette'

In the case of Hang Gliders the dropping mechanism must have a manual release mechanism that can be activated by either the pilot or a member aboard the balloon

### **iii D-Bag**

D-Bagging can be done from many different low airspeed aircraft, i.e. Helicopter, three-axis or weights-shift microlight, Paratrike, Paramotor, Tandem Paraglider and Balloons. The aircraft type must have been used for launch by the pilot prior to the display flight. If the pilot will be using a D-Bag with releases, the system must be fitted with a backup to avoid accidental low altitude release. Should the pilot for any reason not release from the aircraft, the system must be set up in a way that the launch aircraft can land safely with the pilot in the hanging position. It should be noted that most helicopter skids are not approved for load bearing. Helicopter pilots flying with the pilot suspended below the aircraft should hold a sling rating on type. If a higher airspeed (in excess of 40knots) aircraft is to be used, the deployment technique must be successfully demonstrated to the Display committee for approval.

Min. exit / release altitude: 2000' Agl.

Max recommended release airspeed: 30kt

### **iv Aerotow**

This can be done using a low airspeed craft like a trike or three axis microlight or a paratrike. The tow line must have a payout winch on either the pilot or tow craft. Demonstration to SAHPA Display Subcommittee mandatory.

## **Aerobatic (Often referred to as Acro) Manoeuvres PG**

Paragliding Aerobatics or Acro is still developing, and new manoeuvres are added to the list every year. Below is a list of manoeuvres that pilots may choose to do, but they are not restricted to this list. Manoeuvres not listed here must be approved by the SAHPA Display Subcommittee in the flight plan. Synchronized flying of two or more pilots is allowed, with gliders flying in close formation or even touching during manoeuvres. Recommended minimum altitudes for aerobatic manoeuvres on paragliding display flights is 150ft, but may be lowered to ground level if approved by the SAHPA Display committee for certain manoeuvres, Many Manoeuvres can be linked, and some manoeuvres can only be done by building energy with another manoeuvre.



## Airshow Flight Plan

To be submitted to SAHPA for approval and issue of competence certificate.

(Each pilot must submit separate flight plan)

### General

Venue: \_\_\_\_\_

Date: \_\_\_\_\_

Pilot: \_\_\_\_\_

Other pilots in display team:

1.) \_\_\_\_\_

2.) \_\_\_\_\_

3.) \_\_\_\_\_

### Pilot

Total Hours: \_\_\_\_\_

Total Flights: \_\_\_\_\_

Licence held: \_\_\_\_\_

Date of issue: \_\_\_\_\_

Years Flying: \_\_\_\_\_

### Equipment

Glider: \_\_\_\_\_

(Specify make, model, size, certification, colours)

Harness: \_\_\_\_\_

(Specify make, model, and certification)

Reserve: \_\_\_\_\_

(Specify make, model, size, and certification)

Smoke System: yes / no      Duration: \_\_\_\_\_

Launch Technique: Winch / Balloon Drop / D-Bag / Other (Please Specify) \_\_\_\_\_

Previous experience on this technique: \_\_\_\_\_

Launch Aircraft: \_\_\_\_\_

Pilot of Launch Aircraft: \_\_\_\_\_

Attachment Technique: \_\_\_\_\_



**Flight Description**

Flight Sequence, Manoeuvres, etc.

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Notes: \_\_\_\_\_  
\_\_\_\_\_

**For Official Use**

Approval Granted: \_\_\_\_\_

Approved by: \_\_\_\_\_

Aerobatics: yes / no

Notes:

## **ANNEXURE G.- Sites and Site rules**

### **L**

#### **Control of Sites**

- All SAHPA registered sites that are covered under the SAHPA site insurance must be accessible for all current, appropriately licenced / experienced members and schools, as long as all site and landowner rules are adhered to.
- SAHPA shall supply a list of flying sites to update the current AIP's on an annual basis
- The flying and discipline at sites in any area will be controlled by the local Club or Clubs or schools or landowners, local bylaws or any landowner agreements.
- A pilot who breaches the rules may be prohibited from further flying at sites in the area.
- Should the pilot not belong to any Club, SAHPA may be approached with a written complaint against the pilot.
- SAHPA committee will investigate the allegations and take necessary actions, where required as per the disciplinary procedures.
- Where no Clubs are operating in an area, the owner of the site or the local person or pilot dealing with the site, may approach SAHPA with a written complaint against the pilot. SAHPA Committee may appoint a Safety officer or suitable senior pilot to investigate the allegations and make recommendations for disciplinary actions, where necessary.
- Access to any site may be controlled by the landowner(s), or their delegates, or a club or person who has negotiated the access with the landowner(s).
- Site fees, where applicable, can be collected by the landowner, or where a local club has negotiated a deal for their members and/or controls the site, by the Club. Any site fees collected by clubs should be paid to the landowner timeously.
- Where the landowner controls the access to the site, he will assume responsibility for ensuring that all pilots are licensed, unless he has specifically appointed a local Club or person to assume this duty.
- All persons or bodies who have site control are duty bound to keep SAHPA informed of any safety issues or ownership changes or fee requirements to allow the SAHPA third party insurance to cover pilots flying at these sites.

