TECHNICAL GUIDANCE MATERIAL
for
Part 101 RPAS Operations Manual

SUBJECT: TECHNICAL GUIDANCE MATERIAL FOR PART 101 RPAS OPERATIONS MANUAL

EFFECTIVE DATE: 14 APRIL 2021

APPLICABILITY

All prospective RPAS Operators Certificate (ROC) holders and existing ROC holders

PURPOSE

To assist in the drafting processes and procedures within the ROM to promote the safe and consistent operations of remotely piloted aircraft systems

REQUIREMENTS

All ROC holders are required to comply with the requirements of CAR101.04.5 the ROM is to be structured in terms of CATS 101.04.5 and as below

1. REFERENCE:

   i. SACAA CARS 101.04.5
   ii. SACAA CATS 101.04.5

2. TERMS AND ABBREVIATIONS:

TERM	DEFINITION
Accountable Manager	means a single, identifiable person within an entity who has full responsibility for the organisation's on-going compliance with the CAR and have full authority for human resources issues, authority for major financial issues, direct responsibility for the conduct of the organisation's affairs, final authority over operations under certificate and final responsibility for all safety and security issues
Aeronautical Information Circular	Circular containing information which does not qualify for the origination of a NOTAM or for inclusion in the AIP issued by the Director in terms of regulation 11.01.2
Aeronautical Information Publication	A publication containing aeronautical information of a lasting character essential to air navigation;
Aircraft	An aircraft as defined in the Act: any machine that can derive support in the atmosphere from the reactions of the air, other than the reactions of the air against the surface of the earth
Beyond Visual Line-of-Sight	An operation in which the remote pilot cannot maintain direct unaided visual contact with the remotely piloted aircraft to manage its flight and to meet separation

TERM	DEFINITION
	and collision avoidance responsibilities visually
Extended Visual Line-of-Sight	An operation below 400 feet above ground level in which an observer, maintains direct and unaided visual contact with the remotely piloted aircraft at a distance not exceeding 1 000 metres from the pilot
Operating Certificate	Operating certificate issued by the Director authorising an operator of a commercial air transport aircraft to carry out specified air transport operations;
Operations Specifications	Authorisations, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual
Pilot in Command	The PIC has the final authority and responsibility for the operation and safety of the flight, has been designated as pilot in command before or during the flight; and holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight
Quality Manager	Quality Manager" means the manager responsible for the monitoring function and for requesting remedial action and is responsible directly to the accountable manager
Quality System	Quality System means documented organisational procedures and policies; internal audit of these policies and procedures; management review; and recommendation for quality improvement;
Remotely Piloted Aircraft	An unmanned aircraft which is piloted from a remote pilot station, excluding model aircraft and toy aircraft
Restricted Visual Line-of-Sight	An operation within 500 metres of the remote pilot and below the height of the highest obstacle within 300 metres of the RPA, in which the remote pilot maintains direct unaided visual contact with the RPA to manage its flight and meet separation and collision avoidance responsibilities
Safety Management System	A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures
Visual Line-of-Sight	An operation below 400 feet above ground level in which the remote pilot, maintains direct and unaided visual contact with the RPA at a distance not exceeding 500 metres;

ABBREVIATION	DESCRIPTION
AGL	Above Ground Level
AIC	Aviation Information Circular
AIP	Aviation Information Publication
ASL	Air Service License
ASLC	Air Service Licensing Council
ATC	Air Traffic Control
ATO	Aviation Training Organisation
ATSU	Air Traffic Services Unit
AVSEC	Aviation Security
BVLOS	Beyond Visual Line of Site
CAMU	Central Airspace Management Unit
ERP	Emergency Response Plan
EVLOS	Extended Visual Line of Site
FOM	Field Operations Manual
FUA	Flexible Use of Airspace
GPS	Global Positioning System
ICAO	International Civil Aviation Organisation

