INDEX

NAMIBIA CIVIL AVIATION AUTHORITY

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Windhoek, Namibia

APPROVAL PAGE

SSN Soaring Society of Namibia

Soaring Society of Namibia

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Prepared By: J Wiehahn
Avconsult CC

Signature Date:

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Checked and Recommended
for Approval by: R Bürklin
Safety/Quality Officer

Signature Date:

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ORGANISATION APPROVAL

Approved by: G vd Westhuizen
Accountable Officer

Signature Date:

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AUTHORITY'S APPROVAL

Approved by NCAA:

Stamp Signature Date:

Table of Contents

PART A: SECTION 0: ADMINISTRATION AND CONTROL OF MANUAL PROCEDURES

FOREWORD AND COMMITMENT STATEMENT

The aim of this Manual of Procedures is to give guidance to all soaring clubs, operational bases, club and base members, officials, office-bearers, personnel and pilots with regard to laws, regulations, procedures, limitations and/or restrictions pertinent to the safe performance of duties and responsibilities in areas and conditions where the SOARING SOCIETY OF NAMIBA, hereinafter referred to as the SSN, operations are conducted. The SSN will ensure that the manual is in a form that is easy to revise and contains a system which allows personnel to determine the current revision status of each manual. It must have a date of the last revision on each revised page.

This manual shall not contain any prescriptions, rules or determinations that are in conflict with any applicable laws and regulations of The Republic of Namibia and/or the SSN's Operations Specifications.

This manual constitutes the SSN's means of compliance with the NAMCARS Part 149 – Aviation Recreation Organisations. In the event of a conflict of statement or interpretation between the contents of this manual and any regulatory provision, the latter will, at all times, take precedence.

The SSN herewith recognises and subscribes to the authority of the Namibia Civil Aviation Authority, hereinafter referred to as the NCAA, as the Regulator of civil aviation in Namibia and will not refuse access to any official of the NCAA to any of its premises or documentation.

The SSN shall notify the Director of the NCAA in writing of any changes to its structure at all times.

The SSN shall not implement any policy or procedure for flight operations prior to approval or acceptance by the Namibia Civil Aviation Authority.

Whenever there is a change in policy or procedure, the SSN shall submit the proposed policy or procedure to the NCAA at least thirty days prior to the date of intended implementation.

The Accountable Officer is responsible for the manual and will authorise all amendments that have been revised and compiled before applying for approval from the NCAA. This Manual of Procedures is issued in accordance

with and will not be less restrictive than the following regulatory documents which are deemed to be incorporated herein:

The Namibia Civil Aviation Act of 2016;
The Namibia Civil Aviation Regulations and Technical Standards (NAMCARS and NAMCATS);
NCAA Directives;
AIP's and AIC's;
NOTAMS;
ICAO Annexes and Documents;
Extract of the Operational Rules for Sport Gliding (SBO) – German Aero Club.

In addition, the following documents form an integral part of this manual and are deemed incorporated:

SSN Directives;
SSN Standard Operating Procedures;
SSN Emergency Response Plan (ERP);

Date: 07 October2021

G vd Westhuizen
Accountable Officer

Ralph Bürklin
Quality/Safety Assurance Officer

For and behalf of
SOARING SOCIETY OF NAMIBIA

SCOPE

This manual sets out the policies, practices and procedures and/or instructions for all soaring clubs and bases, club members, office-bearers, officials, personnel and pilots.

This manual is the only Manual of Procedures approved for soaring activities in Namibia and is equally applicable to the SSN and all its clubs and bases. Henceforth, no club or base may generate its own Manual of Procedures or deviate in any respect, from the contents of this manual.

PURPOSE

The purpose of this manual is to ensure conformity in all procedures and practices of the SSN and its affiliated soaring clubs.

AUTHORISATION

The manual is issued and authorised by the Accountable Officer of the SSN, including approval, revisions, amendments and termination. To give effect to this procedure, the manual shall undergo scrutiny and approval as per the check list below:

Approval details	**Name**	**Title**
Amended by:	Mr. J Wiehahn/Ms. A Parker	AVCONSULT CC
Checked by:	Mr. R Bürklin	Safety/Quality Officer
Authorised by:	Mr. G vd Westhuizen	Accountable Officer
NCAA approval	Mr. E Nengola	Interim Executive Director

0.1 DOCUMENT CONTROL

The Quality Assurance and Safety Officer shall be responsible for the continued revision and amendment of policies and procedures contained in this Manual. The Accountable Officer shall authorise and approve all revisions and amendments to the Manual.

It is essential that this Manual is reviewed on an annual basis to ensure the applicability of all provisions contained herein at all times. Any amendments or revisions must be finalised by the end of July in any given year to ensure that the approval process is concluded prior to the commencement of the next competition soaring season.

Any member and/or office-bearer of an affiliated club and/or the SSN may suggest a revision or amendment to this Manual by utilising the "Amendment Proposal Form" in section 0.6 of this part. The suggested revision must be circulated to all affiliated clubs and members by means of a written text, either in hard copy or electronic format, containing the wording of such intended revision or amendment.

Any such revision or amendment must be agreed to by all affiliated clubs by means of a majority vote of approval, either by means of hard copy or electronic communication.

Once such approval has been obtained, the CFO shall forward the intended revision or amendment to the Accountable Officer who will record the intended revision or amendment on the prescribed form and submit the latter with the attached amended/revised text to the NCAA for approval.

Once NCAA approval has been obtained, it is the responsibility of the Quality Assurance/Safety Officer to withdraw all copies of the Manual from the respective recipients as per the Distribution List, insert the revised/amended pages and return the copies to the respective recipients. Old pages must be destroyed.

In the event of hard copies, all revisions and amendments will be indicated by a solid, vertical black line in the left margin next to the amended text. The "footer" of the amended page will be updated accordingly to indicate the latest revision status of the page. The Record of Revision table will also be amended accordingly.

A hard copy of the Manual and all revisions/amendments must be kept at the NCAA and SSN headquarters.

Electronic copies of the Manual will be available to all affiliated clubs and bases of operation, all members, office bearers, personnel and pilots of the SSN and where else applicable, via the official website of the SSN.

The Manual, including all revisions and amendments, will at all times be published on the SSN website.

0.2 Record of Revisions

All records of revisions and amendments will be recorded in accordance with the table provided below.

Record of Revision Check Sheet

Issue No.	Revision No	Effective date of Revision	Date Entered	Signed
01	01	15 October 2020	31 October 2020	
02	00	07 October 2021	07 October 2021	

0.3 Record of Temporary Revisions

Temporary revisions are only allowed in instances that negatively impact on the safety of operations and/or in the event of a non-compliance with either a statutory provision or a deviation from the contents of this Manual.

The only difference between a temporary revision and a revision of a more permanent nature is the aspect of immediacy.

In the event of a temporary revision, notification to the NCAA must be provided to the NCAA Flight Operations division in writing without delay, stating the reason for such revision.

Similarly, notification of such a revision must be immediately distributed to all affected parties.

Temporary revisions must be recorded in the Manual as per the Temporary Revision Record table below.

Temporary revisions must, within a period of thirty days from implementation be processed in accordance with the procedure for effecting revisions to the Manual as prescribed above.

Record of Temporary Revisions Check Sheet

No	Chapter	Page	Title of Temporary Revision	Insertion Date	Removal Date

0.4 List of Effective Pages (LEP)

The LEP provides a reference to the contents of the Manual. In all instances where revisions or amendments are affected, these pages must be similarly updated and in the event that a revision or amendment affects the numerical sequence of the LEP, the latter must reflect the correct page numbers at all times.

SECTION/CHAPTER	PAGE	REV NO	DATE
General: Index Page	1	00	07 October 2020
NCAA Approval Page	2	00	07 October 2021
Table of Contents	3	00	07 October 2021
Table of Contents	4	00	07 October 2021
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0.5 Manual of Procedures Distribution List

Copy No.	Holder	Form of Distribution	Date Issued
001	NCAA	Hard copy	
002	SSN Library	Hard copy	
000	SSN Accountable Officer	Website	
000	SSN Chief Flight Instructor	Website	
000	SSN Safety/Quality Officer	Website	
000	SSN Maintenance	Website	
000	SSN Affiliated Clubs/Bases	Website	
000	Pilots	Website	

0.6 Conditions of Use

This manual remains the property of the SSN.

No part of this Manual may be reproduced, translated, stored or introduced into a retrieval system in any form without the prior written permission of the SSN.

All recipients of hard copies of this Manual shall acknowledge receipt of their copies of the Manual by affixing their signatures to a control sheet, the latter which will be kept at the headquarters of the SSN. By affixing their signatures to the control sheet, recipients acknowledge that they will at all times, familiarise themselves with the contents of the Manual, specifically those provisions applicable to their individual areas of responsibility or operation.

All entrants and participants in soaring activities will be referred to the relevant sections of this Manual upon arrival at the various bases as well as during the initial briefing sessions.

Amendment Notification Proposal Form

SSN
Soaring Society of Namibia

AMENDMENT NOTIFICATION PROPOSAL FORM

The following amendment/additional/deletion is proposed to:

Section: …….. Para: …… of ……Manual.

PROPOSED AMENDMENT: (Continue on separate sheet if necessary)

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REASON FOR AMENDMENT:
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……

Name of Proposer: ……

Position: …… Signature: ……..

Approval/ Rejection by the post holder: …… Date: ……

Reason for rejection: ……..

Approval/Rejection by the Quality Assurance Manager: …… Date: ……

Reason for correction: ……..

0.7 List of Abbreviations

A/C	Aircraft
A/G	Air- to- Ground
A/N	Amendment Number
ABM	Abeam
ABN	Aerodrome Beacon
ABT	About
ABV	Above
ACAS	Airborne Collision Avoidance System
ACC	Area Control Centre
ACFT	Aircraft
ACL	Altimeter Check Location
AD	Aerodrome
ADC	Aerodrome Chart
ADD	Acceptable Deferred Defects
ADI	Attitude Director Indicator
AFT	Rear part of Aircraft
AGL	Above Ground Level
AGN	Again
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIREP	Air Report
AIRMET	Information concerning en-route weather phenomena which may affect the safety of low-level aircraft operations
AIRPROX	Air proximity
AIS	Aeronautical Information Service
ALT	Altitude
ALTN	Alternate (aerodrome)
AMD	Amend or Amended
AMSL	Above Mean Sea Level
ANC	Aeronautical Chart
AOG	Aircraft On Ground
AOM	Aircraft Operating Manual
AP	Autopilot
APCH	Approach
APS	Aircraft Prepared for Service
ATA	Actual Time of Arrival
ATC	Air Traffic Control
ATL	Aircraft Technical Logbook

ATS	Air Traffic Service
Authority	Namibia Civil Aviation Authority
CAT	Clear Air Turbulence
CFO	Chief Flight Operations
CP	Chief Pilot
DCP	Designated Check Pilot
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
FIC	Flight Information Centre
FIS	Flight Information Service
FL	Flight Level
FT	Feet
FT	Feet
FT	Feet
GND	Ground
GPS	Global Positioning System
GPS	Global Positioning System
HAT	Height Above Touchdown
HPA	Hecto Pascal
IAS	Indicated Air Speed
ICAO	International Civil Aviation Organization
ISA	International Standard Atmosphere
KIAS	Knots Indicated Airspeed
KTS	Knots
LAT	Latitude
LDG	Landing
LAT	Latitude
LDG	Landing
LONG	Longitude
LONG	Longitude
LONG	Longitude
METAR	Aviation Routine Weather Report
LONG	Longitude
METAR	Aviation Routine Weather Report
MOP	Manual of Procedures
MSL	Mean Sea Level
MTOW	Maximum Take Off Weight
OAT	Outside Air Temperature
MTOW	Maximum Take Off Weight
OAT	Outside Air Temperature

OCC	Operation Control Centre
PF	Pilot Flying
PIC	Pilot in Command
QFE	Height Above Airport Elevation (Using local station pressure)
QNE	1013.2hpa
QNH	Altitude Above Sea Level (Based on local station pressure)
R/N	Revision Number
NCAA	Namibia Civil Aviation Authority
NAMCARS	Namibia Civil Aviation Regulations
GFM	Glider Flight Manual
RWY	Runway
SAR	Search and Rescue
SCFO	Senior Chief Flight Operations
SOP	Standard Operating Procedures
SSN	Soaring Society of Namibia
T/O	Take off
TA	Transition Altitude
TAF	Aerodrome Forecast
TAS	True Air Speed
TCAS	Traffic Alert and Collision Avoidance System
TFC	Traffic
TOC	Top of Climb
TOW	Take-off Weight
TURB	Turbulence
UTC	Coordinated Universal Time
VAR	Magnetic Variation
VFR	Visual Flight Rules
VHF	Very High Frequency
VIS	Visibility
VMC	Visual meteorological conditions
VOR	Very High Frequency Omni range Station
VOR	Very High Frequency Omni range Station

0.8 Definitions

A

"accident" means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which (a) a person suffers a fatal or serious injury as a result of being in or upon the aircraft, any direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or any direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew, or (b) the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin; or (c) the aircraft is missing or is completely inaccessible;

"Accountable Officer" The senior management official designated by an operator as having overall accountability for the operational performance of the organization.