#### **Grading of Sites**

- SAHPA flying sites and their grading are listed on the SAHPA website.
- Sites shall be graded as training, basic or advanced.
- Sites shall be graded by the local Club; or Clubs; or School; or Instructor in the area having control over the flying at the site, and such grading shall be based upon a

consensus of opinion of Senior Pilots having regard for:

- Local weather characteristics (prevailing wind direction, wind strength, weather stability etc);
- Type of launch (steep, cliff, razor-back, abort area) ;
- Landing zone (distance to and size of landing zone, abort areas, obstacles & hazards);
- Terrain (obstacles, turbulence, property); or
- any other subjective dangers or potential property damage.

### **Disagreement on grading**

- Should a dispute arise between clubs as to the grading for any particular site, then the SAHPA safety committee shall determine the grading.

### **Site Rules**

- Rules at all regular flying sites shall be drawn up having regard for landowner requirements, SAHPA rules and regulations, and general flight safety.
- Site rules and guidelines are published / implemented by controlling body i.e. the landowner or the club.
- These rules should be made available to the flying public preferably on the SAHPA website and the Club website and signposted at the site.

### **Site Registration**

- All regular flying sites utilised by members for all types of flying are to be registered with the applicable Authorities via the SAHPA office. It is the responsibility of the local Clubs or the landowner to ensure that this information is submitted to the SAHPA office.
- Once registered, sites shall be added to the SAHPA site insurance schedule.
- A new site should be registered with SAHPA office within 30 days of being opened as a regular flying site.
- The following information should be provided:
  - Contact person for flying at the site
  - Controlling body or person details
  - Landowner details
  - Rules applicable to the site
  - Grading (suitable for training, Basic (default), Sport (advanced site)
  - Co-ordinates
  - Should any of the above details change, SAHPA must be informed immediately.
  - Local emergency numbers
- If the site is to be made permanent then an notification in writing to the applicable





authorities via SAHPA must occur.

- Should any of the above details change, SAHPA should be notified immediately.
- Notwithstanding the above, Paragliders are allowed to fly all Class G airspace, with landowner permission.

## Annexure H Foreign License Acceptance

### Local Pilots with Foreign Licences

- In the event of a basic licence membership application being received from a pilot already having attained a licence in a foreign country, the pilot will be required to pass a skills test and an oral evaluation of the appropriate theoretical exams pertaining to their licence grade by an applicably rated instructor Grade A or B
- In the case of a sport license or higher the latest SAHPA theoretical examination shall be written and passed, however SAHPA will recognise FAI IPPI certifications and consider conversions from IPPI level 4 or 5.
- All applicants holding licences from non-FAI-recognised countries will be required to complete all applicable exams. A skills test may also be conducted at the instructor's discretion.
- Anyone wanting to instructors ratings must fulfil all SAHPA requirements and as per SA CARS and SA CATS.

### Visiting Foreign Pilots

- In the case of visiting pilots, temporary membership status may be granted and the acceptance of their foreign licence shall be valid for a specified period only, after a temporary membership fee as prescribed by the SAHPA Committee has been paid. The fee shall include full Public Liability Insurance cover comparable to that of a local pilot unless the foreign pilot can prove that he is covered in South Africa by his/her own insurance.
- In the event that the foreign pilot is able to supply SAHPA with certified copies of their licence and third party insurance valid in South Africa, then SAHPA may waive the insurance fee(s) if the licence and documentation are deemed acceptable.
- If temporary membership status is granted foreign licence must be valid for the full period of the temporary membership / licence.
- A foreign pilot living in South Africa for a period exceeding 90 days is expected to apply for a SAHPA licence or convert their paragliding or hang Gliding license.
- Foreign Instructor ratings do not apply unless the Instructor has been validated by the relevant SAHPA committee and has complied with the minimum requirements for the instructors rating as stipulated in the SA CARS and SA CATS .

### **Event based License validation**

- RAASA accepts that an authorisation to fly is automatically given for the foreign pilot to participate in the competition or event under the authority of the event organizer.
- The organizer would then in an agreed period furnish via SAHPA to the applicable authorities, the pilots names, nationality, passport number and applicable License number and their necessary paperwork completed as accepted by SAHPA for competitions and events.
- SAHPA and the applicable authorities recognise the IPPI card along with a valid foreign licence and FAI sporting license to allow the pilot to compete and fly in the event.
- SAHPA shall delegate to reputable persons for foreign license acceptance and document completion.
- Foreign pilots are to be briefed and must at all times comply with local site requirements.

### **Free flight IPPI and foreign validations**

- SAHPA and the applicable authorities will accept all foreign licenses.
- SAHPA is to provide resources to explain difference in SA's Air law and weather including site-specific issues and airspace restrictions.
- SAHPA's Safety Officers, Instructors and reputable persons at sites will check the IPPI card, foreign license and validity, ensure foreign pilots complete and sign the necessary forms, collect the membership fee, and ensure that they are aware of the rules in the area. This documentation is normally sent within 7 days to the SAHPA office except during SAHPA office closed periods and during peak flying seasons where the documentation must be submitted to SAHPA within 30 days.

## **ANNEXURE I South African Aerotow Manual**

# **Hang Gliding**

# **SOUTH AFRICAN AEROTOW**



# MANUAL



South African Aerotow Manual: Table of Contents

**Section 1.**

**Introduction**

**1.1 General Guidelines**

Aero towing involves the participation of more than one pilot from different organisations namely MISASA and the SAHPA. It is therefore very important that both parties understand the procedure that each will be using during the towing operation.

