
GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF TRANSPORT

NO. R. 3169

17 March 2023

CIVIL AVIATION ACT, 2009 (ACT NO. 13 of 2009)**TWENTY-FIFTH AMENDMENT OF THE CIVIL AVIATION REGULATIONS, 2023**

(The English Text is the official text of the Regulations)

I, Sindisiwe Chikunga, Minister of Transport, hereby, in terms of section 155(1) of the Civil Aviation Act, 2009 (Act No. 13 of 2009), make the Regulations set out in the Schedule hereunder.



Ms. Sindisiwe Chikunga, MP
Minister of Transport

Date: 2023/03/17

SCHEDULE

CIVIL AVIATION ACT, 2009 (ACT NO. 13 OF 2009)

TWENTY-FIFTH AMENDMENT OF THE CIVIL AVIATION REGULATIONS, 2023

GENERAL EXPLANATORY NOTE:

[] Words in bold type in square brackets indicate omissions from existing regulations.

_____ Words underlined with a solid line indicate insertions in existing regulations.

Definition

1. In this Schedule “the Regulations” means the Civil Aviation Regulations, 2011 published by Government Notice No. R. 425 dated 1 June 2012, as amended.

Amendment of regulation 1.01.1 of the Regulations

2. Regulation 1.01.1 is hereby amended by—

(a) the substitution of the definition “data quality” for the following definition:

“**data quality**” means a degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, traceability, timeliness, completeness, format, and resolution and integrity or equivalent assurance level;”;

- (b) the substitution for the definition of “hazard” of the following definition:

“‘hazard’ means any source or condition of potential damage or harm to an aircraft or its occupants;”;

- (c) the insertion after the definition of “maintenance programme” of the following definition:

“‘maintenance records’ means records that set out the details of maintenance carried out on an aircraft, engine, propeller, or associated part;”;

- (d) the substitution for the definition of “maintenance release” of the following definition:

“‘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 maintenance data and the procedures described in the maintenance organisation’s procedures manual or under an equivalent system;”;

- (e) the substitution for the definition of “safety data” of the following definition:

“‘safety data’ means a defined set of facts or a set of safety values collected from various aviation related sources, which is used to maintain or improve data collected from proactive or reactive safety-related activities, including:

- (a) accident or incident related reports and investigations;
- (b) safety reporting;
- (c) continuing airworthiness reporting;
- (d) operational performance monitoring;
- (e) inspections, audits, and surveys; or
- (f) safety studies and reviews;”;

- (f) the substitution for the definition of “safety information” of the following definition:

“‘safety information’ means safety data processed, organised or analysed in a given context so as to make it useful for safety management purposes;”;

- (g) the substitution for the definition of “safety management system” of the following definition:

“‘safety management system’ means a systematic approach to managing safety, including the necessary organisational structures, **[accountabilities]** accountability, responsibilities, policies, and procedures;”;

- (h) the insertion after the definition of “safety officer” of the following definition:

“‘safety oversight’ means a function performed by an appropriate authority to ensure that persons and organisations performing an aviation activity comply with safety related regulations;”;

- (i) the substitution for the definition of “safety performance target” of the following definition:

“‘safety performance target’ means a State or service provider’s planned or intended [objective] target for a safety performance [indicators] indicator over a given period that aligns with the safety objectives;”;

- (j) the substitution for the definition of “SNOWTAM” of the following definition:

“‘SNOWTAM’ means a special series NOTAM **[notifying the presence or removal of hazardous conditions]** given in a standard format providing a surface condition report notifying of a presence or cessation of hazardous condition due to

snow, ice slush, frost, standing water, or water associated with snow, slush, ice, or frost on a movement area [by means of a specific format];”; and

(k) the insertion after the definition of “special VFR flight” of the following definition:

“‘Specific approval’ means an approval by the Director, permitting an operator to conduct operations relating to EDTO, RVSM, LVO, and PBN, including utilisation of HUD and EFB, as specified in the OpSpec for commercial air transport operations or in the list of specific approvals for non-commercial operations;”;

(l) the insertion after the definition of “surface contamination training” of the following definition:

“‘surveillance’ means an activity through which an appropriate authority proactively verifies, through inspection and audit, that a holder of an aviation licence, certificate, authorisation, approval continue to meet established requirements and function at a level of competency and safety required by legislation;”;

Amendment of regulation 1.01.2 of the Regulations

3. Regulation 1.01.2 is hereby amended by –

(a) the insertion after the abbreviation of “SAG” of the following abbreviation:

“‘SDCPS’ means safety data collection and processing system;”;

(b) the insertion after the abbreviation of “SPLIC” of the following abbreviations:

“‘SRB’ means Safety Review Board;”;

“‘SRGC’ means Safety Recommendation of Global Concern;”; and

- (c) the deletion of abbreviation for “**SRC**”.

Amendment of Part 12 of the Regulations

4. Part 12 of the regulations is hereby amended by—

- (a) the substitution for Subpart in the arrangement of regulations of the following Subpart:

“SUBPART 1:

GENERAL

- | | |
|-----------------|--|
| 12.01.1 | Applicability <u>and General</u> |
| 12.01.1A | Independence of [accident] investigation |
| <u>12.01.1B</u> | <u>Instituting investigation</u> |
| 12.01.2 | Designation of body or institution |
| 12.01.3 | Designation of investigator-in-charge |
| 12.01.4 | Designation of investigator |
| 12.01.5 | Designation of pro-tem investigator |
| 12.01.6 | Designation and acceptance of accredited representative |
| 12.01.7 | Designation of advisor |
| 12.01.8 | Designation of experts |
| 12.01.9 | Powers of the Investigator-in-Charge or an Investigator |
| 12.01.10 | Establishment of confidential aviation hazard reporting system |

SUBPART 2:

ACCIDENT OR INCIDENT NOTIFICATION PROCEDURES

- | | |
|---------|---|
| 12.02.1 | Notification of accidents |
| 12.02.2 | Notification of incidents |
| 12.02.3 | Notification of accidents or incidents outside the Republic |

- 12.02.4 Particulars of notification
- 12.02.5 Notification of hazards
- 12.02.6 Notification to other States and ICAO

SUBPART 3:**INVESTIGATION OF ACCIDENTS OR INCIDENTS**

- 12.03.1 Purpose of accident or incident investigation
- 12.03.2 Accident or incident investigation procedures
- 12.03.3 Retention of objects for purposes of investigation or inquiry
- 12.03.4 Accident or incident in territory of non-Contracting State or outside the territory of any State
- 12.03.5 Request from State conducting investigation

SUBPART 4:**SCENE OF AN ACCIDENT**

- 12.04.1 Guarding of aircraft involved in accident
- 12.04.2 Access to **[the]** scene of accident
- 12.04.3 Control of evidence
- 12.04.4 Interference with objects and marks at scene of accident
- 12.04.5 Removal of damaged or disabled aircraft
- 12.04.6 Protection of accident and incident investigation records
- 12.04.7 Use of information for internal proceedings
- 12.04.8 Autopsy examinations
- 12.04.9 Medical examinations
- 12.04.10 Acts of unlawful interference
- 12.04.11 Coordination with judicial authorities

SUBPART 5:**REPORTING AND REOPENING OF INVESTIGATION**

- 12.05.1 Preliminary Report

- 12.05.1A Final Report
- 12.05.2 Appeal against findings in investigation
- 12.05.3 Reopening of investigation

SUBPART 6:

ACCIDENT PREVENTION

- 12.06.1 Accident Prevention Measures
- 12.06.2 Sending of Accident and Incident Data Report to ICAO
- 12.06.3 Action on Safety Recommendations

(b) the substitution for regulation 12.01.1 of the following regulation:

“12.01.1 Applicability and General

(1) This Part applies to procedures that relate to investigation and reporting of aircraft accidents and incidents other than accidents and incidents involving aircraft designed to remain moored to the earth or to be kept in tow by a vehicle or vessel on the surface of the earth.

(2) This Part also applies to any other aviation related accident and incident investigation as sanctioned by the Executive responsible for Aircraft Accident and Incident investigation.

(3) The Executive responsible for Aircraft Accident and Incident investigation shall develop procedures and guidance material detailing aircraft accident and incident investigation processes and duties, including organisational planning, investigation, and reporting.”;

(c) the substitution for regulation 12.01.1A of the following regulation:

“12.01.1A Independence of investigation

(1) The Executive responsible for Aircraft Accident and Incident investigation shall have independence and unrestricted authority in conducting of investigation consistent with the provisions of this Part.

(2) An aircraft accident, or incident investigation shall include—

- (a) gathering, recording, and analysis of all available information on an accident or incident;
- (b) effective use of flight recorders and ground-based recordings in an investigation; and
- (c) issuing of a final report which contains probable cause of an accident, contributing factors, and where necessary, safety recommendation.

(3) The Executive responsible for Aircraft Accident and Incident investigation or an investigator designated by the Executive responsible for Aircraft Accident and Incident investigation shall be granted unrestricted access to all available evidential material without delay.

(4) An investigation conducted in terms of this Part shall not seek to apportion blame or liability and shall be separate from other investigations for judicial or administrative proceedings”;

(d) the insertion after 12.01.1A of the following regulation:

“Instituting investigation

12.01.1B (1) The Executive responsible for Aircraft Accident and Incident investigation shall institute and conduct an investigation into the circumstances of an accident or a serious incident involving an aircraft with a maximum mass greater than 2 250 kg.

(2) Notwithstanding the provisions of subregulation (1), the Executive responsible for Aircraft Accident and Incident investigation may recommend, to the Minister, to delegate to another State or regional accident and incident investigation organisation, the whole or a part of an investigation into an accident or serious incident.

(3) If a State of Occurrence decides not to investigate an accident or serious incident, the Executive responsible for Aircraft Accident and Incident investigation shall request such State to delegate investigation of such accident or a serious incident involving an aircraft with a maximum mass greater than 2 250 kg to the Republic, where the Republic is a State of Registry, State of an Operator, State of Design, or State of Manufacture.

(4) If a State of Occurrence referred to in subregulation (3), grants consent to investigate or where a response is not obtained within 30 days, the Executive responsible for Aircraft Accident and Incident investigation shall institute and conduct investigation with such information as is available.

(5) If an investigation is delegated in terms of subregulation (1), the Executive responsible for Aircraft Accident and Incident investigation shall remain responsible for the obligations stipulated under this Part.

(6) If the Republic is a State of Occurrence, the Executive responsible for Aircraft Accident and Incident investigation shall, upon request, issue an invitation letter to facilitate entry of any accredited representative, adviser, and equipment as necessary.”.

(e) the insertion in regulation 12.01.6 after subregulation (5) of the following subregulation:

“(6) If neither a State of Design nor a State of Manufacture appoint an accredited representative for the purposes of investigating an accident or incident involving a South African registered aircraft in a territory of another State, the Executive responsible for Aircraft Accident and Incident investigation shall invite organisations responsible for type design and final assembly of such aircraft to participate in an investigation.”:

(f) the substitution for regulation 12.02.2 of the following regulation:

“Notification of incidents

12.02.2 (1) A PIC, a flight crew member, an operator, or an owner, as the case may be, of an aircraft involved in an incident within the Republic, shall, as soon as possible but at least within 24 hours since the time of such incident, report such incident to—

- (a) the Executive responsible for Aircraft Accident and Incident investigation;
- (b) an ATSU; or
- (c) the nearest Police Station.

(2) A PIC, a flight crew member, an operator, or an owner, as the case may be, of an aircraft involved in an ATS incident within the Republic, shall, as soon as possible, notify an ATSU of such ATS incident.

(3) An ATS personnel who witnesses an ATS incident, shall, as soon as possible, notify an ATSU of such ATS incident.

(4) An ATSU notified of an incident in terms of subregulations (1); (2); or (3) shall, immediately on receipt of the notification and as prescribed in Document SA-CATS 12, notify—

- (a) the Executive responsible for aircraft accident and incident investigation;
- and

(b) an aerodrome manager, if such incident occurs on an aerodrome.

(5) A PIC, flight crew member, aircraft operator, or owner, as the case may be, of an aircraft involved in a serious incident within the Republic shall report such incident to the Executive responsible for Aircraft Accident and Incident investigation.

(6) A serious incident referred to in subregulation (5) shall include but not limited to—

- (a) a near collision requiring an avoidance manoeuvre to avoid a collision or an unsafe situation or when an avoidance action would have been appropriate;
- (b) a collision not classified as accident;
- (c) a controlled flight into terrain only marginally avoided;
- (d) an aborted take-off on a closed or engaged runway, taxiway, or unassigned runway;
- (e) a take-off from a closed or engaged runway, or from taxiway or unassigned runway;
- (f) a landing or attempted landing on a closed or engaged runway, on a taxiway, or unassigned runway, or an unintended landing location such as roadway;
- (g) a retraction of a landing gear leg or a wheels-up landing not classified as an accident;
- (h) a dragging, during landing, of a wing tip, engine pod, or any other part of an aircraft, that is not classified as an accident;
- (i) a gross failure to achieve predicted performance during take-off or initial climb;
- (j) fire or smoke in a cockpit, passenger compartment, cargo compartment, or engine, even though such fire is extinguished;
- (k) an event requiring an emergency use of oxygen by flight crew;
- (l) an aircraft structural failure or engine disintegration, including uncontained turbine engine failure, not classified as an accident;

- (m) a multiple malfunction of one or more aircraft systems seriously affecting the operation of an aircraft;
- (n) a flight crew incapacitation in flight in the following circumstances:
 - (i) where an aircraft is operated by a sole pilot;
 - (ii) where a flight is controlled remotely by a sole pilot; or
 - (ii) in case of multi-pilot operation, flight safety was compromised because of a significant increase in workload for remaining crew;
- (o) a fuel quantity level or distribution situations requiring a declaration of an emergency, such as insufficient fuel, fuel exhaustion, fuel starvation, or inability to use all usable fuel on board;
- (p) a runway incursion classified as severity "A" as outlined in Document SA-CATS 12;
- (q) a take-off or landing incident such as under-shooting, overrunning, or running off the side of a runway;
- (r) a system failure which includes loss of power or thrust, weather phenomena, operation outside approved flight envelope, or other occurrence which caused or could have caused difficulty in controlling an aircraft;
- (s) a failure of more than one system in a redundancy system mandatory for flight guidance and navigation;
- (t) an unintentional or, as an emergency measure, an intentional release of a sling load or any other load carried external to an aircraft;
and
- (u) an incident where upon evaluation, no credible defences have been identified in the form of barriers that will mitigate the high probability of an accident occurring.";

(g) the substitution for regulation 12.02.4 of the following regulation:

"Particulars of notification

12.02.4 (1) A notification of an accident or incident shall contain the following particulars:

- (a) identifying abbreviations—
 - (i) for an accident shall be ACCID;
 - (ii) for an incident shall be INCID, and
 - (iii) for a serious incident shall be SINCID;
- (b) manufacturer, model, nationality, registration mark, and serial number of an aircraft;
- (c) name of an owner, operator, or hirer, as the case may be, of an aircraft;
- (d) qualification of a PIC, and nationality of crew and passengers;
- (e) date and time of an accident or incident;
- (f) last point of departure and point of intended landing of an aircraft;
- (g) position of an aircraft with reference to some easily defined geographical point and latitude and longitude;
- (h) number of crew and passengers aboard;
- (i) number of fatalities or seriously injured on board;
- (j) number of persons on the ground who are killed or seriously injured;
- (k) description of an accident or incident and the extent of damage to an aircraft so far as is known;
- (l) physical characteristics of an accident or incident area, as well as an indication of access difficulties or special requirements to reach such area; and
- (m) presence and description of dangerous goods on board an aircraft.

(2) Information that is not available at the time of submitting a notification shall be submitted to the Executive responsible for Aircraft Accident and Incident investigation in writing as soon as such information becomes available.

- (h) the insertion in regulation 12.03.5 after subregulation (2) of the following subregulation:

“(3) When an aircraft involved in an accident or a serious incident lands in a State other than a State of Occurrence, where the Republic is a State of Registry or a State of an Operator, the Executive responsible for Aircraft Accident and Incident investigation shall, on request from a State conducting an investigation, furnish such State with flight recorder records and, if necessary, an associated flight recorder.”;

(i) the substitution for regulation 12.04.3 of the following regulation:

“Control of evidence

12.04.3 (1) An aircraft, a wreck, or wreckage, and anything transported in an aircraft and any marks resulting from an accident which may be of assistance in an investigation, shall remain under the control of an investigator-in-charge until released by such investigator-in-charge.

(2) The Executive responsible for Aircraft Accident and Incident investigation shall arrange for the read-out of a flight recorder without delay.

(3) In the event that the Executive responsible for Aircraft Accident and Incident investigation does not have adequate facilities to read out a flight recorder, the Executive responsible for Aircraft Accident and Incident investigation shall use a facility made available by another State, giving consideration to location, capability, and timeliness of such a read-out facility.”;

(j) the substitution for Subpart 5 of the following Subpart:

“SUBPART 5:

[REPORTING] PRELIMINARY REPORT, FINAL REPORT AND REOPENING OF INVESTIGATION

Preliminary Report

12.05.1 (1) An investigator-in-charge shall, submit a preliminary report on the findings of an investigation in a manner prescribed in Document SA-CATS 12.

(2) The Executive responsible for Aircraft Accident and Incident investigation shall, in respect of an accident involving an aircraft of maximum mass exceeding 2 250 kg, send a copy of a preliminary report to—

- (a) a State of Registry or a State of Occurrence, as appropriate;
- (b) a State of an Operator;
- (c) a State of Design;
- (d) a State of Manufacture;
- (e) any State that provided relevant information, significant facilities, or experts; and
- (f) ICAO.

(3) Notwithstanding the provisions of subregulation (2), if an aircraft involved in an accident is 2 250 kg or less but involves airworthiness or matters considered to be of interest to other States, the Executive responsible for Aircraft Accident and Incident investigation shall send a preliminary report to—

- (a) a State of Registry or a State of Occurrence, as appropriate;
- (b) a State of Operator;
- (c) a State of Design;
- (d) a State of Manufacturer; and
- (e) any State that provided relevant information, significant facilities, or experts.

(4) A preliminary report required to be sent in terms of subregulations (2) and (3) shall—

- (a) be sent by facsimile, e-mail, or airmail, within thirty days of the date of an accident concerned unless an Accident Data Report has been sent by that time;

- (b) be sent by the most suitable and quickest means available, where matters directly affect aviation safety.

Final Report

12.05.1A (1) An investigator-in-charge shall compile a draft final report in a manner prescribed in Document SA-CATS 12 and submit to the Executive responsible for Aircraft Accident and Incident investigation.

(2) The Executive responsible for Aircraft Accident and Incident investigation shall send a copy of a draft final report to—

- (a) State that instituted an investigation, in case such investigation has been instituted by another State;
- (b) a State of Design;
- (c) a State of Manufacture;
- (d) a State of Operator;
- (e) a State of Registry;
- (f) any other State that participated in such investigation;
- (g) an operator, through a State of such operator;
- (h) an organisation responsible for type design and final assembly of an aircraft concerned, through a State of such organisation.

(3) The Executive responsible for Aircraft Accident and Incident investigation shall notify a recipient of a draft final report referred to in subregulation (2) that such a report is submitted solely for comments within a period of 60 days and that sharing of such a report without a written permission is prohibited.

(4) The Executive responsible for Aircraft Accident and Incident investigation shall consider comments on a draft final report received within 60 days and amend, as necessary, such a draft final report to include substance of comments received.

(5) If the Executive responsible for Aircraft Accident and Incident investigation decides not to incorporate any of the comments received, and if so desired by a State that provided such comments, the Executive responsible for Aircraft Accident and Incident investigation shall append such comments to a final report.

(6) The Executive responsible for Aircraft Accident and Incident investigation shall prepare and publish a final report on the findings of an investigation on the Authority website within 12 months from the date of an occurrence.

(7) Where it is not possible to publish a final report within 12 months as prescribed in subregulation (6), the Executive responsible for Aircraft Accident and Incident investigation shall issue an Interim Statement on an anniversary of such occurrence, detailing the progress of an investigation, established factual information, and any safety issue raised.

(8) The Executive responsible for Aircraft Accident and Incident investigation shall send a final report of an investigation, without delay, to—

- (a) a State that instituted an investigation, if such investigation was instituted by another State;
- (b) a State of Registry;
- (c) a State of Operator;
- (d) a State of Design;
- (e) a State of Manufacture;
- (f) a State that participated in an investigation;
- (g) a State whose citizen has suffered fatality or serious injury;
- (h) a State that provided relevant information, significant facility, or expert; and
- (i) ICAO, if an accident or incident involves an aircraft having a maximum mass of greater than 5 700 kg.”;

Appeal against findings in investigation

12.05.2 (1) Any interested person who feels aggrieved by the findings on an investigation may appeal against such findings to the **[Executive responsible for aircraft accident and incident investigation]** Minister, within 60 days after the publication of such findings.

(2) An appellant shall deliver an appeal in writing, stating the reasons why in his or her opinion, the findings should be varied or set aside.

(3) **[The]** An appellant shall submit a copy of **[the]** appeal and any **[documents or records]** document or record supporting such appeal, to the Executive responsible for **[aircraft accident and incident]** Aircraft Accident and Incident investigation and shall furnish proof of such submission **[for the information of]** to the Minister.

(4) The Executive responsible for **[aircraft accident and incident]** Aircraft Accident and Incident investigation shall, within 60 days of receipt of **[the]** a copy of **[the]** appeal referred to in sub-regulation (3), deliver his or her written reply to such appeal to the Minister and an appellant.

(5) The Minister must—

- (a) adjudicate the appeal on the basis of the documents submitted to him or her; or
- (b) order **[the]** an appellant and the **[Executive responsible for aircraft accident and incident]** Executive responsible for Aircraft Accident and Incident investigation to appear before him or her, either in person or through a representative, at a time and place determined by the Minister **[him or her]**, to give evidence.

(6) The Minister **[Executive responsible for aircraft accident and incident investigation]** may confirm, **[vary]** vary, or set aside the findings referred to in sub-regulation (1).

(7) The **[Executive responsible for aircraft accident and incident investigation]** Minister may keep in abeyance an appeal lodged in terms of this Regulation if the **[Executive responsible for aircraft accident and incident investigation is satisfied that the Minister]** President has applied or intends to apply the provisions of section 69 of the Act.

Reopening of investigation

12.05.3 (1) The **[Executive responsible for aircraft accident and incident investigation]** Minister may order the reopening of an investigation if—

- (a) **[of which]** the findings are set aside in terms of subregulation 12.05.2 (6);
- (b) **[if]** new and significant information which indicates that the findings on **[the]** an investigation may be incorrect, becomes available; or
- (c) **[if]** such a reopening is in the interests of aviation safety.

(2) Any investigation reopened in terms of this regulation shall be conducted in accordance with the provisions of Subpart 3.

(3) The **[Executive responsible for aircraft accident and incident investigation]** Minister shall not order the reopening of an investigation in terms of this Regulation if the **[Executive responsible for aircraft accident and incident investigation is satisfied that the Minister]** President has applied or intends to apply the provisions of section 69 of the Act.

(k) the insertion after Subpart 5 of the following Subpart:

“SUBPART 6:
ACCIDENT PREVENTION

Accident Prevention Measures

12.06.1 (1) The Executive responsible for Aircraft Accident and Incident investigation shall establish and maintain an accident and incident database to facilitate the analysis of information on actual or potential safety deficiencies and to determine any preventive action required.

(2) The Executive responsible for Aircraft Accident and Incident investigation shall make an accident and incident database referred to in subregulation (1) accessible for the implementation of the SSP to support safety responsibilities.

(3) The Executive responsible for Aircraft Accident and Incident investigation may include any additional information on which to base a preventive action in a final report on an accident or incident that has been investigated.

(4) The Executive responsible for Aircraft Accident and Incident investigation may, in addition to a safety recommendation arising from accident or incident investigation, issue a safety recommendation resulting from any other source, including a safety study.

Sending of Accident and Incident Data Report to ICAO

12.06.2 (1) The Executive responsible for Aircraft Accident and Incident investigation shall, after concluding an investigation of an accident involving an aircraft having a maximum mass of greater than 2 250 kg, send to ICAO, as soon as is practicable, an Accident Data Report.

(2) The Executive responsible for Aircraft Accident and Incident investigation shall, after conducting an investigation into an incident involving an aircraft having a maximum mass of greater than 5 700 kg, send to ICAO, as soon as is practicable, an Incident Data Report.

Action on safety recommendations

12.06.3 (1) The Executive responsible for Aircraft Accident and Incident investigation shall, upon receipt of a safety recommendation from another State or organisation, implement procedures to monitor progress on action taken in response to such safety recommendation and inform a proposing State or organisation, within 90 days of the date of transmittal of such safety recommendation of a preventive action taken or under consideration.