ABBREVIATION	DESCRIPTION
ICASA	Independent Communications Authority of South Africa
LOP	Letter of Procedure
NOTAM	Notice to Airman
Ops Spec	Operations Specification
PCO	Pest Control Operator
PIC	Pilot in Command
QA	Quality Assurance
QMS	Quality Management System
RLA	RPAS Letter of Procedure
RMT	RPAS Maintenance Technician
ROC	RPAS Operators Certificate
ROM	RPAS Operations Manual
RP: A	Responsible Person: Aircraft
RP:FO	Responsible Person Flight Operations
RPA	Remotely Piloted Aircraft
RPAS	Remotely Piloted Aircraft System
RPL	RPAS Pilot License
RVLOS	Restricted Visual Line of Sight
SACAA	South African Civil Aviation Authority
SACAR	South African Civil Aviation Regulations
SACATS	South African Civil Aviation Technical Standards
SMS	Safety Management System
SOP	Standard Operating Procedure
TGM	Technical Guidance Material
VLOS	Visual Line of Sight

PART 1 - GENERAL

1. Administration Control

a) Company particulars - Place of business; contact particulars; company registration number, air service license number, All ASL Details
b) Index – Contents of the manual to be structured in terms of CATS 101.04.5
c) List of effective pages - To ensure ROM remains in date and that different versions are not being used – table to be structured as follows - Page Number, Revision Number Effective Date
d) Revision status – amendments to the ROM are to be sent to the SACAA. Table to be structured as follows - Revision Number, Details of Amendments, Effective Date, Status. - A document control and amendment process to be included and described in this paragraph
e) Distribution list – indication of official copies of the ROM and their distribution table to be headed as follows – Controlled Copy, Responsible Person, Location
f) Definitions/acronyms – list of definitions and acronyms, as applicable
g) Compliance statement:

1) A statement that the manual is intended to comply with –

i. all applicable Acts, Regulations and associated Technical Standards;(list them)
ii. the terms and conditions of the applicable ROC; and

iii. the authorisations, conditions and limitations of the Operations Specifications (Ops Spec) associated with the ROC.

2) A statement that, where any person is confronted with an operational situation not contemplated by the ROM, such person will be expected to act in accordance with his or her most conservative discretion. Furthermore, where any part of the manual is repugnant to any provision referred to above, such person shall comply with the respective legal statute and report the discrepancy to the responsible person by the quickest means possible.

3) A statement that the ROM contains operational instructions that are to be complied with by the relevant personnel

2. ORGANISATION AND OPERATIONAL CONTROL

a) Organisational structure – organogram – ROC Post Holder structure only

b) Organisational responsibilities of post holders - Description of the Responsibilities Qualifications and Authority of the Accountable Manager // Quality Assurance Manager // Safety Manager // Responsible Person: Flight Operations // Responsible Person: Aircraft // Security Manager. Below each description a place to sign acceptance of their Responsibilities is required

c) Responsibilities of the support personnel – description of the responsibilities, qualifications of the RPL, observer, assistants, payload operator, etc as applicable to the proposed operation

d) Technical description of the RPAS to be operated –Table to detail as a minimum – Make, Model, Class of RLA, Maximum Take-off Weight, Operational conditions (VLOS, BVLOS etc), Endurance, Maximum Wind Speed Resistance, Maximum Operating Altitude, Maximum Airspeed, Operational Temperature Range, Maximum BVLOS range (Ops Spec), Max height (Ops Spec) Weather Conditions (As per manufacturer) NB place table in Appendices

- If Class 3 or higher, include RMT details and authorisation, including the following:

i. a procedure to initially assess, and a procedure for maintaining, the competence of the RMT holder, and
ii. the scope of the RMT authorisation, and
iii. a list personnel (RMT's) who are responsible for certifying maintenance, stating:
The full names of the personnel.
The RMT authorisation number issued by the Director

e) Area of operation – Describe Type of Operations of the ROC (Survey, Cinematography, Security Surveillance, Agriculture Spraying etc.) & Geographic scope (The most likely areas of operation, i.e.: building sites, open countryside, roads, urban and/or rural areas) and type of operations, Industrial sites etc.