It is the tug pilot's responsibility to make sure that the pilot being towed understands what is required, and that he has the appropriate rating or has been briefed correctly for the training process. Failure to do this could well result in injury or death.

This manual has attempted to be as thorough as possible but does not waive either pilots right to use common sense should situations occur which aren't covered within.

This manual has also been compiled using current information and is based on current glider performance; it is intended to be an open document allowing for change as necessary.

MISASA and SAHPA welcome any advice, information or assistance, which will help to make aerotowing safer or more efficient.

## 1.2 Preliminary Recommendations

Criteria for safe and efficient Aerotowing:

- 1 Constant direction.**

The direction of the tug should remain as constant as is possible throughout the tow. Turns should be made as slowly and as smoothly as possible. The Hang Glider pilot should follow the line of the tug at all times. On launch, the tow line should be no more than 20 degrees off centre.
- 2 Constant tension.**

The tension on the tow line must remain essentially constant throughout the towed flight.
- 3 Centre mass attachment.**

The towing force must be attached as closely to the centre of the mass of both the tug and glider as possible.
- 4 Gradual transitions.**

Any changes to tow tension or direction should be of a gradual nature.
- 5 Reliable release.**

Both parties must have an accepted and reliable release.
- 6 Weak link.**

The system must include an infallible weak link at both ends of the tow line.
- 7 Safe learning method.**

The system must include a safe method for learning and gradually advance the student from one level of experience to another.
- 8 Adequate power.**

The tug must have adequate power to maintain a safe mode of flight while towing.
- 9 Capable crew.**

The system must be operated by crew who are familiar with all aspects of the operation and are of a number to ensure that the operation functions properly.
- 10 Reliable communication.**

The system must provide a means whereby the pilot of both craft can reliably communicate their instructions to each other and to the rest of the crew.
- 11 Suitable environment.**

The system must be operated from a site and within meteorological conditions which will be conducive to safe operations throughout the tow, and in the event of an emergency.

**“If at any time either pilot is not happy with the progress of the tow, they should end the tow immediately!!!”**

## **Section 2. Operational Requirements**

### **2.1 Aerotow Operations**

Aerotow launch and in flight operations and procedures are specified in the SAHPA Aerotow Manual, and must be complied with at all times.

### **2.2 Pilot Qualifications**

#### **2.2.1 Tow Rating (Tug)**

No person shall act as pilot-in-command of a microlight engaged in towing operations unless that person:

- Is the holder of a current MPL endorsed with the towing micro-light type.
- Has completed a minimum of 100 hours as P1 in a microlight aircraft; or 2. 50 hours as P1 if the pilot has a Hang Gliding rating of B or higher, provided that the tug used is a trike.
- Has satisfactorily completed, within the last 24 months, an oral and practical test, conducted by either the holder of a C or higher rated Instructor with a Tug endorsement, OR the holder of a SAHPA Hang Gliding Instructor with considerable aerotow experience. The syllabus and standards for this test are contained in the “SAHPA Aerotow Manual”.
- The granting of a Tow rating shall be entered into the pilot’s logbook and signed by the Instructor as per SAHPA Operations and procedures manual section 3.

### **Tow Rating – Recent Experience Requirements.**

No person shall act as pilot-in-command of a Microlight engaged in towing operations unless that person complies with point 2.2.1 (c) requirements in the SAHPA Aerotow Manual.

Tow Rating Privileges:

The holder of a tow rating is authorised to tow Hang Gliders subject to the following limitations:

- a. The Hang Glider pilot being towed must comply with all necessary SAHPA requirements and approvals.
- b. The Microlight and towing apparatus being used must comply with the provisions of this manual.
- c. The towing operations must comply with the provisions of this Manual.

#### **2.2.2 The Hang Glider Pilot.**

- a. The Hang Glider Pilot must be a current member of SAHPA and have an Aerotow endorsement
- b. Hold a minimum of novice rating and be under the direct supervision of an appropriately rated SAHPA instructor whilst undergoing training to gain an Aerotow endorsement as per SAHPA Operations manual section 3.

**NOTE: “Direct supervision”** means the detailed on site personal direction and supervision of the aerotow operations.

**“At no time should Aerotowing be conducted with both an inexperienced Tug Pilot and an inexperienced Glider Pilot!!!”**

## 2.2 Duty Pilot

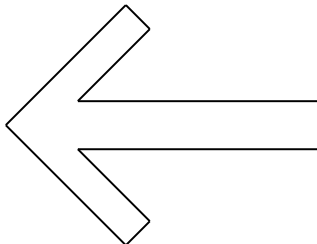
For each towing operation there shall be a duty pilot appointed from the people available on the day.

The duty pilot should preferably have a Hang Glider Aerotow endorsement or Aero tow Tug endorsement and be familiar with the site.