(2) The Executive responsible for Aircraft Accident and Incident investigation shall, if no preventive action referred to in subregulation (1) is taken, provide reasons as to why no action will be taken.

(3) The Executive responsible for Aircraft Accident and Incident investigation shall biannually, or upon request, provide the Minister with a report on the implementation of safety recommendations arising out of aircraft accident and incident investigation.

(4) The Executive responsible for Aircraft Accident and Incident investigation shall, when issuing a safety recommendation to another State, accident investigation authority of another State, other organisations concerned, or ICAO, during or on completion of an accident or incident investigation—

- (a) address any such safety recommendation in a dated transmittal correspondence;
- (b) suggest any preventative action that he or she considers necessary to be taken promptly to enhance aviation safety; and

(c) indicate in such transmittal that a State or Organisation receiving such recommendation has up to 90 days from the date of transmittal to inform the Executive responsible for Aircraft Accident and Incident investigation of preventative actions taken or planned to be taken.

(5)The Executive responsible for Aircraft Accident and Incident investigation shall implement procedures to record responses received to safety recommendations issued in terms of this Part.

(6)The Executive responsible for Aircraft Accident and Incident investigation shall, when issuing a safety recommendation of global concern, inform ICAO of such safety recommendation and any response thereto in a dated transmittal correspondence, even when such safety recommendation is not addressed to ICAO.”.

Amendment of Part 21 of the Regulations

5. Part 21 of the regulations is hereby amended by—

(a) the substitution for Subpart 2 in the arrangement of regulations of the following Subpart:

SUBPART 2:

TYPE CERTIFICATES

- | | |
|---------|---|
| 21.02.1 | Categories of type certificates |
| 21.02.2 | Application for type certificate or amendment thereof |
| 21.02.3 | Airworthiness design standards |
| 21.02.4 | Type design |
| 21.02.5 | Inspections and tests |
| 21.02.6 | Statements of conformity |
| 21.02.7 | Flight tests |

21.02.8	Issuing of type certificate
21.02.9	Privileges of holder of type certificate
21.02.10	Period of validity
21.02.11	Transferability
21.02.12	Special conditions
21.02.13	Duties of holder of type certificate
<u>21.02.14</u>	<u>Suspension of Type Certificate</u>
<u>21.02.15</u>	<u>Revocation of Type Certificate</u>

- (b) the substitution for Subpart 6 in the arrangements of regulations of the following Subpart:

SUBPART 6:

PRODUCTION UNDER TYPE CERTIFICATE

21.06.1	Production under type certificate
21.06.2	Production inspection system
21.06.3	Tests for aircraft
21.06.4	Tests for aircraft engines
21.06.5	Tests for propellers
21.06.5A	Tests for RPS
21.06.6	Statement of conformity
<u>21.06.7</u>	<u>Republic as State of Design</u>

- (c) the substitution for Subpart 10 in the arrangements of regulations of the following Subpart:

SUBPART 10:

APPROVAL OF PARTS AND APPLIANCES: IMPORT

21.10.1	Approval
<u>21.10.2</u>	<u>Acceptance of Type Certificate</u>

- (a) the substitution for regulation 21.02.11 of the following regulation:

“Transferability

21.02.11(1) If a holder of a type certificate desires to transfer a type certificate to another design organisation such holder shall make an application to the Director in a prescribed form 30 days before the required date of transfer.

(2) An application referred to in subregulation (1) shall be accompanied by:

- (a) certified copy of a type certificate concerned;
- (b) appropriate fee as prescribed in Part 187; and
- (c) proof that a design organisation to which a type certificate is to be transferred has the necessary skills and resources to maintain such type certificate.

(3) In considering an application, the Director may conduct such investigation as is deemed necessary to determine whether—

- (a) the design requirements of a Class I product shall be complied with; and
- (b) a design authority shall be able to meet the appropriate airworthiness requirements in terms of these regulations.

(4) The Director may approve an application for the transfer of a type certificate with such conditions as he or she may deem necessary if the requirements for transfer as set out in Document SA-CATS 21 are met.

(5) The Director may amend a type certificate upon request by a holder thereof if satisfied that the requirements of these regulations are met.

(6) The Director shall notify all Contracting States of a transfer of a type design and the relevant details of an organisation assuming responsibility for a type design and the requirements for continuing airworthiness reporting.”;

- (e) the insertion after regulation 21.02.13 of the following regulations:

“Suspension of Type Certificate

21.02.14 (1) The Director may suspend a type certificate of a Class I product in accordance with Part 185.

(2) The Director shall immediately notify all Contracting States of a suspension of a type certificate specifying—

- (a) the time period of a suspension, if applicable;
- (b) a cause of suspension; and
- (c) any recommended action to be undertaken if a nature of suspension affects airworthiness of a Class I product.

(3) The Director shall establish, with a State of Manufacture, where a State of Manufacture is a foreign State, any actions necessary to address the airworthiness responsibilities under an established agreement.

(4) The Director shall notify a State of Design of a suspension of a type acceptance certificate.

(5) The Director shall notify Contracting States, on a regular basis, on the status of a suspension and reinstatement of a type certificate.

Revocation of Type Certificate

21.02.15 (1) The Director may revoke a type certificate as prescribed in Document SA CATS 21.

(2) If the Director revokes a type certificate, he or she shall—

- (a) provide reasons in writing for such revocation;

(b) provide reasonable notice and guidance to a State of Registry that will be assuming ultimate responsibility for continued airworthiness of orphaned aircraft on their civil aviation aircraft register.

(3) The Director shall not be required to fulfil the requirements of subregulation (2) where there is an immediate safety risk to an aircraft type.

(4) The Director shall notify all Contracting States, of a revocation of a type certificate.”;

(f) the insertion after regulation 21.06.6 of the following regulation:

“Republic as State of Design

21.06.7 (1)If the Republic is a State of Design but not a State of Manufacture, the Director shall ensure that an agreement is concluded between the Republic and such State of Manufacture to—

- (a) ensure that a manufacturing organisation concerned has right of access to approved design data relevant for production purposes;
- (b) address the responsibilities of each State with regard to design, manufacture, and continuing airworthiness of a Class I product during the period of such agreement including such period when a State of Design takes action to suspend in whole or in part a type certificate of an affected aircraft type; and
- (c) terminate a production approval under this Part when a State of Design revokes a type certificate corresponding to a particular aircraft type.”;

(g) the insertion after regulation 21.10.1 of the following regulation:

“Acceptance of Type Certificate

21.10.2 (1) A person who wishes to import into the Republic a first example of a Class 1 product shall make an application to the Director in a prescribed form for a type acceptance certificate.

(2) The Director may issue a type acceptance certificate for a Class I product manufactured in a foreign State if—

- (a) such a foreign State has entered into an agreement with the Republic for acceptance and recognition of certificates for export and import of Class I product into the Republic;
- (b) an applicable type certificate holder shows compliance to requirements for a type acceptance certificate as stipulated in Subpart 4 of this Part; and
- (c) the Authority is authorised to conduct necessary technical assessments and evaluations of such a foreign State's civil aviation authority.

(3) The Director may request technical data for a Class I product for the purpose of acceptance of such a product.”.

Amendment of Part 34 of the Regulations

6. Part 34 of the regulations is hereby amended by—

- (a) the substitution for Subpart 2 in the arrangements of regulations of the following Subpart:

“SUBPART 2:

AIRCRAFT EMISSIONS CERTIFICATION

- 34.02.1 Fuel venting standards
- 34.02.2 Aircraft engine emission standards
- 34.02.3 Aircraft engine emission evaluation methods

34.02.4 Aeroplane CO₂ emission standards

34.02.5 Aeroplane CO₂ emission standards methods.”.

(b) the substitution for regulation 34.01.1 of the following regulation:

“Applicability

34.01.1 This Part applies—

- (a) in respect of fuel venting, to turbine engine powered aircraft manufactured after 18 February 1982; **[and]**
- (b) in respect of engine emissions, to aircraft with—
 - (i) turbo-jet **[and]** or turbofan engines intended for propulsion only at subsonic speeds; and
 - (ii) turbo-jet and turbofan engines intended for propulsion at supersonic speeds, of which the date of manufacture is **[on or after]** 18 February 1982 or later;
- (c) in respect of non-volatile particulate matter emissions, to aircraft with turbo-jet or turbofan engines intended for propulsion only at subsonic speeds, manufactured on or after 1 January 2020;
- (d) to aeroplane CO₂ emissions produced by—
 - (i) a subsonic jet aeroplane having an MTOM of greater than 5 700 kg for which an application for a type certificate was submitted not earlier than 1 January 2023;
 - (ii) a propeller-driven aeroplane, having an MTOM of greater than 8 618 kg, for which an application for a type certificate was submitted not earlier than 1 January 2020;
 - (iii) a derived version of non-CO₂-certified subsonic jet aeroplane having an MCTOM of greater than 5 700 kg for which an application for certification of a change in type design was submitted not earlier than 1 January 2023;
 - (iv) a derived version of non-CO₂ certified propeller-driven aeroplane

having an MCTOM of greater than 8 618 kg for which an application for certification of a change in type design was submitted not earlier than 1 January 2023;

- (v) an individual non-CO₂-certified subsonic jet aeroplane having an MCTOM of greater than 5 700 kg first issued with a certificate of airworthiness not earlier than 1 January 2028; and
- (vi) an individual non-CO₂-certified propeller-driven aeroplane having an MCTOM of greater than 8 618 kg first issued with a certificate of airworthiness not earlier than 1 January 2028.”;

(c) the deletion for subregulation (2) in regulation 34.02.2.

(d) the substitution for regulation 34.02.3 of the following regulation:

“34.02.3 (1) The methods for **[the]** evaluation of aircraft engine and non-volatile particulate matter emissions are prescribed in Document SA-CATS 34.”;

(e) the insertion after regulation 34.02.3 of the following regulations:

“Aeroplane CO₂ emission standards

34.02.4 (1) An aircraft or engine shall comply with appropriate aeroplane CO₂ emission standards as prescribed in Document SA-CATS 34 in order for type of aircraft or engine to be issued, in terms of Part 21, with a—

- (a) type certificate;
- (b) type acceptance certificate; or
- (c) a standard category certificate of airworthiness.

(2) An application for amendment of any certificate referred to in subregulation (1) shall be accompanied by a declaration or a proof acceptable to the Director that such aircraft or engine complies with appropriate aeroplane CO₂ emission standards as prescribed in Document SA-CATS 34.

Aeroplane CO₂ emission standards evaluation method

34.02.5 The method for the evaluation of aeroplane CO₂ emissions is prescribed in Document SA-CATS 34.”.

Amendment of Part 36 of the Regulations

7. Part 36 of the regulations is hereby amended by the substitution for regulation 36.01.1 of the following regulation:

“**36.01.1** This Part applies to a—

- (a) subsonic jet [**aeroplanes**] aeroplane;
- (b) supersonic [**aeroplanes**] aeroplane;
- (c) propeller driven [**aeroplanes**] aeroplane;
- (d) [**propeller-driven STOL**] [**aeroplanes**] aeroplane; and
- (e) [**helicopters**] helicopter [.]; and
- (f) tilt-rotor aircraft.”.

Amendment of Part 91 of the Regulations

8. Part 91 of the regulations is hereby amended by—

- (a) the substitution in regulation 91.04.10 for subregulation (10) of the following subregulation:

“(10) A CVR or CARS required by this regulation shall meet the specific recorded information time as prescribed in Document SA-CATS 91.”;

- (b) the substitution for regulation 91.04.31 of the following regulation:

“**91.04.31** (1) An aircraft shall not enter an RVSM airspace unless—

- (a) such aircraft has a valid RVSM specific approval issued by the Director as prescribed in the Document SA-CATS 91;
- (b) [unless the prescribed] its minimum RVSM equipment as specified in an approved MEL is serviceable; [and]
- (c) [unless the] its flight crew has successfully completed [the] RVSM training as prescribed in Document SA-CATS 91; and
- (d) such aircraft is operated as provided in an ATSU clearance to climb or descend through RVSM airspace to or from levels above RVSM flight level band.

(2) The requirements for the issue of an RVSM specific approval, including minimum equipment, maintenance, and crew training requirements, are specified in Document SA-CATS 91.

(3) The Director shall issue an RVSM specific approval only if the Director is satisfied that—

- (a) vertical navigation performance capability of an aircraft satisfies the requirements specified in Document SA-CATS 91;
- (b) an aircraft owner or operator has instituted appropriate procedures in respect of continued airworthiness, maintenance, and repair practices and programmes;
- (c) an aircraft owner or operator has instituted appropriate flight crew procedures for operation in RVSM airspace;
- (d) an aircraft is provided with equipment which is capable of—
 - (i) indicating, to a flight crew, a flight level being flown;
 - (ii) automatically maintaining a selected flight level;
 - (iii) providing an alert to flight crew when a deviation occurs from a selected flight level;
 - (iv) calibration of an alert system threshold which shall not exceed an approximate height of 300 ft;

- (v) automatically reporting pressure-altitude; and
- (e) in the event of the failure of one item of equipment at any stage of a flight, the remaining equipment will enable an aircraft to navigate in accordance with RVSM.

(4) In considering an application for an RVSM specific approval, the Director may conduct an investigation deemed necessary to ascertain **[that the applicant has complied]** compliance with the requirements for RVSM operations prescribed in Document SA-CATS 91 **[for RVSM operations]**.

(5) If the Director is not so satisfied with compliance referred to in subregulation (4) the Director shall notify an applicant for a concerned RVSM specific approval of the reasons for such dissatisfaction, and grant such applicant an opportunity to rectify any shortcoming within a determined period, after which period the Director may grant or refuse an application concerned.

(6) If the Director is satisfied that an applicant has complied with the relevant requirements, the Director shall issue an RVSM specific approval in the format as prescribed in Document SA-CATS 91.

(7) The Director shall maintain a register of all RVSM specific approvals issued in terms of this regulation.

(8) A register of RVSM specific approvals shall contain the following particulars, which shall be recorded in the register within 30 days from the date of issue of an RVSM specific approval:

- (a) make, model, and registration marks of an aircraft;
- (b) full names of owner of an aircraft or names of an air service licence holder and an air service licence number, where applicable;
- (c) postal address of an RVSM specific approval holder; and
- (d) date on which an RVSM specific approval was issued.

(9) A register of RVSM specific approval shall be kept in a safe place at the office of the Director or at a location approved by the Director.

(10) A copy of a register of RVSM specific approval shall be furnished to a person who requests such copy upon payment of the appropriate fee as prescribed in Part 187.

(11) A duplicate of RVSM specific approval may be issued upon application thereof by a holder of such RVSM specific approval or by an AMO approved under Part 145 and responsible for the servicing and maintenance of a concerned aircraft.

(12) An application for a duplicate RVSM specific approval shall—

(a) be made in the appropriate form as prescribed in Document SA-CATS 91; and

(b) be accompanied by—

(i) data package referred to in Document SA-CATS 91; and

(ii) the appropriate fee as prescribed in Part 187.

(13) A holder of an RVSM specific approval shall—

(a) report any occurrence involving poor height-keeping in an RVSM environment as specified in Document SA-CATS 91 within 24 hours; and

(b) make an effective, timely response to each height-keeping error.

(14) An aircraft owner or operator authorised to operate in RVSM airspace shall ensure that as a minimum each aircraft type grouping of its fleet shall have their height-keeping performance monitored as defined in Document SA-CATS 91 at least once every two years or within intervals of 1 000 flight hours per aircraft, whichever period is longer.

(15) An aircraft owner or operator found to be operating in an RVSM airspace,

within or outside the Republic, without a valid specific approval shall be subjected to enforcement action”.

(c) the substitution for regulation 91.07.3 of the following regulation:

“91.07.3 (1) A person shall neither select nor authorise a selection of an aerodrome for use as a destination or destination alternate aerodrome, unless such aerodrome is properly licensed in terms of Part 139 and is determined to be adequate for a type of aircraft and operation concerned.

(2) Except in an emergency, **[no pilot of]** an aircraft shall not take-off or land by night, unless **[the]** a place of take-off or landing is equipped with night flying facilities.”.

Amendment of Part 93 of the Regulations

9. Part 93 of the regulations is hereby amended by the insertion after regulation 93.07.24 of the following regulation:

“RVSM

93.07.24A (1) A CAO shall not operate in an RVSM airspace unless such CAO—

- (a) is authorised to do so by means of a specific approval; and
- (b) complies with the requirements prescribed in regulation 91.04.31

(2) A CAO authorised to operate in an RVSM airspace shall ensure that a minimum of two aeroplanes of each fleet type have their height-keeping performance monitored at least once every 2 years or at least within intervals of 1 000 flight hours per aircraft, whichever period is longer: Provided that, if an operator’s aircraft fleet consists of a single aeroplane, monitoring of that aircraft shall be accomplished within a period specified in aircraft documentation.

(3) The height-keeping performance monitoring requirements required in subregulation (2) may be met using data obtained from any air traffic services regional monitoring programme.”.

Amendment of Part 121 of the Regulations

10. Part 121 of the regulations is hereby amended by the substitution for regulation 121.07.27 of the following regulation:

“RVSM

121.07.27 (1) An air service operator shall not operate in RVSM airspace unless such operator–

- (a) is authorised to do so by means of an RVSM specific approval; and
- (b) complies with the requirements prescribed in regulation 91.04.31.

(2) An air service operator authorised to operate in RVSM airspace shall ensure that a minimum of two aircraft of each aircraft type in its fleet have their height-keeping performance monitored at least once every two years or at least within intervals of 1 000 flight hours per aircraft, whichever period is longer: Provided that, if an operator’s aircraft fleet consists of a single aircraft, monitoring of that aircraft shall be accomplished within a period specified in such aircraft documentation.

(3) The height-keeping performance monitoring requirements specified in subregulation (2) may be met using data obtained from any air traffic services regional monitoring programme.”.

Amendment of Part 135 of the Regulations

11. Part 135 is hereby amended by the substitution for regulation 135.07.31 of the following regulation:

“RVSM

135.07.31 (1) An air service operator shall not operate in RVSM airspace unless such operator–

- (a) is authorised to do so in its operation specification by means of an RVSM specific approval; and
- (b) complies with the requirements stipulated in regulation 91.04.31.

(2) An air service operator authorised to operate in an RVSM airspace shall ensure that a minimum of two aeroplanes of each aeroplane type grouping of its fleet, have their height-keeping performance monitored at least once every two years or within intervals of 1 000 flight hours per aeroplane, whichever period is longer: Provided that, if an operator’s aeroplane type grouping consists of a single aeroplane, monitoring of that aeroplane shall be accomplished within a period specified in such aircraft documentation.

(3) The height-keeping performance monitoring requirements specified in subregulation (2) may be met through the use of data obtained from any air traffic services regional monitoring programme.”.

Amendment of Part 139 of the Regulations

12. Part 139 of the regulations is hereby amended by the insertion in regulation 139.01.18 after subregulation (5) of the following subregulation:

“(6) An apron management service shall visually monitor an aircraft stand as prescribed in Document SA-CATS 139, to ensure that the required clearance distances are complied with by aircraft using such a stand.”.

Amendment of Part 140 of the Regulations

13. Part 140 of the regulations is hereby amended by:

(a) the substitution for Subpart 1 in the arrangements of regulations of the following Subpart:

“SUBPART 1:

SAFETY MANAGEMENT SYSTEM

- 140.01.1 Applicability
- 140.01.2 **[Establishment of safety management system] SMS**
- 140.01.3 Requirements of **[safety management system] SMS**
- 140.01.4 Training requirement
- 140.01.5 In-house Training.”;

(b) the substitution for Subpart 2 in the arrangements of regulations of the following Subpart:

“SUBPART 2:

SAFETY DATA AND SAFETY [INFORMATION] DATA COLLECTION [SYSTEMS], ANALYSIS, PROTECTION, SHARING AND EXCHANGE

- 140.02.1 Safety data collection and processing systems
- 140.02.2 Mandatory occurrence reporting
- 140.02.3 Safety data and safety information protection
- 140.02.4 Safety data and safety information analysis

140.02.5 Safety information sharing exchange.”;

(c) the substitution for regulation 140.01.1 of the following regulation:

“**140.01.1** (1) This Part applies to—

- (a) a holder of a category 4 or higher aerodrome licence issued in terms of Part 139 where commercial activities take place;
- (b) a holder of an ATO approval issued in terms of Part 141 **[that is exposed to safety risks related to]** conducting aircraft operations **[during the provisions of the services for flight activities]** excluding DTOs;
- (c) a holder of an AMO approval issued in terms of Part 145 providing services for commercial air transport operators and ATOs **[that provides services to holders of AOC issued in terms of Parts 121, 127 or 135]**;
- (d) an organisation approved in terms of Part 148 responsible for manufacturing of aircraft, engine, or propeller **[approved in terms of Part 148]**;
- (e) a holder of an ATSU approval issued in terms of Part 172;
- (f) an organisation approved in terms of Part 147 responsible for **[the]** type design of aircraft, engine, or propeller **[etc approved in terms of Part 147]; [and]**
- (g) a holder of an operating certificate issued in terms of Part 93, 121, 127, 128, **[or]** 135, 136, 137, or 138;
- (h) a holder of a procedure design organisation approval issued in terms of Part 173;
- (i) an organisation handling dangerous goods to be conveyed by air in terms of Part 92;
- (j) Part 93 operator of a large or turbo jet aircraft;
- (k) a holder of an operating certificate issued in terms of Part 96;

- (l) a holder of an electronic services organisation approval issued in terms of Part 171; and
 - (m) a holder of a ROC who has established an SMS as prescribed in Part 101.”;
- (d) the substitution in regulation 140.01.2 for subregulations (1) and (2) of the following subregulations:

“Establishment of [safety management system] SMS

140.01.2 (1) An entity referred to in regulation 140.01.1 shall—

- (a) establish **[a safety management system]** an SMS as prescribed in Document SA-CATS 140, that is commensurate with **[the size, scope and complexity of its operation]** such entity’s system description;
- (b) develop and submit an SMS manual for the approval of Director either as part of its operations manual or a standalone document as prescribed in Document SA-CATS 140;
- (c) ensure the designation of an accountable manager who **[, irrespective of other functions,]** shall have ultimate responsibility and accountability for the implementation and continued effectiveness of **[the]** SMS;
- (d) appoint a safety manager who shall be suitably qualified to perform functions as prescribed in Document SA-CATS 140;
- (e) ensure that **[the]** a safety manager is directly accountable to **[the]** an accountable manager for the implementation and administration of **[the]** SMS;
- (f) establish **[SRC]** an SRB whose composition and functions are prescribed in Document SA CATS; **[to monitor the effectiveness of the SMS. The composition and functions of the SRC are prescribed in Document SA-CATS 140];**

- (g) establish a SAG to oversee the implementation of SMS whose composition and functions are prescribed in Document SA-CATS 140; **[and]**
- (h) have a process for conducting periodic scheduled reviews or audits of **[the safety management system.]** SMS; and
- (i) develop and submit an implementation plan to the Director.

(2) **[A person responsible for operations and or maintenance]** An accountable manager shall be responsible for the final development and implementation of **[all]** a corrective action **[plans]** plan arising out of **[the corrective recommendation]** audit findings in a manner that will ensure the timely resolution of a safety issue **[issues at an acceptable level levels].**”;

- (e) the substitution for regulation 140.01.3 of the following regulation:

“Requirements of [safety management system] SMS

140.01.3 (1) An entity referred to in regulation 140.01.1 shall include in its **[safety management system] SMS** the following components and elements—

- (a) safety policy and objectives—
 - (i) management commitment **[and responsibility]**;
 - (ii) safety **[accountabilities]** accountability and responsibilities;
 - (iii) appointment of key safety personnel;
 - (iv) coordination of emergency response planning; and
 - (v) SMS documentation.
- (b) safety risk management—
 - (i) hazard identification; and
 - (ii) safety risk assessment and mitigation.
- (c) safety assurance—
 - (i) safety performance monitoring and measurement;
 - (ii) management of change; and

- (iii) continuous improvement of the SMS.
- (d) safety promotion—
 - (i) training and education; and
 - (ii) safety communication.

(2) An **[entity referred to in regulation 140.01.1(2)]** operator of an aircraft having an MCTOW of greater than 27 000 kg shall **[at least include the following components and elements]** ensure that its SMS includes—

- (a) a **[process to identify actual and potential safety hazards and assess the associated risks]** confidential flight data analysis programme which is non-punitive;
- (b) a **[process to develop and implement remedial action necessary to maintain an acceptable level of safety]** procedure for analysis of data obtained from a programme referred to in paragraph (a); and
- (c) **[provision for continuous and regular assessment of the appropriateness and effectiveness of safety management activities]** a LOSA programme to identify hazards and unsafe events.