"aerodrome" means a defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft;

"aerodrome elevation" means the elevation of the highest point of the landing area;

"aerodrome facilities and equipment" means facilities and equipment, inside or outside the boundaries of an aerodrome that are constructed or installed and maintained for the arrival, departure and surface movement of aircraft;

"aerodrome identification sign" means a sign placed on an aerodrome to aid in identifying the aerodrome in the air;

"aerodrome traffic" means all traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome;

"aerodrome traffic zone" means an airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic;

"aeronautical beacon" means an aeronautical ground light visible at all azimuths, either continuously or intermittently, to designate a particular point on the surface of the earth;

"Aeronautical Information Circular (AIC)" means a notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the Aeronautical Information Publication, but which relates to flight safety, air navigation, technical, administrative or legislative matters;

"Aeronautical Information Publication (AIP)" means an aeronautical information publication of a lasting character essential to air navigation, issued by the Authority;

"air-ground control radio station" means an aeronautical telecommunication station having primary responsibility for handling communications pertaining to the operation and control of aircraft in a given area;

"air traffic" means all aircraft in flight or operating on the manoeuvring area of an aerodrome;

"air traffic control clearance" means authorization for an aircraft to proceed under conditions specified by an air traffic control unit;

"air traffic control service" means a service provided for the purpose of: (a) preventing collisions: (i) between aircraft; and (ii) on the manoeuvring area, between aircraft and obstructions; and (b) expediting and maintaining an orderly flow of traffic;

"air traffic control unit" means a generic term meaning variously, area control centre, approach control unit or aerodrome control tower;

"air traffic service" means a flight information service, alerting service, air traffic advisory service, or air traffic control service;

"air traffic services airspaces" means airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which air traffic services and rules of operation are specified;

"aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface;

"aircraft operating manual" means a manual, part of the Manual of Procedures, acceptable to the State of the Operator, containing normal, abnormal and emergency procedures, checklists, limitations, performance information, details of the aircraft systems and other material relevant to the operation of the aircraft;

"aircraft stand" means a designated area on an apron intended to be used for parking an aircraft;

"aircraft type" means all aircraft of the same basic design including all modifications thereto except those modifications which result in a change in handling or flight characteristics;

"airframe" means the fuselage, booms, nacelles, cowlings, fairings, aerofoil surfaces including rotors (but excluding propellers and rotating aerofoils of a power plant) and landing gear of an aircraft and their accessories and controls;

"airmanship" means the consistent use of good judgement and well-developed knowledge, skills and attitudes to accomplish flight objectives;

"airway" means a control area or portion thereof established in the form of a corridor;

"alerting service" means a service provided to notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required;

"alternate aerodrome" means an aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing.

"appliance" means any instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight, is installed in or attached to the aircraft, and is not part of an airframe, power plant, or propeller;

"appropriate air traffic services (ATS) authority" means the relevant authority designated by the State responsible for providing air traffic services in the airspace concerned;

"appropriate airworthiness requirements" means the comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, engine or propeller under consideration.

"appropriate authority" means: (a) regarding flight over the high seas - the relevant authority of the State of Registry (b) regarding flight other than over the high seas – the relevant authority of the State having sovereignty over the territory being overflown (c) in relation to an aircraft, the authority which is responsible for approval of design and issuance of a type certificate; (d) in relation to the content of a medical kit, the State of registry; (e) in relation to Rwanda, the Authority;

"approved" means approved by the Namibia Civil Aviation Authority.

"approved data" means technical information approved by the Authority;

"approved training" means training conducted under curricula and supervision approved by the Authority that, in the case of flight crew members, is conducted within an approved training organisation;

"approved training organisation" means an organisation approved by the Authority to perform approved training as specified in the Civil Aviation (Approved Training Organizations) Regulations and operating under the supervision of the Authority;

"apron" means a defined area, on an aerodrome, intended to accommodate aircraft for purposes ~~of loading or unloading of passengers, mail or cargo~~, fuelling, parking or maintenance;

"apron management service" means a service provided to regulate the activities and the movement of aircraft and vehicles on an apron;

"ATS route" means a specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services;

"authorized instructor" means a person who— (a) holds a current flight instructor rating issued under these Regulations for conducting ground training

or flight training; or (b) is authorized by the Authority to provide ground training, flight training, or other training under these Regulations and the Civil Aviation (Approved Training Organisations) Regulations;

"authorised person" means any person authorized by the Authority either generally or in relation to a particular case or class of cases and reference to an authorized person includes references to the holder for the time being of an office designated by the Authority;

"avionics" means any electronic device - including its electrical part – for use in an aircraft, including radio, automatic flight control and instrument systems;

B

Intentionally left blank

C

"ceiling" means the height above the ground or water of the base of the lowest layer of cloud below 6 000 m (20 000 ft) covering more than half the sky;

"certificate of release to service" means a document containing a certification that inspection and maintenance work has been performed satisfactorily in accordance with the methods prescribed by the Authority;

"certify as airworthy (to)" means to certify that an aircraft or parts thereof comply with current airworthiness requirements after maintenance has been performed on the aircraft or parts thereof;

"chief flight operations" means the person overall in charge of flight operations at a club or base of operation;

"check pilot" means a pilot approved by the Authority who has the appropriate training, experience, and demonstrated ability to evaluate and certify to the knowledge and skills of pilots;

"competency" means a combination of skills, knowledge and attitudes required to perform a task to the prescribed standard;

"configuration deviation list (CDL)" means a list established by the organisation responsible for the type design with the approval of the State of Design which identifies any external parts of an aircraft type which may be missing at the

commencement of a flight, and which contains, where necessary, any information on associated operating limitations and performance correction;

"controlled airspace" means an airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.

"controlled flight" means any flight which is subject to an air traffic control clearance;

"control zone" means a controlled airspace extending upwards from the surface of the earth to a specified upper limit;

"co-pilot" means a licensed pilot serving in any piloting capacity other than as pilot-in-command, but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction;

"course" means a programme of instruction to obtain a license, rating, qualification, authorization, or recurrency required under these Regulations;

"credit" means recognition of alternative means or prior qualifications;

"cross country" means a flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures;

"cruising level" means a level maintained during a significant portion of a flight;

"current flight plan" means the flight plan, including changes, if any, brought about by subsequent clearances;

D

"danger area" means an airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times;

"designated medical examiner" means a person qualified and licensed in the practice of medicine, designated by the Authority to conduct medical examinations of fitness of applicants and issue reports for the issue or renewal of the licenses or certificates or ratings specified in the Namibian Civil Aviation (Personnel Licensing) Regulations;

"dual instruction time" means a flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft;

E

"emergency locator transmitter (ELT)" means a generic term describing equipment which broadcast distinctive signals on designated frequencies and depending on application, may be automatically activated by impact or be manually activated;

"engine" means a unit used or intended to be used for aircraft propulsion, consisting of at least those components and equipment necessary for functioning and control, but excludes the propeller (if applicable);

"error" means an action or inaction by the flight crew that leads to deviations from organizational or flight crew intentions or expectations;

"error management" means the process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors and mitigate the probability of further errors or undesired aircraft states;

"estimated off-block time" means the estimated time at which the aircraft will commence movement associated with departure;

"estimated time of arrival" for visual flight rules flights, the time at which it is estimated that the aircraft will arrive over the aerodrome;

"examiner" means any person authorized by the Authority to conduct a pilot proficiency test, a practical test for a license or rating, or a knowledge test under these Regulations;

F

"facility" means a physical plant, including land, buildings, and equipment, which provides the means for the performance of maintenance, preventive maintenance, or modifications of any article;

"fatal injury" means an injury which is sustained by a person in an accident and which results in his death within 30 days of the date of the accident;

"flight crew member" means a licensed crew member charged with duties essential to the operation of an aircraft during flight duty period;

"flight information centre" means a unit established to provide flight information service and alerting service;

"flight information region" means an airspace of defined dimensions within which flight information service and alerting service are provided;

"flight information service" means a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights;

"flight level" means a surface of constant atmospheric pressure which is related to a specific pressure datum, 1013.2 hectopascal (hPa), and is separated from other such surfaces by specific pressure intervals;

"flight manual" means a manual, associated with the certificate of airworthiness, containing limitations within which the aircraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft;

"flight operations officer/flight dispatcher" means a person designated by the operator to engage in the control and supervision of flight operations, whether licensed or not, suitably qualified in accordance with Annex 1 to the Chicago Convention, who supports, briefs and/or assists the pilot-in-command in the safe conduct of the flight;

"flight plan" means specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft;

"flight safety documents system" means a set of interrelated documentation established by the operator, compiling and organizing information necessary for flight and ground operations, and comprising, as a minimum, the Manual of Procedures.

"flight time" for gliders, the total time occupied in flight, whether being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight;

"flight visibility" means the visibility forward from the cockpit of an aircraft in flight;

G

"ground visibility" means the visibility at an aerodrome, as reported by an accredited observer;

H

"heading" means the direction in which the longitudinal axis of an aircraft is pointed, usually expressed in degrees from North (true, magnetic, compass or grid);

"heavier-than-air aircraft" means any aircraft deriving its lift in flight chiefly from aerodynamic forces;

"human factor principles" means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance;

"human performance" means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations;

I

"identification beacon" means an aeronautical beacon emitting a coded signal by means of which a particular point of reference can be identified;

"incident" means an occurrence, other than an accident, associated with the operation of an aircraft which affects or would affect the safety of operation;

"inspection" means the examination of an aircraft or aircraft component to establish conformity with a standard approved by the Authority;

K

"knowledge test" means a test on the aeronautical knowledge areas required for a license or rating that can be administered in written form or by a computer;

L

Intentionally left blank.

M

"maintenance" means the performance of tasks required to ensure the continuing airworthiness of an aircraft or aircraft component including any one or combination of overhaul, inspection, replacement, defect rectification and the embodiment of modification or repair;

"maintenance release" means a document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the maintenance organization's procedures manual or under an equivalent system;

"manoeuvring area" means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons;

"manual of procedures" means a manual containing procedure, instructions and guidance for use by operational personnel in the execution of their duties as approved by the NCAA;

"marker" means an object displayed above ground level in order to indicate an obstacle or delineate a boundary;

"marking" means a symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information;
"

"maximum mass" means maximum certificated take-off mass;

"medical assessor" means a physician qualified and experienced in the practice of aviation medicine who evaluates medical reports submitted to the Authority by medical examiners;

"medical certificate" means the evidence issued by the Authority that the license holder meets specific requirements of medical fitness;

"medical examiner" means a physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by the Authority to conduct medical examinations of fitness of applicants for licenses or ratings for which medical requirements are prescribed;

-**"movement area"** means that part of the aerodrome to be used for take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and apron;

N

"night" means the hours between the end of evening civil twilight and the beginning of morning civil twilight, civil twilight ending in the evening when the centre of the sun's disc is 6 degrees below the horizon and beginning in the

morning when the centre of the sun's disc is 6 degrees below the horizon, or such other period between sunset and sunrise, as may be prescribed by the Authority;

"NOTAM" means Notice to Airmen;

O

"obstacle" means all fixed (whether temporary or permanent) and mobile objects, or part thereof, that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in flight;

"obstacle free zone" means the airspace above the inner approach surface, inner transitional surfaces, and the balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangible mounted one required for air navigation purposes;

"operational control" means the exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight;

"operator" means a person, organisation or enterprise, engaged in or offering to engage in an aircraft organization;

P

"pilot (to)" means to manipulate the flight controls of an aircraft during flight time;

"pilot-in-command" means the pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight;

"power plant" means an engine that is used or intended to be used for propelling aircraft, and it includes turbo superchargers, appurtenances, and accessories necessary for its functioning, but does not include propellers;

"practical test" means a competency test on the areas of operations for a license, certificate, rating, or authorization that is conducted by having the applicant respond to questions and demonstrate manoeuvres in flight, in an approved flight simulation training device, or in a combination of these;

"pressure-altitude" means an atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the Standard Atmosphere;

"primary runway" means a runway used in preference to others whenever conditions permit;

"problematic use of substances" means the use of one or more psychoactive substances by aviation personnel in a way that;
(a) constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or
(b) causes or worsens an occupational, social, mental or physical problem or disorder ;

"proficiency check" means the process of the check pilot administering each prescribed manoeuvre and procedure to a pilot as necessary until it is performed successfully during the training period;

"prohibited area" means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited;

"propeller" means for a device for propelling an aircraft that has blades on a power plant driven shaft and that, when rotated, produces by its action on the air, a thrust approximately perpendicular to its plane of rotation and it includes control components normally supplied by its manufacturer, but does not include main and auxiliary rotors or rotating aerofoils of power plants;

"psychoactive substance" means alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded;

R
"radiotelephony" means a form of radio communication primarily intended for the exchange of information in the form of speech;

"rating" means an authorization entered on or associated with a license or certificate and forming part thereof, stating special conditions, privileges or limitations pertaining to such license or certificate;

"rendering (a certificate of airworthiness) valid" means the action taken by the Authority, as an alternative to issuing its own certificate of airworthiness, in

accepting a certificate of airworthiness issued by any other Contracting State as the equivalent of its own certificate of airworthiness;

"rendering (a license) valid" means the action taken by the Authority, as an alternative to issuing its own license, in accepting a license issued by any other Contracting State as the equivalent of its own license;

"repair" means the restoration of an aeronautical product to an airworthy condition to ensure that the aircraft continues to comply with the design aspects of the appropriate airworthiness requirements used for the issuance of the type certificate for the respective aircraft type, after it has been damaged or subjected to wear;

"reporting point" means a specified geographical location in relation to which the position of an aircraft can be reported;

"rest period" A period before starting a flight or flight duty period, which is intended to ensure that a flight crew member is adequately rested before a flight;

"restricted area" means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions, and, in case of an aerodrome, means any area of an aerodrome that is identified as an area to which access is restricted to authorized persons;

"road" means an established surface route on the movement area meant for the exclusive use of vehicles;

"runway" means a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft;

"runway end safety area" means an area symmetrical about the extended runway centre line and adjacent to the end of the strip primarily intended to reduce the risk of damage to an aeroplane undershooting or overrunning the runway;

"runway strip" means a defined area including the runway and stop way, if provided, intended - (a) to reduce the risk of damage to aircraft running off a runway; and (b) to protect aircraft flying over it during take-off or landing operations;

S

"safe forced landing" means unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface;

"safety management system" means a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures;

"safety programme" means an integrated set of regulations and activities aimed at improving safety;

"serious incident" means an incident involving circumstances indicating that an accident nearly occurred;

"serious injury" means an injury which is sustained by a person in an accident and which— (a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; (b) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; (d) involves injury to any internal organ; (e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or (f) involves verified exposure to infectious substances or harmful radiation; and

"seriously injured" shall be construed accordingly;