The duty pilot's responsibilities are:

- a) To co-ordinate and manage towing procedures for the day including:
- b) To ensure that both the tug pilot and glider pilot have been briefed and know what procedures have been adopted and endeavour to have all pilots adhere to these procedures.
- c) To determine the most appropriate launch area, the flight plan and the circuit and landing patterns they will use.
- d) To co-ordinate and liaise with other operators which may be using the same site, and to ensure that all mixed operations are carried out safely with due regard for other airspace users.
- e) When operations are being carried out at an airfield which may be in use by general aviation aircraft:-
- f) ensure a gliding operations signal is in place; and To ensure that the appropriate VHF radio channel is monitored and any incoming traffic notified of towing operations.
- g) The duty pilot can be the tug pilot or towed pilot.

**NOTE:** A "gliding operations signal" is in the form of an arrow placed flat on the ground adjacent to the wind direction indicator. This symbol is in the shape illustrated.





## Section 3. Equipment

### 3.1 The Tug

#### Tow aircraft requirements.

Any microlight used for towing operations shall:

- a. Be a Class 1 or Class 2 Microlight aircraft, but may NOT carry a passenger during the towing operations.
- b. Be either Type A (weight shift) or a Type B (3 Axis) Microlight only.
- c. Be capable of straight and level flight at 32 knots (35 mph) T.A.S.
- d. Be capable of a climb rate of 350fpm with the towed aircraft attached.
- e. Be capable of taking off and climbing to a height of 50 feet A.G.L. within 85% of the available runway length with the towed aircraft attached.
- f. Be fitted with a mirror of such a size and in such a position that the pilot can see the towed aircraft at all times.
- g. Be fitted with towing apparatus that conforms to the provisions of this Manual.

### 3.2 The Hang Glider

The hang glider must have a sufficient speed range to tow safely at speeds up to 35 knots.

It is recommended that wheels are fitted to all gliders involved in towing operations especially for pilots under Aerotow training.

Towing of low performance hang gliders at speeds in excess of 28 knots is not recommended unless a suitable bridle is used.

#### Towed Aircraft Requirements

The Pilot of a Hang Glider under tow shall comply with all requirements as laid down by SAHPA. Only certified hang gliders are to be used.

### 3.3 Releases

#### 3.3.1 Tug releases

##### Tow Rig Requirements - Release Mechanism

All tow rigs shall contain a release mechanism at the forward end AND rearward ends, the forward end release mechanism being operable by the tug pilot and the rearward end release mechanism being operable by the towed pilot. Each release mechanism will:

- a. Be easily operable up to 1.5 times the tow line breaking strain.
- b. Be easily operable under conditions of no load (i.e. slack line).
- c. Be subject to testing prior to the first tow of any day.

#### 3.3.2 Glider releases

All releases **MUST** release at any angle, and at any load. All releases must be as infallible as possible and only release upon pilot activation. Bridles,



which automatically release in the event of a nose-in are acceptable but the release cord must be attached to the pilot's shoulder and not the base bar.

There are many types of releases on the market today and it is highly recommended that only accepted and proven releases be used. Ask your Instructor if you are in doubt.

### 3.4 Tow bridles

#### 3.4.1 Bridle construction.

Bridles should be constructed from non-stretch rope of around 4mm diameter. This is necessary to prevent injury to the pilot in the event of a weak link break or release under tension. A bridle with too much stretch can flick back to the pilot if the load is suddenly released.

Seamless stainless rings can be used so as to prevent any unnecessary wear to the bridle. Small aluminium karabiners are proving most popular. If at all possible, soft hard type rings can be used to avoid injury.

#### 3.4.2 Types of bridles (refer Appendix 1 for diagrams)

- a. The usual, one to one bridle is most often used. In this configuration the bridle comes down from the keel, passes through the ring to which the release is attached and is then attached to the harness. The distance from the harness attachment point to the apex should be approximately two meters. This V type bridle is the most desirable when aerotowing as it helps to relieve the bar pressure. Low performance or intermediate gliders will find that this is the only system that will allow them to tow safely.
- b. The most common form of bridle used in aerotowing is just a short V bridle connected to the shoulders of the harness only. A weak-link is fitted to one end of the bridle with the release to the other end. This is also known as the "pro tow" method.

**“When aero towing the bridle ropes attached to the harness pass over the control frame and not underneath as is usual with ground towing.”**

## **3.5 Attachments**

### **3.5.1 The Tug Attachment.**

#### **Tow Rig Requirements – General**

All tow rigs will be inspected and approved in writing for the specific Microlight aircraft to which they are fitted, by **EITHER** a MISASA approved person with towing experience, the manufacturer of the micro-light **OR** a SAHPA approved person.

It is recommended that tow rigs manufactured or approved by the aircraft manufacturer be used where possible.

#### **Tow Rig Requirements – Bridle**

Any bridle arrangement used during Aerotowing operations shall:

- a. Provide for the towing point to be on or near the thrust line of the towing aircraft.
- b. Be unable to foul the towing aircraft's propeller under any circumstances.
- c. Be unable to foul or hinder the towing aircraft's control system under any circumstances.

### **3.5.2 Glider attachments**

Most harnesses have some form of tow loops sewn on from new, some older harnesses may not but they are easily retro fitted. They should be sewn through the main webbings as there can be a lot of force on them, which may damage the harness if sewn through fabric only.

For ground towing, these are usually attached to the lower webbings but for aerotowing, it may be more convenient to have them sewn to the upper webbings or even the shoulder straps.

If a chest mounted release is to be used it should be attached to the upper webbings or shoulder straps only.