(3) A holder of an ATSU approval shall make use of suitable methods, which may include the NOSS, to identify hazards and unsafe events.

[(4) A holder of an air traffic service unit approval shall make use of the NOSS to identify hazards and unsafe events.];

- (f) the substitution for regulation 140.01.4 of the following regulation:

“140.01.4 (1) [Any] Training on [safety management system] SMS shall be conducted by—

- (a) an ATO approved by the Director in terms of Part 141, which has SMS included as part of their scope of approval;

- (b) an ATO approved by an appropriate authority of a contracting State and acceptable to the Director; or
- (c) an international organisation whose training syllabus has been accepted by the Director as prescribed in Document SA-CATS 140.

(2) The Director shall publish **[the]** SMS training syllabus on the Authority website.”;

- (g) the insertion after regulation 140.01.4 of the following regulation:

“In-house Training

140.01.5 (1) Notwithstanding the provisions of regulation 140.01.4, a company may conduct in-house training as prescribed in Document SA-CATS 140.

(2) An in-house training referred to in subregulation (1) shall be conducted by a company designated instructor.”;

- (h) the substitution for regulation 140.02.1 of the following regulation:

“SUBPART 2:

SAFETY DATA AND SAFETY [INFORMATION] DATA COLLECTION [SYSTEMS], ANALYSIS, PROTECTION, SHARING AND EXCHANGE

Safety data collection and processing systems

140.02.1 (1) The Director and **[each of the entities]** an entity referred to in regulation 140.01.1 shall each establish—

- (a) a mandatory **[incident] safety** reporting system **[to facilitate the collection of information on actual or potential safety deficiencies]** that includes the reporting of incidents;

- (b) a voluntary safety reporting system to **[facilitate the collection of information on actual or potential safety deficiencies that may not be captured by the mandatory incident reporting system; and]** collect safety data and safety information not captured by a mandatory safety reporting system; [and]
- (c) a confidential safety reporting system to facilitate the collection of information on actual or potential safety deficiencies that may not be captured by a mandatory or voluntary safety reporting [systems.];system and
- (d) SDCPS to capture, store, aggregate and enable the analysis of safety data and safety information, as prescribed in Document SA-CATS 140.

(2) With approval of the Director, a small and less complex entity may put in place a simplified mechanism for the collection, evaluation, processing, **[analysis]** analysis, and storage of details of occurrences **[.The entity]** and may share those tasks with other entities of the same nature, while complying with the rules on confidentiality and protection pursuant to this regulation.

(3)**[No information]** Information obtained under **[the]** a voluntary reporting system shall not be used against a person reporting in any disciplinary, or legal proceeding, or any other proceeding [proceedings] relating to the capacity or competence of such person.

(4) An SDCPS referred to in subregulation (1), shall be made available to the Authority and shall be in accordance with the principles for the protection of safety data, safety information, and related source, as prescribed in Document SA-CATS 140.

(5) A safety database shall be used to facilitate safety information sharing and exchange as specified in Document SA-CATS 140.”;

- (i) the substitution for regulation 140.02.2 of the following regulation:

“140.02.2 (1) An entity referred to in regulation 140.01.1 shall report aviation accidents, incidents, hazards, and other safety related occurrences to the Director, according to the timelines prescribed in Document SA-CATS 140[, **aviation accidents, incidents, hazards and other safety related occurrences**].

(2) **[Any]** A person involved in an accident or incident, or observing any accident, incident, **[hazard]** hazard, or discrepancy that may affect aviation safety, shall notify the Authority.

(3) The Director shall publish occurrences which may present a significant risk to aviation safety.

(4) **[A]** The form and manner of reporting an accident, incident, **[hazard or discrepancy]** or occurrence shall be as prescribed in Document SA-CATS 140.”;

- (j) the substitution for regulation 140.02.3 of the following regulation:

“Safety data and safety information analysis

140.02.3(1) **[The handling of safety]** Safety data collected through safety data collection and processing systems shall be **[done]** handled with a view to preventing the use of information for purposes other than safety and **[shall]** to appropriately safeguard the confidentiality of the identity of **[the person]** a person making **[the report]** a report and of the persons mentioned in an occurrence report **[occurrence reports]**, with a view to promoting a just culture **[“just culture”]**.

(2) The Director and an entity referred to in regulation 140.01.1 shall protect the confidentiality of safety data captured by and safety information derived from mandatory, confidential, and voluntary safety reporting systems and related sources in accordance with Document SA-CATS 140.

(3) The Director and an entity referred to in regulation 140.01.1 shall process personal data only to the extent necessary for the purposes of this regulation and in compliance with national legislation dealing with the protection of personal information.

(4) Subject to subregulations (1) and (2), the Director and an entity referred to in regulation 140.01.1 shall not make available or use safety data or safety information collected, stored, or analysed in accordance with regulations 140.02.1 and 140.02.04 for purposes other than maintaining or improving safety, unless a principle of exception applies as prescribed Document SA-CATS 140.

(5) Notwithstanding the provisions of subregulation (4), the Director and an entity referred to in regulation 140.01.1 shall not be prevented from using safety data or safety information to take any preventative, corrective, or remedial action that is necessary to maintain or improve aviation safety.

(6) The Director and an entity referred to in regulation 140.01.1 shall take necessary measures, including promotion of a positive safety culture to encourage safety reporting through the systems referred to in regulation 140.02.1.

(7) The Director shall institute and make use of appropriate advance arrangements with State bodies entrusted with the administration of justice and such arrangements should take into account the principles for the protection of safety data, safety information, and related sources as prescribed in Document SA-CATS 140.”;

(k) the substitution for regulation 140.02.4 of the following regulation:

“Safety data and safety information analyses

140.02.4 (1) The Director shall establish and maintain a process to analyse safety data and safety information from safety data collection and processing systems and associated safety databases to identify systematic and cross cutting hazards.

(2) An entity referred to in regulation 140.01.1 shall establish and maintain a process to analyse safety data and safety information from safety data collection and processing systems and associated safety databases to determine actions required for enhancement of safety.

(3) An entity referred to in regulation 140.01.1 shall submit aviation safety performance indicators and targets to the Director, in which an acceptable level of safety shall be commensurate with **[the size, scope and complexity]** such entity's system description and shall be acceptable to the Director.

(4) The Director and **[any entity]** an entity referred to in regulation 140.01.1 shall each establish a process for—

- (a) identifying hazards and occurrences to aviation safety and for evaluating and managing the associated risks;
- (b) internal reporting and analysing of hazards and occurrences for developing remedial action plans for the timely resolution of all identified safety hazards and incidents; and
- (c) early alerting of the persons responsible for operations or maintenance about known or suspected hazards and occurrences that would require immediate safety resolution action to be taken through the operational or maintenance control systems.”;

(l) the substitution for regulation 140.02.5 of the following regulation:

“Safety information sharing and exchange

140.02.5 (1) If the Director, in the analysis of information contained in the Authority's SDCPS, identifies safety matters considered to be of interest to other States, the Director shall forward such safety information to such States as soon as possible.

(2) Prior to sharing the safety information contemplated in subregulation (1), the Director and a State concerned shall agree on the level of protection and conditions on which safety information will be shared.

(3) The Director shall establish safety information sharing or exchange networks with stakeholders within the aviation industry and shall facilitate sharing and exchange of such information within the limitation of the law.

(4) An entity referred to in regulation 140.01.1 shall establish a safety information sharing or exchange network with employees and service providers within its operations and shall facilitate sharing and exchange of information within the limitation of the law."

Amendment of Part 172 of the Regulations

14. Part 172 of the regulations is hereby amended by—

(a) the substitution for regulation 172.02.3 of the following regulation:

"**172.02.3** The Director shall, when designating a particular portion of an airspace as a control zone in terms of regulation 172.02.1, prescribe the horizontal and vertical limits of such area in accordance with requirements prescribed in Document SA-CATS 172."

(b) the substitution in regulation 172.03.21 for subregulation (7) of the following subregulation:

“(7) A service provider shall establish a duty period scheme that ensures that ATC and air traffic service assistants are aware of the principles and policies on fatigue management.”.

Short title and commencement

15. The regulations are called the Twenty-Fifth Amendment of the Civil Aviation Regulations, 2023 and shall come into operation on date of publication thereof in the Government Gazette.

DEPARTMENT OF TRANSPORT

NO. R. 3170

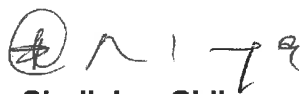
17 March 2023

CIVIL AVIATION ACT, 2009 (ACT NO. 13 of 2009)

TWENTY - SIXTH AMENDMENT OF THE CIVIL AVIATION REGULATIONS, 2023

(The English Text is the official text of the Regulations)

I, Sindisiwe Chikunga, Minister of Transport, hereby, in terms of section 155(1) of the Civil Aviation Act, 2009 (Act No. 13 of 2009), make the Regulations set out in the Schedule hereunder.



Ms Sindisiwe Chikunga, MP
Minister of Transport

Date: 2023/03/17

SCHEDULE

CIVIL AVIATION ACT, 2009 (ACT NO. 13 OF 2009)

TWENTY-SIXTH AMENDMENT OF THE CIVIL AVIATION REGULATIONS, 2023

GENERAL EXPLANATORY NOTE:

[] Words in bold type in square brackets indicate omissions from existing regulations.

_____ Words underlined with a solid line indicate insertions in existing regulations.

Interpretation

In this Schedule “the Regulations” means the Civil Aviation Regulations, 2011 published by Government Notice No. R. 425 dated 1 June 2012, as amended.

Amendment of Part 1 of the Regulations

1. Regulation 1.01.1 of the regulations is hereby amended by—
 - (a) the insertion after the definition of “acts of unlawful interference” of the following definition:

“‘**adapted competency model**’ means a group of competencies with their associated description and performance criteria adapted from an ICAO competency framework that an organisation uses to develop competency-based training and assessment for a given role;”;

- (b) the insertion after the definition of “aeronautical fixed service” of the following definition:

“‘aeronautical fixed telecommunication network’ means a worldwide system of aeronautical fixed circuits provided, as part of aeronautical fixed service, for exchange of messages or digital data between aeronautical fixed stations having the same or compatible communications characteristics;”

- (c) the substitution for the definition of “airworthy” of the following definition:

“‘airworthy’ means—

- (a) **[that] a status of** an aircraft, RPS, engine, propeller, **[rotor or aircraft] or aircraft** part when it conforms to its approved design and is in a condition for safe operation; and
- (b) when used in relation to an aircraft, that an aircraft is serviceable and meets all the requirements prescribed for the **[issuing]issuance** of a certificate of airworthiness and such other requirements as have been prescribed for the continuing validity of such a certificate;”

- (d) the substitution for the definition of “anticipated operating conditions” of the following definition:

“‘anticipated operating condition’ means a condition which is known from experience or which can be reasonably envisaged to occur during an operational life of an aircraft or RPS taking into account the operations for which an aircraft or RPS is eligible for any condition so considered being relative to the meteorological state of the atmosphere, to the configuration of terrain, to the functioning of [the] an aircraft or RPS, to the efficiency of personnel and to all the factors affecting safety in flight, excluding those extremes which—

- (a) can be effectively avoided by means of operating procedures; and

- (b) occur so infrequently that to require the applicable Standards to be met in such extremes would give a higher level of airworthiness than experience has shown to be necessary and practical;”;
- (e) the insertion after the definition of “approved person” of the following definition:
- “‘**approved test centre**’ means a facility approved in terms of Part 66 to conduct skills test;”;
- (f) the insertion after the definition of “aviation recreation” of the following definition:
- “‘**aviation security**’ means the safeguarding of aviation against acts of unlawful interference, the objective of which is achieved by a combination of measures and human and material resources;”;
- (g) the substitution for the definition of “Class I product” of the following definition:
- “‘**Class I product**’ means a complete aircraft, aircraft engine, RPS, or a propeller, which has been type certificated or is identical to a product type certificated in accordance with the provisions of these regulations;”;
- (h) the insertion after the definition of “cloud ceiling” of the following definition:
- “‘**cloud of operational significance**’ means a cloud with the height of cloud base below 5 000 ft or below the highest minimum sector altitude, whichever is greater, or a cumulonimbus cloud or a towering cumulus cloud at any height;”;
- (i) the deletion for the definition of “Command and control link’;”
- (j) the insertion after the definition of “Combined Vision System (CVS)” of the following definition:

“**command and control C2 Link**’ means data link between a remotely piloted aircraft and a remote pilot station for the purposes of managing a flight;”;

- (k) the substitution for the definition of “competency” of the following definition:

“**Competency**’ means a dimension of human performance that is used to reliably predict successful performance on the job and such competency is manifested and observed through behaviours that demonstrate the relevant knowledge, skills and attitudes to carry out activities or tasks under specified conditions;”;

- (l) the insertion after the definition of “competency” of the following definition:

“**Competency-based training and assessment**’ means training and assessment that are characterized by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards;”;

- (m) the insertion after the definition of “competency element” of the following definition:

“**Competency standard**’ means a level of performance that is defined as acceptable when assessing whether or not competency has been achieved;”;

- (n) the substitution for the definition of “continuing airworthiness” of the following definition:

“**continuing airworthiness**’ means the processes by which an aircraft, RPS, engine, propeller, or aircraft part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating **[lift]life**;”;

- (o) the insertion after the definition of “controller-pilot data link communications” of the following definition:

“‘**control station**’ means a point on the ground whose position and elevation is used as a basis for obtaining positions and elevations of other points and includes PACS and SACS established in the vicinity of an airport;”;

- (p) the insertion after the definition of “data link-automatic terminal information service (D-ATIS’)” of the following definition:

“‘**data link-VOLMET**’ means provision of current METAR, SPECI, TAF, SIGMET, special air-reports not covered by a SIGMET, and where available, AIRMET via data link;”;

- (q) the substitution for the definition “data quality” of the following definition:

“‘**data quality**’ means a degree or level of confidence that the data provided meets the requirements of [the] a data user in terms of accuracy, resolution and integrity or equivalent assurance level, traceability, timeliness, completeness and format;”;

- (r) the deletion for the definition of “‘decision altitude/height’;”

- (s) the insertion after the definition of “day off” for the following definitions:

“‘**decision altitude**’ means a specified altitude in a 3D instrument approach operation at which a missed approach shall be initiated if the required visual reference to continue the approach has not been established;”;

‘**decision height**’ means a specified height in a 3D instrument approach operation at which a missed approach shall be initiated if the required visual reference to continue the approach has not been established;”;

- (t) the insertion after the definition of “elevated heliport” of the following definition:

“‘**elevated helistop**’ means a helistop located on a raised structure;”;

- (u) the insertion after the definition of “engine” of the following definition:

“‘**Engineering Designated Examiner**’ means a designated examiner in relation to Part 66 for licensing purpose”;

- (v) the substitution for the definition of “flight crew member” of the following definition:

“‘**flight crew member**’ means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period”;

- (w) the insertion after the definition of “flight deck” of the following definition:

“‘**flight documentation**’ when used in meteorological context, means written, printed, or electronic documents, including charts or forms, containing meteorological information for a flight”;

- (x) the substitution for the definition of “flight time” of the following definition:

“‘**flight time**’ means—

(a) for operation of an aeroplane, the total time from a moment an aeroplane first moves for the purposes of taking off until a moment it finally comes to rest at the end of a flight;

Note.—Flight time as defined here is synonymous with the term “block to block” time or “chock to chock” time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of a flight.

(b) for helicopter operation, a total time from a moment a helicopter’s rotor blades start turning until a moment such helicopter finally comes to rest at the end of a flight and the rotor blades are stopped;

(c) for glider operation, the total time occupied in flight, whether being towed or not, from a moment a glider first moves for a purpose of taking off until a moment it comes to rest at the end of a flight; and

(d) for RPAS, the total time from a moment a C2 Link is established between a remote pilot station and an RPA for the purpose of taking off or from a moment a remote pilot receives control following a handover until a moment such remote pilot completes a handover of a C2 Link between an RPS and an RPA is terminated at the end of a flight;”;

- (y) the insertion after the definition of “follow-on GNSS equipment” of the following definition:

“‘**FOR_c**’ means an aeroplane operator’s total final offsetting requirements in the given CORSIA compliance period;”;

- (z) the insertion after the definition of “GNSS sensor” of the following definition:

“‘**grid point data in digital form**’ means a computer processed meteorological data for a set of regularly spaced points on a chart, for transmission from a meteorological computer to another computer in a code form suitable for automated use;”;

- (aa) the insertion after the definition of “handicapped passenger” of the following definition:

“‘**handover**’ means—

(a) an act of transferring control, including associated responsibility from one controlling entity or person to another; or

(b) an act of passing piloting control from one remote pilot station to another;”;

- (bb) the insertion after the definition of “heliport operating *minima*” of the following definition:

“‘**helistop**’ means a minimally developed defined area intended to be used for arrival and departure of a helicopter without auxiliary facilities;”;

- (cc) the insertion after the definition of “human performance” of the following definition:

“‘**ICAO competency framework**’ means a competency framework, developed by ICAO, consisting of a selected group of competencies for a given aviation discipline where each competency has an associated description and observable behaviours;”;

- (dd) the insertion after the definition of “ICAO flight plan form” of the following definition:

“‘**ICAO meteorological information exchange model**’ means a data model for representing aeronautical meteorological information;”;

- (ee) the substitution for the definition of “instrument flight time” of the following definition:

“‘**instrument flight time**’ means a time during which a pilot is piloting an aircraft, or a remote pilot is piloting a remotely piloted aircraft, solely by reference to instruments and without external reference points;”;

- (ff) the insertion after the definition of “International Air Services Act” of the following definition:

“‘**international airways volcano watch**’ means international arrangements for monitoring and providing warnings, to aircraft, of volcanic ash in the atmosphere;”;

- (gg) the insertion after the definition “landing surface” of the following definitions:

“‘**landowner permission**’ means written permission issued, in compliance with a Municipal by-law, by an authorised land user, property title holder, lease holder, servitude holder, site manager or supervisor, building or structure owner, to an UAS operator to operate a UAS within a distance of 50 m from a building or structure;”;

‘landside area’ means an area identified as such by a relevant entity in their security programme including an area of an airport, adjacent terrain and building, or any portion that is not airside;”;

- (hh) the substitution for the definition of ‘lost C2 link state’ of the following definition:

“‘lost C2 Link state’ means the UAS state in which a C2 Link performance has degraded, because of a C2 Link interruption that is longer than a lost C2 Link decision time, to a point where it is not sufficient to allow a remote pilot to actively manage a flight in a safe and timely manner;”;

- (ii) the substitution for the definition of “maintenance” of the following definition:

“‘maintenance’ means the performance of tasks on an aircraft, [RPS.] RPAS, engine, propeller, or associated part required to ensure the continuing airworthiness of [such] an aircraft, [RPS] RPAS, engine, propeller or associated part including any one or combination of overhaul, inspection, replacement, defect rectification, and [an] embodiment of a modification or repair;”;

- (jj) the insertion after the definition of “manual of procedure” of the following definition:

“‘marked discontinuity’ means an abrupt and sustained change in wind direction of 30° or more, with a wind speed of 10 knots before or after the change, or a change in wind speed of 10 knots or more, lasting at least two minutes;”;

- (kk) the insertion after the definition of “meteorological information” of the following definition:

“‘Meteorological office’ means an office established by the Meteorological Service Provider to provide an aeronautical meteorological service for international air navigation;”;

- (ll) the insertion after the definition of “meteorological service” of the following definition:

“**Meteorological Service Provider**’ means the South African Weather Service, a juristic person established by section 2 of the South African Weather Service Act, 2001 (Act No. 08 of 2001);”;

- (mm) the deletion for the definition of “minimum descent altitude/height”;

- (nn) the insertion after the definition of “micro-light aeroplane” of the following definitions:

“**minimum descent altitude** ’ means a specified altitude in a 2D instrument approach.

‘**minimum descent height**’ means a specified height in a 2D instrument approach operation or circling approach below which descent must not be made without the required visual reference;

- (oo) the insertion after the definition of “movement area” of the following definition:

“**multi-unmanned aircraft operation**’ means an operation where two or more UA are controlled by one remote pilot station individually rather than collectively during flight;”;

- (pp) the insertion after the definition “navigation specification” of the following definition:

“**near-parallel runways**’ means non-intersecting runways whose extended centre lines have an angle of convergence or divergence of 15 degrees or less;”;

- (qq) the substitution for the definition of “Notice to Airmen” of the following definition:

“**Notice to Airmen**’ means a notice distributed by means of telecommunication containing information concerning the establishment, condition, or change in any

aeronautical facility, service, procedure, or hazard, a timely knowledge of which is essential to personnel concerned with flight operations;”;

- (rr) the insertion after the definition of “Notice to Airmen” of the following definitions:

“**observable behaviour**’ means a single role-related behaviour that can be observed and may or may not be measurable;

‘**observation**’ means in a meteorological context, evaluation of one or more meteorological elements;”;

- (ss) the substitution for the definition of “organisation responsible for the type design” of the following definition:

“**organisation responsible for the type design**’ means [the] an organisation that holds a type certificate, or equivalent document, for an aircraft, RPS, engine or propeller type, issued by a Contracting State;”;

- (tt) the substitution for the definition of “performance criteria” of the following definition:

“**performance criteria**’ means statements used to assess whether the required levels of performance have been achieved for a competency consisting of an observable behaviour, condition, and competency standard;”;

- (uu) the substitution for the definition of “pilot flying” of the following definition:

“**pilot flying**’ means a pilot whose primary task is to control and manage a flight path and whose secondary task is to perform non-flight path related actions including radio communications, aircraft systems, other operational activities, and monitoring crew members;”;

- (vv) the insertion after the definition of “pilot-in-command under supervision” of the following definition:

“‘**pilot monitoring**’ means a pilot whose primary task is to monitor a flight path and its management by a pilot flying and whose secondary task is to perform non-flight path related actions including radio communications, aircraft systems, other operational activities, and monitoring other crew members;”;

- (ww) the insertion after the definition of “pressure altitude” of the following definition:

“‘**prevailing visibility**’ means the greatest visibility value, observed in accordance with the definition of “visibility”, which is reached within at least half the horizon circle or within at least half of the surface of an aerodrome. These areas could comprise contiguous or non-contiguous sectors;”;

- (xx) the insertion after the definition “primary-means navigation system” of the following definition:

“‘**primary runway**’ means a runway used in preference to others whenever conditions permit;”;

- (yy) the insertion after the definition of “production-built aircraft” of the following definition:

“‘**prognostic chart**’ means a forecast of a specified meteorological element for a specified time or period and a specified surface or portion of airspace, depicted graphically on a chart;”;

- (zz) the insertion after the definition of “Reduced Vertical Separation *Minima*” of the following definition:

“**regional air navigation agreement**” means an agreement approved by the ICAO Council normally on the advice of a regional air navigation meeting resolution.”;

(aaa) the insertion after the definition of “remuneration” of the following definitions:

“**remote co-pilot**” means a licensed remote pilot serving in any remote piloting capacity other than as remote pilot-in-command but excluding a remote pilot who is undergoing flight instruction;

“**remote flight crew member**” means a licensed flight crew member charged with duties essential to operation of RPAS during a flight duty period.”;

(bbb) the insertion after the definition of “remote pilot” of the following definition:

“**remote pilot-in-command**” means a remote pilot in command of a RPA and charged with the safe conduct of a flight.”;

(ccc) the substitution for the definition of “remote pilot station” of the following definition:

“**remote pilot station**” means a component of RPAS containing equipment used to pilot an RPA.”;

(ddd) the insertion after the definition “security control” of the following definition:

“**security culture**” means a set of security-related norms, values, attitudes and assumptions that are inherent in the daily operation of an organisation and are reflected by the actions and behaviours of entities and personnel within an organisation.”;

(eee) the substitution for the definition of “security inspection” of the following definition:

“‘**security inspection**’ means an announced or unannounced examination of the effectiveness of the implementation of specific security measures;”;

- (fff) the substitution for the definition of “security restricted area” of the following definition:

“‘**security restricted area**’ means areas of the airside of an airport, which are identified as priority risk areas where in addition to access control, other security controls are applied;”;

- (ggg) the substitution for the definition of “skills test” of the following definition:

“‘**skills test**’ means a test conducted by a suitable person to assess the competence of an applicant for a licence or certificate;”;

- (hhh) the substitution for the definition of “SNOWTAM” of the following definition:

“‘**SNOWTAM**’ means a special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice slush, frost, standing water or water associated with snow, slush, ice, or frost on an aircraft movement area;”;

- (iii) the substitution for the definition of “solo flight” of the following definition:

“‘**solo flight**’ means—

- (a) in relation to aircraft, flight time during which a student pilot is a sole occupant of an aircraft; and
- (b) in relation to RPAS, flight time during which a student remote pilot is controlling a RPA, acting solo;”;

- (jjj) the insertion after the definition of “South African registered aircraft” of the following definitions:

“‘space weather centre’ means a centre designated to monitor and provide advisory information on space weather phenomena expected to affect high-frequency radio communications, communications via satellite, GNSS-based navigation and surveillance systems or pose a radiation risk to aircraft occupants;

‘space weather service’ means service observing and monitoring activities on the sun surface and providing relevant users with space weather advisory information;”;

- (kkk) the substitution for the definition of “State of Manufacture” of the following definition:

“‘State of Manufacture’ means a State [which has authority] having jurisdiction over an organisation responsible for [the] final assembly of an aircraft, RPS, [engine] engine, or propeller;”;

- (lll) the insertion after the definition of “surface contamination training” of the following definitions:

“‘surface-level heliport’ means a heliport located on the ground or on a structure on the surface of the water;

‘surface-level helistop’ means a helistop located on the ground;”;

- (mmm) the insertion after the definition of “surveillance system” of the following definition:

“‘swarming’ means an operation of more than one UAS controlled collectively by one remote pilot station rather than individually;”;

- (nnn) the insertion after the definition of “transition level” of the following definition:

“‘**tropical cyclone**’ means a non-frontal synoptic-scale cyclone originating over tropical or sub-tropical waters with organised convection and definite cyclonic surface wind circulation;”;

(ooo) the substitution for the definition of “type certificate” of the following definition:

“‘type certificate’ means a document issued by a Contracting State to define a design of an aircraft, RPS, **[engine]engine**, or propeller type and to certify that this design meets **[the]** appropriate airworthiness requirements of that State;

Note — In some Contracting States a document equivalent to a type certificate may be issued for an engine or propeller type or for a remote pilot station type.”;

(ppp) the substitution for the definition of “type design” of the following definition:

“‘type design’ means a set of data and information necessary to define an aircraft, RPS, **[engine]engine**, or propeller type for the purpose of airworthiness determination;”;

(qqq) the insertion after the definition of “unknown cargo” of the following definitions:

“‘**Unmanned aircraft**’ means an aircraft that is intended to be operated with no pilot onboard;

‘**unmanned aircraft system**’ means an aircraft and its associated elements which are operated with no pilot on board;”;

(rrr) the insertion after the definition of “upgrade training” of the following definitions:

“‘**upper-air chart**’ means a meteorological chart relating to a specified upper-air surface or layer of the atmosphere;

‘usability factor’ means a percentage of time during which the use of a runway is not restricted because of the crosswind component;”;

- (sss) the insertion after the definition of “voice-automatic terminal information service (Voice-ATIS)” of the following definition:

“‘volcanic ash advisory centre’ means a meteorological centre designated by a regional air navigation agreement to provide advisory information to MWOS, ATSU, world area forecast centres and international OPMET databanks regarding the lateral and vertical extent and forecast movement of volcanic ash in the atmosphere;”;

- (ttt) the insertion after the definition of “wet runway” of the following definitions:

“‘world area forecast centre’ means a meteorological centre designated to prepare and issue significant weather forecasts and upper-air forecasts in digital form on a global basis direct to States using aeronautical fixed service Internet-based services;

‘world area forecast system’ means a worldwide system by which world area forecast centres provide aeronautical meteorological en-route forecasts in uniform standardised formats;”.