"signal area" means an area on an aerodrome used for the display of ground signals;

"signature" means an individual's unique identification used as a means of authenticating any record entry or a maintenance record; a signature may be hand-written, electronic or any other form acceptable to the Authority;

"small aircraft" means an aeroplane having a maximum certificated take-off mass of less than 5,700 kg;

"solo flight" means a flight on which a student pilot of the aircraft is the sole occupant of the aircraft;

"solo flight time" means flight time during which a student pilot is the sole occupant of the aircraft;

"special VFR flight" means a controlled visual flight rules traffic authorized by air traffic control to operate within the control zone under meteorological conditions below the visual meteorological conditions or at night;

"standard atmosphere" means an atmosphere defined as follows: (a) the air is a perfect dry gas; (b) the physical constants are:
Sea level mean molar mass: M0 = 28.964420 x 10-3 kg mol-1
Sea level atmospheric pressure: P0 = 1013.250 hPa
Sea level temperature T0 = 15°C T0 = 288.15 K
Sea level atmospheric density: P0 = 1.2250 kg m-3 Temperature of the ice point: Ti = 273.15 K Universal gas constant R* = 8.31432 JK-1mol-1

"State of design" means the State having jurisdiction over the organization responsible for the type design;

"State of manufacture" means the State having jurisdiction over the organization responsible for the final assembly of the aircraft;

"State of registry" means the State on whose registry the aircraft is entered;

"State of the operator" means the State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence;

T

"take-off surface" means that part of the surface of an aerodrome which the aerodrome authority has declared available for the normal ground ~~or water~~ run of aircraft taking off in a particular direction;

"threat" means events or errors that occur beyond the influence of the flight crew, increase operational complexity and must be managed to maintain the margin of safety;

"threshold" means the beginning of that portion of the runway usable for landing;

"track" means the projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid);

"training programme" means a program that consists of course(s), courseware, facilities, flight training equipment, and personnel necessary to accomplish a specific training objective. It may include a core curriculum and a specialty curriculum;

"training time" means the time spent receiving from an authorized instructor flight training, or ground training;

"transition altitude" means the altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes;

"type certificate" means a document issued by a Contracting State to define the design of an aircraft type and to certify that this design meets the appropriate airworthiness requirements of that State;

U

"UTC" Universal Time Control

V

"visibility" for aeronautical purposes means the greater of: (a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognized when observed against a bright background; (b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background;

"visual meteorological conditions (VMC)" means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima;

W

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X,Y,Z

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PART A: SECTION 1: ORGANISATION, RESPONSIBILITIES AND GENERAL PROCEDURES

1.0 GENERAL

The **SSN** is the accredited Aviation Recreation Organisation for fixed wing soaring in Namibia. It is the custodian of all soaring clubs and bases in Namibia which presently comprise four clubs and five operational bases.

The **SSN** has a valid Constitution approved at an Annual General Meeting of members. This Constitution contains all the required clauses and stipulations that govern the internal and procedural affairs of the **SSN.**

The **SSN** possesses a valid and current **Aviation Recreation Organisation (ARO)** approval certificate issued by the Namibia Civil Aviation Authority. This certificate and any associated documents define the scope of the current operation and identify senior officers responsible for the functions of the ARO.

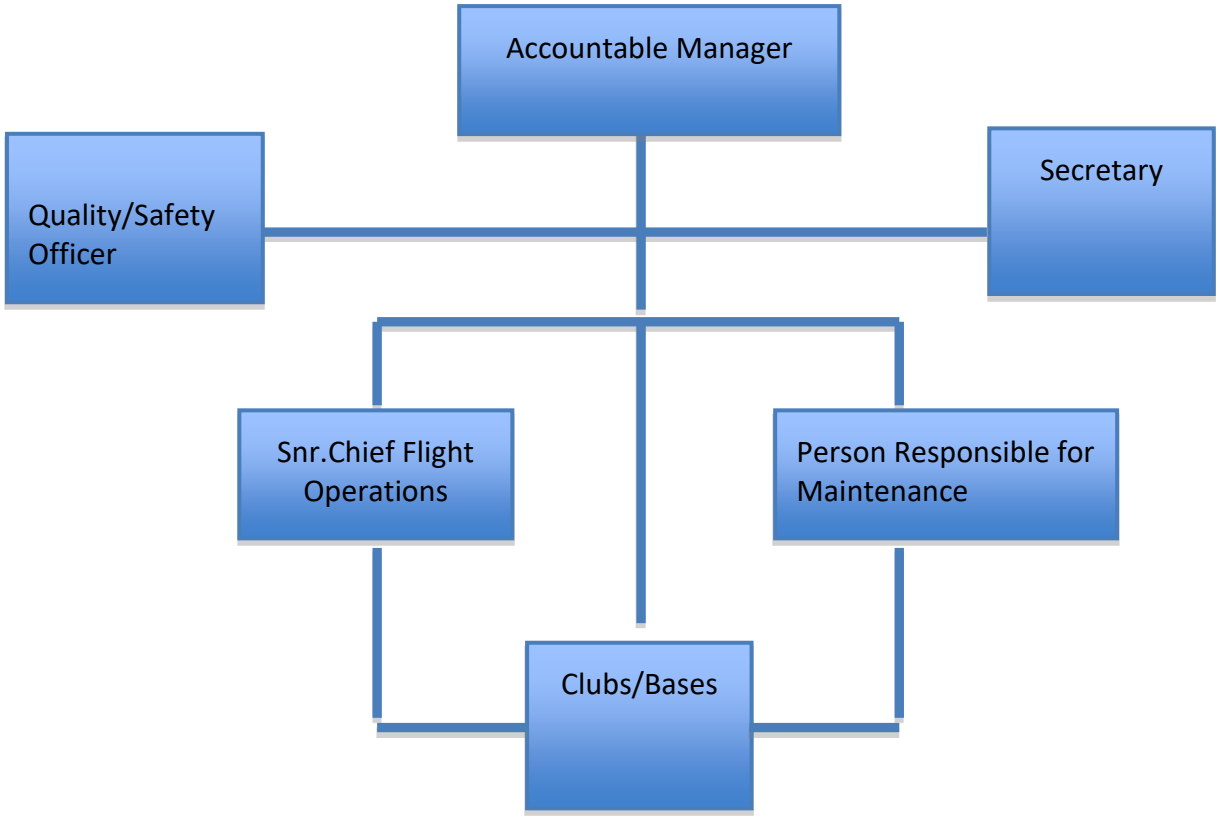
It is the duty of the Quality and Safety Officer of the **SSN** to ensure that timeous application for the renewal of the ARO certificate is made to the NCAA.

The **SSN** has a compulsory third party liability insurance policy the minimum insurable sum of which is determined by law. All other insurances in respect of aircraft and passenger liabilities are the responsibility of individual members.

1.1 STRUCTURE OF THE SSN

Following is the organogram of the structure of the **SSN** depicting the nominated posts and lines of command.

A list of all nominated post holders is attached hereto as Appendix B.



As the accredited ARO, it stands to reason those clear lines of communication and command must exist with the affiliated clubs or bases.

Each club or base shall make formal application for affiliation to the **SSN** in writing. For a club or base to be approved for affiliation it must comply with the following requirements:

- An approved Constitution;
- A list of office bearers;

- A list of nominated post holders which must structurally reflect the list of nominated post holders of the **SSN**;
- A full description of the headquarters and base(s) of operations including aerodrome co-ordinates and specifications, hangarage and storage of aircraft and equipment, ground support equipment, tethering facilities and emergency equipment;
- The SSN Manual of Procedures;
- A Safety Management System;
- An Emergency Response Plan.

The **SSN** shall inspect each applicant club or base to verify that these meet the standards laid down by the **SSN** including regulatory compliance.

Upon satisfactory verification, the **SSN** shall issue the club or base with a certificate of membership and approval. This certificate must be displayed at the club or base headquarters at all times.

In the event that a club or base deviates from the conditions of membership and affiliation, the **SSN** will issue the affected club or base with a warning notice to rectify the deviation within a period of 30 (thirty) days, failing which the **SSN** reserves the right to suspend or cancel the affected club or base's membership in writing, stating full reasons for the suspension or cancellation. In all these instances the **SSN** shall notify the NCAA in writing of the actions taken.

A club or base will at all times have the right to appeal the suspension or cancellation in writing, stating the reasons why the suspension or cancellation should not be invoked. Such an appeal will be heard and considered by an independent, suitably qualified and experienced person or institution and the latter's ruling will be final.

All club or base nominated post holders will liaise with and report their activities to their respective counterparts in the **SSN**.

Presently four clubs and one base are affiliated with the **SSN**. These are:

- **BITTERWASSER INTERNATIONAL FLYING CLUB** situated at guest farm Bitterwasser;
- **POKWENI SOARING NAMIBIA** situated at guest farm Pokweni;
- **WINDHOEK GLIDING CLUB** situated at Kiripotib guest farm;
- **WATERBERG GLIDING CLUB** situated in Otjiwarongo;
- **VERONICA FLYING** operational base situated at Aru Game Lodge.

All clubs and bases possess **SSN** approved aerodromes and related infrastructure adequate for the operation of glider aircraft. The minimum requirements for an operational glider base are contained in Part C, Section 0, Point 0.2 of this Manual:

A list containing particulars of all operational bases is attached hereto as Appendix A.

1.2 RECREATION CERTIFICATE AND DOCUMENT STORAGE

The **SSN** may not engage in soaring operations unless it holds a valid ARO certificate as issued by the NCAA. The ARO certificate stipulates the terms and conditions under which soaring activities may be conducted in Namibia.

The ARO certificate is valid for one year from the date of issue unless a shorter period is specified by the NCAA. Application for the issuing or renewal of the ARO certificate must be submitted to the NCAA at least 90 (ninety) days prior to expiry and/or the commencement of a competition gliding season. The NCAA will not entertain any application without the utilisation of the prescribed application form and payment of the prescribed application fee.

The ARO certificate will contain the following information:

- Certificate number;
- Date of issue and expiry (period of validity);
- Description of the type of operation approved;
- Any terms and conditions as the NCAA may deem fit;
- Official stamp and signature of the Director of the NCAA or his/her authorised representative.

The ARO certificate must be displayed at the headquarters of the **SSN** as well as in the operations areas of all affiliated clubs and their bases of operation.

The **SSN** shall maintain a current and up to date, web-based electronic list of all aircraft participating in soaring events, which list shall be available by means of a dedicated password, to the NCAA. The list shall contain the following information:

- Aircraft type (manufacturer etc.);
- Aircraft serial number;
- Aircraft registration number;
- Aircraft owner;

This list will be updated and uploaded to the web-based electronic storage system as aircraft arrive for participation in soaring events. Updating will be conducted as and when required with stored information not older than one day.

All document storage of aircraft, pilot, launch and flight information will, at all times, be conducted electronically. Each base of operation is responsible for uploading the latest information pertaining to the above on a regular basis as and when required, depending on the nature of the information to be captured.

Launch and flight records must be uploaded on a daily basis. As launch sites do not have internet access, this information will be scanned from hard copy and uploaded upon conclusion of each day's flying activities.

Pilot information must contain the following:

- Personal particulars;
- Valid and current license;
- Valid medical certificate.

The electronic data storage system is set up in a way that will restrict each base to its own information.

A separate, password restricted "SSN Reporting and Administration Group" will be created with access limited to a select few office bearers and the NCAA. Users within this group will have access to all SSN information, including all information pertaining to pilots, aircraft and flying activities.

1.3 HEADQUARTERS LOCATION AND DESCRIPTION

The office location of **SOARING SOCIETY OF NAMIBIA** will be:

SSN Head Office is located at:

W Keding
16 Joseph Wood Street
Klein Windhoek
Windhoek

SSN Postal Address:

P O Box 6838
Ausspannplatz
Windhoek

Telephone:

+264 81 805 2377

The **SSN** operates a dedicated website containing club information, notices, directives, pilot information, aircraft information, launch registers, news items and the Manual of Procedures**.**

1.4 AIRCRAFT

The **SSN** is the accredited organisation for all soaring activities in Namibia. No person may operate a glider in Namibia without proof of membership of a soaring club or **SSN** approved base of operation which, in both instances, must in turn be affiliated to the **SSN**.

All glider pilots operating glider aircraft outside the competition season referred to hereunder, must submit copies of their logbook entries to the Senior Chief of Flight Operations (CFO) of the **SSN** every 6 (Six) months per calendar year.

Clubs and bases may own their own glider aircraft, the latter which will require registration in terms of the applicable laws and regulations of Namibia. All documentation pertaining to these gliders must be kept on record at the **SSN** headquarters and must be valid and current at all times.

The objective of the **SSN** is to advance the sport of soaring in Namibia. Therefore, clubs and bases may also conduct soaring activities outside the competitive soaring season as further described hereunder.

Clubs and bases host an annual competition gliding season from 01 November in each year to 31 January the following year. During this period, termed as the annual competitive soaring season, glider pilots from abroad ship their gliders to Namibia to participate in recreational and competitive soaring activities.

All competitive soaring activities may only be conducted from **SSN** affiliated clubs and bases.

No aircraft other than licensed glider tow aircraft and bona fide fixed wing glider aircraft may be operated under the accreditation enjoyed by the **SSN.**

All aircraft participating in soaring activities in Namibia shall carry valid Certificates of Airworthiness, full registration markings and type descriptions which must be retained on electronic record with the **SSN** and the respective clubs/bases from which they will operate. Namibian registered gliders are required to carry authorisations to fly.

No glider aircraft may be operated outside the operational parameters and specifications as determined by the manufacturer of the aircraft.

No glider aircraft may carry any modification to its design, structure or equipment if not approved or permitted to fly by the manufacturer of the aircraft. All such modifications must carry a certificate of approval, the latter which must be kept on record.