If a V bridle is being used then the keel attachment point should be Forward of the king post and hang point. The glider manufacturer will have specific distances from the king post that provides the safest tow position. The attachment point should be restrained from moving further forward by a rope around the king post.

## **3.6 Weak Links**

### **3.6.1 Glider weak link**

The weak link should have a breaking load never exceeding 1g of all up weight. It is commonly accepted that weak-links for aero towing are much less than 1g. This is normally around 80 to 90 kgs dependant on the pilot weight. Weak link strengths of 60 kg for aero towing have proven to be more than adequate!

It is recommended that each pilot should have his own weak link of the appropriate strength. (Important! See tug weak links!)

Always test the breaking strain of a weak link to ensure that you are using the correct line.

It is recommended that the weak link should be between two rope rings that are soft in nature about 150mm apart. Care must be taken when using steel rings.

### **3.6.2 Tug weak link**

#### **Tow Rig Requirements – Tow Rope**

Any rope used to connect the towing and towed aircraft during aerotow operations shall:

Contain a weak link at each end with the forward link being 10%-20% stronger than the rearward link. The forward link shall have a maximum breaking strain of 100kg or around 85% of the towed Hang Glider and pilot weight, which ever is lesser.

### **3.7 Rope Types**

The most suitable rope for aerotowing is 4 – 5 mm polypropylene or polyester. These ropes are cheap and are available from most fishing or marine outlets. They are normally twisted which means that they must have a swivel at both ends. This is to prevent the two lines twisting around the release and preventing it from working properly. A heavy duty shark swivel is acceptable for this job.

All tow ropes should be stretched out on the ground before use and checked for any knots or wear which may cause its failure while in use.

A brightly coloured streamer attached at about 1/3<sup>rd</sup> the length of the tow line will help in its retrieval once released from the tug, and will also enable the tug pilot to see where the glider pilot is if he moves out of the field of vision of the rear vision mirror as the streamer will most likely still be in the field of vision. A small drogue chute can also be used. The chute must be positioned approximately 5 m from the hang glider along the rope.

#### **Tow Rig Requirements – Tow Rope**

- a. Be a minimum of 50 metres and a maximum of 100 metres in length.
- b. Be of a minimum breaking strain of 150 kgs and be of non stretch material.
- c. Contain a drogue device situated at least 75% to the rear of the rope and of sufficient size to prevent excessive droop when towed unattached.

### 3.8 Launch Trolley (Dolly)

The launch trolley has become the most preferred method of take off while aerotowing. It is essentially a triangular trolley with two castoring front wheels and one fixed rear wheel, and a rear support for the keel of the glider.

The trolley has a seat on either side for the base bar to sit in and has a cord running the width of the trolley under the base bar. The glider pilot holds on to this until he feels the glider and trolley start to lift off.

The height of the rear support can be adjustable and should be set at such an angle that the glider lifts off at about the best L/D speed.

The wheels should be free running and be large enough to allow for a fast acceleration.

**“The maintenance of the trolley is just as important as that of the tug.”**

### 3.9 Protective Eye Wear

It is recommended that protective eye wear should be worn by the glider pilot to prevent injury from the rope or bridle in the event of a high load weak link or line break.

### 3.10 Knife

It is recommended that the glider pilot carries a sharp knife, preferably a parachuting type hook knife. This should be in an accessible place on the harness to be used in the rare event of a release failure.

## Section 4. Communication

### 4.1 Radio procedures

The use of radios is recommended for all towing operations, particularly whilst training.

As radios can be unreliable, both pilots must be conversant with all forms of communication, including signals.

When using radios, the following guidelines should be used.

- a. When a tow is under way, other pilots should refrain from using the tow channel.
- b. When towing in groups, different frequencies should be used by each tug and glider combination. The pilots should be referred to by name or call sign.
- c. While aerotowing it is prohibited to permanently activate the microphone. This is so that the tug pilot can communicate with the glider pilot.
- d. The duty pilot shall have a radio and will relay commands in the event of a radio failure or if the glider pilot has no radio.
- e. The following commands are to be used:

Glider pilot	“Pilot ready”	The glider pilot is ready to start.
Glider pilot	“Take up slack”	Put some tension on the line.
Glider pilot	“All out All out All out”	Smoothly apply full power.
Glider pilot	“Stop Stop Stop”	Stop the tow and if air born, release.
Glider pilot	“Releasing”	Self explanatory
Tug pilot	“Tug ready”	These commands are self explanatory.
1 Tug pilot	“Move up”	
1 Tug pilot	“Move down”	
1 Tug pilot	“Move left”	
1 Tug pilot	“Move right”	
1 Tug pilot	“Release”	

These are all the commands that are required to be used. They should be repeated at least twice to ensure that the message is understood.

The tug pilot should not start if he has not heard “All out” three times.

It is not advisable for the tug pilot to say much more during the tow as his commands may well be drowned out or misunderstood due to the noise of the motor under full power.

## 4.2 Signals

The following signals are to be used if radios are not being used. It is recommended that they be used in conjunction with radios to prevent any form of confusion.

### 4.2.1 Ground signals (refer Appendix 2 for diagrams)

#### **Ready**

One out stretched arm to any side, is used to indicate that the pilot is ready to start the towing sequence.