f) Operating Limitations – A table of ROC's Ops Spec approvals (These are the approvals on the Ops Spec i.e. Controlled Airspace, EVLOS, etc. The table is to be constructed as follows – Name the approval (i.e. Controlled Airspace. EVLOS, etc), if the Operator is approved for it(yes/no) and additional information related to the approval (i.e. all SOP's to be followed). NB place table in Appendices

g) Operational Control Parameters – a description of a system to supervise the operation Operational control is defined as: 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 as laid down in ROM of the ROC. The operational control system can be described in terms of "initiation, termination, diversion, continuation, regularity and efficiency"

h) Accident prevention and flight safety programme - Safety Management System (SMS) – can be include in this section or referred to in Part 5:SMS. If placed there (Reference to ICAO Document 9859)

i) Flight crew qualifications and duties - details of any qualifications, experience or training necessary for the pilot or support crew for the types of RPAS and the roles employed by the operator. This section should also include flight crew composition, i.e.: the number of crew depending on type of operation; complexity; type of RPAS, etc

j) RPA operations – to include any limitations considered appropriate to the numbers and types of RPAS that an RPL may operate, if applicable e.g. not more than two types

k) Crew health – a statement and any guidance to ensure that the "crew" are appropriately fit to fly before conducting operations Consider the use of narcotics, alcohol policy, fatigue, etc

l) Documents and Record keeping – description of how and what records will be kept example as follows

NB. requirements for logs and records of flights, RPAS records, pilot records, etc. Refer to CAR101.04.6for documentation and record requirements, below as a minimum

1. Personnel records
    i. Copy RPL/RMT
    ii. Medical,
    iii. Induction training certificate (QMS, SMS)
    iv. AVSEC certificate,
    v. Criminal record check,
    vi. Background check,
    vii. Copy of Logbook RPL/RMT – this shall be updated monthly
    viii. PCO (in the case of Spraying Operations)

2. RPA records
    i. Certificate of registration
    ii. RPA Letter of Approval
    iii. Mass and balance certificate
    iv. Scale calibration certificate
    v. Insurance certificate
    vi. ICASA Type approval certificate/s
    vii. ICASA radio license
    viii. Maintenance records
    ix. User Manual
    x. Aircraft Maintenance Program

3. Flight documentation (these are your flight records and are to be kept together

    i. Pre-flight paperwork as required
    ii. All on-site documentation
    iii. Risk assessment
    iv. Approved FUA/Flight plan if applicable
    v. CAA CA101-20 / CA 101-18 if applicable
    vi. Permissions and approvals obtained for the flight
    vii. NOTAMS / AIPs / AIP Supps / AICs, applicable to the flight
    viii. Weather reports
    ix. Flight folio
    x. Landowners Permission

4. Safety Management System records

i. Hazard Report forms
ii. Incident/Accident Report forms
iii. Corrective Action Request (combined finding and corrective action form)
iv. Hazard Database
v. Safety notices
vi. Safety Management meeting minutes

5. Quality Management System

i. Audit Schedule
ii. Audit Checklists
iii. Corrective Action Request (combined finding and corrective action form)
iv. QMS Notices
v. QMS Management meeting minutes

6. Security Management

i. Records as required

7. ROC Management records

i. Management meeting minutes

PART 2 - OPERATING PROCEDURES

Note: Operational Approval (Ops Spec approvals) SOP's to be placed in an APPENDICES