1.5 AIRCRAFT EQUIPMENT

All aircraft participating in soaring events in Namibia shall carry the following minimum equipment:

- Instrumentation and avionics necessary to conduct safe flight operations and meet the applicable flight parameters and limitations of the aircraft;
- Communications equipment in compliance with regulatory requirements and to satisfy operational communications requirements including emergency communications;
- A transponder in compliance with regulatory and air space utilization requirements if flying cross-country and during the competition season;
- Adequate supply of oxygen for compulsory utilisation above FL120;

- Emergency equipment, including but not limited to a flash light, Emergency Locator Transmitter (ELT) where applicable, thermal blanket, matches, water etc. if flying cross-country;
- Pilot's Operational Handbook (POH).
- Tracking devices such as SPOT, SPIDER Track or similar devices;
- FLARM or PowerFLARM device;
- Prescribed documentation including the Certificate of Registration, Certificate of Airworthiness, pilot's licenses, radio license, insurance certificate (where applicable), search and rescue information and navigation charts.

1.6 FLIGHT OPERATIONS

All flights may only commence after the PIC has familiarised himself with the latest available information concerning weather conditions and airspace regulations. This can be done individually or during morning briefing sessions at the individual bases. These briefing sessions will comprise post flight feedback from pilots, updated meteorological information, route information and safety briefings.

The CFO or Deputy CFO shall maintain a flight dispatch log onto which the aircraft make, model registration number, take-off and arrival times must be entered. This log will be uploaded to the web-based document storage system after conclusion of each day's flights.

Soaring flights must at all times be conducted under VFR conditions only.

No pilot shall undertake a flight without a valid and current license and medical certificate. Copies of all pilot licenses will be stored on the web-based document storage system.

Radio communications shall at all times be conducted in the English language which is the international standard for all such communications. All pilots shall possess and produce, on request, proof of their English language level 4 proficiency.

Radio communications shall at all times be conducted in accordance with the protocols specified by Namibia Air Traffic Control and NCAA Air Navigation Services from time to time.

All pilots shall adhere to the airspace utilisation, restrictions and radio frequencies as agreed to between the **SSN** and the NCAA, either determined by resolution of the Airspace Committee, or, in the absence of the latter, contained in a Memorandum of Understanding concluded on an annual basis. Non-compliance with or transgressions of air space limitations, failure to comply with communication protocols or any transgression of club and **SSN** directives will result in the affected pilot being grounded and, depending on the severity of the non-compliance or transgression, the affected pilot may be refused further participation in flying activities for the remainder of any soaring event.

All pilots must conduct a thorough pre-flight inspection of their aircraft and equipment prior to take-off. It is the responsibility of every pilot to ensure that his/her aircraft is airworthy and safe as well as suitably equipped for the conducting of the intended flight.

The Chief of Flight Operations shall designate a Launch Officer to oversee the safe take-off of all aircraft on the day. It is the responsibility of the Launch Officer to keep track of all aircraft launched from his/her base of operation by means of radio communication and electronic tracking during the flight day. Given that aircraft may stay in the air for prolonged periods, the CFO may designate an assistant to the Launch Officer to avoid fatigue.

Most glider aircraft possess a small fold-out motor, either fuel or electrically operated and a propeller. This configuration allows glider aircraft to take off and climb under own power without the necessity for external assistance.
Fuel shall always be decanted from sealed drums. Records of fuel purchases must be kept on file at the respective bases of operation. Fuel sampling must be conducted daily, prior to flights, to check for possible contamination. Under no circumstances may expired fuel be used.

Non-self-launching aircraft are launched by either a tug aircraft, winch, or by means of a tow vehicle.

In the event of launching with the assistance of a tug aircraft, the latter must be certified as a tug aircraft and the tug pilot must hold a tug rating endorsement on his/her license.

In the event of launching by means of a motor vehicle, the vehicle shall be equipped in accordance with all international best practices and the driver must be suitably qualified, experienced and authorised to perform the function of tow vehicle operator.

In the event of launching by means of a winch, the latter must be serviced on an annual basis and proof of maintenance must be placed on record. Winches shall only be operated by trained winch operators. Proof of this training must be placed on record.

In the event of launching by means of a tug aircraft, winch or tow vehicle, the procedures prescribed in the SSN document, "Best Practice – Gliding" will at all times be adhered to. This document, which has been translated from the German Segelflugsport-Betriebs-Ordnung (SBO) as approved by the German Federal Commission: Gliding, extensively sets out the standards to be adhered to with regard to the launching of gliders – refer Part B of this Manual.

Winches installed, but not in use, must be marked with a placard marked "INOP."

Launch procedures shall be co-ordinated between the CFO and the Launch Officer.

No aircraft shall take-off without the "go" signal from the Launch Officer.

Prior to the "go" signal, the Launch Officer shall verify with the pilot that the aircraft is properly equipped, that all equipment is functional, that ELT's, FLARM, tracking and communications devices are switched on, that batteries for powering of equipment are fully charged, that oxygen bottles are full, that emergency equipment is on board and that the pilot has a suitable supply of water and protective gear.

The Launch Officer and his/her designated assistants must wear reflective jackets while performing their duties on the aerodrome.

The pilot is ultimately responsible for the safe conduct of a flight. The Chief of Flight Operations is accountable to ensure the safe return of all aircraft to base by the latest 20 (twenty) minutes after sunset. Glider flights may only be conducted in VMC conditions and may not exceed FL195 at any time.

Flight following and tracking is conducted by means of electronic, IT-based software and radio communications from the respective bases. All pilots shall also wear tracking devices on their person at all times when flying.

All clubs and/or operational bases shall possess an approved Emergency Response Plan (ERP).

All clubs and operational bases shall supply pilots with a list of preferred out-landing alternatives and their co-ordinates.

In the event of an out-landing, the CFO shall verify that the pilot and aircraft are safe and cared for. In the event of a missing aircraft, the applicable stage of the ERP shall be activated by the CFO.

In all matters pertaining to flight operations, the decisions and determinations of the CFO are paramount, final and binding.

1.7 FLIGHT AND RELATED DOCUMENTATION

All flights to be conducted must be entered onto a launch list prior to take-off. The control sheet will be scanned and uploaded to the web-based document storage system at the conclusion of each day's flights.

Flight information is electronically logged and downloaded after each flight. For purposes of document retention, this information must be electronically stored with adequate back-up facilities.

Documents will be electronically stored as follows:

- Technical and maintenance records (5 years);
- NOTAM's/AIS's (5 years);
- Fuel and oil records (5 years);
- Licenses (5 years);
- Training records (5 years);
- Accident/incident reports (5 years);
- Quality Assurance and Safety reports (5 years);
- Launch Registers.

In the event of dissolution of the **SSN,** these records shall be kept electronically for the prescribed periods at an IT-based location decided upon by the Accountable Officer.

1.8 LIBRARY

The SSN must establish a library containing the following publications:

- The Civil Aviation Act of Namibia;
- NAMCARS and NAMCATS applicable to the type of operation;
- **SSN** Constitution;
- Club Constitution (where applicable);
- Manuals of Procedure (**SSN**)
- Lists of SSN Office Bearers
- Nominated post holder information for each club/base will be available on location.

The titles of all publications contained in the library must be entered onto a control sheet indicating the current version of the document. The control sheet to be reviewed and authorised before the commencement of each season to ensure that the publications are valid and current. The control sheet be signed and dated.

1.9 NOMINATED POST HOLDERS

As per statutory provision, there are five nominated post holders in a certified aviation operation, namely:

- Accountable Manager;
- Flight Operations Manager;
- Person Responsible for Maintenance;
- Quality Assurance Manager;
- Safety Manager.

Depending on the nature and size of an operation, some of these functions can be combined, provided it has no adverse effect on safety and presents no clash of interests.

The **SSN** by nature of being a recreational institution utilises the titles of "chief" or "officer" instead of "manager" although the roles, responsibilities and duties remain the same as if they were titled as managers.

The **SSN** has the following nominated posts:

- Accountable Manager;
- Senior Chief of Flight Operations;
- Person Responsible for Maintenance;
- Safety and Quality Assurance Officer (these two functions combined).

All nominated post holders must possess satisfactory knowledge of the NAMCARS and NAMCATS applicable to their respective areas of responsibility.

All clubs and bases shall have nominated posts which reflect those of the **SSN** as outlined above, with the exception that CFO's will be titled just that and will report to the SCFO. The names of these post holders must be reported to the **SSN** for record purposes. In all instances these post holders report to their respective post holders of the **SSN.**

Club and base nominated post holders may nominate relief/alternate incumbents, especially during times of intensified flying activities to mitigate the risk of fatigue. The particulars of these relief/alternate nominees must also be communicated to the **SSN.**

In view of the general shortage of skilled nominated post holders, clubs and bases may agree to "share" nominated post holders, provided that operational safety is not adversely affected under any circumstances.

1.10 ACCOUNTABLE OFFICER

The following duties and responsibilities accrue to the Accountable Officer:

- Ultimately responsible for safety;
- Ultimately responsible for compliance with statutory provisions and operational procedures of the **SSN**;
- Ultimately responsible for club oversight;
- Responsible for all administrative functions of the **SSN**;
- Responsible for the financial affairs of the **SSN**;
- Responsible for the accuracy and currency of all **SSN** documentation;
- Responsible for all **SSN** document storage;
- Liaison with all regulatory authorities and soaring clubs within Namibia;
- Responsible for issuing of directives obtained from nominated post holders to affiliated clubs and operational bases.

The Accountable Officer may delegate some of his/her duties to other members of the **SSN,** provided that this is formally communicated within the organisation as well as to the affiliated clubs. This delegation does not absolve the Accountable Officer from his/her accountability.

By nature of the level of accountability attached to the position of the Accountable Officer in terms of the NAMCARS/NAMCATS, the incumbent has

full authority to cease any soaring activity at any time and for any substantive reason as he or she may deem fit and appropriate.

QUALIFICATION REQUIREMENTS:

- Five years' experience in aviation;
- Good written and verbal communication skills;
- Knowledge of applicable Regulations;
- Efficient administrator.

1.11 SENIOR CHIEF OF FLIGHT OPERATIONS (SCFO)

The following duties and responsibilities accrue to the SCFO:

- Responsible for all Flight Operations within the **SSN** network;
- Responsible to ensure the appointment of suitably qualified and experienced CFO's and Launch Officers at the various clubs and operational bases;
- Responsible for ensuring the proper recording of all pilots' documentation, including but not limited to validity and currency of licenses, language proficiency, personal information etc. by means of an IT-based storage system.
- Responsible for ensuring the proper recording of all aircraft information, including but not limited to validity of registration, aircraft equipment, pilot equipment, currency of Certificates of Airworthiness etc. by means of an IT-based storage system.
- Responsible for accumulating and distributing all data in preparation for pre-flight briefings;
- Responsible for ensuring and overseeing of all flight records of clubs and bases as submitted by the respective CFO's;
- Responsible for ensuring and overseeing of all data and document storage assigned to the respective club and base CFO's;
- Responsible for developing and overseeing consistent launch procedures;
- Responsible for fatigue management oversight;
- Responsible for overseeing the compliant conducting of all currency check flights, route and competency check flights as well as new equipment familiarisation checks;
- Maintaining valid and up to date training records;
- Responsible for activation of the ERP in situations where this is required;
- Responsible for liaison with all club-based CFO's;

- Responsible for ensuring that club and base CFO's distribute NOTAM information on a daily basis.
- Responsible for completing and filing of incident/accident reports and forwarding those to the NCAA as well as the Directorate of Aircraft Accident Investigation (DAAI), the latter when applicable.

The SCFO is overall responsible for the safety of flight operations. As such he/she has the only and final authority to make determinations and issue instructions as conditions require.

QUALIFICATION REQUIREMENTS

- A minimum of five years' experience as a licensed glider pilot;
- A minimum of two seasons' flying experience in Namibia;
- Preferably be a holder of a Namibian Designated Examiner rating which also conforms to ICAO standards;
- English language proficiency – minimum level 4.

1.12 PERSON RESPONSIBLE FOR MAINTENANCE (PRM)

The following duties and responsibilities accrue to the PRM:

- Responsible for ensuring the continued airworthiness of all aircraft;
- Responsible for all maintenance activities at operational bases during a soaring season;
- Responsible for oversight of all persons designated to assist with maintenance;
- Responsible for establishing designated maintenance areas at operational bases;
- Responsible for all maintenance documentation and storage thereof;
- Responsible for maintenance sign-off in aircraft logbooks;
- Responsible for all maintenance tooling and equipment at operational bases.

As the aircraft are privately owned and operated, it is not required for maintenance to be carried out by an approved Aviation Maintenance Organisation (AMO) in Namibia. However, the PRM must at all times ensure that aircraft are maintained in accordance with manufacturers' directives and specifications.

QUALIFICATION REQUIREMENTS

- An approved maintenance certification;
- A minimum of five years' experience in the maintenance of glider aircraft;
- English language proficiency.

1.13 QUALITY ASSURANCE AND SAFETY OFFICER (QASO)

The following duties and responsibilities shall accrue to the QASO:

- Responsible for establishing a Quality Assurance system;
- Responsible for establishing a Safety Management System;
- Implementation of the Quality Assurance and Safety Management systems;
- Conducting of annual Quality Assurance and Safety audits at the **SSN** as well as all affiliated clubs and operational bases;
- Compiling of audit reports;
- Compiling of Corrective Action requests;
- Ensuring closing out of all corrective actions in accordance with a Corrective Action Plan (CAP);
- Reporting of all audit findings to the Accountable Officer of the **SSN** as well as all clubs and their affected areas/personnel.
- Ensuring compliance with all statutory provisions and operational manuals of procedure;
- Responsible for the annual revision of operational manuals of procedure;
- Conducting of operational spot checks during a soaring season.

The QASO reports directly to the Accountable Officer.

During flight operations the QASO must communicate any safety critical findings/observations or any deviation from statutory prescriptions or procedures as contained in operational manuals of procedure to the Accountable Officer of the **SSN**, the CFO and the affected club/base without delay.

In the event that the **SSN** and/or any of the affiliated clubs or bases refuse to implement corrective actions as requested by the QASO, he/she shall submit a deviation report to the NCAA, outlining the nature and extent of the

discrepancy, the suggested corrective action and the reason for the refusal to implement.