2. Regulation 1.02.1 is hereby amended by—

- (a) the insertion after the abbreviation of “DR” of the following abbreviation:

“‘DRE’ means Designated Remote Examiner;”;

- (b) the insertion after the abbreviation of “DTO” of the following abbreviation:

“‘EDE’ means Engineering Designated Examiner;”;

- (c) the insertion after the abbreviation of “PA” of the following abbreviation:

“‘PACS’ means Primary Airport Control Station;”;

- (d) the insertion after the abbreviation of “PICUS” of the following abbreviations:

“‘PL’ means Power-Lift;

‘PM’ means Pilot Monitoring;”;

- (e) the insertion after the abbreviation of “RPAS” of the following abbreviation:

“‘RPC’ means remote pilot certificate;”;

- (f) the insertion after the abbreviation of “RSP” of the following abbreviation:

“‘RTE’ means Radio Telephony Examiner;”;

- (g) the insertion after the abbreviation of “RWYCC” of the following abbreviation:

“‘SACS’ means Secondary Airport Control Station;”;

- (h) the insertion after the abbreviation of “SAG” of the following abbreviation:

“‘SAGC’ means South African Geomatics Council;”;

- (i) the insertion after the abbreviation of “SRC” of the following abbreviation:

“‘SRPL’ means student remote pilot license;”;

- (j) the insertion after the abbreviation of “TVE” of the following abbreviations:

“‘UA’ means unmanned aircraft;

‘UAS’ means unmanned aircraft system;

‘UASLA’ means unmanned aircraft system letter of approval;

‘UASMT’ means unmanned aircraft system maintenance;

‘UASOC’ means unmanned aircraft system operating certificate;”;

- (k) the insertion after the abbreviation of “WAFC” of the following abbreviations:

“‘ WAFS’ means World Area Forecast System;

‘WGS-84’ means World Geodetic System 84;”.

Amendment of Part 12 of the Regulations

3. Part 12 of the regulations is hereby amended by—

- (a) the substitution for Subpart 3 in the arrangements of regulations of the following Subpart:

“SUBPART 3: INVESTIGATION OF ACCIDENTS OR INCIDENTS

12.03.1 Purpose of accident or incident investigation

12.03.2 Accident or incident investigation procedures

12.03.3 Retention of objects for purposes of investigation or inquiry

12.03.4 Instituting accident or incident investigation in territory of non-Contracting State or outside territory of any State

12.03.5 Request from State conducting investigation.”;

- (b) the substitution in regulation 12.01.10 for subregulation (1) of the following subregulation:

“(1) The Executive responsible for Aircraft Accident and Incident investigation and the designated body or institution referred to in regulation 12.01.2, shall establish a confidential aviation hazard reporting system to promote aviation safety **[or]** and reduce the risk of accidents or incidents.”;

- (c) the substitution for regulation 12.03.4 of the following regulation:

“Instituting accident or incident investigation in territory of non-Contracting State or outside the territory of any State

12.03.4 (1) The Executive responsible for Aircraft Accident and Incident investigation shall, after consultation with the Minister, institute and conduct an investigation in cooperation with a State of Occurrence if an accident or serious incident as described in this Part has occurred in the territory of a non-Contracting State which does not intend to conduct an investigation in accordance with this Part, and the Republic is a State of Registry, State of an Operator, State of Design, or State of Manufacture.

(2) If a State of Occurrence fails to cooperate as envisaged in subregulation (1), the Executive responsible for Aircraft Accident and Incident investigation shall conduct an investigation with such information as is available.

(3) The Executive responsible for Aircraft Accident and Incident investigation shall, after consultations with the Minister, institute and conduct an investigation of an accident or serious incident that occurs in a location which is not in the territory of any State if the Republic is the State of Registry.

(4) If the scene of an accident in international waters is nearest to the Republic, the Executive responsible for Aircraft Accident and Incident investigation shall, after consultations with the Minister, upon request by a State of Registry, provide such assistance as the Republic is able to.

(5) If a location of an accident or serious incident cannot be established as being in a territory of any State, and a State of Registry fails to institute and conduct an investigation, the Executive responsible for Aircraft Accident and incident Investigation shall recommend to the Minister to request a State of Registry to delegate such investigation to the Republic if the Republic is a State of an Operator, State of Design, or State of Manufacture.

(6) If a State of Registry does not respond to a request referred to in subregulation (5) within 30 days, the Executive responsible for Aircraft Accident and Incident investigation shall, after consultation with the Minister, institute and conduct the investigation with such investigation information as is available.

(7) If a State of Registry is a non-Contracting State which does not intend to investigate an accident or serious incident that occurred in a location which is not a territory of any State, and the Republic is the State of an Operator, State of Design, or State of Manufacture, the Executive responsible for Aircraft Accident and Incident investigation shall institute and conduct an investigation.”:

- (d) the insertion in regulation 12.04.6 after subregulation (9) of the following subregulation:

“(10) The Executive responsible for Aircraft Accident and Incident investigation shall cooperate with Accident Investigation Authorities of other States to determine the limitations on disclosure or the use of information before exchanging such information for the purposes of an accident or incident investigation.”.

Amendment of regulation 43.04.2 of the Regulations

4. Regulation 43.04.2 is hereby amended by the substitution of the following regulation.

43.04.2 (1) A person shall not certify an aircraft or aircraft component for release to service after maintenance unless such maintenance has been carried out in accordance with the provisions of this Part and, an aircraft or aircraft component is fit for release to service.

(2) Before an aircraft or aircraft component is released to service, a maintenance release shall be completed and signed to certify that maintenance work performed has been completed satisfactorily and in accordance with

approved data and procedure described in a concerned maintenance organisation's procedures manual.

(3) A signed maintenance release referred to in subregulation (2) shall include the following:

- (a) basic details of maintenance carried out including detailed reference to data used;
- (b) the date such maintenance was completed;
- (c) identity of concerned maintenance organisation; and
- (d) identity of a person or persons signing such release.”.

Amendment of Part 48 of the Regulations

5. Part 48 of the regulations is hereby amended by—

- (a) the substitution for Subpart 6 in the arrangements of regulations of the following Subpart:

“SUBPART 6: TRANSFER OF RESPONSIBILITIES BETWEEN STATES

48.06.1 Article 83 *bis* Agreement

48.06.2 Personnel licensing

48.06.3 Airworthiness

48.06.4 Recognition

48.06.5 Transfer of responsibilities

48.06.6 Operations under article 83 *bis*.”;

- (b) the substitution in regulation 48.03.1 for subregulation (3) of the following subregulation:

“(3) Subject to such conditions as he or she may determine, the Director may grant approval for **[the]** a lease agreement if satisfied that—

- (a) **[the]** an aircraft to be leased-in is type-certificated in accordance with the requirements prescribed in Part 21;
- (b) **[the]** an aircraft to be leased-in **[will]** shall be maintained in accordance with an approved maintenance **[schedule]** programme, the design and application of which shall observe human factors principles, and current manufacturer's maintenance manual;
- (c) **[the]** an aircraft to be leased-in **[will]** shall be operated under **[the]** operating certificate held by **[the]** a concerned lessee and **[the]** an applicant **[will]** shall not operate **[the]** an air service concerned contrary to any provision of the Act, the International Air Services Act, 1993 or the Air Service Licensing Act, 1990;
- (d) if a foreign registered aircraft—
 - (i) the transfer of responsibilities, as contemplated in **[sub-regulation (2)]** subregulation (2), has been effected;
 - (ii) **[the]** an appropriate authority of **[the]** a State of Registry is in a position to carry out its oversight responsibilities effectively;
 - (iii) the duration of **[the]** a dry lease-in concerned is for a period not exceeding six consecutive calendar months in any 12-months period calculated from the commencement date of **[the]** such lease; and
 - (iv) the number of foreign registered aircraft leased by **[the]** a concerned operator **[referred to in sub-regulation]** constitutes not more than half the number of aircraft listed on that operator's operating certificate.”;
- (c) the insertion in regulation 48.06.1 after subregulation (4) of the following subregulation:

“(5) If the Republic is a State of an Operator with respect to a dry lease-in or wet lease-in of an aircraft operating under an Article 83 *bis* Agreement, the Director shall transmit, a copy of such Article 83 *bis* Agreement together with a summary thereof in the format as prescribed in Document SA-CATS 48, to ICAO for registration.

(6) If the Republic is a State of Registry, with respect to a dry-lease out or a wet-lease out of an aircraft operating under an Article 83 *bis* Agreement, the Director shall transmit a copy of such Article 83 *bis* Agreement together with a summary thereof in the format as prescribed in Document SA-CATS 48, to ICAO for registration.”;

- (d) the insertion after regulation 48.06.5 of the following regulation:

“Operations under article 83 *bis*

48.06.6 (1) An operator of an aircraft operating under an Article 83 *bis* Agreement shall ensure that a certified copy of such Article 83 *bis* agreement summary referred to in regulation 48.06.1 and an English translation thereof where such agreement summary is issued in a language other than English, is carried on board such aircraft.

(2) An operator of an aircraft operating under an Article *bis* Agreement shall on request by an authorised officer, inspector, or authorised person, make such Article 83 *bis* agreement summary available in order to determine which functions and duties have been transferred under such Agreement by a State of Registry to a State of an Operator, when conducting surveillance activities, such as ramp checks.”.

Amendment of Part 61 of the Regulations

6. Part 61 of the regulations is hereby amended by—
- (a) the insertion after Subpart 27 in the arrangements of regulations of the following Subparts:

“SUBPART 28: PRIVATE PILOT LICENCE FOR POWERED-LIFT

61.28.1 Requirements for PPL(PL)

61.28.2 Application for issuance of PPL(PL)

61.28.3 Skills test for PPL(PL)

61.28.4 Privileges and limitations of PPL(PL)

61.28.5 Period of validity of PPL(PL)

61.28.6 Maintenance of competency for PPL(PL)

SUBPART 28: PRIVATE PILOT LICENCE FOR POWERED-LIFT**Requirements for PPL(PL)**

61.28.1 (1) An applicant for a PPL(PL) shall—

- (a) be 17 years of age or older;
- (b) hold a valid medical certificate, issued in terms of Part 67;
- (c) hold a restricted, or general radio telephony operator's Certificate;
- (d) hold, as minimum, a valid SPL;
- (e) have successfully completed relevant training prescribed in Document SA-CATS 61;
- (f) have passed relevant theoretical knowledge examinations;
- (g) have passed skills test referred to in this Subpart;
- (h) have completed not less than 40 hours of flight time as a pilot of Powered-lift;
- (i) have received not less than 20 hours of dual instruction time in Powered-lift as prescribed in Document SA-CATS 61; and
- (j) have completed, in Powered-lift, not less than 10 hours of solo flight time, including 5 hours of solo cross-country flight time and at least one cross-country flight totaling not less than 150 NM in the course of which, full-stop landings at two different aerodromes shall be made.

Application for issuance of PPL(PL)

61.28.2 (1) An application for a PPL(PL) shall be made to the Director, in the prescribed form, within 30 days of successful completion of skills test, and shall be accompanied by—

- (a) a valid medical certificate, issued in terms of Part 67;
- (b) theoretical knowledge examination report;
- (c) copy of an applicant's pilot logbook summary as prescribed in Document SA-CATS 61;
- (d) relevant skills test report;
- (e) two recent passport-size photographs of an applicant, unless an applicant is already a holder of a pilot licence issued in terms of Part 61; and
- (f) proof of payment of relevant fee specified in Part 187.

Skills test for PPL(PL)

61.28.3 (1) A skills test for a PPL(PL) shall be conducted within 30 days of the last period of dual instruction.

(2) During a skills test, an applicant shall demonstrate, to a grade one, or grade two flight instructor, the ability to perform, as pilot-in-command of a Powered-lift, the procedures and manoeuvres prescribed in Document SA-CATS 61 with a degree of competency appropriate to the privileges granted to a holder of a PPL(PL).

Privileges and limitations of PPL(PL)

61.28.4 (1) A holder of a valid PPL(PL) may—

- (a) act, but not for remuneration, as PIC or co-pilot of a Powered-lift engaged in non-revenue flights, provided that such PPL(PL) is endorsed with a relevant type rating;
- (b) operate a Powered-lift in IMC or in accordance with the instrument flight

rules, provided that such PPL(PL) is endorsed with a valid instrument rating issued in terms of this Part; and

- (c) operate a Powered-lift by night, provided that such PPL(PL) is endorsed with a night rating.

(2) A holder of a PPL(PL) may not exercise the privileges of that licence unless he or she maintains competency in terms of this Subpart.

Period of validity of PPL(PL)

61.28.5 (1) A PPL(PL) shall be valid for an indefinite period, provided that—

- (a) a holder of such PPL (PL) maintains competency in terms of this Subpart;
- (b) the relevant documentation is submitted to the Authority as specified in Subpart 1 of this Part; and
- (c) the relevant fee is paid as specified in Part 187.

Maintenance of competency for PPL(PL)

61.28.6 (1) To maintain competency, a holder of a PPL(PL) shall undergo a competency check within a period of 12 months calculated from—

- (a) the beginning of a month following the date of initial issue; or
- (b) the date of last revalidation of competency.

(2) If a competency of a holder of a PPL(PL) has lapsed by not more than 90 days, such holder of a PPL(PL) shall be required to undergo a PPL(PL) competency check.

(3) If a competency of a holder of a PPL(PL) has lapsed by more than 90 days but not more than 36 months, such PPL(PL) holder shall be required to—

- (a) undergo sufficient ground and flight training at an approved ATO to reach the standard required for competency check of a PPL(PL); and
- (b) pass a PPL(PL) competency check.

(4) If a competency of a holder of a PPL(PL) has lapsed by more than 36 months, such PPL(PL) holder shall be required to—

- (a) pass PPL(PL) Air Law theoretical knowledge examination;
- (b) undergo sufficient ground and flight training at an approved ATO to reach the standard required for a PPL(PL) skills test; and
- (c) pass a PPL(PL) skills test.

(5) A competency check referred to in this Subpart shall be conducted in a Powered-lift.

SUBPART 29: COMMERCIAL PILOT LICENCE FOR POWERED-LIFT

61.29.1 Requirements for CPL(PL)

61.29.2 Application for issuance of CPL(PL)

61.29.3 Skills test for CPL(PL)

61.29.4 Privileges and limitations of CPL(PL)

61.29.5 Period of validity of CPL(PL)

61.29.6 Maintenance of competency for CPL(PL)

SUBPART 29: COMMERCIAL PILOT LICENCE FOR POWERED-LIFT

Requirements for CPL(PL)

61.29.1 (1) An applicant for a CPL(PL) shall—

- (a) be 18 years of age or older;
- (b) hold a valid medical certificate, issued in terms of Part 67;
- (c) hold a general radio telephony operator's Certificate;
- (d) hold a PPL(PL) endorsed with night rating and issued in terms of this Part;
- (e) have successfully completed relevant training prescribed in Document

SA-CATS 61:

- (f) have passed the relevant theoretical knowledge examinations;
- (g) have passed the skills test referred to in this Subpart;
- (h) have completed not less than 200 hours of flight time as a pilot of a Powered-lift of which—
 - (i) 50 hours as PIC;
 - (ii) 10 hours of cross-country flights as a PIC, including a cross-country flight totalling not less than 300 NM in the course of which full-stop landings at two different aerodromes shall be made;
 - (iii) 10 hours of instrument instruction of which not more than 5 hours may be conducted in an FSTD approved for such purpose; and
 - (iv) 5 hours as a PIC by night, including 5 take-offs and 5 landings.

Application for issuance of CPL(PL)

61.29.2 (1) An application for a CPL(PL) shall be made to the Director on the relevant form within 30 days of the skills test having been completed, and shall be accompanied by the following —

- (a) valid medical certificate, issued in terms of Part 67;
- (b) theoretical knowledge examination report;
- (c) copy of an applicant's pilot logbook summary as prescribed in Document SA-CATS 61;
- (d) relevant skills test report; and
- (e) proof of payment of the relevant fee as specified in Part 187.

Skills test for CPL(PL)

61.29.3 (1) A skills test for a CPL(PL) shall be conducted within 30 days of completing required training.

(2) During a skills test, an applicant shall demonstrate, to a grade one flight instructor, ability to perform, as PIC of a Powered-lift, the procedures and

manoeuvres prescribed in Document SA-CATS 61 with a degree of competency appropriate to the privileges granted to a holder of a CPL(PL).

Privileges and limitations of CPL(PL)

61.29.4 (1) A holder of a valid CPL(PL) may—

- (a) exercise the privileges of a PPL(PL);
- (b) act as PIC of a Powered-lift certificated for single-pilot operation in commercial air transport operations, provided that such CPL(PL) is endorsed with relevant type rating;
- (c) act as co-pilot of a Powered-lift in commercial air transport operations, provided that such CPL(PL) is endorsed with relevant type rating; and
- (d) operate a Powered-lift in IMC or in accordance with the instrument flight rules, provided that such CPL(PL) is endorsed with valid instrument rating issued in terms of this Part;

(2) A holder of a CPL(PL) may not exercise the privileges of that licence unless he or she maintains competency in terms of this Subpart.

Period of validity of CPL(PL)

61.29.5 (1) A CPL(PL) shall be valid for an indefinite period, provided that—

- (a) a holder of such CPL maintains competency in terms of this Subpart;
- (b) relevant documentation is submitted to the Authority as specified in Subpart 1 of this Part; and
- (c) the relevant fee paid as specified in Part 187.

Maintenance of competency for CPL(PL)

61.29.6 (1) To maintain competency, a holder of a CPL(PL) shall undergo a competency check within a period of 12 months calculated from—

- (a) the beginning of a month following the date of initial issue; or

(b) the date of last revalidation of competency.

(2) If a competency of a holder of a CPL(PL) has lapsed by not more than 90 days, such CPL (PL) holder shall be required to undergo a CPL(PL) competency check.

(3) If a competency of a holder of a CLP(PL) has lapsed by more than 90 days but not more than 36 months, such CPL (PL) holder shall be required to—

(a) undergo sufficient ground and flight training at an approved ATO to reach the standard required for competency check of a CPL(PL); and

(b) pass a CPL(PL) competency check.

(4) If a competency of a holder of a CLP(PL) has lapsed by more than 36 months, such licence holder shall be required to—

(a) pass a CPL(PL) Air Law theoretical knowledge examination;

(b) undergo sufficient ground and flight training at an approved ATO to reach the standard required for a CPL(PL) skills test; and

(c) pass a CPL(PL) skills test.

SUBPART 30: ATPL (PL)

61.30.1 Requirements for an ATPL(PL)

61.30.2 Application for issuance of ATPL(PL)

61.30.3 Skills test for ATPL(PL)

61.30.4 Privileges and limitations of ATPL(PL)

61.30.5 Period of validity of ATPL(PL)

61.30.6 Maintenance of competency for ATPL(PL).

SUBPART 30: ATPL (PL)

Requirements for ATPL(PL)

61.30.1 (1) An applicant for an ATPL(PL) shall—

- (a) be 21 years of age or older;
- (b) hold a valid medical certificate, issued in terms of Part 67;
- (c) hold a CPL(PL) issued in terms of this Part, and endorsed with an instrument rating;
- (d) have successfully completed relevant training as prescribed in Document SA-CATS 61;
- (e) have passed relevant theoretical knowledge examinations;
- (f) have passed skills test referred to in this Subpart; and
- (g) have completed not less than 1500 hours of flight time as a pilot of Powered-lift of which—
 - (i) 250 hours, either as PIC, or made up of not less than 70 hours as PIC and the necessary additional flight time as PIC under supervision;
 - (ii) 100 hours of cross-country flight time, of which not less than 50 hours should be as PIC or as PIC under supervision;
 - (iii) 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and
 - (iv) 25 hours of night flight as PIC or as co-pilot.

Application for issuance of ATPL(PL)

61.30.2 (1) An application for an ATPL(PL) shall be made to the Director on the relevant form within 30 days of successful completion of skills test, and shall be accompanied by the following:

- (a) valid medical certificate, issued in terms of Part 67;
- (b) theoretical knowledge examination report;
- (c) copy of an applicant's pilot logbook summary as prescribed in Document SA-CATS 61;
- (d) relevant skills test report; and
- (e) proof of payment of the relevant fee as specified in Part 187.

Skills test for ATPL(PL)

61.30.3 (1) A skills test for an ATPL(PL) shall be conducted within 30 days of successful completion of required training.

(2) During the skills test, an applicant shall demonstrate to a DFE(PL), ability to perform, as PIC of a powered lift required to be operated with a co-pilot, the procedures and manoeuvres prescribed in Document SA CATS 61 with a degree of competency appropriate to the privileges granted to a holder of an ATPL(PL).

Privileges and limitations of ATPL(PL)

61.30.4 (1) A holder of a valid ATPL(PL) may—

- (a) exercise the privileges of a CPL(PL); and
- (b) act as PIC, in commercial air transportation, of a Powered-lift certificated for operations with more than one pilot.

(2) A holder of an ATPL(PL) may not exercise the privileges of that ATPL(PL) unless he or she maintains competency in terms of this Subpart.

Period of validity of ATPL(PL)

61.30.5 (1) An ATPL(PL) shall be valid for an indefinite period, provided that—

- (a) a holder of such ATPL (PL) maintains competency in terms of this Subpart;
- (b) the relevant documentation is submitted to the authority as specified in Subpart 1 of this Part; and
- (c) payment is made of the relevant fee as specified in Part 187.