1. Flight planning/preparation

(planning before acceptance of the mission and/or before proceeding to the site on the day of the flight)

a) Determination of the intended task and feasibility – reference to the specific goals and outcomes of the flight, in addition, the feasibility of the flight in terms of time, weather, area, RPAS, etc, shall be noted
b) Operating site location and assessment: various considerations are to be contemplated, including but not limited to the following:
    i. the type of airspace and specific provisions (e.g. Controlled Airspace, Restricted airspace, notifications of airspace contained in AIP Supplements, etc)
    ii. other aircraft operations (local aerodromes or operating sites)
    iii. hazards associated with industrial sites or such activities as live firing, gas venting, high-intensity radio transmissions etc.
    iv. local by-laws obstructions (wires, masts, buildings etc.)
    v. extraordinary restrictions such as segregated airspace around prisons, nuclear establishments etc. (suitable permission may be needed)
    vi. habitation and recreational activities
    vii. public access
    viii. permission from landowner
    ix. likely operating site and alternative sites
    x. weather conditions for the planned event
c) Risk management – identifications of the hazards, risk assessment and mitigating procedures - See Appendix C for table templates– developed in accordance with ICAO DOC 9859

d) Communications – contact details for other local aircraft operations, serviceability of communications equipment, etc.
e) Pre-notifications - If the flight is to be performed within an ATZ, or near to any aerodrome or aircraft operating site, then their contact details should be obtained, and notification of the intended operation should be provided prior to take-off. It may be necessary to inform the local police of the intended operation to avoid interruption or concerns from the public
f) Site permission – reference to a document confirming landowner's permission (this will be in the appendices)
g) Weather considerations – methods of obtaining weather forecasts. (website name etc.)
consideration of RPA limitations
h) Preparation and serviceability of equipment and RPAS – reference to tasks that relate to the serviceability of equipment and RPAS before operation, for example:
    i. RPA: no defects
    ii. Batteries (RPA, RPS and communication devices) fully charged
    iii. First aid kit and fire extinguisher valid

2. On site procedures and pre-flight checks
(actions taken on-site on the day of the flight and pre-flight checks – actions completed BEFORE take-off)

a) Site survey – visual check of operating area and identification of hazards
b) Selection of operating area and an alternate – size, shape, surrounds, surface, slope to be considered – Landing zone for an automatic "home" return should be identified and kept clear
c) Flight crew briefing – to cover the task, responsibilities, duties, emergencies, etc - Roles and duties of each crew member to be defined in writing [CATS101.05.17(12)]
d) Cordon procedure – adherence of separation criteria
e) Communications – local and with adjacent air operation, if appropriate Include range and capability requirement radio communication and RPAS) - Considerations for lost communications/radio failure procedures etc.
f) Weather checks – limitations and operating considerations
g) Re-fuelling – reference to acceptable practices/procedures with regards to fuel/battery and types of aircraft - Battery management considerations
h) Loading of operational equipment: - Security - Weight and balance considerations etc.
i) Preparation and assembly of RPA– in accordance with the OEM
j) Pre-flight and post flight checks – reference to the OEM user manual

3. Flight procedures (start, take-off, in-flight, landing and shut down)

a) Start
b) Take-off
c) In-flight:
    - Command and Control Link,
    - Communication Link,
    - Visual line-of-sight operations,
    - Beyond visual line-of –sight operations (if applicable)
    - Extended visual line-of-sight operations (if applicable)
    - Restricted visual line-of-sight operations (if applicable)
    - Radio Line-of-sight