QUALIFICATION REQUIREMENTS

- Five years' experience in aviation;
- Formal training in Quality Assurance and Safety;
- Good verbal and written communication skills;
- English language proficiency.

PART A: SECTION 2: SAFETY MANAGEMENT PROGRAMME

2.1 SAFETY STATEMENT

The **SSN** subscribes to all operational safety standards as contained in ICAO Annex 19 and related documents.

The Accountable Officer is ultimately accountable for the overall safety of operations of the **SSN.**

The **SSN** is committed to ensure the safety of all soaring activities conducted under its auspices. To attain this, the **SSN** shall ensure that all officials and nominated post holders are adequately qualified and experienced to fulfil their duties and responsibilities in accordance with its ARO approval.

Similarly, it is incumbent on all pilots to conduct their soaring activities in a safe and responsible manner at all times.

The **SSN** takes cognisance of the FAA definition of safety as being the "managing of risk."

The **SSN** accepts that there can never be a risk-free environment in aviation as soaring activities are conducted in varying conditions by humans in aircraft designed and manufactured by humans.

It is the objective of the **SSN** to develop and introduce measures which will lead to effective risk management, thereby reducing the likelihood of incidents and accidents and establishing a safety culture throughout the organisation and its affiliated clubs.

This section of the Manual of Procedures represents the safety risk management system of the **SSN.**

2.2 SAFETY FACTORS

In order to effectively manage risk, cognizance must be taken of the factors that have an impact on safety. These are:

- Qualifications and experience of key personnel;
- Qualifications and experience of pilots;
- Qualifications and experience of maintenance personnel;

- Operational procedures;
- Maintenance procedures;
- Airworthiness of aircraft;
- Fatigue;
- Human factors e.g. stress, health etc.
- Base facilities such as aerodromes;
- Communication;
- Air space utilisation;
- Meteorological conditions;
- Environmental conditions;
- Corporate (**SSN** and club) culture.

2.3 SAFETY RESPONSIBILITY

The Accountable Officer has the ultimate responsibility for safety within the **SSN**.

The structure of the **SSN** provides for the appointment of a Quality Assurance and Safety Officer (QASO). His/her duties and responsibilities are fully described in Section 01, point 2.4 of this manual.

Apart from the above, each and every member of the **SSN,** its affiliated clubs and all pilots are required to buy into the safety culture and have a responsibility to put safety first in all their actions and activities.

2.4 SAFETY CULTURE

Developing a safety culture starts at the top of the organisation. Often, safety related incidents/accidents can be traced back to what is termed "the organisational accident." This simply means that systems and/or processes within an organisation may have embedded laws that remain hidden for a considerable period, only to be uncovered when an unfortunate event occurs.

In order to cultivate a safety culture, the **SSN** utilizes web-based information, daily briefings, well defined processes and procedures, interpersonal communications and regular quality checks.

Following are the traits of a positive culture:

- INFORMED – people are informed of all the factors that determine the safety of the system as a whole;

- REPORTING – people are prepared to report their experiences (and errors);
- FLEXIBLE – people can adapt to varying conditions and scenarios;
- LEARNING – people have the willingness and competence to draw conclusions from safety information systems and the will to implement major reforms;
- JUST CULTURE – people are encouraged for providing essential safety related information without fear of retribution or punitive actions. However, a just culture must not be confused with a weak culture.

2.5 SAFETY MANAGEMENT

For safety management to be effective, it relies on the gathering, analysis and dissemination of data. This is achieved by the following means:

HAZARD REPORTS: All personnel and pilots must identify and report hazards in the conducting of their activities. For this purpose, a **SSN** hazard report form is attached to this manual as an Addendum. Paragraph 1.2 above provides guidance for the identification of hazards.

Hazard identification can either be pro-active or reactive.

Pro-active identification requires continuous vigilance and relates to identifying hazards which might have adverse consequences although these have not yet occurred.

Reactive hazard identification relates to an event that has occurred and which requires further analysis. This type of identification requires the completion of an incident report form, attached to this manual as an Addendum.

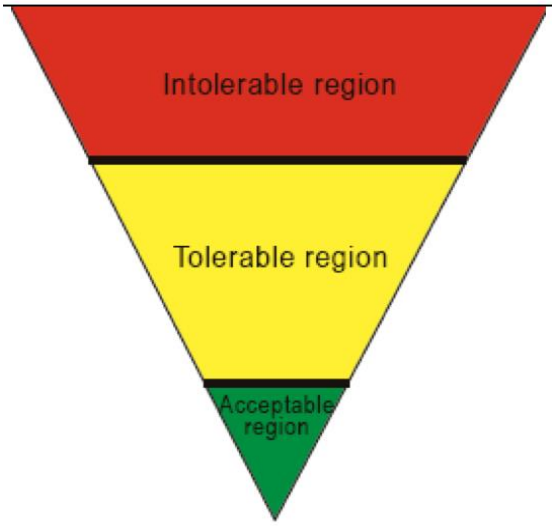
INCIDENT REPORTS: Once completed, the incident report form must be forwarded to the QASO.

RISK ANALYSIS: It is the duty of the QASO to establish whether the identified hazard poses a safety risk and thereafter to analyse the risk in terms of probability (likelihood of occurrence) and severity (severity of occurrence).

The following matrix provides the methodology for risk analysis:

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

Safety risk tolerability matrix:

Criteria	**Risk Assessment Index**	**Criteria**
	**3A,** **4A, 4B,** **5A, 5B, 5C**	Unacceptable under existing circumstances
	1A **2A, 2B, 2C,** **3B, 3C, 3D,** **4C, 4D, 4E** **5D, 5E**	Acceptable based on risk mitigation.
	1B, 1C, 1D, 1E, **2D, 2E,** **3E** **4E**	Acceptable

RISK ANALYSIS: Once the risk has been analysed, the next step is to report the analysis to the **SSN** Safety Committee (SC). The SC is a permanent committee and comprises the following persons:

- Accountable Officer (**SSN**);
- CFI (**SSN**);
- PRM (**SSN**);
- QASO (**SSN**);

- Club CFI's
- Club QASO's

RISK ASSESSMENT: The SC will assess the risk analysis and determine whether it is acceptable (no further action required), acceptable with mitigation (further actions required to mitigate the risk) or unacceptable (the operation is prohibited until the risk has been sufficiently mitigated). All risks are assessed at the hand of the ALARP (As Low As Reasonably Possible) principle.

RISK MITIGATION: The SC will decide the nature and level of mitigation actions to be taken and the **SSN** QASO will communicate these to all members in writing as well as a posting on the **SSN** website.

The SC shall meet at least twice per annum – prior and subsequent to any soaring season. These are structured meetings and must be conducted at the hand of an agenda. All decisions must be contained in minutes of the meeting.

Due to the vast geographical separation of committee members, tele- or video conferences will constitute a meeting.

It stands to reason that a meeting of the SC is also compulsory in the event of a serious incident or accident or at any time when the QASO of the **SSN** deems it necessary.

In all instances it remains the responsibility of the **SSN** QASO to convene meetings of the SC.

IMPLEMENTATION OF RISK MITIGATION: The final step in safety management is to ensure that risk mitigations are implemented adhered to and their effectiveness assessed. This is achieved by direct follow up as well as during scheduled audits as per the Quality Assurance system of the **SSN**.

2.6 REPORTABLE INCIDENTS

A reportable incident is any event, not being an accident, by which the safety of an aircraft or person is, or could have been, jeopardised by an occurrence. The following is a list given for guidance and is not exhaustive. If in doubt FILE A REPORT

Technical Incidents:

- Fire;
- False fire warning;

- Engine failure;
- Smoke or development of poisonous or harmful gas;
- Exceeding engine limitations;
- Exceeding airframe limitations including speeds;
- Serious fuel loss, leakage or fuel supply or distribution problems;
- Failure to landing gears, landing gear doors or landing gear indication systems;
- Failure to brake systems, which decreased effectiveness of braking action;
- Failures to systems causing difficulty in aircraft handling;
- Failures to systems, equipment and components causing special measures;
- Rejected take-off, return after take-off or diversion, emergency descent, etc.).
- System failures leaving one critical system remaining;
- Technical failures, which (could have) caused injuries to occupants;
- Other technical failures, defects or damage, which (could have) jeopardised the safety of flight.

Operational and Environmental Incidents:

- When (ground based or airborne) emergency equipment or procedures are used or when an emergency is declared.
- When a take-off is rejected.
- Exceeding of operating limitations.
- Significant loss of engine RPM.
- Significant track error.
- An encounter with severe turbulence, wind shear or a lightning strike.
- Bird strikes.
- Collision or risk of collision, with any vehicle, terrain or obstacle.
- Significant fuelling error or a critically low in-flight fuel quantity.
- Significant load sheet or loading error, or load insecurity.
- Crew Incapacitation.
- Seriously ill or incapacitated passengers.
- Injury to passengers while on board.
- Difficulties with disruptive or drunk passengers.
- When an aircraft causes third party injury or damage.
- When an aircraft is intercepted by another aircraft.

Air Traffic Incidents

Air Traffic Incidents are incidents caused by serious occurrence involving air traffic or air traffic control service, such as:

- Aircraft proximity (Airprox).
- Serious difficulty caused by:
- Faulty procedures or lack of compliance with applicable procedures.
- Failure of ground facilities.
- Misunderstanding or misinterpretation of any clearance, instruction or other information issued by Air Traffic Services (ATS)

After an occurrence, regardless of its nature, it is mandatory that the person(s) involved notify the QASO. Any event where safety standards may have been compromised and any useful information which can be provided to enhance flight safety must be noted in the Reporting Form.

An aircraft accident is an event during the operation of an aircraft that causes major damage to the aircraft and/or surrounding environment and which may also cause serious injuries or death to pilots and/or third parties. In the event of an accident, the **SSN** ERP must be activated at all times.

2.7 MANDATORY OCCURRENCE REPORTS (MOR)

Accidents and certain serious incidents are mandatory to be reported to the NCAA. Once the QASO has received a report, it shall be assessed to determine whether it falls under mandatory reportable incidences as per NAMCARS and the MOP and will be submitted to the NCAA as soon as practicable within 72 hrs of the occurrence. Once the incident has been adequately addressed, the corrective action will be sent to the NCAA to indicate that the incident is closed. The following is a list given for guidance:

- Accidents
- Near collisions requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate.
- Controlled flight into terrain only marginally avoided.
- Aborted take-offs on a closed or engaged runway.
- Take-offs from a closed or engaged runway with marginal separation from obstacle(s).
- Landings or attempted landings on a closed or engaged runway.
- Gross failures to achieve predicted performance during take-off or initial climb.
- Fires and smoke in the compartment, or engine fires, even though such fires were extinguished by the use of extinguishing agents.

- Events requiring the emergency use of oxygen by the flight crew.
- Aircraft structural failures or engine disintegrations not classified as an accident.
- Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft.
- Flight crew incapacitation in flight.
- Fuel quantity requiring the declaration of an emergency by the pilot.
- Take-off or landing incidents. Incidents such as undershooting, overrunning or running off the side of runways.
- System failures, weather phenomena, operations outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft.
- Failures of more than one system in a redundancy system mandatory for flight guidance and navigation.
- Fires or smoke on-board an aircraft;
- Terrain and obstacle clearance incidents;
- Flight control and stability problems;
- Bird strikes;
- An encounter with severe turbulence, winds hear or a lightning strike;
- Activation of TCAS(RA), wind shear warning;
- Rejected take-off, return after take-off or diversion, emergency descent, etc.) and

2.8 FOLLOW UP AND CLOSURE OF REPORTS

The QASO, with the assistance of the SC, will conduct a root cause analysis and apply risk management techniques, including taking corrective action, to effect closing of incidences.

Some reports can be closed on receipt. If follow-up is required, action will be monitored to ensure desired the outcome has been achieved. This includes elimination of the hazard by ensuring that the risks have been eliminated or reduced to an acceptable level.

2.9 MANAGEMENT OF CHANGE

Organisational or operational changes within the **SSN** may affect the level of safety and quality and may require amendment of the existing safety/quality procedures.

For this reason, a safety review/risk assessment is performed as part of the decision-making process regarding the intended changes.

The safety review/risk assessment is performed in case of one or more of the following intended changes:

- Change in organisational structure/chart
- Change of scope of work
- Change in locations/facilities

Intended changes must be approved by the SC before implementation.

The SC will perform a safety review/risk assessment regarding the intended change.

After completion, the SC will decide on the appropriate mitigation actions – where required– to ensure that the risk has been reduced to an acceptable level. The intended change will then be approved.

2.10 CONTINUOUS IMPROVEMENT OF THE SMS

Every year the QASO will review all reported safety issues conduct a trend analysis and to assess improvements in safety.

The results of this analysis will be reported and discussed at the SC meetings during which safety targets for the following season will be set. These will be communicated to all **SSN** members.

2.11 SAFETY PROMOTION

In order to establish and maintain a positive safety culture within the **SSN** it is important to promote safety on a continuous basis.

This is achieved by the following means:

- Distribution of safety statistics and trend analyses to all members;
- Safety discussions in briefing sessions;
- Distribution of incident/accident reports and analyses to all members;
- Issuing safety notices and directives by e-mail as well as posting on the website;
- Distribution of the minutes of SC meetings to all members;

- Posting interesting safety related publications and case studies on the website.

2.12 EMERGENCY RESPONSE PROGRAMME (ERP)

Each affiliated club or base shall present the **SSN** with a tailor-made ERP applicable to its own unique operational environment.

The **SSN** must approve all submitted ERP's.

The CFO of each affiliated club or operational base is responsible for activating the ERP when required.

Each ERP shall contain the following information at the respective operational bases:

- List and contact numbers of responsible persons e.g. CFO, QASO etc.
- Contact number of NCAA;
- Contact number DAAI;
- Contact number of local police services;
- Contact number of local fire-fighting services;
- Contact number of local medical facilities;
- Contact number of Medevac services;
- Contact number of ATC for search and rescue purposes;
- Outline of actions to be taken in the Uncertainty (INCERFA), Alert (ALERFA) and Distress (DISTRESFA) phases;
- Event log sheet.
- ERP action control sheet.