#### **Take up slack**

A one under arm wave from side to side across the body. Keep waving until the slack is completely taken up.

The tug pilot should keep one eye on the mirror to see when the line is tight.

#### **All Out**

A one arm wave above the head. Keep this going until it is obvious the message has been received, or if foot launching, the hang glider pilot may give the command by waving one leg out to one side.

#### **Stop**

One arm held stationary above the head.

#### **Wait**

Two out stretched arm is used to indicate that there will be some delay before the next phase.

#### **Release**

One out stretched arm moving up and down. This can be performed by the duty pilot or the glider pilot on the ground or in the air.

### 4.2.2 Signals to be used by the tug pilot (refer Appendix 3 for diagrams)

#### **Tow higher**

A stationary arm pointing out and up at 45 degrees.

#### **Tow lower**

A stationary arm pointing down at 45 degrees.

#### **Move left**

A stationary arm pointing left.

#### **Move right**

A stationary arm pointing right.

#### **Release**

An up and down waving arm.

## Section 5. Procedures

### 5.1 Site considerations

The strip must be smooth enough to allow the tug to take off and land safely without risk of incurring damage, and must be of adequate length for the performance of the tug. The strip should be no less than 3 times the normal take off roll length for the given aircraft if flown solo, and be clear of obstacles and hazards.





## **5.2 Weather considerations**

Training flights for either the tug pilot or glider pilot should be carried out in light wind conditions free from thermal or rotor activity.

As towing experience is gained so can the wind strength be increased.

Cross wind launches are permitted providing a launch trolley is used.

Aerotowing in strong or overly turbulent conditions should be avoided.

It is not recommended to foot launch in winds of less than 5 knots.

## 5.3 Training considerations

### 5.3.1 Tug pilot training

The tug pilot will already be an experienced pilot, preferably with some hang gliding experience.

Before the first tow, the tug pilot will be briefed with exactly the same procedures as the glider pilot.

### 5.3.2 Glider training

Before commencing towing, trainee pilots must be thoroughly briefed on the procedures and techniques to be used.

Pilots must gain an understanding of the following:

- a. The flight plan and any predetermined circuit procedures,
- b. Emergency procedures,
- c. All signals that are used,
- d. The pilot actions that are required whilst launching, towing and releasing.

Prior to being towed:

- a. The pilot shall have had at least one tow demonstrated to him/ her.
- b. The pilot shall have passed the SAHPA aero tow theoretical examination
- c. Although there is no height restriction for the first aerotow, the glider pilot may become nervous so it is recommended that the first tow is only to 1000'.

**“Only Instructors with Aerotow experience are permitted to supervise Aerotow training operations, and they must endorse the pilot’s log book, or rating card when the acceptable standard has been achieved as per SAHPA Operations Manual section 3.”**

## 5.4 Launch procedures

### 5.4.1 Tug launch procedures

When the command is given to take up the slack, the tug pilot will apply enough power to roll the unit forward at a slow pace, keeping an eye on the mirror and the power on, until the line is tight.

When the “all out” command is given, the tug pilot will smoothly apply full power and endeavour to get the tug airborne as quickly as possible. Once airborne, the tug pilot should maintain a comfortable speed for the first 2-300 ft. After this height a slower airspeed may be selected to make the tow more comfortable for the glider. (Initial climb should be at best climb angle)

If the tug pilot lets the nose up too quickly he will rise above the glider before the glider has time to react. This will allow the rope to go slack and the glider pilot to become very low. The result of this can be a weak link break and a sharp rearward pull on the tug.

**“Be prepared to release the rope if in any doubt”**. Power **must** be kept on until you have visually ascertained that the glider pilot has either released or is under a successful tow. If the tow launch was successful maintain power and continue the climb.

While undertaking the launch procedure, it will not be possible to constantly look in the rear vision mirror, as you will be watching where you are heading. Special care must be taken to do a similar take off every time so that the glider pilots know what to expect.

#### 5.4.2 Glider launch procedures

To avoid delays, pilots should carry out all pre-flight checks prior to being connected to the tow line. These checks should include the standard pre-flight checks as well as checks to ensure radio, bridle, release and weak link are all in order.

When using the trolley launch method, an additional pre-flight check to ensure that the harness and variable geometry ropes are located to prevent them snagging on the launch dolly. Check the dolly is lined up.

Once the pilot is connected to the tow line a final check with the tug pilot or duty pilot should be made.

Once ready for launch, the glider pilot should give the “take up slack” call. Once slack has been taken up the glider pilot gives either the “stop” command or if the pilot is happy to proceed with the launch, the “all out” call. For foot launching, the glider pilot should allow the rope to pull the pilot and glider – do not run before the pull of the tug is felt, taking quick short steps whilst offering very slight resistance to the tow force.

When using the launch trolley, initially the glider pilot should push back on the base bar so as not to be pulled forward through the A frame. This is done just to break the surface friction of the dolly until the dolly is accelerating. At this stage the pilot should pull himself through the control frame to the trim position (bearing in mind that trim will be at tow speed). Care must be taken to ensure that the glider does not rise from the trolley prematurely.

### 5.5 Procedures under tow

#### 5.5.1 Tug procedure while towing

Once a successful tow is under way, the main concern is then to keep a watch out for other aircraft and to keep an eye on the position of the glider pilot, giving hand signals as necessary. The appropriate call by radio to the air frequency must be made.