d) Landing
e) Shut down- In accordance with/reference to the OEM user manual

4. Emergency procedures

a) To be specific to each RPAS type and control system – consider all events that may cause the flight of the RPA to fail or be terminated (consider placing in Appendices if operating multiple RPAS types) Alternatively reference can be made to RPAS manual on condition that the below is covered:
At the minimum, the following emergency scenarios should be documented for each RPAS operated, with procedures for handling them:
   1) loss of autopilot (fatal error)
   2) loss of flight control due to servo failure, if applicable
   3) loss of propulsion power
   4) loss of engine power (one engine out), if applicable
   5) low battery voltage, if applicable
   6) loss of navigation components (heading or altitude)
   7) loss of Global Navigation Satellite System
   8) loss of data link (radio control link failure)
   9) loss of remote pilot station (remote pilot station communication failure)
   10) loss of power of remote pilot station
   11) loss of remote pilot/RPAS observer communication
   12) dealing with structural damage
   13) any other failure modes or scenarios other than those listed above that can endanger safe flight, shall be identified, described and managed in a safe manner
b) Fire – considerations and responses of the pilot and operator risk and preventative measures should be considered with relation to the type of power sources and fuel
c) Accidents – considerations and responses of the RPL and ROC Holder - Emergency Response Plan (to be included here or in Part 5: SMS)
d) Loss of control link – considerations and responses of the pilot and operator – should be covered in a. above
e) RPA – normal, abnormal and emergency procedure.

PART 3 - TRAINING PROGRAMME

1. Details of the Operator's Training Programme – this shall include details such as:

a) Induction training (inclusive of Operations, SMS, ERP, and QMS)
b) In-house training
c) Observer training, if applicable (E-VLOS operations)
d) All training outsourced to approved training institutions
e) AVSEC training, as per Part 109
f) Training for night operations, if applicable
g) Training programme for B-VLOS operations, if applicable
h) Training for RMT, if applicable
i) Training of RPL to conduct flight in Controlled Airspace, if applicable
j) PCO for Agriculture Ops
k) DG training if DG as payload

PART 4 - SAFETY AND SECURITY

Please refer to Safety and Security Technical Guidance Material (Contact SACAA AVSEC Department)

PART 5 - QUALITY AND SAFETY MANAGEMENT SYSTEMS

a) Safety Management System (SMS)

The holder of a ROC shall establish a safety management system commensurate with the size of the organisation or entity and the complexity of its operations.
Safety Management System shall be based on the four components and twelve elements of an SMS,

1. Safety policy and objectives

    1) Management commitment and responsibility
    2) Safety accountabilities
    3) Appointment of key safety personnel
    4) Coordination of emergency response planning
    5) SMS documentation

2. Safety risk management

    6) Hazard identification
    7) Safety risk assessment and mitigation

3. Safety assurance

    8) Safety performance monitoring and measurement
    9) Management of change
    10) Continuous improvement of the SMS

4. Safety promotion

    11) Training and education
    12) Safety communication

Note: The following documents can be used in establishing a Safety Management System:

i. CARS/CATS Part 140
ii. ICAO Document 9859
iii. TGM for the implementation of a Limited Scope Safety and Risk Management

b) Quality Management System (QMS)

1. Policy statement - include a statement, inter alia, the commitment from the CEO as to what the QMS is intending to achieve
2. QMS Structure – organogram
3. QMS Objectives – these must be measurable
4. Quality Manager – duties, responsibilities and qualifications
5. Quality Management System – audits, inspections, quality audit remedial action management analysis (meetings) and overview, document control, monitoring, training, record keeping
    a. The quality system should:

    i. monitor compliance with the regulations as well as the ROC, Operations specifications and ROM, through quality audits and inspections.
    ii. identify and resolve problems.
    iii. prevent the recurrence of non-conformances.
    iv. enable personnel to perform tasks correctly the first time.

v. collect data and review operational experience to evaluate the performance of the process and services to improve operations

Note: Relevant forms associated to the QMS are to be placed in Appendices i.e.

APPENDICES (As a minimum 1-7 to be present)

1. Index of the Appendices

   Self-explanatory

2. Technical Description of RPAS

   (see requirement in Organisation and Operational Control – d. of this TGM)

3. Operating Limitations

   List of the ROC's Ops Spec Approvals and any specific details related to that approval

4. Operating Procedures for Ops Spec Approvals

   The objective of this appendix is to allow the operator to clearly state how operations, specifically those requiring one to be the holder of a ROC and receive approval from the Director, will be conducted safely and with minimal risk. Each Ops Spec Approval requires a detailed SOP (Standard Operations Procedure) that a Crew member can follow. Certain Approvals will also be required to state the method of compliance in accordance with the relevant CATS

   Definition: A standard operating procedure (SOP) is a set of step-by-step instructions compiled by the Operator to assist the Remote Pilot to carry out specific operations. SOPs aim to achieve efficiency, quality output and uniformity of performance, while reducing miscommunication and failure to comply with industry regulations.