An emergency is a condition that requires urgent need for action or assistance.

The initial focus regarding emergencies is to contain the emergency by taking the necessary corrective actions.

Emergencies must be reported to the CFO and the QASO.

The CFO must activate the ERP and co-ordinate all ERP activities.

ALERTING ACTION AND SAR

NCAA ATS shall not be responsible for the provision of an alerting service to any of the participating gliders operating within the Windhoek FIR. SSN shall be

responsible for flight monitoring and initiation of any alerting action required for gliders operating in the Windhoek FIR.

NCAA ATS shall provide an alerting service to all other aircraft that may be operating within the Windhoek FIR as appropriate for the class of airspace. Any reports of non-participating aircraft within the Windhoek FIR requiring assistance should be relayed by the station receiving such message to Windhoek ACC as soon as possible.

SSN will initiate the recovery of any glider that has executed an outfield landing and SSN shall recover the glider at their cost. Should SSN not be able to recover such glider, requires assistance in the recovery or believes that recovery is not possible, the SSN shall then notify the NCAA ANS section of such and pass all relevant information necessary to activate the relevant SAR stage. NCAA then resumes responsibility for the activation and conduct of the SAR and SSN shall continue to support the NCAA where able.

If a glider in the air encounters any difficulty or is unable to contact SSN ground operations for position reporting, the PIC may inform the appropriate ANS centre either via the telephone or appropriate manned frequency. ATS shall then be responsible to ensure the information is relayed to SSN as soon as possible and to coordinate any actions required in providing assistance to the flight.

In the event of any accident involving a glider, SSN is responsible for initial SAR interventions and activation of civil defence (ambulance, police, etc.). Thereafter SSN shall inform the Directorate of Aircraft Accidents (DAAII) and the relevant ANS office that will coordinate with SSN on the processes to be followed and assist where required.

CROSS BORDER OPERATIONS

Where SSN has received approval for cross border operations into Gaborone FIR (FBGR) or the Johannesburg FIR (FAJA), the PIC of the glider shall be responsible for coordinating any cross-FIR operations. Windhoek ATS shall not be required to coordinate glider operations with FBGR or FAJA and SSN shall ensure that the appropriate agencies have been notified of such operations. NCAA ATS will be unable to render SAR services outside the Republic of Namibia and SSN shall be responsible for alerting the appropriate authorities should SAR action be required during cross border operations. SSN may be required to bear the costs incurred for such notification and coordination with the Civil Aviation Authorities of Botswana or South Africa, ATS and their respective investigation units.

EMERGENCY PROCEDURES

RADIO FAILURE PROCEDURES.

Namibian AIP ENR 2.1 states that "except where otherwise authorised, no aircraft is to operate within the Windhoek FIR unless two-way radio contact is maintained with ATC. The special gliding area above FL145 and all other airspace outside of the Special Gliding Area is designated as radio mandatory airspace.

A glider experiencing a radio failure within the Special Gliding Area above FL145 or whilst operating in the Windhoek FIR, shall, where possible, attempt to contact ATC by telephone and report that the radio has failed. Thereafter such glider shall be expected to land at the nearest suitable aerodrome if unable to return to the home airfield.

The pilot in Command must as soon as possible after landing report its arrival by the most expeditious means to the relevant ATC Sector. This may be done via relay through a SSN Control Centre.

EMERGENCY DESCENT

Gliders operating above FL120 are required to be equipped with supplemental oxygen systems. In the event of a failure of such system or for any other circumstance a glider may be required to initiate an emergency descent. A glider requiring to make an emergency descent shall, as far as practical, turn away from ATS Routes, controlled airspaces and other air traffic or thermalling gliders prior to starting an emergency descend.

CO-ORDINATION AND CORRESPONDENCE

SSN shall coordinate with ATS, daily the activation /de-activation of glider activities via the Windhoek ACC. SSN shall notify Windhoek ACC at least 15 min prior to commencing Gliding activities and after suspension of all flying for the day.

Windhoek ACC shall notify FYWB APP of the activation/deactivation of Gliding Activities.

All units shall make a log entry of the times that notification is made.

NOTIFICATION OF INCIDENTS OR DISPUTES

Should there be a requirement to notify the Executive Director of any incident or dispute, such will be reported via the incident reporting addressing system at incidents@ncaa.na

Mandatory Incident reports shall be submitted for any instances where a glider has climbed above the Gliding area (FL195) by 300 feet or more vertically or has deviated laterally without complying with the relevant ATC procedures by more than 2.5NM horizontally.

Any unauthorised entry into controlled airspace shall be reported by the relevant ATC sector.

The NCAA or SSN may also submit reports on any perceived violations or infringements.
The NCAA will notify the SSN Safety Officer of an incident report received as soon as reasonably practicable on the contact details provided below.
As soon as practicable after the time of initial notification of an MOR, the NCAA will inform SSN whether or not the NCAA intends to conduct an investigation.

After the emergency is contained/solved an internal safety report must be compiled and a safety investigation must be performed to determine the root cause and required preventive actions.

All information in the ERP, particularly the respective contact numbers, must be checked for validity and, where required, updated prior to the commencement of a soaring season.

PART A: SECTION 3: QUALITY ASSURANCE SYSTEM

3.0 QUALITY ASSURANCE (QA) – GENERAL

The **SSN** recognises the importance of a well-defined and properly functioning QA system.

The purpose of QA is to ensure continuous compliance with statutory provisions, manuals of procedure and the overall safety of operations.

This section of the MOP details the manner in which the **SSN** implements its QA mechanisms.

3.1 QUALITY ASSURANCE/SAFETY OFFICER (QASO)

As the **SSN** is a recreational organisation, the functions of QA and SM are combined for reasons of practicality.

The **SSN** has appointed a QASO with his/her duties, responsibilities and qualification requirements described in Paragraph 2.0 of Section 01 of the MOP.

3.2 AUDITS AND CHECKS

Audits and checks form an integral part of the duties of the QASO.

The **SSN**, all affiliated clubs and their operational bases (auditees) must be audited at least once per annum. The audit shall focus on administrative and statutory compliance, base facilities, document control and currency, application procedures etc. as well as operational procedures, pilot licensing, aircraft airworthiness and equipment, the ERP and SMS during any soaring season or soaring activity.

These audits together must cover all aspects of the auditees' compliance requirements and operational procedures.

Audits must be conducted at the hand of NCAA approved audit check sheets. This ensures that all aspects are adequately covered.

Audit check sheets may only be completed in ink. No pencil entries are allowed.

From the audit check sheet, an audit report is compiled. For reasons of conciseness, the audit report shall only contain findings.

Findings are classified in three levels as follows:

- LEVEL P1: A serious non-compliance and/or deviation from statutory provisions or procedures as contained in operational manuals and which may either have serious legal consequences or adversely impact on safety or both. Depending on the nature of the finding, it may result in suspending an operation or practice with immediate effect, pending corrective action or will require corrective action within a period not exceeding 7 days.
- LEVEL P2: A non-compliance/deviation which is still serious if not corrected, but does not require the immediacy of a level P1 finding. Corrective action is normally required within 30 days.
- LEVEL P3: Findings at this level are mostly directed at refinement of compliance and procedural aspects. Corrective action is normally required within 90 days.

Audit reports may also contain general observations to be considered for implementation.

From audit reports, Corrective Action Requests (CAR's) are generated. These represent the Audit Correction Plan (CAP). The (CAR) must contain the following information:

- Name and contact particulars of the auditee;
- Name and contact particulars of the auditor;
- Particulars of the area audited;
- Date of the audit;
- Description of the discrepancy;
- Objective observation;
- Suggested corrective action;
- Person/division responsible for effecting the corrective action;
- Latest date for closure
- Description of action taken;
- Sign-off by the responsible person/division as well as the QASO.

A sample CAR is attached to this MOP as Appendix C.

Audit reports and corrective action requests must be distributed to all nominated post holders of the **SSN** and affiliated club chairpersons as well as the Flight Operations division of the NCAA.

An important aspect of every audit finding is the root cause analysis. It is therefore compulsory upon the QASO to conduct root cause analyses of the findings in conjunction with the affected auditee as well as the nominated post holders of the **SSN**.

The entire audit process, from audit to closing out of findings is termed as the Audit Loop.

The Audit Loop remains incomplete if findings are not properly closed out. If a finding remains open, the QASO must enter a reason for the non-closing out in the CAR and provide an amended close out date.

The audit check sheet, together with the audit report and corrective action requests, form the audit pack. It is advisable to contain each audit pack in a separate file pocket for easy access and control purposes.

Audit packs must be stored for a period of at least two consecutive audit cycles. For this purpose, an audit cycle is defined as a period of twelve consecutive months, commencing on 01 February of each year and ending on 31 January of the following year.

The **SSN**, all clubs and operational bases must undergo at least one external audit per annum. This ensures objectivity.

Formal audits provide a major tool in assuring quality. However, to render the QA system practically effective, the QASO must perform spot checks during operational soaring activities and in the event of discrepancies, must activate the Audit Loop process.

PART A: SECTION 4: CREW COMPOSITION; FATIGUE MANAGEMENT AND CREW HEALTH

4.0 GENERAL

Flying activities of the **SSN** are of a recreational nature. Being non-commercial, an Air Operator Certificate in terms of the NAMCARS is not required.

The objective of **SSN** activities is to partake in scenic and competitive flights and generally to enjoy the wide-open spaces and excellent soaring conditions unique to Namibia.

4.1 AIRCRAFT CONFIGURATION AND CREW COMPOSITION

Glider aircraft are configured to carry one or two crew.

In a single crew configuration, the pilot is naturally the Pilot in Command (PIC) at all times.

In the event of two crew composition the second crew member can either be a co-pilot or passenger. If the second crew member is a pilot, the PIC must be nominated and reported as such to the CFO prior to take-off. If the second crew member is a passenger, he/she shall not operate any of the controls of the aircraft at any time.

As stated in Section 01 of this MOP no person shall operate a glider aircraft without a valid and current license.

4.2 FATIGUE MANAGEMENT

Fatigue is a major contributor towards many aviation incidents and accidents.

Given the fact that glider pilots often spend long hours in the air increases the risk of fatigue setting in. Managing fatigue is therefore important and it is the responsibility of the CFO to detect symptoms of fatigue and make a determination as to the risk of the affected person to continue flying.

Following are some of the most detectable symptoms of the onset of fatigue:

- Headaches;
- Disturbed sleep patterns;
- Poor concentration;
- Irritability;

- Sudden forgetfulness;
- Pain in muscles and/or joints;
- Diarrhoea or constipation;
- Abdominal pains;
- Anxiety;
- Heightened panic levels;
- Asocial behaviour;
- Avoiding interpersonal interaction;
- Excessive sweating when in a cool environment;
- Shakiness;
- Dizziness;
- Disturbed speech;
- Problematic verbal articulation;
- Irrational thought processes.

There are no hard and fast rules with regard to flight and duty time and compulsory rest periods for glider pilots flying in Namibia. However, based on experience and international best practices with regard to fatigue mitigation it is compulsory for glider pilots to take a one-day rest after every six consecutive days of flying.

Jet lag is another contributing factor to fatigue. For this reason, the following shall apply to all glider pilots visiting Namibia from abroad:

- 0 – 4 hours' international time differentiation: 24 hours compulsory rest after arrival at base;
- More than 4 hours' international time differentiation: 48 hours compulsory rest after arrival at base.

These measures enable visiting pilots to properly acclimatise and enjoy a proper rest period in preparation of their gliding activities.

4.3 CREW HEALTH

Safety considerations dictate that crew should be fit and healthy at all times when engaging in soaring activities.

For this reason, the following shall apply:

- Crew may not operate an aircraft while under treatment from a medical practitioner;
- Crew may not operate an aircraft while under treatment with medication that have nauseating and/or drowsy side-effects;

- Crew may not operate an aircraft while under the influence of drugs, narcotics or any hallucinogenic substance;
- Crew may not operate an aircraft while under the influence of alcohol. No crew member may consume any alcoholic beverage at least 8 hours prior to take-off.
- Crew may not operate an aircraft with ear infections and/or blocked nasal and sinus passages.
- Crew may not operate an aircraft while experiencing difficulties in breathing.
- Visiting crew from areas with communicable diseases must produce certification confirming "disease free" and/or proof of inoculation;
- A crew member feeling ill must report his/her condition to the CFO. Every operational base is equipped with first aid and basic medication kits. The CFO will analyse the condition and determine the required steps to be taken.

PART B: SECTION 0: TYPES OF LAUNCHES

0.1 TYPES OF LAUNCHES

0.1.1 Winch Launch

Condition of the Launching Winch

Prior to the beginning of the daily flight operations, the winch driver must ensure the safe working condition of the launching winch, including the winch cable and the cable equipment, in accordance with the operating instruction. The launching winch must be thoroughly checked by specially trained personnel at least once a year.

Weather Conditions

When persons outside and inside of the airfield could be endangered by a falling winch cable, flight operation must not be initiated or continued. The same applies also to avoid any property damage. This must be considered especially in case of strong crosswind.

Cordon

The launching winch must be cordoned off from public traffic, if any, with a sufficient distance to the rear and to the side.