Maintenance of competency for ATPL(PL)

60.30.6 (1) To maintain competency, a holder of an ATPL(PL) shall undergo a competency check within a period of 12 months calculated from—

- (a) the beginning of a month following the date of initial issue; or
- (b) the date of last revalidation of competency.

(2) If a competency of a holder of an ATPL(PL) has lapsed by not more than 90 days, such holder of an ATPL shall be required to undergo an ATPL(PL) competency check.

(3) If a competency of a holder of an ATPL(PL) has lapsed by more than 90 days but not more than 36 months, such licence holder shall be required to—

- (a) undergo sufficient ground and flight training at an approved ATO to reach the standard required for competency check of an ATPL(PL); and
- (b) pass an ATPL(PL) competency check.

(4) If a competency of a holder of an ATPL(PL) has lapsed by more than 36 months, such licence holder shall be required to—

- (a) pass relevant IR theoretical knowledge examination;
- (b) undergo sufficient ground and flight training at an approved ATO to reach the standard required for an ATPL(PL) skills test; and
- (c) pass an ATPL(PL) skills test.

(5) A competency check referred to in this Subpart shall be conducted in a Powered-lift required to be operated with a co-pilot.”.

Amendment of Part 66 of the Regulations

7. Part 66 of the regulations is hereby amended by—

- (a) the substitution in regulation 66.01.11 for subregulation (1) of the following subregulation:

“66.01.11 (1) The Director may designate an examiner for a period of [one year] two years, in respect of the valid rating or ratings held by the examiner to conduct [trade] testing on students, issue, [trade] test reports [, do oversight on instructors].”;

- (b) the substitution for regulation 66.02.3 of the following regulation:

“66.02.3 (1)An applicant for the issuance of a Class II **[aircraft maintenance engineer]** AME licence with a Category A rating, shall have passed—

- (a) for an aeroplane **[and]** or a helicopter with **[a]** an MCM in excess of 5 700 kg and 3 175 kg respectively—
 - (i) an approved type training course by an organisation approved by appropriate authority in a country where such training organisation is located; or
 - (ii) a training provided by an approved original equipment manufacturer or designated training facility; **[and]**
- (b) for an aeroplane **[and]** or a helicopter with a MCTOW of 5 700 kg and 3 175 kg respectively—
 - (i) an approved type training course prescribed in Part 141; or
 - (ii) an approved manufacturer’s course or appropriate written examination as prescribed in Document SA-CATS 66; and
 - (iii) if an approved course for an aircraft type training is not available in the Republic, the Director may accept a type training course from another State for an AME licence issuance~~[.]~~;
- (c) the following general examinations written at the offices of the Authority if such applicant has undergone training by an approved ATO:
 - (i) airframe general Category A;
 - (ii) Civil Aviation Regulations and SA-CATS; and
 - (iii) rotorcraft general;
- (d) an approved human factors course with the appropriate written examination as prescribed in Document SA-CATS 66.

(2) An applicant for the **[issuing]**issuance of a Class II AME licence with a Category C rating, shall have passed—

- (a) an approved type course as prescribed in **[part]**Part141, or an approved manufacturers course **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66;

- (b) an approved Civil Aviation Regulations course as prescribed in **[part]** Part 141 **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66;
- (c) an approved piston engine general (Cat C) or gas turbine general (Cat C) course respectively for the appropriate type as prescribed in **[part]** Part 141 **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66; and
- (d) an approved human factors course with the appropriate written examination as prescribed in Document SA-CATS 66.

(3) An applicant for the **[issuing]** issuance of a Class II AME licence with a Category W rating, shall have passed—

- (a) an approved course applicable to a rating applied for as prescribed in Part 141, which includes—
 - (i) Instruments Equipment Course (Cat W);
 - (ii) Electrical Equipment Course (Cat W); or
 - (iii) Avionic or Radio and Radar Equipment Course (Cat W); and
 - (iv) appropriate written examination as prescribed in Document SA-CATS 66;
- (b) an approved Civil Aviation Regulations course **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66; and
- (c) an approved human factors course with the appropriate written examination as prescribed in Document SA-CATS 66.

(4) An applicant for the **[issuing]** issuance of a Class I **[aircraft maintenance engineer]** AME licence with a Category B rating, shall have passed—

- (a) for **[aeroplanes and helicopters]** an aeroplane or helicopter with **[a]** an MCM in excess of 5 700 kg and 3 175 kg respectively, an approved type training course by an organisation approved by **[the]** an appropriate authority in **[the]** a country where **[the]** a concerned training organisation is located or training provided by an approved original equipment manufacturer or designated training facility; or

- (b) for **[aeroplanes and helicopters]** an aeroplane or helicopter with **[a]** an MCM of 5 700 kg and 3 175 kg respectively or below—
 - (i) an approved type training course prescribed in **[part]** Part 141; or
 - (ii) an approved manufacturers course or the appropriate written examination as prescribed in Document SA-CATS 66; **[and]**
 - (c) an approved Civil Aviation Regulations course **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66; **[and]**
 - (d) an approved airframe general (Cat B) course as prescribed in **[part]** Part 141 **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66; and
 - (e) an approved human factors course with the appropriate written examination as prescribed in Document SA-CATS 66.
- (5) An applicant for the **[issuing]** issuance of a Class I **[aircraft maintenance engineer]** AME licence with a Category D rating, shall have passed—
- (a) **[the]** an approved type course as prescribed in **[part]** Part 141 or an approved manufacturers course or the appropriate written examination as prescribed in Document SA-CATS 66 covering a Class I or Class II product to a minimum level (overhaul) needed for a Category D rating;
 - (b) an approved Civil Aviation Regulations course **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66;
 - (c) an approved piston engine general (Cat D) or gas turbine general (Cat D) course respectively per type which the applicant is applying for as prescribed in **[part]**Part 141 **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66; and
 - (d) an approved human factors course with the appropriate written examination as prescribed in Document SA-CATS 66.
- (6) An applicant for the issuance of a Class I AME licence with a Category X rating, shall have passed—

- (a) an approved manufacturers course on a particular type (overhaul level), or an applicable approved course as prescribed in Part 141, per rating which an applicant is applying for, which may be—
- (i) Instrument Equipment Course (Cat X);
 - (ii) Electrical Equipment Course (Cat X);
 - (iii) Avionic or Radio and Radar Equipment Course (Cat X);
 - (iv) Ignition Equipment Course (Cat X);
 - (v) Compass Systems Course (Cat X);
 - (vi) Auto Pilot General Course (Cat X); or
 - (vii) Type course on fixed and variable-pitch Propellers (Overhaul Level) (Cat X);
- (b) an approved Civil Aviation Regulations course as prescribed in **[part]** Part 141 **[or]** and the appropriate written examination as prescribed in Document SA-CATS 66; and
- (c) an approved human factors course with the appropriate written examination as prescribed in Document SA-CATS 66.

(7) **[The]** An applicant for the issuance of a Class I AME licence with a Category X rating shall provide the Director with certified proof of successful completion of approved training.

(8) **[The approved]** A certificate of approved training **[certificates]** shall remain valid, provided **[the]** a holder thereof remains active in aircraft maintenance.

(9) AME general examinations shall be as prescribed in Document SA-CATS 66.

(10) General examinations including Category A, B, C, D, X and W shall be written **[or at the Director's approved examination centre]** at the Authority with the following subjects—

- (a) Airframe General (Cat A);
- (b) Airframe General (Cat B);

- (c) Rotorcraft General;
- (d) Piston Engine General (Cat C);
- (e) Piston Engine General (Cat D);
- (f) Gas Turbine General (Cat C);
- (g) Gas Turbine General (Cat D);
- (h) Instrument General (Cat X and W);
- (i) Electrical Equipment (Cat X and W);
- (j) **[CATs & CARs]** Civil Aviation Regulation course;
- (k) Avionics Equipment or Radio and Radar or Electronics;
- (l) Propeller or Engines;
- (m) Helicopter or Rotorcraft; and
- (n) Ignition Equipment (Cat X).

(11) An average pass mark for general examinations contemplated in subregulation (10) shall be 75% for each of the subjects.

(12) General examinations referred to in subregulation (10) shall only be written by an applicant who has undergone training at an approved ATO.

(13) A certificate of completion or proof of attendance of training at an approved ATO shall be a prerequisite for entry to general examination referred to in subregulation (12).

(14) An applicant for an AME category licence shall undergo a skills test assessment conducted by an authorised official of the Authority, inspector, or an engineering designated examiner.

(15) A skills test assessment referred to in subregulation (14) is compulsory for initial issuance of an AME category licence.”;

- (c) the substitution in regulation 66.03.9 for subregulation (1) of the following subregulation:

“**66.03.9** (1) To renew a Grade One or Grade Two aircraft maintenance instructor rating, **[the]** a holder thereof shall, within the 24 months preceding the date of expiry of **[the]** such rating, have served for not less than six months as an aircraft maintenance instructor or aircraft maintenance engineer.”.

Amendment of regulation 67.00.2 of the Regulations

8. Regulation 67.00.2 is hereby amended by the substitution for subregulation (1) of the following subregulation:

“**67.00.2** (1) The classes of medical certificates are as follows:

(a) Class 1

- (i) ATPL for aeroplane, airship, helicopter, and Powered- lift;
- (ii) CPL for aeroplane, airship, **[and]** helicopter_; and Powered-lift;
- (iii) Class I test pilot rating; **[and]**
- (iv) Instrument rating; and

(b) Class 2

- (i) SPL;
- (ii) PPL for aeroplane, airship, **[and]** helicopter_; and Powered-lift;
- (iii) Flight engineer licence;
- (iv) Free balloon CPL;
- (v) Class II test pilot rating;
- (vi) Commercial glider pilot;
- (vii) [part] Part 96 authorisation issued under **[a part]** Part 62 licence.”.

Amendment of Part 71 of the Regulations

9. Part 71 of the regulations is hereby amended by—

- (a) the substitution for Subpart 1 and 2 in the arrangements of regulations of the following Subparts:

“REMOTE PILOT CERTIFICATE [RPAS PERSONNEL LICENCING]

SUBPART 1: GENERAL

- 71.01.1 Applicability
- 71.01.2 Authority to act as pilot
- 71.01.3 Categories and ratings for **[remote pilot] holder of RPC**
- 71.01.4 Competency and revalidation check
- 71.01.5 Medical fitness
- 71.01.6 Language
- 71.01.7 Logging of flight time

SUBPART 2: ORGANISATION AND POLICY

- 71.02.1 Requirements for issuance of RPC **[RPL]**
- 71.02.2 Flight training
- 71.02.3 Theoretical knowledge examination
- 71.02.4 Skills test
- 71.02.5 Payment of currency fee
- 71.02.6 Privileges and Limitations
- 71.02.7 Period of validity.”;

- (b) the substitution for regulation 71.01.1 of the following regulation:

“71.01.1 This Part applies to the issuance, revalidating and reissuance of **[RPL] an RPC** and rating.”;

- (c) the substitution in regulation 71.01.2 for subregulation (1) of the following subregulation:

“71.01.2 (1) A person may not act as an RPC holder within the Republic, unless such person—

(a) holds a valid RPC and a rating in the relevant category issued in terms

of this Part:

- (b) has received flight instruction; and
- (c) has successfully completed a skills test.”;

- (d) the substitution for regulation 71.01.3 of the following regulation:

“Categories and ratings for [remote pilot] holder of RPC

71.01.3 (1) An **[RPL] RPC** may be issued for the following categories:

- (a) **[RPL] RPC** (A);
- (b) **[RPL] RPC** (H); or
- (c) **[RPL] RPC** (MR).

(2) The following ratings may be endorsed on **[an] an [RPL] RPC**:

- (a) VLOS;
- (b) E-VLOS; or
- (c) B-VLOS.”;

- (e) the substitution for regulation 71.01.4 of the following regulation:

“71.01.4 (1) A holder of **[an RPL] an RPC** or rating shall not exercise the privileges granted by **[an RPL] an RPC** or rating unless such a holder maintains competency by complying with the requirements stipulated in this Part.

(2) A revalidation check for a holder of **[RPL] an RPC** shall be conducted by an authorised examiner within 90 days before the expiry date of **[an RPL] an RPC**.

(3) A holder of **[an RPL] an RPC** shall, upon successful completion of revalidation check, submit the prescribed revalidation check form published on the website of the Authority from time to time, to the Director within 30 days of a revalidation check.

(4) A revalidation check for **[RPL holder] a holder of an RPC** shall be conducted in an aircraft of the same category for which **[a licence] an RPC** is held.

(5) A revalidation check for **[RPL holder] a holder of an RPC** shall be valid until the last day of the 24th month from the date of issue.

(6) If a revalidation check of **[RPL holder]** a holder of an RPC is completed more than 90 days before expiry, **[an RPL]** an RPC shall be re-issued on the date of the last day of the month in which a revalidation check was conducted, for a 24 month period.”;

- (f) the substitution in regulation 71.01.5 for subregulation (1) of the following subregulation:

“**71.01.5** (1) An applicant for **[an RPL]** an RPC in terms of this Part shall hold an appropriate valid medical certificate issued in terms of Part 67.”;

- (g) the substitution for regulation 71.01.6 of the following regulation:

“**71.01.6** (1) An applicant an RPC may not be issued with **[an RPL]** an RPC unless he or she has demonstrated or provided proof of his or her proficiency to read, speak, and understand the English language as prescribed in Document SA-CATS 61.

(2) **[an RPL]** A holder of an RPC may not exercise the privileges of **[a licence]** an RPC issued without a valid language proficiency rating.”;

- (h) the substitution for regulation 71.01.7 of the following regulation:

“**71.01.7** (1) A holder of **[RPL]** an RPC shall maintain a pilot logbook with records of the following—

- (a) flight time; and
- (b) instruction time.**[instrument time;**
- [(c) simulation time; and**
- [(d) instruction time].**

(2) If a holder of **[RPL]** an RPC utilises an electronic logbook, he or she shall print and file the electronic data every 90 days.

(3) A holder of **[RPL]** an RPC shall retain a pilot logbook for at least 60 months

from the date that he or she ceases to hold a valid **[RPL]** RPC.

(4) A holder of **[RPL]** an RPC shall produce a logbook for inspection upon request by an authorised officer, inspector, or authorised person.”;

- (i) the substitution for regulation 71.02.1 of the following regulation:

“Requirements for issuance of RPC **[RPL]**

71.02.1 (1) An application for **[an RPL]** an RPC shall be made on an appropriate form published on the website of the Authority, within 30 days of complying with the requirements in subregulation (2).

- (2) an applicant for **[an RPL]** an RPC shall—
- (a) **[not]** be **[under]** 18 years of age or older;
 - (b) hold at least—
 - (i) a valid class 3 medical certificate for a B-VLOS operation or class 3 or higher **[RPAS]** UAS operation; or
 - (ii) a self-declared medical assessment report as prescribed in Document SA-CATS 67 for all other class or type of operation;
 - (c) hold at least a restricted aeronautical radiotelephony certificate;
 - (d) have completed **[a]** flight training referred to in this Part;
 - (e) have passed a theoretical knowledge examination referred to in this Part;
 - (f) have passed a skills test referred to in this Part; and
 - (g) have paid the applicable fee prescribed in Part 187.

(3) When issuing **[an RPL,]** an RPC, the Director may impose any condition as deemed necessary.”;

- (j) the substitution for regulation 71.02.2 of the following regulation:

“71.02.2 (1) A flight training syllabi for various categories of **[RPLS]** RPC shall be as prescribed in Document SA-CATS 71.

(2) An ATO conducting flight training shall issue a certificate to an applicant upon successful completion of flight training.

(3) **[A flight]** Flight training shall be conducted with **[RPA]** a UA of the same category for which **[a licence]** an RPC is sought.

(4) The Director may, before accrediting any foreign flight training, consider each application on a case-by-case basis to ascertain if such training complies with the requirements **[of]** for flight training as recognised by the Director.”;

- (k) the substitution in regulation 71.02.3 for subregulation (1) of the following subregulation:

“**71.02.3** (1) An applicant for **[RPL]** an RPC shall undergo a theoretical knowledge examination applicable to the category of **[licence]** an RPC applied for and must **[obtain it]** pass such examination within 90 days preceding a skills test.”;

- (l) the substitution for regulation 71.02.4 of the following regulation:

“**71.02.4** (1) A skills test for **[RPL]** RPC shall be conducted within 60 days of completing a flight training by an authorised examiner.

(2) A skills test referred to in subregulation (1) shall be conducted with **[remotely piloted aircraft]** a UAS of the same category for which an RPC **[licence]** is sought.

(3) A holder of **[RPL]** an RPC shall submit **[a skills test results]** results of skills test to the Director within 30 days of taking such test.

(4) A skills test for **[RPL]** RPC shall include the applicable sections for E-VLOS or B-VLOS rating if one or more of these ratings are sought.”;

- (m) the substitution for regulation 71.02.5 of the following regulation:

“**71.02.5** A holder of **[RPL]** an RPC shall pay an annual currency fee as

stipulated in Part 187 on or before the anniversary date of **[licence]** **[issuing]** the issuance of such RPC.”;

- (n) the substitution for regulation 71.02.6 of the following regulation:

“**71.02.6** A holder of **[RPL]** an RPC may not exercise a privilege of that **[licence]** RPC unless—

- (a) he or she holds a valid medical certificate as prescribed in Part 67; and
- (b) maintains competency and complies with the revalidation requirements as stipulated in this Part.”;

- (o) the substitution for regulation 71.02.7 of the following regulation:

“**71.02.7** An RPC **[An RPL]** shall be valid until the last day of the 24th month from the date of issue.”.

Insertion of Part 72 of the Regulations:

10. The regulations are hereby amended by—

- (a) the insertion after Part 71 in the arrangements of regulations of the following Part:

“PART 72 REMOTE PILOT LICENCE

SUBPART 1:

GENERAL

72.01.1 Applicability

72.01.2 Authority to act as pilot

72.01.3 Categories for RPL

72.01.4 Competency and revalidation check

72.01.5 Medical fitness

72.01.6 Language

72.01.7 Logging of flight time

72.01.8 Crediting of flight time

SUBPART 2:

72.02.1 Requirements for SRPL

72.02.2 Application for SRPL

72.02.3 Issuance of SRPL

72.02.4 Validity of SRPL

72.02.5 Privileges and limitations of SRPL

SUBPART 3

72.03.1 Requirements for issuance of RPL

72.03.2 Flight training

72.03.3 Theoretical knowledge examination

72.03.4 Skills test

72.03.5 Payment of currency fee

72.03.6 Privileges and Limitations

72.03.7 Period of validity

72.03.8 Type Rating

Applicability

72.01.1 (1) This Part applies to the issuance, revalidation, and reissuance of an RPL for international flights operating under IFR.

(2) The following licences may be issued under this Part:

- (a) Student Remote Pilot Licence (SRPL);
- (b) RPL (A);
- (c) RPL (H:)

Authority to act as pilot

72.01.2 (1) A person may not act as a Remote Pilot within the Republic, unless such person—

- (a) holds a valid RPL and an appropriate rating issued in terms of this Part;
- (b) has received flight instruction; and
- (c) has successfully completed a skills test.

Categories for Remote Pilot

72.01.3 (1) An RPL may be issued for the following categories for RPAS that weigh more than 25 kg but less than 150 kg for international flights under IFR —

- (a) RPL (A)
- (b) RPL (H)

(2) RPAS that weigh more than 150 kg require an RPL holder to complete a type rating course for RPAS prior to exercising the privileges of an RPL.

Competency and revalidation check

72.01.4 (1) A holder of an RPL or rating shall not exercise the privileges granted by an RPL or rating unless such a holder maintains competency by complying with the requirements stipulated in this Part.

(2) A revalidation check for a holder of an RPL shall be conducted by a Designated Remote Examiner within 90 days prior to the expiry date of an RPL.

(3) A holder of an RPL shall, upon successful completion of a revalidation check, submit the prescribed revalidation check form published on the Authority's website to the Director within 30 days of a revalidation check.

(4) A revalidation check for an RPL holder shall be conducted in an RPAS of the same category for which an RPL is held.

(5) A revalidation check for a holder of an RPL shall be valid until the last day of the 12th month from the date of issue.

(6) If a revalidation check of an RPL holder is completed more than 90 days before expiry, such RPL shall be re-issued on the date of the last day of the month in which a revalidation check was conducted, for a 12-month period.

Medical fitness

72.01.5 (1) An applicant for an RPL in terms of this Part shall hold an appropriate valid medical certificate issued in terms of Part 67.

Language

72.01.6 (1) An applicant for an RPL may not be issued with an RPL unless he or she has demonstrated or provided proof of his or her proficiency to read, speak and understand the English language as prescribed in Document SA-CATS 61.

(2) A holder of an RPL may not exercise the privileges of such a licence without a valid language proficiency rating.

Logging of flight time

72.01.7 (1) A holder of an RPL shall maintain a pilot logbook with records of the following:

- (a) flight time
- (b) instrument time;
- (c) simulation time; and
- (d) instruction time.

(2) If a holder of an RPL utilises an electronic logbook, he or she shall print

and file the electronic data every 90 days.

(3) A holder of an RPL shall retain a pilot logbook for at least 60 months from the date that he or she ceases to hold a valid RPL.

(4) A holder of an RPL shall produce a logbook for inspection upon request by an authorised officer, inspector, or authorised person.

Crediting of flight time

72.01.8 (1) A student remote pilot shall be entitled to be credited in full with all solo and dual instruction RPAS flight time towards the total flight time required for initial issue of an RPL.

(2) A holder of an RPL shall be entitled to be credited in full with all dual instruction RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.

(3) A holder of an RPL shall be entitled to be credited in full with all solo or dual instruction RPAS flight time, in a new category of RPA or for obtaining a new rating, towards the total RPAS flight time required for that rating.

SUBPART 2

Requirements for SRPL

72.02.1 An applicant for an SRPL shall—

- (a) be 17 years of age or older,
- (b) hold a valid medical certificate issued in terms of Part 67; and
- (c) be registered with an approved ATO for training towards an RPL.

Application for SRPL

72.02.2 (1) An application for an SRPL must be made to the Director on the appropriate prescribed form, and must be accompanied by—

- (a) an original or certified proof of the identity of an applicant;
- (b) a valid medical certificate issued in terms of Part 67;
- (c) the name of the appropriate RPAS on which training will be conducted;
- (d) two recent passport-size photographs of an applicant concerned; and
- (f) the appropriate fee as prescribed in Part 187.

Issuance of SRPL

72.02.3 (1) The Director shall issue an SRPL in the appropriate form, as prescribed in Document SA-CATS 72, if an applicant complies with the requirements referred to in regulation 72.02.2.

(2) Upon receipt of an SRPL, a holder must immediately affix his or her signature thereon in ink in the space provided for such purpose.

Validity of SRPL

72.02.4 (1) An SRPL is valid for a period of 2 years from the date of issue, provided the annual currency fees are paid.

(2) A holder of a valid SRPL may not exercise the privileges of such licence unless he or she—

- (a) is in possession of a valid medical certificate, issued to him or her in terms of Part 67; and
- (b) has submitted a copy of his or her medical certificate to the Authority, in the event that the aviation medical examiner is unable to submit such certificate electronically to the Director.

Privileges and limitations of SRPL

72.02.5 (1) A holder of an SRPL may only fly solo for the purpose of training towards issuance of an RPL and shall not fly an RPA solo on international RPAS operations.

SUBPART 3

Requirements for issuance of RPL

72.03.1 (1) An application for an RPL shall be made on an appropriate form as published on the Authority's website, within 30 days of complying with the requirements in subregulation (2).

(2) An applicant for an RPL shall—

- (a) be 18 years of age or older;
- (b) hold a valid medical certificate in terms of Part 67;
- (c) hold a general aeronautical radiotelephony certificate;
- (d) have successfully completed an instrument rating theoretical examination as prescribed in Document SA-CATS 61;
- (e) have passed all CPL or ATPL theoretical knowledge examinations referred to in Part 61 for the applicable category of RPAS required.

NOTE: If an applicant already holds a Part 61 CPL or ATPL, full credit for theoretical examinations will be issued by the Director.

- (f) have passed a skills test referred to in this Part;
- (g) show evidence of having held an SRPL or a CPL or an ATPL within the specific RPAS category for which an RPL is sought; and
- (h) have paid the applicable fee prescribed in Part 187.

(3) When issuing an RPL, the Director may impose any condition as deemed necessary.

Flight training

72.03.2 (1) A flight training syllabi for the various categories of an RPL shall be as prescribed in Document SA-CATS 72 and such training shall comply with the competency based training requirements as prescribed in Document SA-CATS 141.