   Following apply:

Operations in Controlled Airspace	SOP & method of compliance with CATS 101.05.3
BVLOS Operations	SOP & method of compliance with CATS 101.05.11
EVLOS Operations	SOP
Operations above 400ft	SOP
Carriage Dangerous Goods	SOP & method of compliance with Part 92
Inclement Weather	SOP
Operations in Restricted/Prohibited Airspace	SOP
Night Operations VLOS/EVLOS/BVLOS	SOP & method of compliance with CATS 101.05.12
Night Operations RVLOS	SOP
Use of Public Roads for Take Off	SOP
Operations within 10km of an Aerodrome	SOP
Operations where objects or substances will be released, dispensed, dropped, delivered or deployed from an RPA	SOP
Operations adjacent to or above a nuclear power plant, prison, police station, crime scene, court of law, national key point or strategic installation	SOP
Operations overhead any person or group of people or within a lateral distance of 50m	SOP
Operations within a lateral distance of 50m from any structure or building	SOP
Operations over a public road, along the length of a public road or at a lateral distance of less than 50m from a public road	

5. Field Operations Manual

a) This is a "quick reference document" for the pilot to have on site, specific to the particular flight/mission, to avoid the pilot/crew/personnel having to search for information which may be needed urgently, e.g.: weather, local procedures for the site, applicable NOTAMS, radio frequencies, minimum/maximum heights, company SOP's (emergency procedures), the emergency response plan, specific operational procedures for the specific flight/operation, contact numbers, roles and responsibilities of personnel, etc

b) Some of the documentation may be the same for every site/flight/mission, however, certain information will be specific

c) The FOM is a pilot guide/reference handbook to make the pilot's job easier on site and ensure he/she has the relevant information readily available.

d) This should include, but not limited to the following:

1) Contact Numbers
   i. Client / Landowner
   ii. Local Aerodromes
   iii. Manned Aircraft Operators
   iv. Police
   v. Fire Department
   vi. Nearest hospital

e) Airspace Considerations
   1) Airspace Type - Controlled/ Uncontrolled /FAP/FAR/FAD
   2) Frequency (ies)
3) ATSU Contact Numbers
4) CAMU FUA
5) Flight Plan

f) Current Weather
1) Wind (kts)
2) Temp (C)
3) KP Index

g) Permissions Required
1) Landowner (Required for all operations)
2) FUA – Controlled, Restricted/Prohibited (if required)
3) Permission to operate within applicable airspace (ATSU)
4) Controlling authority if FAR / FAP
5) National Key Point/Strategic Installation/Police station/court of law
6) Municipal/Disaster Management permission required?
7) CAA approval (CA101-18 or CA101-20)

h) Documentation required on site
1) Landowner Permission
2) Map of area
3) ROC and Ops Spec
4) RLA
5) RPAS User Manual
6) C of R
7) 3rd Party Liability Cover
8) RPL
9) Flight Folio
10) ROM
11) Risk Assessment
12) NOTAMS

i) Landowner's Permission Form

1) Required for ALL flights

a. To include as a minimum the following:

i. Date
ii. Property details
iii. Name and signature of person permitting the operation over the landowner's property,
iv. Designation of person permitting the operation
v. Contact details of person permitting operation