Rope Equipment – Order

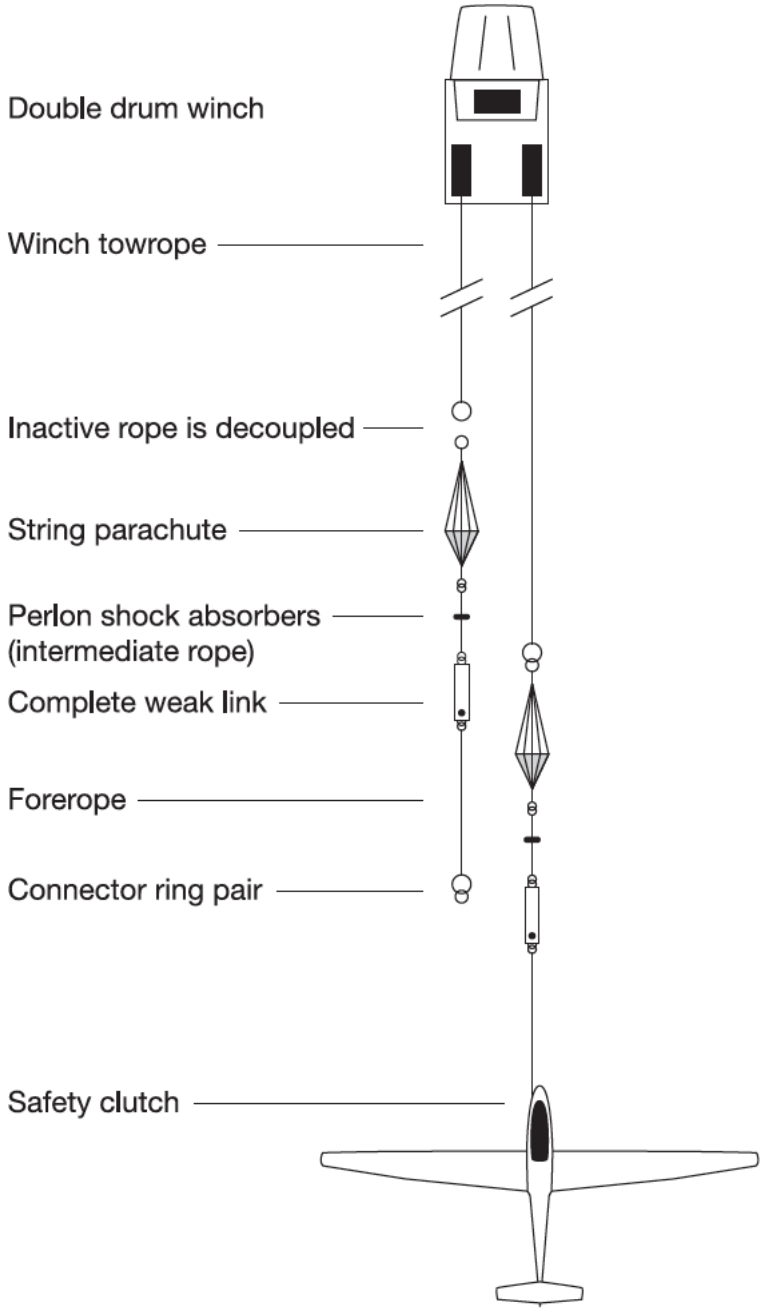
When using the floor coupling:

1. Connector ring pair according to the specifications of the manufacturer of the coupling.
2. Stiffened fore-rope or fore-cable of at least 3 m length (to avoid loops and catching up on the glider). The stiffening tubes should have the same colour as the predetermined breaking point for better visibility.
3. Predetermined breaking point according to the flight manual of the towed glider. (It can also be set between the ring pair and the stiffened fore-cable.)
4. Intermediate rope or cable of at least 2 m length in cable parachutes with a diameter up to 1.5 m, at least 10 m length when using cable parachutes with a diameter greater than 1.5 m.
5. String parachute with max 2.0 m diameter.
6. Quick release point (snap hook).
7. Launching winch cable.

When using plastic towropes different rope braking systems (e.g. braking pads) than the string parachute are slowed, if:

1. A competent winch examiner has approved of the construction;
2. No rigid, sharp-edged material is inserted;
3. Danger to third parties by the falling rope and the brake system is excluded in the present wind conditions;
4. The winch driver was informed about the use of these systems and was trained how to handle their features during at least 5 towing procedures.

The distance between the connector ring pair and the braking pad should be not less than 6 m.



Predetermined breaking points (load ranges):

Breaking Load Group	Colour	Nominal Breaking Load (daN)
1	Black	1000
2	Brown	850
3	Red	750
4	Blue	600
5	White	500
6	Yellow	400
7	Green	300

Voice Connection

Between the T/O point and the launching winch there must be a reliable voice communication (no aeronautical radio). Only a knowledgeable, well-trained person must be permitted to give the take-off instruction. This person must be in a position, if possible, to the side of the take-off position in order to observe the launch process and to give clear and unhindered instructions to the winch driver. The winch driver must be in a position to observe and understand the instructions clearly throughout the operation.

Take-off and Landing Strip

The take-off point and the tow rope length should be on a strip approximately 50 m wide, which is kept free of obstacles (e.g. vehicles, parked aircraft or persons). The vegetation on the airstrip must be mowed short and flat at all times. Higher grass growth increases the risk of aerofoil ends catching causing the glider to veer off course.

If there are several launch sites in operation, clear communication among all participants is essential, especially with regards take-off sequence.

Laying out the Launching Winch Tow Rope

The tow rope must be laid out straight. Launching winch tow ropes must not cross. Loop formation must be eliminated. The winch driver, pilot and all other persons involved in the launch must ensure that the runway is free of obstacles. Tow ropes or tow cables lying on top of one another must immediately be separated. When using a double drum winch. The tow rope laying equipment at the recovery vehicle should have a minimum width of 3 m. At the take-off point, the ropes or cables should be separated and straightened in order to ensure the minimum distance of at least 15 m between the glider which is ready for take-off and any unused ropes, to avoid rolling over ropes that are lying on the ground. It is appropriate to use the rope on the leeward side first. The string parachute must be removed from the unused cable.

When using launching winches with more than two drums, the owner is responsible for providing operating instructions that ensure a smooth laying out of the winch towropes and that exclude any hazard for the launching gliders due to ropes or cables lying on the ground. It is advisable that the rope laying vehicle pulls the launch ropes in a straight line on the windward side next to the take-off point. From here the ropes are pulled over, one at a time, to the take-off point. This ensures the necessary distance to the unused ropes.

Attaching the Launching Winch Tow Rope

The winch tow rope may be attached only when the glider is ready for take-off. The take-off, the take-off checks are complete, the runway is free of obstructions and traffic and the pilot has signalled his readiness to commence winching.

Radio Connection

There should be a radio connection between the glider and the launch point.

Readiness for Take-Off

Upon agreement of the launch supervisor and the pilot, the "Grid-Marshall" or "Marshaller" signals the take-off controller by raising the left or the right arm in the vertical (while using the other hand to hold the wing in the horizontal) that the glider is ready to launch.

Announcement from the take-off controller to the winch driver	**Response of the launch winch driver**
Announcing the glider type, crew, any other pertinent information (e.g. water ballast).	**Repeating the announcement**

Launch Signals and Commands

The hand gestures or launch signals should be used as stipulated to avoid confusion.

- On taut rope, the marshaller lifts his arm in the horizontal position. The signal is passed on by the take-off controller accordingly. Once the aircraft's take-off has commenced the arm is lowered quickly from the horizontal position.
- Commands from the take-off point to the winch driver must be acknowledged by the winch driver.
- Launch interruption – "HALT -STOP" three times

Other Commands

INITIATING COMMAND	**RESPONSE**
Glider ready for take-off	Winch ready for take-off
Rope Taut	Rope Taut
Ready (when glider commences roll)	Ready
Go (when glider takes-off)	Go

Rolling and Take-Off

When the glider commences rolling the marshaller shall run alongside as long as possible, holding the wing up to guide the glider. The wing shall be released in such a way that the pilot need not counterbalance. The pilot's task is to counter a too steep lifting of the nose which may occur depending on the type of aircraft. After take-off, increase speed without any significant climb, to at least 1.2 X minimum free flight speed (Vs1). Thereafter the climb angle can be increased gently to the same degree as the speed increases.

Launch Interruption

The winch driver should not interrupt the launch procedure unless a "halt-stop" instruction is received, or if the glider has already become airborne, is still holding the take-off direction and has not yet reached the safe height. However, take-off interruptions may be necessary, for example, upon instruction from the take-off controller in a dangerous situation when a second rope was taken up and is tangled with the wheel, etc. Upon such an instruction, the winch driver must immediately cancel the launch and stop the rope drum.

If the glider has rolled over the winch rope, the launch must be stopped immediately. The pilot must release the rope immediately.

Climb

The speed flown during the climb is essential to safety. The minimum speed of the towed glider depends on the steepness of the towing and is 1.3 to 1.6 X the minimum speed (V) of the s1 free straight flight. The pilot must therefore constantly check the speed.

While the tow rope tension is fairly constant, the pilot adjusts his speed with the elevator.

Pulling reduces the drive, pushing increases it. Before falling below the minimum speed, the pilot must push and if necessary release the tow rope. If the maximum speed for the winch launch is exceeded, the pilot must release the rope.

Abrupt transition into the climb must be avoided at all times.

In a crosswind, the pilot of the towed glider must counter against the wind accordingly in order to prevent the released winch rope from drifting too far.

Rope Rupture or Failure of Launch Winches

When the rope tension decreases or the rope breaks, the pilot must immediately and without hesitation, continue until the aircraft reaches landing approach speed and then release the rope. Depending on the situation, height, wind and special orientation the pilot shall choose the appropriate landing procedure. The pilot shall not attempt to land back at the site but rather continue. If the launch was interrupted at low altitude a straight landing should be executed when possible. The remainder of the launch process shall be terminated.

Releasing the Rope

In the latter third of the towing operation, the climb should be continuously reduced until the normal flight attitude is reached. After an automatic or manual rope release, the release mechanism should be activated three times in quick succession.

Aerotow

The towing operation is carried out according to the local rules. Specifics regarding double tows are listed below. Features such as the towing speed, release attitude, as well as emergency procedures shall be mutually agreed upon.

Tow Coupling

A glider should be towed only by means of a nose coupling. The use of other couplings should be verified in the flight manual and requires a briefing and relevant training.

Towropes

Only towropes of 40 to 60 m in length should be used. On the side of the glider a breaking point must be displayed according to the flight manual instructions.

Preparation to Launch

The tug aircraft rolls up to an approximate rope length distance in front of the glider. The rope may only be attached to the glider when both pilots are ready to launch and the runway is clear. Two-way radio communication should be enabled between the glider and the aircraft.

Communication between Take-off Point and Tug Aircraft

Communication can be by means of radio or marshalling signals. Marshalling signals can be given with the marshaller's arms or marshalling devices in the form of green or red waving discs or flags. One marshaller should be standing next to the glider and a second within sight of the tug pilot with sufficient lateral distance and far enough ahead of the tug aircraft that he has the tow-train in visual range up to the take-off point of the glider.

All marshalling signs from the take-off point must be immediately repeated by the marshaller in front of the tow aircraft. If there is two-way radio communication between a radio station outside of the tow-train and the tow-pilot, no signal-men are required.

Marshalling signs for the Launch

Green disk, flag in hand and/or arm raised in the vertical means	Glider is ready to go	The aircraft tightens the towrope as it starts to roll slowly
Green disk, flag or arm moving rapidly down to the horizontal.	Rope is taut, all clear for take-off	Tug pilot slowly commences the acceleration and goes
Red disk, flag or hand waving above the head	Halt-stop, do not commence roll and take-off	Tug pilot cuts power
Red disk, red flag held high and/or glider wing grounded	Not ready for take-off	

Release of Towropes by Pilot

The pilot must release the towrope when signalled by the tow pilot (when the tug aircraft executes a rolling action on its longitudinal axis). The pilot must also disengage when his altitude exceeds that of the tug aircraft or if it is no longer visual. The pilot must continue to activate the release until it is clear that the towrope has disengaged.

Actions after Towrope Release

After releasing the towrope, the glider must turn to the right with only a slight direction change (up to 30°), unless prior agreement exists for operational reasons. While executing this manoeuvre the glider pilot must observe the flight path of the tug aircraft from a safe distance. Following this, the flight can be continued in any direction. Once the tow pilot has observed the release he must remove the tow aircraft from the vicinity of the glider by means of a stretched glide. Once the danger of a collision has passed a change in flight direction can be made.

Throwing of the Towrope

If operational reasons do not allow for a landing with the towrope attached, the tow pilot must disengage the rope at a designated location. The approach for a rope drop-off should be in the take-off direction alongside the runway. The tug pilot must be informed if the rope does not disengage from the aircraft and/or if the rope feeder has not fully retracted the rope.

Actions In Case of Malfunction

If a malfunction occurs during the initial roll for take-off, the take-off procedure shall be terminated by repeated instructions "Halt-Stop" or the corresponding marshalling signals. The glider pilot must disengage. If the glider pilot detects malfunctions of the aircraft or the aircraft equipment at the take-off line which could result in a dangerous or critical flight situation, he must disengage immediately without being prompted.

If, following repeated release requests, the tug pilot observes that the glider has not released the towline; the tow aircraft must tow the glider back to the airfield and disengage the towline in such a manner as to enable an obstacle-free landing with the towline attached. If the tug pilot released the towline before the glider pilot has done so, or the rope has severed, the glider pilot must not carelessly discharge the rope or part thereof. The discharge must be

conducted over the airfield or an open area. At flight altitudes below 100 m AGL, the rope is immediately discarded. It should be thrown off above the airfield or in a clearing only. At flight altitudes below 100 m AGL, the rope must be thrown off immediately.

For other malfunctions and in case of a radio failure, the following visual signals can be used:

Fault observed by the tug pilot on glider (e.g. extended brake flaps)	Repeated activation of rudder by tug pilot
Glider pilot cannot disengage	Carefully extending brake flaps by glider pilot

Double Towing Behind Aircraft

The basic rules for towing behind aircraft shall always be complied with.