(2) An ATO conducting flight training shall issue a certificate to an applicant upon successful completion of such training.

(3) Flight training shall be conducted with an RPA of the same category for which a licence is sought.

(4) The Director may, before accrediting any foreign flight training, consider each application on a case-by-case basis to ascertain if such training complies with the requirements for flight training as recognised by the Director.

(5) An authorisation to conduct training towards the issuance of an RPL shall be issued for RPAS instructors by the Director.

Theoretical knowledge examination

72.03.3 (1) An applicant for the issuance of an RPL must undergo the skills test referred to in regulation 72.02.1 within 36 months from the date of passing all the required examination papers referred to in regulation 72.02.1.

(2) The Director may, in his or her discretion, accredit a foreign theoretical knowledge examination undertaken if such an examination complies with the requirements for flight training as recognised by the Director.

(3) The syllabi and other requirements for a theoretical knowledge examination are as prescribed in Document SA-CATS 61.

Skills test

72.03.4 (1) A skills test for an RPL shall be conducted within 60 days of successfully completing flight training conducted under the auspices of a Designated RPAS examiner.

(2) A skills test referred to in subregulation (1) shall be conducted with an RPAS of the same category for which a license is sought.

(3) An applicant for an RPL shall submit results of a skills test to the Director within 30 days of taking such a test.

Payment of currency fee

72.03.5 A holder of an RPL shall pay an annual currency fee as stipulated in Part 187 on or before the anniversary date of the issuing of a licence.

Privileges and limitations

72.03.6 (1) A holder of an RPL may not exercise a privilege of that licence unless—

- (a) he or she holds a valid medical certificate as prescribed in Part 67; and
- (b) maintains competency and complies with the revalidation requirements as stipulated in this Part.

Period of validity

72.03.7 An RPL shall be valid until the last day of the 12th month from the date of issue.

Type rating

72.03.8 (1) A type rating shall be issued provided that an applicant thereof has gained, under appropriate supervision, experience on the applicable type of RPAS and associated RPS or FSTD in the following:

- (a) normal flight procedures and manoeuvres during all phases of flight;
- (b) abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, C2 Link, systems and airframe;
- (c) instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure;
- (d) for the issue of an aeroplane category type rating, upset prevention and recovery training;
- (e) procedures for crew incapacitation and crew coordination including allocation of remote pilot tasks, crew cooperation, and use of checklists; and
- (f) competencies required for safe operation of applicable type of RPAS

and associated RPS and demonstrated C2 Link management skills, relevant to the duties of a remote pilot-in-command or a remote co-pilot as applicable.”.

Amendment of Part 91 of the Regulations

11. Part 91 of the regulations is hereby amended by—

(a) the substitution in regulation 91.03.4 after subregulation (11) of the following subregulation:

“(12) In the event of a controlled flight inadvertently deviating from its current ATS flight plan, a PIC shall—

- (a) if an aircraft is off track, adjust the heading of an aircraft to regain track as soon as practicable;
- (b) if an aircraft deviates from an ATC clearance with an assigned Mach number or indicated airspeed, inform an appropriate ATSU immediately;
- (c) if an aircraft deviates from an assigned Mach number by approximately Mach 0.02 or from true airspeed by approximately 10 kt, inform an appropriate ATSU;
- (d) except where ADS-C is activated, serviceable and usable, notify an appropriate ATSU as soon as possible if the time estimate for the next applicable reporting point, FIR boundary or destination aerodrome, whichever comes first changes in excess of two minutes, or such other period of time as is prescribed by an appropriate ATS provider; and
- (e) if an aircraft deviates from its altitude, take action to correct such altitude deviation.”;

(b) the insertion in regulation 91.04.10 after subregulation (21) of the following subregulations:

“(22) An operator shall not use the recordings or transcripts of CVR, CARS, Class A AIR, and Class A AIRS for purposes other than the investigation of an accident or incident in terms of Part 12, except where the recordings or transcripts are:

- (a) related to a safety-related event identified in the context of an SMS and are:
 - (i) restricted to the relevant portions of a de-identified transcript of the recording; and
 - (ii) subject to the protections stipulated in Part 140;
- (b) sought for use in criminal proceedings not related to an event involving an aircraft accident or incident investigation and are subject to the protections stipulated in Part 140; or
- (c) used for inspections of flight recorder systems as provided in Part 91 and its associated Document SA CATS 91.

(23) An operator shall not use the recordings or transcripts of an FDR, an Aircraft Data Recording System as well as Class B and Class C AIR and AIRS for purposes other than the investigation of an accident or incident in terms of Part 12, except where a recording or a transcript is subject to the protections accorded by Part 140 and are:

- (a) used by an operator for airworthiness or maintenance purposes;
- (b) used by an operator in the operation of a flight data analysis programme required in this Part;
- (c) sought for use in proceedings not related to an event involving an accident or incident investigation;
- (d) de-identified; or
- (e) disclosed under secure procedures.

Note: Provisions on the protection of safety data, safety information and related sources are contained in Part 140.”.

- (c) the insertion in regulation 91.05.1 after subregulation (4) of the following subregulations:

“(5) An owner or operator of an aircraft referred to in subregulation (2B) shall:

(a) establish a monitoring programme; and

(b) submit reports to the Director of observed surveillance performance derived from information collected by the monitoring programme.

(6) The Director shall take immediate corrective action for individual aircraft, aircraft types, or operators identified in such reports as not complying with the RSP specifications.”:

- (d) the substitution in regulation 91.06.21 for subregulation (1) paragraph (a) below Table 2 of the following paragraph:

Table 2
In Airspaces other than those specified in Table 1

Airspace class	Altitude band	Forward Flight visibility	Distance from cloud
C F G	At and above 10 000 feet above MSL	8 km	1 500 m horizontally 1 000 ft vertically
C F G	Below 10 000 feet AMSL and above 3 000 ft above MSL, or above 1 000 feet above terrain, whichever is the higher	5 km	1 500 m horizontally 1 000 ft vertically
C	At and below 3 000 feet above MSL, or 1 000	5 km	1 500 m horizontally 1 000 ft vertically

F G	feet above terrain, whichever is the higher	5 km	Clear of cloud and with the surface in sight
-----	--	------	---

Provided that the *minima* specified in Table 1 are not applicable when entering or leaving a CTR and the flight has received clearance from an ATSU to operate under Special VFR minima as referred to in regulation 91.06.22.

- (e) the substitution after paragraph (b) for Table 3 of subregulation (1) in regulation 91.06.21 of the following Table:

Table 3

Airspace	Flight visibility	Distance from clouds	Ground visibility and ceiling
Control zones	[2 500 m] 5 km	Horizontally: 300 m Vertically: Clear of cloud	Except when operating under a SVFR clearance no helicopter shall take-off from, land at, or approach to land at an aerodrome or fly within the control zone when the ground visibility at the aerodrome concerned is less than [2500] 5 000 metres and the ceiling is less than [600] 1 500 ft
Within an aerodrome traffic zone (which does not also comprise a	[2 500 m] 5 km	Horizontally: 300 m Vertically: Clear of cloud	No helicopter shall take-off from, land at, or approach to land at an aerodrome or fly within the aerodrome traffic zone when the ground visibility at

control zone or part of a control zone)			the aerodrome concerned is less than [2500] <u>5 000</u> metres and the ceiling is less than [600] <u>1 500</u> ft
---	--	--	--

- (f) the substitution for paragraph (b) below Table 4 of subregulation (1) in regulation 91.06.21 of the following paragraph:

Table 4
In Airspaces other than those specified in Table 3

Airspace class	Altitude band	Flight visibility	Distance from cloud
C F G	At and above 10 000 feet above MSL	8 km	1 500 m horizontally 1 000 ft vertically
C F G	Below 10 000 ft AMSL and above 3 000 feet above MSL, or above 1 000 feet above terrain, whichever is the higher	5 km	1 500 m horizontally 1 000 ft vertically
C	At and below 3 000 feet above MSL, or 1 000 feet above terrain, whichever is the higher	2 500 m	1 500 m horizontally 1 000 ft vertically
F G		1 500 m unless in accordance with (iii) below	Clear of cloud and with the surface in sight

“Provided that—

- (i) the limitations as contained in **[table]** Table 3 shall not prevent a helicopter from conducting hover-in-ground-effect or hover-taxi operations within the

- confines of a controlled aerodrome or heliport, if the visibility is not less than 100 m;
- (ii) the *minima* specified in **[table]** Table 3 are not applicable when a helicopter is entering or leaving a CTR **[or ATZ]** and **[the]** such flight has received clearance from an ATSU to operate under Special VFR *minima* as prescribed in regulation 91.06.22; and
- (iii) helicopters shall be permitted to operate in less than 1 500 m flight visibility outside of controlled airspace, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.”.
- (g) the substitution in regulation 91.06.22 for subregulation (2) of the following subregulation:
- “(2) A PIC of a helicopter may only conduct Special VFR operations in weather conditions below the conditions referred to in regulation 91.06.21 within a CTR—
- (a) under the terms of an air traffic control clearance,
- (b) by day only with a cloud ceiling of at least 300 ft and visibility of at least 800 m offshore;
- (c) when clear of clouds;
- (d) if a helicopter will be operated at such a speed that its pilot has adequate opportunity to observe any obstructions or other traffic in sufficient time to avoid collisions;
- (e) if a flight can be conducted in accordance with regulation 91.06.32 with regard to minimum height; and
- (f) when a Special VFR flight will not unduly delay an IFR flight.”;
- (h) the insertion in Subpart 7 in the arrangements of regulations of the following Subpart:

“SUBPART 7: FLIGHT OPERATIONS

- 91.07.1 Routes and areas of operation
- 91.07.2 Minimum flight altitudes
- 91.07.3 Use of aerodromes
- 91.07.4 Helicopter landings and take-offs
- 91.07.5 Aerodrome operating *minima*
- 91.07.6 Threshold crossing height
- 91.07.7 Pre-flight selection of aerodromes
- 91.07.8 Planning *minima* for IFR flights
- 91.07.9 Meteorological conditions
- 91.07.10 VFR operating *minima*
- 91.07.11 Mass and balance
- 91.07.12 Fuel and oil requirements
- 91.07.13 Refuelling or defuelling with passengers on board
- 91.07.14 Smoking in aircraft
- 91.07.15 Instrument approach and departure procedures
- 91.07.16 Noise abatement
- 91.07.17 Submission of ATS flight plan
- 91.07.18 Seats, safety belts and harnesses
- 91.07.19 Passenger seating
- 91.07.20 Passenger movements and briefing
- 91.07.21 Passenger health and safety
- 91.07.22 Emergency equipment
- 91.07.23 Illumination of emergency exits
- 91.07.24 Use of supplemental oxygen

- 91.07.25 Approach and landing conditions
- 91.07.26 Approach ban
- 91.07.27 In-flight testing on passenger- and cargo-carrying flights
- 91.07.28 Turning helicopter rotors
- 91.07.29 Starting and running of engines
- 91.07.30 Acrobatic flights
- 91.07.31 Simulated instrument flight in aircraft
- 91.07.32 Aeroplane operating procedures
- 91.07.33 Head-up displays and vision systems
- 91.07.34 Electronic flight bags
- 91.07.35 Additional EDTO requirements
- 91.07.36 Disinfection of aircraft
- 91.07.37 Disinsection of aircraft
- 91.07.38 Operations in RNP designated airspace
- 91.07.39 Repatriation and relief flight.”;

- (i) the substitution for regulation 91.07.25 of the following regulation:

“91.07.25 (1) Before commencing an approach to land, a PIC of an aircraft shall be satisfied that, according to the information available, the weather and the condition of the touch-down and runway area at an aerodrome intended to be used, a safe approach, landing or missed approach can be executed having regard to the performance information specified in an AFM or similar document.

(2) An approach to land shall not be continued below 1 000 ft above aerodrome elevation, unless a PIC, based on the information available, is satisfied that—

- (a) a runway surface condition permits a safe landing, and**

(b) an aeroplane performance information indicates that a safe landing can be made.”;

(j) the substitution for regulation 91.07.26 of the following regulation:

“91.07.26 (1) A PIC shall not continue with an instrument approach if at an altitude of 1 000 ft above an aerodrome elevation, a relevant RVR or visibility for that runway is at the time, less than the specified minimum for landing.

(2) In such an instance as referred to in subregulation (1), a PIC may continue with an approach to DA/H or MDA/H.

(3) A PIC may continue with an approach below DA/H or MDA/H and complete a landing, provided that the required visual reference is established at the DA/H or MDA/H and is maintained.”;

(k) the substitution for regulation 91.07.36 of the following regulation:

“91.07.36 (1) The Director shall, in consultation with public health authorities, establish and determine, based on a risk assessment, procedures prescribing the conditions under which an aircraft is disinfected.

(2) An owner or operator of an aircraft shall ensure that the following requirements apply to a disinfection:

- (a) disinfection measures are put in place for equipment or tools used to disinfect surfaces or equipment of an aircraft contaminated by bodily fluids.
- (b) disinfection of contaminated areas or surfaces is conducted in accordance with the measures referred to in paragraph (a) and in accordance with procedures provided by an aircraft manufacturer and subject to any prescripts issued by the World Health Organization.
- (c) suspected contaminated areas are disinfected with chemical or non-chemical compounds possessing suitable germicidal properties appropriate to a suspected infectious agent.

- (d) disinfection is carried out expeditiously by trained personnel wearing suitable personal protective equipment.
- (e) suitable mitigation measures are put in place where chemical or non-chemical measures or means are used for disinfection in order to—
 - (i) safeguard an aircraft structure and its operating equipment and materials against damage; and
 - (ii) protect the health of passengers, crew, personnel, or live cargo from any deleterious effects;
- (f) appropriate application methods or means shall be used to mitigate the deleterious effects of disinfection chemical compounds.
- (g) aircraft disinfection required for animal health reasons, shall only be done using methods and disinfectants prescribed by the World Organization for Animal Health (OIE).
- (h) extra disinfection in response to either a health incident on board or after a contamination on board, shall be limited to disinfection of a container or to a compartment of an aircraft in which contamination is suspected.
- (i) procedures in accordance with an aircraft manufacturer's guidelines are in place, for specific sensitive areas such as amongst others, the cockpit, electronics bay and galley areas.

(3) When the Authority requires an operator to submit evidence of disinfection, the following documents shall be submitted:

- (a) a general notification on a passenger manifest or General Declaration as provided for in Appendix 1 of Annex 9;
- (b) a pertinent disinfection control sheet as proof that disinfection has been performed in accordance with procedures recommended by the World Health Organization; and
- (c) a statement by a PIC indicating that passengers and crew were disembarked from an aircraft when disinfection was conducted.

(4) With respect to guidance on the technical specification of disinfectants to be used on aircraft, the Authority shall consult with—

- (a) the World Health Organization and relevant public health authorities;
- (b) other appropriate authorities;
- (c) aircraft manufacturers;
- (d) chemical suppliers in the region; and
- (e) Contracting States in the region.

(5) In determining the disinfectant to be used on board aircraft, the Authority shall take into account—

- (a) the type and risk groups of the pathogens; and
- (b) the procedures for the administering of the disinfectant which shall be in accordance with the current guidance material of the World Health Organization and recommendations made by aircraft manufacturer, if applicable.”;

(l) the substitution for regulation 91.07.37 of the following regulation:

“91.07.37 (1) An owner or operator of an aircraft shall [ensure that aircraft departing from the states listed in Document SA-CATS 91 is disinsected according to the guidelines prescribed in Document SA-CATS 91], in consultation with the National Department of Health and the Authority, and subject to the provisions of subregulation (2), establish procedures and conditions under which an aircraft shall be disinsected.

- (2) An owner or operator of an aircraft shall—
 - (a) limit routine disinsection of aircraft cabin and [,] flight deck[, cargo and baggage compartment] with an aerosol while passengers and crews are on board, to same-aircraft operations originating in, or operating [via,] through territories that are considered, based on a risk assessment, to pose a threat to the public health, **[agriculture]** agriculture, or environment;
 - (b) ensure a periodical review of the requirements **[of]** for disinsection of aircraft and modify them, as appropriate, in the light of all available evidence relating to the transmission of insects **[in the]** by aircraft;

- (c) **[authorize]** authorise or accept only those methods whether chemical or non-chemical, or insecticides, which are recommended by the World Health Organization and which are considered efficacious; and
- (d) ensure that the procedures for disinsection are not injurious, do not pose deleterious effects to the health of passengers, **[and]** crew, personnel, and live cargo, [and that they result in] resulting in the minimum **[of]** discomfort **[to the passengers and crew]** to them.

(3) The Director shall, upon request, provide to an aircraft [operators] operator, appropriate information, in plain language, for crew and passengers, explaining the provisions of this regulation, the reasons for and the safety of properly performed aircraft disinsection.

(4) When disinsection has been performed in accordance with procedures prescribed by the World Health Organization, the Director shall accept a certification on a General Declaration or, in the case of residual disinsection, a Certificate of Residual Disinsection.

(5) An owner or operator of an aircraft shall keep records of disinsection in the form of a Certificate of Residual Disinfection or certification on the General Declaration and such certificate shall be presented or made available to the appropriate authorities in a country of destination.

(6) An owner or operator of an aircraft shall ensure that—

- (a) suitable mitigation measures are in place for the use of any insecticide, or any other substance used for disinsection in order to safeguard against damage to an aircraft structure or its operating equipment and material; and
- (b) flammable chemical compounds or solutions likely to damage aircraft structure, such as by corrosion, shall not be used to disinsect an aircraft.”;

(m) the insertion after regulation 91.07.38 of the following regulation:

“Repatriation and relief flight

91.07.39 (1) The Director shall, in consultation with the Department of Transport, National Department of Health and other relevant authorities, establish policy or procedures to facilitate relief and repatriation flights.

(2) The Director shall, in consultation with the Department of Transport, Department of Health and other relevant authorities:

- (a) facilitate the entry, departure and transit of aircraft engaged in repatriation and relief flight; and
- (b) take all possible measures to ensure the safe operation of repatriation and relief flight.

(3) A repatriation and relief flight shall commence as soon as possible after reaching agreement with the States involved.

(4) The Authority shall, after consultation with a holder of an aerodrome licence and other relevant stakeholders, ensure that personnel and carry-on baggage, hold baggage, cargo, and other goods arriving on repatriation and relief flight are cleared without delay.

(5) An air service operator shall ensure that human remains infected with a communicable disease are transported according to the requirements stipulated in Part 113 and the applicable Department of Health regulations.

(6) An air service operator shall expedite clearance processes for entry or departure and transit of an aircraft, passengers, cargo, and other goods involved in repatriation and relief flight.”:

- (n) the substitution in regulation 91.08.1 for subregulation (3) of the following subregulation:

“(3) **[the]** An air service operator of an aircraft engaged in a commercial air transport operation, shall comply with the provisions of the appropriate regulations

in **[part 121, part127 or part 135]** Parts 93, 121,127, or 135, as the case may be.”;

- (o) the substitution in regulation 91.09.4 for subregulation (1) of the following subregulation:

“**91.09.4** (1) **[the]** An owner or operator of an aircraft, or maintenance organisation so assigned in accordance with regulation 91.09.01 (2), shall ensure that the following records are kept for the periods mentioned in subregulation (2)—

- (a) the total time in service hours of an aircraft and all life-limited components specified in terms of calendar time and cycles, as appropriate;
- (b) the current status of compliance with all applicable mandatory continuing airworthiness information;
- (c) appropriate details of modifications and repairs;
- (d) the time in service in terms of hours, calendar time and cycles, as appropriate since the last overhaul of an aircraft or its components subject to a mandatory overhaul life;
- (e) the **[current]** status of **[the]**an aircraft’s compliance with the maintenance programme; and
- (f) **[the]** detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

Note — the form and format of the records may include, for example, paper records, visual media records, electronic records or any combination thereof.”;

- (p) the insertion in Subpart 10 in the arrangements of regulations of the following Subpart:

“SUBPART 10: CORSIA

91.10.1 Applicability

91.10.2 Attribution of **[an]** aeroplane operator to the Republic

- 91.10.3 Attribution of international flights to **[an]** aeroplane operator
- 91.10.4 Record keeping, compliance periods and equivalent procedure
- 91.10.5 Monitoring requirements of aeroplane operator's annual CO₂ emissions
- 91.10.6 Eligibility of monitoring methods
- 91.10.8 Calculation of CO₂ emissions from aeroplane fuel use
- 91.10.9 Monitoring of CORSIA eligible fuel claims
- 91.10.10 Reporting requirements for aeroplane operator annual CO₂ emissions
- 91.10.11 Reporting of CORSIA eligible fuel
- 91.10.12 Verification of CO₂ emissions
- 91.10.13 Error corrections to emissions report
- 91.10.14 Requirements for addressing data gaps
- 91.10.15 CO₂ offsetting requirements
- 91.10.16 Total final CO₂ offsetting requirements for given compliance period with emissions reductions from use of CORSIA eligible fuels
- 91.10.17 Cancellation of CORSIA Eligible Emissions Units
- 91.10.18 Reporting Emissions Unit Cancellation
- 91.10.19 Accreditation of verification body
- 91.10.20 Verification of Emissions Unit Cancellation Report.”:

(q) the substitution for regulation 91.10.1 of the following regulation:

“91.10.1 (1) this Subpart applies to an aeroplane operator that—

- (a) is attributed to the Republic in accordance with regulation 91.10.2; and

- (b) produces annual CO₂ emissions greater than 10,000 tonnes from the use of an aeroplane with a MCTOW greater than 5,700 kg conducting international flights on or after 1 January 2019.

(2) This Subpart is not applicable to—

- (a) a humanitarian flight;
- (b) a medical flight; **[and]**
- (c) a firefighting flight~~[.]~~, and
- (d) a flight preceding or following a humanitarian, medical, or firefighting flight, as prescribed in Document SA-CATS 91.

(3) The formulae and units, related to the CORSIA, are prescribed in Document SA-CATS 91.”;

- (r) the substitution in regulation 91.10.2 for subregulation (1) of the following subregulation:

“91.10.2 (1) An aeroplane operator with international flights shall be identified and considered attributed to the Republic if an aeroplane operator—~~is~~:[has a valid AOC or equivalent, issued by the director.]****

- (a) has an ICAO designator;
- (b) has a valid AOC, or equivalent, issued by the Director;
- (c) is registered as a juristic person, or
- (d) is a natural person with resident status in the Republic.”;

- (s) the substitution for regulation 91.10.4 of the following regulation:

“91.10.4 (1) An aeroplane operator shall keep records relevant to this Subpart for a period of ten ~~[(10)]~~ years.

(2) The Authority shall keep records relevant to an aircraft operator's CO₂ emissions per State pair in order to calculate **[the]** an aeroplane operator's offsetting requirements during the 2030 to 2035 compliance periods.

(3) An aeroplane operator shall comply with the compliance periods for CORSIA as prescribed in Document SA-CATS 91.

(4) If an aeroplane operator makes use of equivalent procedures, instead of the procedures prescribed in this Subpart, such equivalent procedures may be approved by the Director if in line with the requirements in Document SA-CATS 91.”;

(t) the substitution for regulation 91.10.6 of the following regulation:

“**91.10.6** (1) CO₂ emissions monitoring methods prescribed in Document SA-CATS 91 shall be considered as eligible, if an aeroplane operator monitors and records its fuel use from international flights, in accordance with an eligible monitoring method as provided for by **[sub-regulations]** subregulations (3) and (4).

(2) An aeroplane operator shall use the same eligible monitoring method for the compliance period in accordance with **[a]** an EMP approved by the Director.

(3) An aeroplane operator shall comply with the compliance period prescribed in Document SA-CATS 91.

(4) The eligibility thresholds, for the use of an eligible monitoring method for the 2019 to 2020 compliance period and the 2021 to 2035 compliance period, shall be as prescribed in Document SA-CATS 91.”;

(u) the substitution in regulation 91.10.9 for subregulation (2) of the following subregulation:

“(2) Fuel shall not be accounted for as CORSIA eligible fuel if an aeroplane operator fails to or cannot demonstrate that such fuel meets the CORSIA sustainability criteria~~[.]~~ as prescribed in Document SA-CATS 91.”;

- (v) the substitution in regulation 91.10.10 for subregulation (1) of the following subregulation:

“91.10.10 (1) An aeroplane operator—

- (a) shall submit to the Director, a copy of a verified emissions report for approval and a copy of an associated verification report in accordance with the timeline as prescribed in Document SA-CATS 91;
- (b) shall ensure that an emissions report contains the information as prescribed in Document SA-CATS 91;
- (c) shall report a number of international flights and CO₂ emissions in accordance with a level of aggregation decided on by the Director during an approval process of an EMP, which shall either be at a level of State pair or aerodrome pair;
- (d) that uses a CERT is not required to report information on a type and mass of fuel used and shall use the standardized emissions report template provided in Document SA-CATS 91 for submission; **[and]**
- (e) reporting on its consolidated CO₂ emissions from international flights, during the 2019 to 2020 period, shall append to the main emission report the disaggregated data relating to each subsidiary aeroplane operator~~[.]~~; and
- (f) may request the Authority in writing, not to publish its CO₂ emissions monitoring data, as prescribed in Document SA-CATS 91.”;

- (w) the substitution in regulation 91.10.12 of the following regulation:

“91.10.12 (1) An aeroplane operator’s emissions report shall be verified annually as follows:

- (a) by performing an internal pre-verification of its emissions report prior to the verification by a verification body; **[and]**
- (b) by a verification body for aeroplane operator’s annual emissions report ~~[.]~~; and

(c) by a verification body that is included in the list prescribed in Document SA-CATS 91.