NB: To be signed for every RPAS operation and retained in flight records

6. Flight Folio

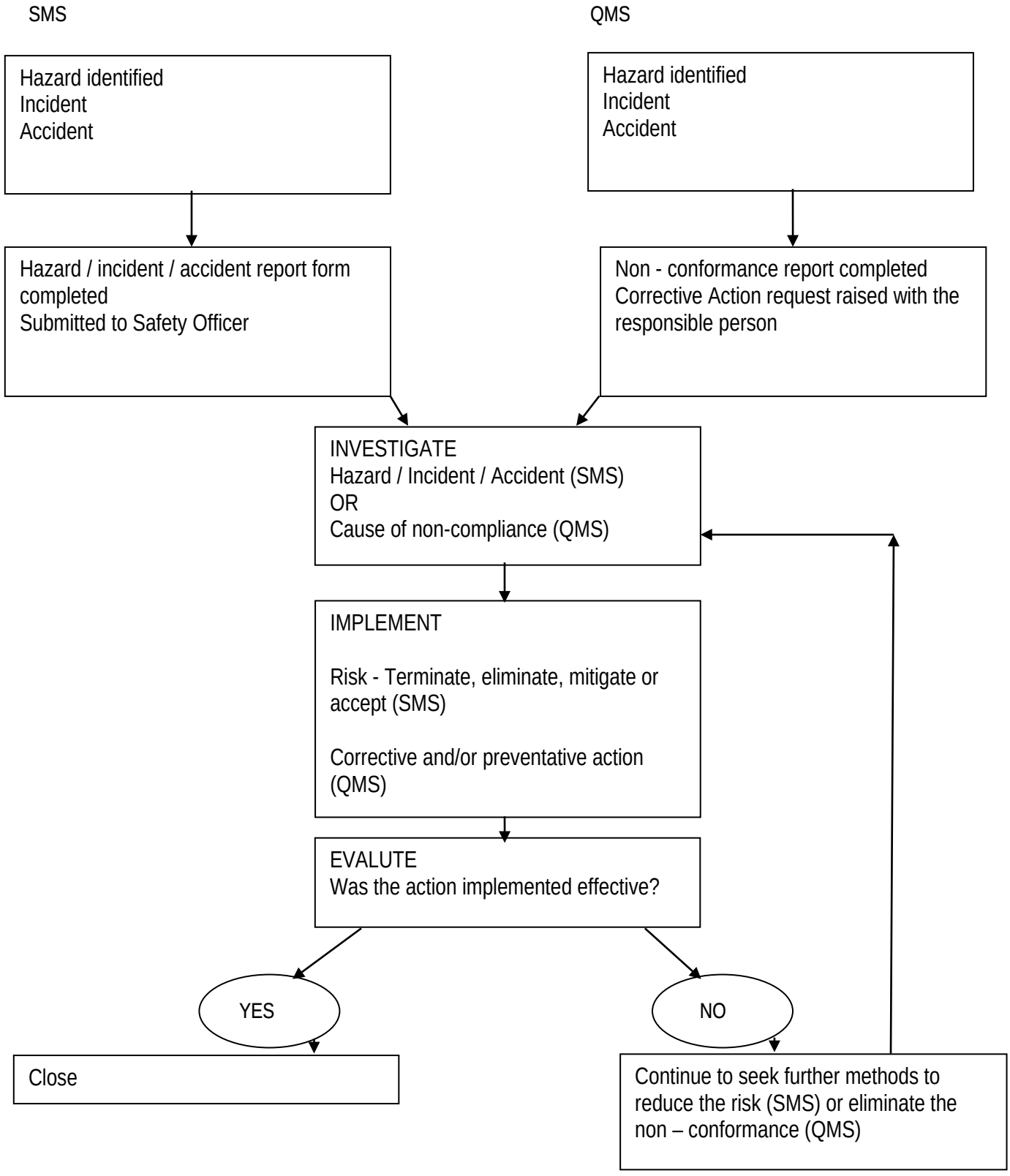
To be developed in accordance with CATS 101.05.22 Example of Flight Folio see Annexure B