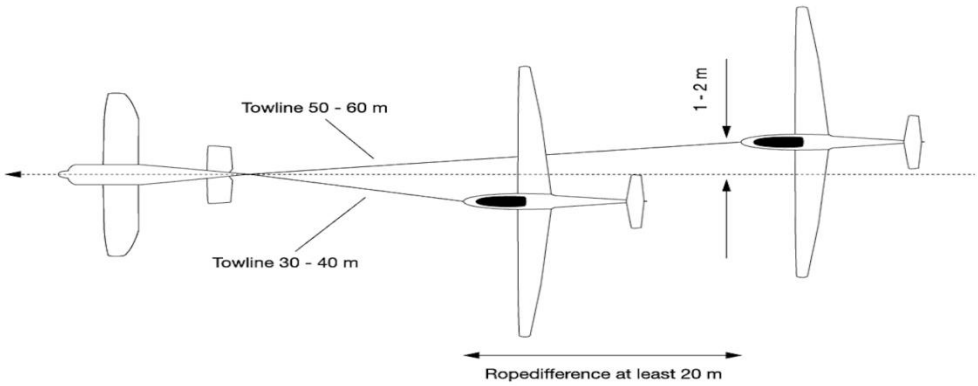
Required Qualifications

As a prerequisite for the briefing on double tow, the glider pilot must have completed at least 50 or more aero-tows behind an aircraft after obtaining the license for tow launches behind aircraft. The briefing for double tow is completed following glider training as an additional module. The aircraft must have the appropriate tow weight to be approved for double tow.

The tow pilot must be trained in double tow techniques and procedures.

Towline Length / Take-off Position

Length of short rope	30 – 40 meters
Length of long rope	50 – 60 meters
Difference of rope lengths	At least 20 meters
Distance of fuselage longitudinal axes of gliders and longitudinal axis of aircraft	1 – 2 meters

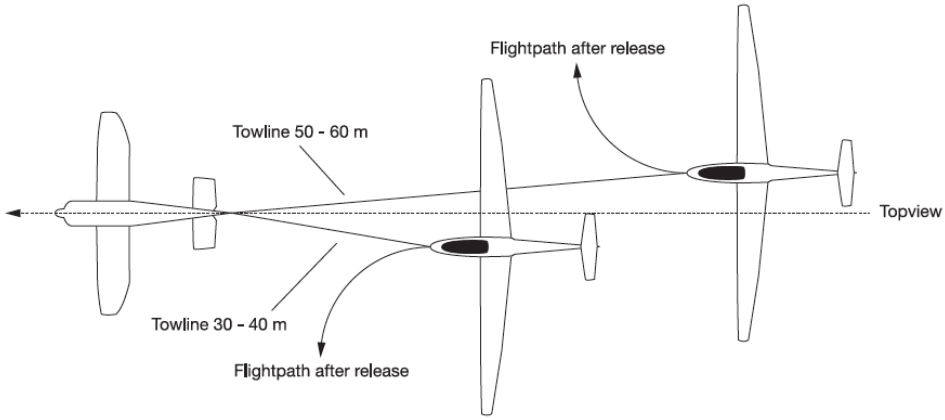


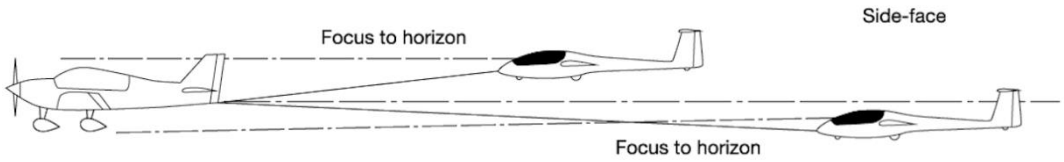
The glider on the short rope is in the leeward position and must take-off first.

Tug Flight

In tow, the take-off positions must not be changed. After take-off, a stagger in altitude takes place.

Upon signal to disengage the rope, the glider on the long towrope will release first; both will then veer off from their towing positions.





Ways to Launch

Auto-towing

Technical and organisational requirements:

A vehicle which has the following parameters:

- As heavy as possible > 1.7 t
- Engine power > 160PS
- If available, all-wheel drive and automatic (this guarantees good traction and even cable tension)
- A de-coupler must be used if it is available, e.g. from the Munich

Company, TOST. This allows a separation of the rope connection from the car driver's position in case of an emergency. The TOST de-coupler can be fitted to any car tow-bar without modification to the vehicle. As towrope – any normal plastic rope with 5mm diameter and a breakage load of 25-32 kN can be used. The length and type of rope are dependent on runway length and track condition. Also note that depending on rope elasticity, the rope must be taut to avoid overloading at the predetermined break point. The vehicle must be equipped with two-way radio communication. The rope setup must comply with winch launch standards. The use of a rope parachute is dependent on the environmental and wind conditions.

Launch Procedure

A launch controller gives the commands as with the winch launch. As a rule, a CG hook is used. The use of a nose hook is permitted in exceptional cases. Rope breakages occur less frequently when the take-off procedure is undertaken by means of a slow or "soft" start. Launch abort procedures are the same as with the winch launch. In case of launch interruptions, the procedure for glider and tow vehicle must be clearly agreed upon considering airfield conditions, for example, the vehicle must immediately give way to the side.

Briefing the tow vehicle driver: the driver of the towing vehicle must be confident controlling the vehicle and must receive a detailed briefing. The safe performance of the auto-tow is dependent on the driver of the towing vehicle. The drivers briefing must be overseen by the head of training.

Procedure of the auto-tow for the tow vehicle driver: the engine must be run warm before the launch and full-load enabled. The driver must activate hazard lights and/or all lights. The rope is laid out and tightened in consultation with the launch controller and the pilot.

The auto-towing vehicle receives the commands via two-way radio. The launch controller or pilot give the commands as with the winch launch: "Rope tight" when the rope is taut on the still standing aircraft, brakes on. This is at the same time as the command for the pilot to release the brake and the auto-towing to commence.

"Ready" when the aircraft commences the roll to indicate to the tow that the acceleration can commence. The driver accelerates rapidly, according to the space and traction with maximum acceleration to 1.3xV minus the headwind component s1.

"Free" when the aircraft has taken off. Once the glider has taken off, reached the safe altitude and commenced the climb, the speed is reduced to maintain a constant or 1.6xV does not exceed s1.

Following release of the tow rope and/or decoupling via the safety clutch, the vehicle brakes and the driver observes the fall of the tow rope. This is to prevent the rope from drifting away and getting snagged. According to the agreed procedure, the vehicle leaves the runway.

Self-Launching

Self-launches must be carried out according to the local regulations in the approved areas. The runway must be kept free of obstacles (e.g. tow ropes).

Launch Preparation

In addition to the provisions in section – Safety Equipment and People, the engine-related checks described in the flight book and operating manual must be carried out before launching.

Rolling should not be commenced with a dropped wing in order to reduce the tendency to break out, unless there are explicit provisions in the respective flight manual. The marshaller should lead the wing as long as possible and release it in such a way that the pilot does not have to compensate.

When malfunctions occur during the take-off roll (e.g. breaking out on the ground or sudden incursions/intrusions on the runway) the launch must be terminated immediately.

In case of an engine fault during the initial climb, the gliding flight position must be assumed immediately. Depending on the situation, altitude, wind and surface available, an emergency landing must be executed. At a low altitude this is usually straight ahead.

In gliders with extended self-launch systems, the greater resistance and the significantly reduced glide ratio compared to the towed glider configuration must be taken into account.

PART C: SECTION 0: AERODROMES AND BASES

0.1 AERODROMES - GENERAL

Aerodromes and heliports in Namibia are governed in Part 139 of the NAMCARS.

The Regulations in Sub-Part 139.01.1(2)(a) make it pertinently clear that "places of landing and departure" which accommodate large aircraft in terms of Part 121, require to be licensed.

Part 139 mainly provides a regulatory framework for licensed airfields and heliports with scant reference to the issue of unlicensed airfields except for Sub-Part 139.01.2 which stipulates that "the owner of an unlicensed aerodrome other than a place of landing or departure referred to in regulation 139.01.1(2) or (3), shall, within 30 days from the date on which the construction of the aerodrome was completed or the date of commencement of these Regulations, or as soon as possible thereafter, provide the Director with the following information:" It then continues with a list of the prescribed information to be provided.

The operational bases of the **SSN** and affiliated clubs are mostly privately owned and do not require licensing. The NCAA must merely be notified of their existence and specifications.

0.2 SSN BASES

The affiliated soaring clubs and bases all possess bases of operation including aerodromes.

Due to the unique configurations and operational envelopes of glider aircraft e.g. long wingspans, lengthy take-off distances, slow rate of initial climb etc. the **SSN** prescribes the minimum requirements for base aerodromes as follows:

- Minimum runway length: 1000m
- Minimum runway width: sufficient to safely accommodate the wingspan of a glider aircraft also in the event of an aircraft deviating from the runway centreline;
- Runway surface: flat and cleared of debris which may present hazards;
- Runway environment: clear of obstacles to the sides and ends to safely accommodate approaches, climb out performance and off-runway excursions;
- Runway surface condition: compacted earth;
- ISO standard wind sock(s)

- Clearly legible runway identification markers;
- Adequate run-off areas at runway ends;
- Adequate turn-around facilities;
- Measures to prevent unauthorised public access;
- Measures to prevent animal, vehicle or pedestrian intrusions, especially on or near the runways.

In addition, all bases must possess:

- Aircraft parking and tethering facilities;
- Fire extinguishers in proximity to aircraft parking facilities;
- A Flight Operations centre containing charts, radio communication equipment, meteorological data; flight following and tracking equipment, safety information, ERP procedures information, ARO approval certificates, licensing and relevant aircraft documentation, flight dispatch log and adequate work stations;
- Shaded work areas;
- Repair facilities, tools and equipment;
- Separate, lockable and ventilated fuel and oil storage facilities equipped with appropriate fire-fighting equipment;
- First aid facility with appropriate and current first aid kits.

PART D: SECTION 0: TRAINING

0.1 TRAINING

The **SSN** and the affiliated clubs do not possess Aviation Training Organisation (ATO) approvals. For this reason, no *ab initio* instructional training is allowed.

The SCFO of the **SSN** is overall in charge of training, the latter which is limited to:

- Currency and check flights;
- Aircraft new equipment familiarisation;
- Pilot competency evaluations;
- Route checks;
- Licence renewals by a licensed Designated Examiner (DE) of the same nationality as the pilot e.g. a German instructor may sign out a German pilot, not a Namibian pilot unless the foreign DE also holds a Namibian DE approval.

Records pertaining to the above types of training must be kept. These records comprise a check sheet and provision for sign-off.

Neither the **SSN** nor any of the affiliated clubs or bases may issue any licenses.

In the event that the **SSN** desires to embark on instructional training such as *ab initio* pilot training, aircraft type conversion, aerobatics etc. the **SSN** will be required to apply for and obtain an ATO approval in accordance with the ICAO five-phase certification process.

APPENDIX A

GLIDER BASE BITTERWASSER (FYBJ):

RUNWAY DESIGNATION: 13/31 and 5/23
RUNWAY LENGHTS: 13/31 and 5/23: 2800m

RUNWAY DESIGNATION: 9/27
RUNWAY LENGTH 9/27: 2100m

RUNWAY DESIGNATION: 01/19 – 800m
RUNWAY LENGTH 01/19: 800m

ELEVATION: 4140ft
SURFACE: Compacted soil
CO-ORDINATES: S23°51'53.0". E017°59'48.0"

GLIDER BASE KIRIPOTIB (FYKH):

RUNWAY DESIGNATION: 18/36
RUNWAY LENGTH 18/36: 1500m

RUNWAY DESIGNATION: 08/26
RUNWAY LENGTH 08/26: 1410m

ELEVATION: 4488ft
SURFACE: Compacted soil/grass
CO-ORDINATES: S23°19'48.7". E017°56'27.7"

GLIDER BASE POKWENI (FYPO):

RUNWAY DESIGNATION: 05/23
RUNWAY LENGTH 05/23: 1000m

RUNWAY DESIGNATION: 17/35
RUNWAY LENGTH 17/35: 2500m

ELEVATION: 4265ft
SURFACE: Compacted soil
CO-ORDINATES: S23°38'58.5". E017°43'50.3"

GLIDER BASE VERONICA - ARU GAME LODGE (FYVF):

RUNWAY DESIGNATION: 08/26
RUNWAY LENGTH 08/26: 2000m

RUNWAY DESIGNATION: 02/20
RUNWAY LENGTH 02/20: 1600m

ELEVATION: 4347ft
SURFACE: Compacted soil/sand
CO-ORDINATES: S23°26'00.0". E18°16'10.0"

GLIDER BASE WATERBERG - OTJIWARONGO (FYOW):

RUNWAY DESIGNATION: 06/24
RUNWAY LENGTH 06/24: 1000m

RUNWAY DESIGNATION: 09/27
RUNWAY LENGTH 09/27: 1700m

ELEVATION: 4856ft
SURFACE: Compacted gravel
CO-ORDINATES: S20°25'50.0". E016°39'50.0"

APPENDIX B

LIST OF NOMINATED POST HOLDERS

POST	POST HOLDER	ALTERNATE
Accountable Manager and Chairperson	Mr. G vd Westhuizen	Nil
Senior Chief Flight Operations	Mr. D. Schwenk	Nil
Quality and Safety Officer	Mr. R. Bürklin	Nil
Person Responsible for Maintenance	Mr. B. Mangold	Mr. J. van der Merwe
Airspace Administrator	Mr. W. Joschko	Nil

APPENDIX C

CORRECTIVE ACTIONS SHEET

	SOARING SOCIETY OF NAMIBIA	

SSN/PROJ/0116

NON CONFORMANCE

SOARING SOCIETY OF NAMIBIA

Corrective Action Request

Basic Information

CAR No.		Auditor	
Date of CAR Issue		Email	
Audit Report No.		Tel. No.	
Date of Audit		Auditee	SOARING SOCIETY OF NAMIBIA
		Area Audited	
		Email	

Requirement		
Document		
Revision Status		
Reference Paragraph		

Description of Discrepancy:

Objective Evidence:

Proposed Action:

Responsible Manager			
Email			
Estimated Closure Date			

Root Cause Analysis:

Proposed Corrective / Preventive: AS ABOVE

Action

Response

Close Out

Responsible Manager Signature: _____

Auditor Concurrence Signature: _____

Verification **Was Action Taken Effective?** **Yes** **No**	**Reason** Issue