If the glider pilot gets **high**, it may be necessary to **decrease** speed by **raising the nose, not by reducing power**.

If the glider pilot gets **low**, it may be necessary to **increase** speed by **lowering the nose, and keep full power**.

There is no need to announce a turn but they should be made slowly and smoothly with constant angle of bank. If the turn is too tight, the tow line will go slack, or worse the glider may be catapulted into a lock out situation. The weak link should break if a lock out occurs but it is best left untested in this situation.

Care must be taken not to take the glider too far down wind as the pilot may be unable to get back to the landing area should the weak link break.

**5.5.2 Glider procedure under tow**

Glider pilots should fly level at between 10 and 20 feet above the ground to avoid prop wash from the tug. The glider will lift off before the tug.

When foot launching, to ensure being able to achieve tow speed immediately after launch the pilot must quickly transfer his hands to the base bar, this should be done smoothly to ensure that sufficient control is maintained.

As soon as the tug lifts off and starts to climb, the glider pilot must ease the bar forward immediately to ensure climbing with the tug. The glider pilot should remain in a position referenced by the tug pilot, this is usually slightly lower and directly behind the tug. As a guide, the glider pilot can ascertain the correct station by keeping the wing of the tug on the horizon.

If the glider is too high the glider pilot should pull in until the correct relative position has been regained. Conversely glider speed should be reduced to move up to the correct station.

The tug pilot may request the glider to alter position by giving the appropriate signals.

When turning while under tow, the glider pilot should maintain a position slightly inside the track of the tug, so that the glider can fly at an acceptable speed.

Glider speed varies with tow position in turns, with the inside slower and the outside faster. The glider pilot will tend to point at the tug due to the tow tension and should fly the glider so that the line of the keel always points directly at the tug.

## 5.6 Release procedures

### 5.6.1 Tug after release

Once the glider has released, the tug pilot must accelerate forward and establish again that the release has been activated before starting a descending turn. The turn direction is usually left for the tug and right for the glider.

Before landing, the tug should do a low pass over the strip into wind and release the tow line.

Always check to see that the tow line is falling away from the tug. The tug can now land safely.

If a strip is being used of such a length that the tug can land safely without the risk of catching the tow line on any obstacles, then it is acceptable to land with the line still attached.

### 5.6.2 Glider release

The release procedure is to increase speed to reduce line tension and then release. Ensure you have released then look right for other traffic before commencing a right turn.

It is advisable to turn your head to one side as you release just in case the bridle flicks back. This will not be a problem with chest mounted releases.

**“Always watch the rope fall away from the glider to ensure that the line has released.”**

## 5.7 Emergency procedures

### 5.7.1 Line or weak link breaks

A line or weak link break will not adversely affect the tug, but the pilot should check that the hang glider is no longer attached to the tug before reducing power.

If the weak link breaks at a low level, the hang glider pilot should continue in the direction of the tow and not attempt to make it back to the launch site. Only if the hang glider has ample height, should an attempt be made to get back to the launch site.

If the line breaks at low level, then the hang glider pilot should release what is left of it right away. It may be that the weak link on the tug has gone, in which case you will have the full length of line attached to the hang glider.

If however the line breaks with good height, then the line should be carried back over the launch site and then released. You will make no friends if the line is lost.

### 5.7.2 Release failure

If the tug pilot can not release the tow line once the hang glider pilot has released, then he should land up the strip as far as possible to ensure that the line does not catch on any obstacles.

In the event of a release failure, the hang glider pilot should try to communicate to the tug pilot that he cannot release by extending and dangling his legs below his harness, the tug pilot will then be able to release from his end.

The glider pilot can then choose to land with the rope attached, (assuming that the landing area is long enough) or cut the rope away.

### 5.7.3 Lockouts

**A lockout occurs when the glider being towed moves off the direction of the tow.**

This will usually increase the tow tension, thus aggravating the situation. If this continues the weak link should break, if not, the tug pilot will either reduce power or release the tow line depending on how serious the situation has become.

The glider pilot can recover by speeding up and weight shifting back toward the centre line. If the hang glider pilot maintains the pitch and nose attitude up he will not be able to recover without releasing first. Once released, full control will return.

Notes:

- **Instructor to endorse pilot's logbook or rating card only upon completion of the SAHPA and/or MISASA aero tow checklist requirements.**
- **Original copy of the exam must be posted to SAHPA or MISASA with the checklist and appropriate fee if any within 7 days of completion thereof.**

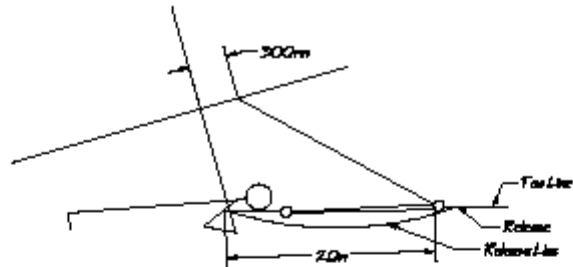


## MANUAL OF OPERATIONS AND PROCEDURES

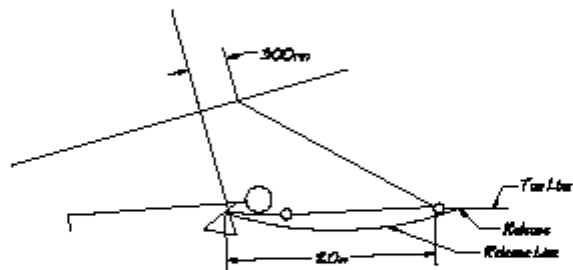
- **It is the responsibility of the endorsing officer to post the required documentation within the prescribed period.**
- **It is recommended that pilots keep copies of all documentation for their own records.**