(2) A verification body shall conduct a verification according to ISO 14064-3:2006, and the relevant requirements prescribed in Document SA-CATS 91.

(3) A verified emissions report shall be submitted, as prescribed in Document SA-CATS 91.

(4) The requirements for the verification of CORSIA eligible fuel shall be as follows—

- (a) fuel purchases, transaction reports, fuel blending **[records]** records, and sustainability credentials shall constitute documentary proof for the purpose of verification and approval of emissions reductions from the use of CORSIA eligible fuel; and
- (b) an aeroplane operator, or its representative, shall verify the production records for the CORSIA eligible fuels that it purchases as prescribed in Document SA-CATS 91.”;

(x) the insertion after regulation 91.10.14 of the following regulations:

“CO₂ offsetting requirements

91.10.15 (1) The offsetting requirements of CORSIA shall-

- (a) be applicable from 1 January 2021 to 31 December 2035, to an aeroplane operator referred to in regulation 91.10.1, whose international flights are between the Republic and States defined in Document SA-CATS 91.
- (b) not be applicable to a new entrant aeroplane operator-
 - (i) for three years starting from the year when such operator meets the requirements of regulation 91.10.1, or
 - (ii) until the annual CO₂ emissions exceed 0.1 percent of its total CO₂ emissions from international flights in 2020, whichever occurs first.

(2) Methods of calculation of emissions for offsetting requirements shall be as prescribed in Document SA-CATS 91.

(3) The Authority shall calculate the annual aeroplane operator's final CO₂ offsetting requirements, based on the data reported in accordance with Chapter 2 of the CORSIA Methodology for Calculating Actual Life Cycle Emissions Values and the applicability requirements as prescribed in Document SA-CATS 91.

Total final CO₂ offsetting requirements for given compliance period with emissions reductions from use of CORSIA eligible fuels

91.10.16 (1) The amount of CO₂ emissions required to be offset by an aeroplane operator, after considering emissions reductions from the use of CORSIA eligible fuels from 1 January 2021 to 31 December 2035 given compliance period, shall be calculated by the Authority using the requirements prescribed in Document SA-CATS 91.

(2) Where an aeroplane operator's total final offsetting requirements during a compliance period FOR_c is negative, the negative offsetting requirements shall not be carried forward to subsequent compliance periods and such an aeroplane operator shall have no offsetting requirements for the compliance period.

(3) The total final offsetting requirements of an aeroplane operator shall, during a compliance period FOR_c, be rounded up to the nearest tonne of CO₂.

(4) The Director shall inform an aeroplane operator, of its total final offsetting requirements, for a compliance period, according to the timelines for the given compliance period 2019 to 2020 as prescribed in Document SA-CATS 91.

Cancellation of CORSIA Eligible Emissions Units

91.10.17 (1) The CORSIA Eligible Emissions Units shall be as prescribed in Document SA-CATS 91.

(2) Cancellation of emissions units shall be applicable to an aeroplane operator, subject to the offsetting requirements stipulated in regulation 91.10.15.

(3) An aeroplane operator shall meet the offsetting requirements stipulated in regulation 91.10.15, as calculated by the Authority, by cancelling CORSIA Eligible Emissions Units in a quantity equal to its total final offsetting requirements, for a given compliance period, FOR_c.

(4) To fulfil the provisions of subregulation (2), an aeroplane operator shall:

(a) cancel such CORSIA Eligible Emissions Units within a registry, designated by a CORSIA Eligible Emissions Unit Programme, in accordance with the timelines as prescribed in Document SA-CATS 91; and

(b) request each CORSIA Eligible Emissions Unit Programme registry to make visible on the registry's public website, information on each of such aeroplane operator's cancelled CORSIA Eligible Emissions Units, for a given compliance period, in terms of the timelines as prescribed in Document SA-CATS 91.

(5) Information for each cancelled CORSIA Eligible Emissions Unit shall include consolidated identifying information in an Emissions Unit Cancellation Report, as prescribed in Document SA-CATS 91.

Accreditation of verification body

91.10.18 (1) An aeroplane operator shall engage a verification body, accredited by a national accreditation body, to ISO 14065:2013, ISO/IEC 17011:2004 and the relevant requirements as prescribed in Document SA-CATS 91, for the verification of its Emissions Unit Cancellation Report.

(2) A verification body shall be accredited and comply with the standards specified in ISO 14064-3:2006, and the relevant requirements prescribed in Document SA-CATS 91.

CONTINUES ON PAGE 130 OF BOOK 2

Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001
Contact Centre Tel: 012-748 6200. eMail: info.egazette@gpw.gov.za
Publications: Tel: (012) 748 6053, 748 6061, 748 6065



Government Gazette Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID AFRIKA

Regulation Gazette

No. 11556

Regulasiekoerant

Vol. 693

17

March
Maart

2023

No. 48228

PART 2 OF 3

N.B. The Government Printing Works will
not be held responsible for the quality of
"Hard Copies" or "Electronic Files"
submitted for publication purposes

ISSN 1682-5845



9 771682 584003



4 8 2 2 8



AIDS HELPLINE: 0800-0123-22 Prevention is the cure

(3) An aeroplane operator shall upon request, by a verification body, provide access to relevant information on the cancellation of emissions units.

Verification of Emissions Unit Cancellation Report

91.10.19 (1) An aeroplane operator shall report to the Authority the cancellation of CORSIA Eligible Emissions Units, carried out in accordance with regulation 91.10.18, to meet its total final offsetting requirements for a given compliance period, by submitting to the Director for approval:

- (a) a copy of a verified Emissions Unit Cancellation Report; and
- (b) a copy of an associated Verification Report.

(2) An Emissions Unit Cancellation Report submitted to the Authority shall contain information and be in accordance with the timelines prescribed in Document SA-CATS 91.

(3) A verification body referred to in regulation 91.10.18 shall independently submit a copy of Emissions Unit Cancellation Report and associated Verification Report, to the Director, in accordance with the timelines as prescribed in Document SA-CATS 91.

(4) The Director shall perform an order of magnitude check of Emissions Unit Cancellation Report submitted in terms of subregulation (3), in accordance with the timeline, as prescribed in Document SA-CATS 91.”.

Amendment of Part 92 of the Regulations

12. Part 92 of the regulations is hereby substituted for the following Part:

“PART 92:**CONVEYANCE OF DANGEROUS GOODS****LIST OF REGULATIONS****SUBPART 1: GENERAL**

<u>92.01.1</u>	<u>Applicability</u>
<u>92.01.2</u>	<u>Prohibition of conveyance of dangerous goods</u>
<u>92.01.3</u>	<u>Exemptions</u>
<u>92.01.4</u>	<u>General transport requirements</u>
<u>92.01.5</u>	<u>Inspection of dangerous goods by customs and other authorities</u>
<u>92.01.6</u>	<u>Usage of Technical Instructions and related manuals</u>
<u>92.01.7</u>	<u>Surface Transport</u>
<u>92.01.8</u>	<u>Designated body or institution</u>
<u>92.01.9</u>	<u>Designation of dangerous goods Inspector</u>
<u>92.01.10</u>	<u>Powers of dangerous goods inspector</u>
<u>92.01.11</u>	<u>Classification and listing of dangerous goods</u>
<u>92.01.12</u>	<u>Packing and packaging</u>
<u>92.01.13</u>	<u>Label and marking</u>
<u>92.01.14</u>	<u>Responsibility of shipper</u>
<u>92.01.15</u>	<u>Dangerous goods transport document</u>
<u>92.01.16</u>	<u>Operator's Responsibilities</u>
<u>92.01.17</u>	<u>Operator's compliance with dangerous goods requirements</u>
<u>92.01.18</u>	<u>Requirements for operator with no approval to convey dangerous goods as cargo</u>

<u>92.01.19</u>	<u>Requirements for operator with approval to convey dangerous goods as cargo</u>
<u>92.01.20</u>	<u>Third Party personnel</u>
<u>92.01.21</u>	<u>Helicopter operations</u>
<u>92.01.22</u>	<u>Cargo carried in main cargo compartments</u>
<u>92.01.23</u>	<u>Conducting safety risk assessment</u>
<u>92.01.24</u>	<u>Fire protection systems</u>
<u>92.01.25</u>	<u>Cargo acceptance areas – provision of information</u>
<u>92.01.26</u>	<u>Dangerous goods designated area</u>
<u>92.01.27</u>	<u>Transportation of spares and company material</u>
<u>92.01.28</u>	<u>Acceptance procedures</u>
<u>92.01.29</u>	<u>Loading and stowage</u>
<u>92.01.30</u>	<u>Inspection for damage or leakage</u>
<u>92.01.31</u>	<u>Loading restrictions in passenger cabin or on flight deck</u>
<u>92.01.32</u>	<u>Separation and Segregation</u>
<u>92.01.33</u>	<u>Securing of dangerous goods cargo loads</u>
<u>92.01.34</u>	<u>Loading in cargo aircraft</u>
<u>92.01.35</u>	<u>Provision of Information to PIC</u>
<u>92.01.36</u>	<u>Dangerous goods carried by passengers or flight crew members</u>
<u>92.01.37</u>	<u>Information to passengers</u>
<u>92.01.38</u>	<u>Passenger check-in information and procedures</u>
<u>92.01.39</u>	<u>Information to be provided to employees and ground handling agent</u>
<u>92.01.40</u>	<u>Information from PIC to aerodrome authorities</u>
<u>92.01.41</u>	<u>Emergency response information</u>
<u>92.01.42</u>	<u>Retention of documents</u>

<u>92.01.43</u>	<u>Designation of person responsible for dangerous goods</u>
<u>92.01.44</u>	<u>Powers of aerodrome operator covering loading and unloading of dangerous goods</u>
<u>92.01.45</u>	<u>Training requirements</u>
<u>92.01.46</u>	<u>Dangerous goods by mail</u>
<u>92.01.47</u>	<u>Dangerous goods in air cargo</u>
<u>92.01.48</u>	<u>Responsibilities of online retailer</u>
<u>92.01.49</u>	<u>Dangerous goods accident and incident reporting</u>
<u>92.01.50</u>	<u>Dangerous goods accident and incident investigation</u>
<u>92.01.51</u>	<u>Notification of undeclared or misdeclared dangerous goods</u>
<u>92.01.52</u>	<u>Reporting of undeclared or misdeclared dangerous goods</u>
<u>92.01.53</u>	<u>Reporting of dangerous goods occurrences</u>
<u>92.01.54</u>	<u>Removal of dangerous goods detained</u>
<u>92.01.55</u>	<u>Dangerous Goods Security</u>

SUBPART 2: TRAINING

<u>92.02.1</u>	<u>Training requirements</u>
<u>92.02.2</u>	<u>Dangerous goods training programmes – establishment and maintenance</u>
<u>92.02.3</u>	<u>Issuance of certificate.</u>
<u>92.02.4</u>	<u>Validation of foreign certificate</u>
<u>92.02.5</u>	<u>Validation of foreign air service operator or training organisation</u>

SUBPART 3: APPROVAL OF DANGEROUS GOODS TRAINING ORGANISATION

- 92.03.1 General
- 92.03.2 Requirements for approval
- 92.03.3 Procedures manual and training material
- 92.03.4 Personnel requirements
- 92.03.5 Record keeping and data records – general
requirements
- 92.03.6 Issue of certificate

SUBPART 4: DANGEROUS GOODS INSTRUCTOR ACCREDITATION

- 92.04.1 Requirements for Instructor certification
- 92.04.2 Authority and competency to conduct dangerous goods
training
- 92.04.3 Period of Validity
- 92.04.4 Validation of certificate issued by foreign authority
- 92.04.5 Register of certified Instructor

SUBPART 1: GENERAL

Applicability

92.01.1 (1) This Part applies to conveyance of dangerous goods, including
company material by aircraft.

(2) This Part does not apply to—

(a) military aircraft;

- (b) military personnel who perform their official duties on board a military aircraft;
- (c) an aircraft operated by the South African Police Service;
- (d) police personnel who perform official duties on board an aircraft operated by the South African Police Service.

(3) Except as provided in subregulation (5), and subject to the provisions of subregulation (4), this Part will not apply to dangerous goods carried in an aircraft where such goods are intended—

- (a) to provide medical treatment to a patient during a flight and when such dangerous goods—
 - (i) have been placed on board with the approval of an operator; or
 - (ii) form part of the permanent equipment of an aircraft when it has been modified for specialised use;
- (b) to provide veterinary aid or humanely put down an animal during a flight;
- (c) for spraying, dusting, or dropping in connection with agricultural, horticultural, forestry fire suppression activities, or pollution control operations; or
- (d) for dropping or triggering in avalanche control activities;
- (e) to provide, during flight, aid in connection with disaster management or search and rescue operations;
- (f) to be contained within items of excess baggage being sent as cargo and provided that—
 - (i) such excess baggage has been consigned as cargo by or on behalf of a passenger;
 - (ii) the dangerous goods may only be those that are permitted to be carried in checked baggage; and
 - (iii) such excess baggage is marked with the words “Excess Baggage consigned as cargo”.

(4) This Part shall not apply to articles and substances which are permitted to be carried by passengers, flight crew, and cabin crew, or articles and substances which would otherwise constitute dangerous goods, but which are required to be on board an aircraft in accordance with operating regulations, airworthiness requirements, and the provisions of operations manual concerned: Provided that these articles and substances are conveyed as prescribed in Document SA-CATS 92.

(5) Dangerous goods referred to in subregulation (3) shall meet the following conditions:

- (a) when being transported, shall be stowed and secured during take-off and landing and at all other times when deemed necessary by a PIC;
- (b) be under the control of trained personnel during the time when they are in use on an aircraft; and
- (c) when transported under subregulation (3)(a) to (e), may be carried on—
 - (i) a return training flight, made by the same aircraft;
 - (ii) a return positioning flight, made by the same aircraft; and
 - (iii) a maintenance flight when it is impracticable to load or unload the dangerous goods, subject to the conditions as prescribed in Document SA-CATS 92.

Prohibition of conveyance of dangerous goods

92.01.2 (1) A person shall not offer for conveyance in an aircraft, convey in an aircraft, or accept for conveyance in an aircraft—

- (a) dangerous goods specifically identified by name or by generic description prohibited for conveyance by air under any circumstances as prescribed in Document SA-CATS 92;
- (b) dangerous goods prohibited for conveyance by air under normal circumstances as prescribed in Document SA-CATS 92;
- (c) other dangerous goods, unless in accordance with the provisions of the Act, this Part, and as prescribed in Document SA-CATS 92; and

- (d) live animals infected with contagious disease.

Exemptions

92.01.3 (1) Notwithstanding the provisions of regulation 92.01.2, a person may apply to the Director in terms of Part 11 for an exemption in instances of—

- (a) extreme urgency;
(b) other forms of conveyance being inappropriate; or
(c) full compliance with the provisions of this Part being contrary to public interest.

(2) A person applying for exemption as contemplated in subregulation (1) shall satisfy the Director that in the conveyance, he or she will achieve an acceptable level of safety which is equivalent to the level of safety as prescribed in Document SA-CATS 92.

General transport requirements

92.01.4 (1) Unless otherwise provided for in these regulations—

- (a) a person shall not offer or accept dangerous goods for transport by air unless the goods are properly classified, documented, certified, described, packaged, marked, labelled, and in the condition for shipment required by these regulations;
(b) a person performing a function required by these regulations on behalf of a person who offers the dangerous goods for transport by air or on behalf of an operator, shall perform that function in accordance with the requirements of these regulations;
(c) a person shall not transport dangerous goods by air unless those goods are accepted, handled, and transported in accordance with these regulations;
(d) a person shall not regard packaging as meeting the requirements of these regulations unless that packaging is manufactured, fabricated,

marked, maintained, reconditioned, or repaired as required and as prescribed in Document SA-CATS 92; and

- (e) a person shall not carry dangerous goods or cause dangerous goods to be carried aboard an aircraft in either checked or carry-on baggage or on his or her person, unless permitted by these regulations.

Inspection of dangerous goods by customs and other authorities

92.01.5 (1) A package opened during an inspection shall, before being forwarded to a consignee, be restored by a trained and competent person to a condition that complies with these regulations.

(2) Dangerous Goods packages shall only be opened by a dangerous goods trained and competent person or under the supervision of such a person.

Usage of Technical Instructions and related manuals

92.01.6 (1) An air service operator, an entity involved in the conveyance, consignment, or handling of Dangerous Goods, and an entity approved to conduct Dangerous Goods in terms of these regulations shall be in possession of and operate in accordance with the current edition of Technical Instructions for the Safe Transport of Dangerous Goods by Air issued by ICAO.

Note: The use of a current edition of the IATA Dangerous Goods Regulations in the place of the ICAO Technical Instructions shall be acceptable.

Surface transport

92.01.7 When dangerous goods intended for conveyance by air are carried by surface transport to or from an aerodrome, provisions shall be made to meet the requirements applicable for the goods when carried by air in addition to those that are applicable for the goods when carried in other modes of transport.

Designated body or institution

92.01.8 (1) A body or institution designated in terms of this Part shall—

- (a) promote the safety of the conveyance of dangerous goods by air and an awareness thereof; and
- (b) advise the Minister on any matter connected with the safe conveyance of dangerous goods by air.

(2) The duties and responsibilities referred to in subregulation (1) shall be exercised and performed as prescribed in Document SA-CATS 92.

Designation of dangerous goods inspector

92.01.9 (1) The Director may designate a dangerous goods inspector to exercise the powers referred to in regulation 92.01.10 according to the conditions and requirements as prescribed in Document SA-CATS 92.

(2) In designating a person as contemplated in subregulation (1), the Director shall issue a letter which shall—

- (a) state the full names of a person designated as dangerous goods inspector; and
- (b) indicate that such a person is authorised to exercise the powers referred to in regulation 92.01.10.

Powers of dangerous goods inspector**92.01.10 (1) A dangerous goods inspector—**

- (a) may request any person to produce or furnish him or her with documents and information relating to dangerous goods or baggage in so far as is necessary for the proper execution of his or her functions; and
- (b) may, in order to ensure that the provisions of the Act, this Part, and the provisions of Document SA-CATS 92 are complied with, enter and inspect any—
 - (i) aerodrome or hangar;

- (ii) premises where goods intended for conveyance by air are produced, manufactured, packed, held, or received;
- (iii) premises where goods or baggage are received after being conveyed by air;
- (iv) aircraft, vehicle, freight container, or unit load device used for the conveyance of dangerous goods.

(2) A dangerous goods inspector shall conduct an inspection if, on reasonable grounds and in the interest of aviation safety, suspects that a baggage consignment, freight container, or unit load device contains goods which are not allowed to be conveyed by air or are a danger or potential danger to persons, aircraft or any other property.

(3) A dangerous goods inspector, after making a determination in terms of subregulation (2), may order that such goods be detained and not be loaded in an aircraft.

(4) A dangerous goods inspector may, in order to ascertain if dangerous goods have been or are to be conveyed by air—

(a) search—

- (i) baggage, a consignment, a freight container or a unit load device presented or accepted for conveyance by air;
- (ii) baggage, a consignment, a freight container or a unit load device received after being conveyed by air; and
- (iii) a person disembarking or boarding an aircraft and baggage or personal possessions of such person;

(b) satisfy himself or herself of the mass, quantity or composition of—

- (i) goods or baggage offered or presented for conveyance in a consignment;
- (ii) a passenger's baggage;
- (iii) a freight container or a unit load device; and
- (iv) stores conveyed by an aircraft owner, or his or her agent.

- (c) satisfy himself or herself that goods or baggage on board an aircraft, comply with the requirements as prescribed in Document SA-CATS 92;
- (d) satisfy himself or herself that the requirements as prescribed in Document SA-CATS 92 are complied with regarding the separation of classes of dangerous goods in a storage area, a unit load device, a vehicle, and aircraft;
- (e) require goods to be removed from an aircraft if the requirements and standards referred to in paragraphs (b) and (c) are not complied with;
- (f) request a person to produce or cause to be produced, for inspection, any document relating to a consignment intended for conveyance by air or which has been conveyed by air, or any other document as prescribed in Document SA-CATS 92;
- (g) question a person handling dangerous goods in order to ascertain whether that person complies with the provisions of the Act, this Part, and the requirements as prescribed in Document SA-CATS 92 relating to the handling of such dangerous goods; and
- (h) condemn dangerous goods for destruction, if in his or her opinion, such goods—
 - (i) are not in a good condition; or
 - (ii) are dangerous for storage or use; and
- (i) request an air service operator, a holder of an aerodrome licence, or other entity involved to cease the transportation of dangerous goods by air, where it is deemed that safety is compromised.

(5) Where a physical search of a person as referred to in subregulation (3) is conducted, such search shall be conducted by a person of the same gender and in strict regard to decency and order.

(6) If a dangerous goods inspector orders that goods be destroyed in terms of subregulation (3), an owner of such goods shall have no claim against an inspector, the Authority, or the State for loss or damages connected with such destruction.

Classification and listing of dangerous goods

92.01.11 (1) A shipper shall classify and list the dangerous goods as prescribed in Document SA-CATS 92.

Packing and packaging

92.01.12 (1) A shipper shall ensure that dangerous goods prepared or offered for conveyance by air, are packed in accordance with the provisions of this Part and the requirements as prescribed in Document SA-CATS 92.

(2) A shipper shall ensure that the packaging used for the conveyance of dangerous goods by air—

- (a) is manufactured, marked, maintained, reconditioned, and repaired as prescribed in Document SA-CATS 92;
- (b) is tested by a State authorised testing facility with a valid package performance test certificate; and
- (c) is, at the time of use, of good quality and securely closed to prevent leakage that may be caused by changes in temperature, humidity, pressure or vibration under normal conditions of conveyance by air.

(3) A shipper of dangerous goods shall ensure that inner packaging is cushioned, packed, and secured to prevent breakage or leakage and to control movement within the outer packaging during normal conditions of conveyance by air.

(4) A shipper of goods to be conveyed on an aircraft shall ensure that packaging which will be in direct contact with dangerous goods—

- (a) is resistant to chemical or other reaction with such goods and cushioning; and
- (b) that absorbent materials do not react dangerously with the contents of the receptacles.

(5) A shipper of goods to be conveyed on an aircraft shall ensure that packaging for which retention of a liquid is a basic function, is capable of withstanding pressure fluctuation, without leaking, as prescribed in Document SA-CATS 92.

(6) A receptacle used for the conveyance of dangerous goods by air shall not be re-used by a shipper until it has been inspected by such shipper and found free from corrosion or other damage.

(7) If a receptacle, used for the conveyance of dangerous goods by air, is re-used by a shipper, measures shall be taken to prevent contamination of subsequent dangerous goods conveyed therein.

(8) If an uncleaned empty receptacle due to the nature of its former contents may cause a hazard, a shipper shall ensure that such receptacle is tightly closed and treated according to the hazard that they constitute.

(9) A shipper of dangerous goods shall ensure that no harmful quantity of any dangerous substance adheres to the outside of a package.

Label and marking

92.01.13 (1) A person who offers a package containing dangerous goods for conveyance by air, shall ensure that—

- (a) a package is appropriately labelled as prescribed in Document SA-CATS 92;
- (b) a package offered is marked with a proper shipping name, UN number, class of hazard, and subsidiary risk; and
- (c) a package has a contents authorisation reference as prescribed in Document SA-CATS 92.

(2) A person who offers a package containing dangerous goods for conveyance by air, shall ensure that packaging has the appropriate packaging specification marking as prescribed in Document SA-CATS 92.

Responsibility of shipper

92.01.14 (1) A shipper of dangerous goods to be conveyed in an aircraft shall ensure that in addition to the requirements referred to in regulations 92.01.11, 92.01.12, and 92.01.13, such dangerous goods—

- (a) are not prohibited in terms of regulation 92.01.3; and
- (b) are accompanied by a properly completed dangerous goods transport document, in accordance with the provisions of this Part and as prescribed in Document SA-CATS 92.