7. Other documents, as considered necessary

a. Below are examples of additional documents that can be placed in appendices
   i. Letter of Procedure Template (Controlled Airspace Operations)
   ii. Battery Charge Log
   iii. Management Meeting Schedule
b. Quality Audit Schedule (QMS) to be agreed upon by Accountable Manager and Quality Manager prior to the 12-month period and to cover below (some more frequent than others)
c. Quality Checklists (QMS) specific to each part of the ROC not limited to:
   i. Personnel records
   ii. Aircraft records
   iii. Specific flight documentation records (Flight Operations)
   iv. Safety Management System records
   v. Quality Management System records
   vi. Security Management records
   vii. ROC Management records

DEVELOPED BY:		
	ALBERT MSITHINI	14 APRIL 2021
SIGNATURE OF M: RPAS	NAME IN BLOCK LETTERS	DATE
REVIEWED & VALIDATED BY:		
	ERIC MATABA	14 APRIL 2021
SIGNATURE OF SM: FOD	NAME IN BLOCK LETTERS	DATE
APPROVED BY:		
	SIMON SEGWABE	14 APRIL 2021
SIGNATURE OF E: ASO	NAME IN BLOCK LETTERS	DATE

APPENDIX A – SMS QMS FLOWCHART



APPENDIX B – RPAS FLIGHT FOLIO

FLIGHT FOLIO & DEFECT REPORT RPAS	RPAS TYPE:	RPAS REGISTRATION #:	FOLIO #:

CREW NAME	DUTY	SIGNATURE

*NEXT INSPECTION TYPE: DUE ON: OR AT: AIRFRAME HRS:

* 100hr/50hr/3month etc.

FLIGHT #	DATE	PLACE OF DEPARTURE	PLACE OF ARRIVAL	DEPART TIME UTC	ARRIVE TIME UTC	FLIGHT DURATION	NATURE OF FLIGHT	BATTERY CHARGE (%)		OIL UPLIFT	FUEL UPLIFT	PIC SIGNATURE
FLIGHT TIME BROUGHT FORWARD								INITIAL	POST			
FLIGHT TIME TO BE CARRIED OVER												

DEFFERED DEFECTS CARRIED FORWARD:	

FLIGHT #	DEFECTS, INCIDENTS/OBSERVATIONS	DATE	RECTIFICATION ACTION	LICENSE #	*SIGNATURE

* A signature in this column will be taken as a certificate that all maintenance specified & all the requirements prescribed in their applicable Civil Aviation Regulations 2011 have been complied with.

APPENDIX C - RISK ASSESSMENT

* Please see ICAO DOC 9859 for additional information

RISK ASSESMENT							
Hazard Description	RP	RS	Initial Risk	Mitigation	RP	RS	Mitigated Risk

Risk Probability	Risk Severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
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

SEVERITY MATRIX		
CATEGORY	DEFINITION	DESCRIPTION:
A	Catastrophic	Multiple deaths and complete loss/destruction of equipment
B	Hazardous	Serious injuries / Major damage to equipment
C	Major	Minor injuries / Minor damage to equipment
D	Minor	Incidents
E	Negligible	Inconvenience / Negligible impact
PROBABILITY		
CATEGORY	DEFINITION	DESCRIPTION:
1	Extremely improbable (Rare)	Almost inconceivable that the event will occur
2	Improbable (Seldom)	Very unlikely that the event will occur. It is not known that it has ever occurred before
3	Remote (Unlikely)	Unlikely but could possibly occur. Has occurred rarely
4	Occasional	Likely to occur sometimes. Has occurred infrequently
5	Frequent	Likely to occur many times/regularly. Has occurred regularly

Tolerability		
Risk Index	Tolerability	Action
5A, 5B, 5C, 4A, 4B, 3A	Intolerable - unacceptable	Terminate operations immediately. Accountable Manager to authorise
5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C, 1A	Tolerable - caution	Attempt to further mitigate risk. Safety Manager to authorise
3E, 2D, 2E, 1B, 1C, 1D, 1E	Acceptable	Operation can proceed