**Appendix 1**

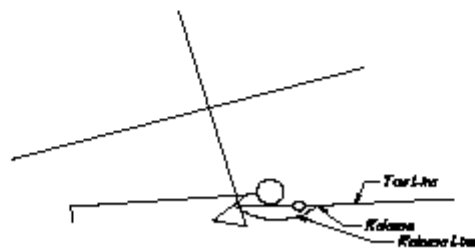
**Bridle types:** The two to one bridle as been replaced with the more popular use of the one to one bridle. This is especially so for inexperienced pilots flying slow gliders. Attachment points vary according to glider and pilot experience.



*Two to One Bridle*



*One to One Bridle*

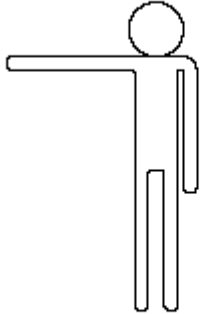


*Short Bridle*

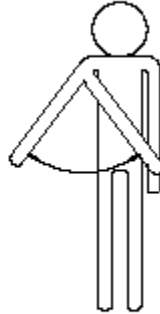


Appendix 2

Ground hand signals



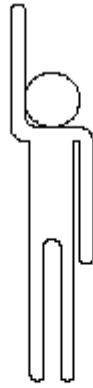
*Pilot Ready*



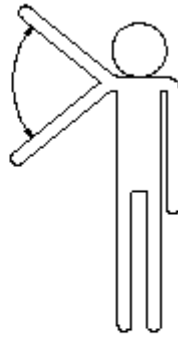
*Take up Slack*



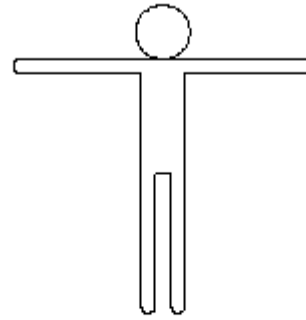
*All Out*



*Stop!*



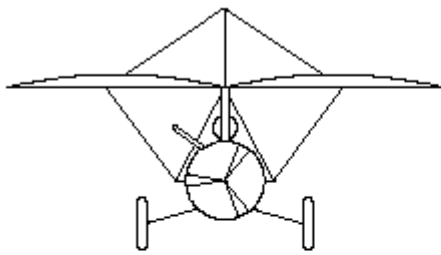
*Release*



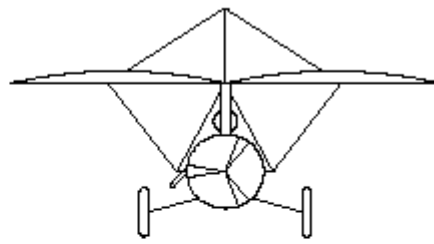
*Wait*

**Appendix 3**

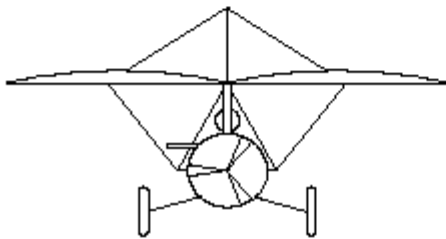
**Tug signals**



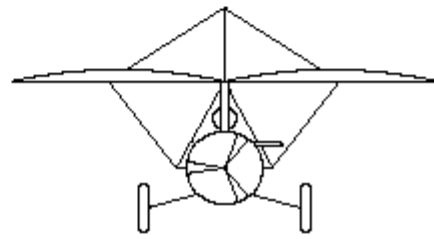
*Tow Higher*



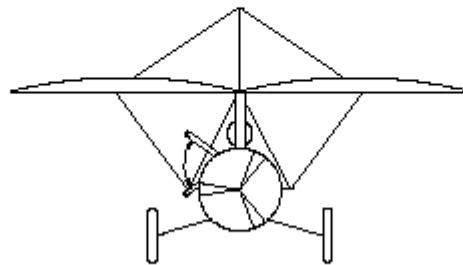
*Tow Lower*



*Move Left*



*Move Right*



*Release*

- *Restricted endorsements may tow Aero tow endorsed hang glider pilots only.*
- *Open endorsements may tow hang glider pilots under training and tandem flights.*
- *It is strongly advised that pilots keep a copy of this check list for their record.*

**Annexure J**



## **Missing Pilots Procedure**

- Report a suspected missing pilot immediately, even if you are not hundred percent sure the pilot is actually missing.
- Visit [www.sasar.gov.za](http://www.sasar.gov.za) for latest information
- Contact: the closest ATSU , SAHPA, The NSO, the club LSO
- Report to the local police
- Report to the Applicable authorities IE SACAA
- Note of the time you are reporting and write down the name of the police officer you make the report to. It is advisable to have a witness when you do this.