(2) A shipper shall ensure that a person employed or acting on his or her behalf to prepare a consignment of dangerous goods to be conveyed by air—

- (a) is trained in accordance with the provisions of Subpart 2 of these regulations; and
- (b) is provided with the necessary information to enable them to carry out their responsibilities.

(3) A shipper shall ensure that in addition to the language which may be required by a State of Origin, the English language is used in all documentation accompanying the consignment of dangerous goods.

Dangerous goods transport document

92.01.15 (1) A person or shipper who offers dangerous goods for conveyance by air, shall, unless otherwise provided for in Document SA-CATS 92, complete, sign, and provide an air service operator with a dangerous goods transport document and such other appropriate documents as prescribed in Document SA-CATS 92.

(2) A dangerous goods transport document shall contain the information as prescribed in Document SA-CATS 92 as well as a declaration, signed by a person or shipper as applicable, indicating that the dangerous goods offered for conveyance by air are—

- (a) fully and accurately described by their proper shipping names;

- (b) identified, classified, packed, marked, and labelled as prescribed in Document SA-CATS 92;
- (c) in a condition for conveyance by air as prescribed in Document SA-CATS 92; and
- (d) not dangerous goods that are prohibited from being conveyed by air in terms of regulation 92.01.3.

(3) A shipper shall retain copies of dangerous goods documents for a minimum period of 90 days.

(4) If copies of dangerous goods required to be retained in terms of subregulation (3) are kept electronically, a shipper must be able to reproduce it in printed form.

Operator's responsibilities

92.01.16 (1) An air service operator intending to carry dangerous goods by air shall apply to the Director for approval as prescribed in Document SA-CATS 92

(2) A foreign air service operator shall submit a dangerous goods manual as approved by the applicable foreign authority for verification by the Authority when applying for FOP, in accordance with requirements of regulation 129.04.3.

Operator's compliance with dangerous goods requirements

92.01.17 (1) An air service operator, whether authorised to carry dangerous goods or not, shall develop and submit to the Authority–

- (a) a dangerous goods operations manual to ensure compliance with this Part and the requirements as prescribed in Document SA-CATS 92; and
- (b) a dangerous goods training programme.

(2) The content of a dangerous goods operations manual referred to in subregulation (1) shall address the operational areas as prescribed in Document SA-CATS 92.

Requirements for an operator with no approval to convey dangerous goods as cargo

92.01.18 An air service operator who is not approved to convey dangerous goods as cargo, shall stipulate, in its operations manual, procedures and instructions on how to deal with dangerous goods discovered on items to be conveyed in their aircraft as prescribed in Document SA-CATS 92.

Requirements for operator with approval to convey dangerous goods as cargo

92.01.19 An air service operator who is approved to convey dangerous goods as cargo shall stipulate instructions and procedures in its dangerous goods operations manual as prescribed in Document SA-CATS 92.

Third Party personnel

92.01.20 (1) An air service operator shall ensure that third party personnel involved in passenger handling, ramp handling, acceptance handling, and loading and unloading of cargo are informed of an operator's operational approvals and limitations with regard to conveyance of dangerous goods.

(2) An air service operator shall ensure that a copy of relevant sections of the dangerous goods operations manual is available or accessible to a third party referred to in subregulation (1).

Helicopter operation

92.01.21 (1) A helicopter operator shall—

- (a) when loading dangerous goods for open external carriage by a helicopter, consider the type of packaging used and protect the packaging, where necessary, from the effects of airflow and weather in addition to the general loading provisions; and

(b) when conveying dangerous goods suspended from a helicopter, ensure that consideration is given to the dangers of static discharge upon landing or release of such load.

(2) Slung loads usage in carriage of dangerous goods by helicopter is permissible if a helicopter operator is approved to convey dangerous goods and the goods are conveyed as prescribed in Document SA-CATS 92.

(3) A helicopter operator shall ensure that no person, other than a required flight crew member, or person required for handling, dispensing, or expending of dangerous goods, shall be carried on a helicopter transporting dangerous goods.

(4) A helicopter operator shall have prior permission of an aerodrome operator for dispensing with or expending of dangerous goods from such an aerodrome.

Cargo carried in main cargo compartment

92.01.22 (1) Dangerous goods shall not be conveyed in a main deck cargo compartment of a passenger aircraft unless—

- (a) such compartment meets the certification requirements for a Class B or C cargo compartment; and
- (b) such conveyance is in line with the emergency response guidance for aircraft incidents involving dangerous goods as prescribed in Document SA-CATS 92.

Conducting safety risk assessment

92.01.23 (1) An air service operator shall as part of its approved SMS, include a safety risk assessment process for the conveyance of dangerous goods.

(2) An air service operator shall establish policies and procedures for the conveyance of items in a cargo compartment which include the conduct of a risk assessment as prescribed in Document SA-CATS 92.

(3) A risk assessment referred to in subregulation (2) shall include information for the implementation of safety measures for the safe conveyance of dangerous goods including lithium batteries and cells as cargo as prescribed in Document SA-CATS 92.

Fire protection systems

92.01.24 (1) An air service operator shall ensure that—

- (a) an aeroplane utilised in the commercial air transport operation shall be equipped with a cargo compartment fire protection system, as approved by a State of Design or State of Registry of concerned aeroplane; and
- (b) a summary of demonstrated cargo compartment fire protection certification standards, is provided in a relevant aeroplane flight manual or other documentation supporting an operation of such aeroplane.

(2) An air service operator shall establish policies and procedures to ensure that in the event of fire involving items conveyed in a cargo compartment, such fire can be detected and sufficiently suppressed or contained by the elements of an aeroplane design associated with cargo compartment fire protection, until such aeroplane makes a safe landing.

Cargo acceptance areas – provision of information

92.01.25 (1) An air service operator or an entity involved in the acceptance of cargo shall ensure that a sufficient number of notices providing information regarding transportation of dangerous goods are provided and prominently displayed at a visible location at a cargo acceptance area to alert shippers or agents about any dangerous goods that may be contained in a cargo consignment.

(2) The notices referred to in subregulation (1) shall include visual examples of dangerous goods, including batteries.

Dangerous goods designated area

92.01.26 An entity or air service operator that prepares, handles, and stores dangerous goods cargo to be conveyed by air shall designate an area within its cargo facility to safely store all dangerous goods as prescribed in Document SA-CATS 92.

Transportation of spares and company material

92.01.27 An air service operator conveying dangerous goods that are company material, shall develop procedures in its operations manual on how such company material including aircraft components and consumable materials shall be conveyed as prescribed in Document SA-CATS 92.

Acceptance procedures

92.01.28 (1) An air service operator or an entity operating on behalf on an operator, shall not accept dangerous goods for conveyance by air—

- (a) unless the dangerous goods are accompanied by a completed dangerous goods transport document, except where Document SA-CATS 92 prescribes otherwise; and
- (b) until the exterior of the package, overpack, or freight container containing dangerous goods has been inspected in accordance with the acceptance procedures as prescribed in Document SA-CATS 92.

(2) An air service operator or entity referred to in subregulation (1) shall develop and use an acceptance checklist to ensure that the provisions regarding acceptance of dangerous goods for conveyance by air, are complied with.

(3) An acceptance checklist referred to in subregulation (2), shall comply with the requirements as prescribed in Document SA-CATS 92.

Loading and stowage

92.01.29 (1) An air service operator of an aircraft in which dangerous goods are to be conveyed shall comply with the storage and loading provisions of this Part and the requirements prescribed in Document SA-CATS 92.

Inspection for damage or leakage

92.01.30 (1) An air service operator of an aircraft in which dangerous goods are to be conveyed shall—

- (a) inspect the exterior of each package and overpack containing dangerous goods and each freight container or package containing radioactive materials; and
- (b) ensure that there is no damage to or leakage from such package, overpack, and freight container, before loading in an aircraft or into a unit load device.

(2) An air service operator referred to in subregulation (1) shall inspect a unit load device before loading such device in an aircraft to ensure that there is no damage or leakage from any dangerous goods contained therein.

(3) A damaged or leaking package, overpack, freight container, or unit load device shall not be loaded in an aircraft.

(4) If after loading, a package, overpack, or freight container containing dangerous goods appears to be damaged or leaking, an air service operator shall—

- (a) remove or arrange for the removal of such package, overpack, or freight container from an aircraft;
- (b) ensure that the remainder of the consignment is in a proper condition for conveyance by air; and
- (c) ensure that no other package, overpack, or freight container has been contaminated.

(5) Upon unloading a package or overpack containing dangerous goods, or a freight container or package containing radioactive materials from an aircraft or unit load device, an air service operator shall—

- (a) inspect such package, overpack, or freight container for signs of damage or leakage; and
- (b) if damage or leakage has occurred, inspect the area in an aircraft where such package, overpack, freight container, or unit load device were stowed for damage or contamination.

(6) If a package, overpack, or freight container containing radioactive materials is found to be damaged or leaking, an air service operator shall—

- (a) take all necessary precautions to restrict access to such package, overpack, or freight container containing radioactive materials; and
- (b) designate a qualified person to assess the extent of contamination and radiation level.

(7) If any hazardous contamination is found in an aircraft as a result of damage to or leakage from a package or overpack containing dangerous goods, an air service operator shall decontaminate such aircraft immediately.

(8) When an aircraft is contaminated by radioactive material, an air service operator shall—

- (a) remove an aircraft from service immediately;
- (b) report such contamination to the Authority and other relevant authorities with immediate effect; and
- (c) not return such aircraft to service until the radiation level resulting from any decontamination of any accessible surface and the non-decontamination of surfaces is below the values as prescribed in Document SA-CATS 92.

(9) A person responsible for conveyance and opening of packages containing infectious substances who becomes aware of damage to or leaking from such packages, shall—

- (a) avoid handling such infectious substances, where possible;
- (b) inspect adjacent packages for contamination;
- (c) inform an appropriate public health authority or veterinary authority of such damage or leakage;
- (d) provide an appropriate authority of a State of transit with information regarding any possible contamination; and
- (e) notify a shipper or consignee accordingly.

Loading restrictions in passenger cabin or on flight deck

92.01.31 Unless otherwise provided for in Document SA-CATS 92, an air service operator shall ensure that dangerous goods are not stowed in an aircraft cabin occupied by passengers or on the flight deck of an aircraft.

Separation and segregation

92.01.32 (1) An air service operator of an aircraft in which dangerous goods are to be conveyed shall ensure that packages containing dangerous goods which might react dangerously when coming into contact with each other are—

- (a) not stowed in an aircraft next to each other, or
- (b) not in a position that would allow interaction between them in the event of leakage.

(2) An air service operator shall ensure that a package containing poison or an infectious substance is stowed in an aircraft in accordance with the requirements as prescribed in Document SA-CATS 92.

(3) An air service operator shall ensure that a package containing radioactive materials is stowed in an aircraft in a manner which separates the package from persons, live animals, and undeveloped film, as prescribed in Document SA-CATS 92.

Securing of dangerous goods cargo loads

92.01.33 (1) An air service operator loading dangerous goods in an aircraft shall—

- (a) protect such dangerous goods from being damaged; and
- (b) secure such dangerous goods in a manner which shall prevent any movement in flight that may change the orientation of the packages.

(2) When securing packages containing radioactive materials, an air service operator shall ensure that such packages is adequately secured to prevent movement.

Loading in cargo aircraft

92.01.34 (1) An air service operator shall load a package or overpack containing dangerous goods and bearing a “cargo aircraft only” label, in such a manner that—

- (a) a flight crew member or other person authorised by an air service operator, can see the label, package, or overpack, and handle it accordingly; and
- (b) such package or overpack is separated from other cargo in flight where size and weight permit.

Provision of information to PIC

92.01.35 (1) An air service operator utilising an aircraft in which dangerous goods are to be conveyed shall provide a PIC, as soon as practicable before departure of such aircraft, with written information as prescribed in Document SA-CATS 92.

(2) An air service operator referred to in subregulation (1), shall—

- (a) provide information to the flight crew members, cabin crew members, employees, and third-party personnel concerned to enable them to carry out their duties with regard to the conveyance of dangerous goods by air; and

- (b) ensure that its operations manual contains requirements to provide the information as specified in paragraph (a) together with the information as prescribed in Document SA-CATS 92.

(3) An air service operator of an aircraft in which dangerous goods are to be conveyed shall include in its operations manual specific procedures and requirements related to retention of the NOTOC in a manner that such a document is accessible to an aerodrome of last departure and of a next scheduled arrival.

Dangerous goods carried by passengers or flight crew members

92.01.36 A passenger or flight crew member shall not carry dangerous goods as, or in, carry-on baggage or checked baggage, or on his or her person, except as provided by this Part and in accordance with the requirements as prescribed in Document SA-CATS 92.

Information to passengers

92.01.37 (1) An air service operator shall ensure that—

- (a) information regarding the types of goods that a passenger is prohibited to carry on board an aircraft, is prominently displayed and available to such passenger as prescribed in Document SA-CATS 92; and
- (b) information referred to in paragraph (a) includes notices, visual displays, audio visuals, text, pictorial form, and electronic displays on—
- (i) a location where—
 - (aa) a passenger is issued a ticket;
 - (bb) a passenger is issued a boarding pass;
 - (cc) a passenger's baggage is accepted or dropped off; and
 - (dd) a passenger boards an aircraft;
 - (ii) a baggage claim area; and
 - (iii) a ticket and, where applicable, on a boarding pass.

(2) An air service operator shall provide information to a passenger about dangerous goods which may be carried by a passenger, on their website or by other means, prior to a boarding pass being issued.

(3) An organisation or enterprise, other than an air service operator, which sells flight tickets to the public, shall provide a passenger with information about the types of dangerous goods which are prohibited from being carried aboard an aircraft.

(4) Information referred to in subregulation (3) shall, at a minimum, consist of notice displayed at a location where there is an interface with passengers.

Passenger check-in information and procedures

92.01.38 (1) An air service operator shall ensure that the check-in staff are adequately trained in terms of the provisions of Subpart 2 to assist in identifying and detecting dangerous goods carried by a passenger.

(2) An air service operator shall ensure that check-in staff seek confirmation that a passenger—

- (a) is not carrying dangerous goods that are not permitted onboard an aircraft on their person or in their baggage; and
- (b) is not carrying an item suspected of containing dangerous goods that are not permitted.

(3) An air service operator shall ensure that any organisation or enterprise accepting excess baggage consigned as cargo shall—

- (a) seek confirmation from a passenger, or a person authorised by such a passenger, that such excess baggage does not contain dangerous goods that are prohibited for consignment as cargo; and
- (b) seek further confirmation about the contents of any item suspected of containing dangerous goods that are prohibited.

(4) Where electronic means such as a website or self-check-in booths are utilised, an air service operator shall seek confirmation from a passenger that prohibited items are not being taken onboard an aircraft.

Information to be provided to employees and ground handling agent

92.01.39 (1) An air service operator shall in order to identify whether undeclared dangerous goods are being loaded on an aircraft or carried onboard in a passenger's baggage, ensure that its employees and ground handling agent are provided with the following information:

- (a) general descriptions that are often used for items in cargo or in passenger's baggage, and
- (b) a sign or indication that dangerous goods may be present.

(2) Information on dangerous goods which may be carried by passengers must be readily available to employees at—

- (a) cargo reservations;
- (b) cargo acceptance;
- (c) passenger reservations; and
- (d) sales and passenger check-in.

(3) An air service operator shall provide information in its operations manual or dangerous goods operations manual as the case may be, to enable flight crew, other employees, and ground handling agents to carry out their responsibilities with regard to the conveyance of dangerous goods.

(4) The information referred to subregulation (2) shall include instructions as to the action to be taken in the event of—

- (a) an emergency involving dangerous goods,
 - (b) details of location and numbering system of cargo compartments together with—
 - (i) the maximum quantity of dry ice permitted in each compartment;
- and

- (ii) if radioactive material is to be carried, instructions on the loading of such dangerous goods.

Information from PIC to aerodrome authorities

92.01.40 (1) A PIC shall as soon as practicably possible, if an in-flight emergency occurs, inform an appropriate ATSU of any dangerous goods carried as cargo on board an aircraft, for the information of an aerodrome intended for landing.

(2) Information referred to in subregulation (1) shall include information prescribed in Document SA-CATS 92.

Emergency response information

92.01.41 (1) An air service operator shall ensure that a dangerous goods transport document, NOTOC, and associated documents for conveyance of dangerous goods are at all times made available to a PIC, prior to departure, for use in emergency response to accidents and incidents involving dangerous goods in air transport.

(2) An air service operator shall, when required by an aerodrome of the last departure or next scheduled arrival, make a NOTOC available to such aerodrome, as well as to emergency services, including firefighters and rescue services.

(3) An air service operator that does not have approval to carry Dangerous Goods as cargo shall, in order to assist a PIC and cabin crew to manage onboard emergencies resulting from dangerous goods carried onboard, provide a PIC and cabin crew, prior to departure, with information contained in the documents prescribed in Document SA-CATS 92.

Retention of documents

92.01.42 (1) An air service operator utilising an aircraft in which dangerous goods are conveyed, shall ensure that at least one copy of records prescribed in

Document SA CATS 92 pertaining to a flight on which dangerous goods are conveyed, are retained for a period of 90 days, calculated from the date of such flight.

(2) An air service operator of an aircraft involved in a dangerous goods accident or incident, and a manager of an aerodrome where such accident or incident occurred, shall

- (a) report such accident or incident to the Director within 48 hours of such accident or incident occurring;
- (b) keep records of such dangerous goods accident or incident, and an undeclared or misdeclared dangerous goods event; and
- (c) make records referred to in paragraph (b) available, on site and upon request, to an authorised officer or inspector.

Designation of person responsible for dangerous goods

92.01.43 (1) An air service operator, ramp handling organisation, ground handling organisation, aerodrome operator, and any other entity involved in preparing, processing, and handling of dangerous goods to be conveyed by air shall designate a person responsible for dangerous goods, who shall ensure—

- (a) compliance with the regulations;
- (b) quality control;
- (c) reporting of accidents and incidents;
- (d) maintenance of dangerous goods incidents and accidents records.

(2) A person designated in terms of subregulation (1) shall—

- (a) have successfully completed a Group A based dangerous goods advanced training course based on a competency-based training framework from an approved ATO, of which an initial and refresher training shall be conducted as provided in Subpart 2 of these regulations; and
- (b) hold a risk management or safety management qualification.

Powers of aerodrome operator covering loading and unloading of dangerous goods

92.01.44 (1) If, in the opinion of a holder of an aerodrome licence, a possibility exists that any person on a licensed aerodrome may be endangered through the loading or unloading of dangerous goods, such a holder of an aerodrome licence may take any of the steps contemplated in subregulations (2), (3), and (4) of this regulation.

(2) If an air service operator has informed an aerodrome operator of a proposed loading or unloading of dangerous goods and a holder of an aerodrome licence considers that a person or property on such aerodrome will be endangered by such proposed loading or unloading, a holder of an aerodrome licence may—

- (a) permit such loading or unloading subject to such conditions as a holder of an aerodrome licence may deem necessary to impose with a view to safeguarding persons or property on such aerodrome; or
- (b) prohibit such loading or unloading.

(3) If dangerous goods have been loaded in or unloaded from an aircraft without a permission of a holder of an aerodrome licence, such holder of an aerodrome licence may direct that such dangerous goods cargo be unloaded from or reloaded in such aircraft, or give other direction or impose such condition as such holder of an aerodrome licence may deem necessary with a view to safeguarding persons or property on a concerned aerodrome.

(4) An air service operator conveying dangerous goods on an aerodrome shall, if directed to do so by a holder of an aerodrome licence, move a concerned aircraft to another place on such aerodrome and keep such aircraft in that place until a holder of an aerodrome licence grants permission for such aircraft to be moved.

Training requirements

92.00.45 A person involved with dangerous goods shall be trained in the requirements commensurate with their responsibilities as prescribed in Subpart 2 of these regulations prior to commencing their duties.

Dangerous goods by mail

92.01.46 (1) An air service operator and a person engaged in the conveyance of dangerous goods by air, shall establish procedures prohibiting the introduction of dangerous goods into air transport through postal or courier services as prescribed in Document SA-CATS 92.

(2) A postal or courier service provider shall ensure that his or her employees receive dangerous goods training commensurate with their duties as set out in Subpart 2 of these regulations.

Dangerous goods in air cargo

92.01.47 (1) A person or entity which offers cargo to be conveyed by air in the cargo supply chain shall—

- (a) take reasonable measures to establish if the cargo contains undeclared dangerous goods as prescribed in Document SACATS 92; and
- (b) sign a written statement or electronic confirmation that—
 - (i) confirms that the cargo does not contain dangerous goods; or
 - (ii) describes the content of the cargo.
- (c) submit a manifest of consolidated cargo for attachment to the airway bill for cargo.

(2) A person or entity accepting cargo to be conveyed by air at any point within the cargo supply chain shall, prior to acceptance of such cargo, require—

- (a) a signed statement or electronic confirmation with a full description of cargo; and
- (b) a packing list for consolidated cargo, where applicable.

(3) An air service operator shall not allow any item of cargo to be loaded on board aircraft unless such air service operator has been given a statement or confirmation in accordance with subregulation (1).

(4) A person or entity accepting cargo to be conveyed by air, in the absence of a statement or confirmation in terms of subregulation (1), shall inspect such shipment to establish if it contains undeclared dangerous goods, prior to tendering such cargo for conveyance by air, by physical inspection, inspection by X-ray, or inspection by any other appropriate method of screening.

(5) An air service operator or a cargo handling agent seeking to handle dangerous goods in terms of this Part shall seek approval of the Director as prescribed in Document SA-CATS 92.

(6) An air service operator or a cargo handling agent approved by the Director as contemplated in subregulation (5), shall conduct the final acceptance of dangerous goods before being placed on board aircraft.

(7) An entity dealing with or handling cargo to be conveyed by air shall—

- (a) appoint a designated person responsible for dangerous goods as required in terms of Regulation 92.01.43;
- (b) categorise personnel, based on their duties with respect to processing cargo and dangerous goods as follows:
 - (i) warehouse personnel;
 - (ii) employees of freight forwarders and couriers, including drivers involved in—
 - (aa) collection and transportation of cargo;
 - (bb) processing dangerous goods;
 - (cc) processing cargo, mail, or stores other than dangerous goods;
 - (dd) handling, storage and loading of cargo, mail, or stores;
 - (iii) employees of shippers, packers and persons undertaking the responsibilities of shippers and packers;

- (iv) personnel of general sales agents, cargo sales agents, and cargo reservations staff;
- (v) postal service personnel;
- (c) develop training programme;
- (d) provide personnel with training and such information to enable them to carry out their responsibilities with regard to the conveyance of dangerous goods by air;
- (e) develop a dangerous goods procedures manual containing information as prescribed in Document SA-CATS 92; and
- (f) ensure that a dangerous goods procedures manual is approved by the Director and made accessible to personnel.

(8) A holder of an aerodrome licence shall—

- (a) appoint a designated person responsible for dangerous goods as required by regulation 92.01.43;
- (b) develop a dangerous goods procedures manual as prescribed in Document SA-CATS 92;
- (c) develop a training programme;
- (d) provide employees with training and such information to enable them to carry out their responsibilities with regard to dangerous goods; and
- (e) ensure that a dangerous goods procedures manual is approved by the Director and made accessible to employees.

(9) A State authorised dangerous goods testing facility operating within the Republic, shall comply with the relevant requirements prescribed in Document SA-CATS 92.

(10) A dangerous goods packing organisation within the Republic involved in packing services for dangerous goods conveyed by air shall—

- (a) be authorised to do so in writing by the Director;
- (b) ensure that packages that are used to pack dangerous goods have been—

- (i) manufactured, fabricated, marked, maintained, reconditioned, or repaired, constructed, and tested in accordance with the requirements as prescribed in Document SA-CATS 92; and
 - (ii) tested by a State authorised testing facility and issued with a valid package performance test certificate;
 - (c) appoint a person responsible for dangerous goods as required by regulation 92.01.43;
 - (d) develop dangerous goods procedures manual as prescribed in Document SA-CATS 92;
 - (e) provide personnel with training and such information as to enable them to carry out their responsibilities with regards to packing of dangerous goods for conveyance by air;
 - (f) ensure that a dangerous goods procedures manual is approved by the Director and made accessible to personnel; and
 - (g) develop a training programme for personnel commensurate with their duties as provided for in Subpart 2 of these regulations.
- (11) An entity offering a drop box service shall—
- (a) comply with provisions of regulation 92.01.47;
 - (b) provide information regarding dangerous goods to users of the service as follows:
 - (i) on the website or through other electronic means; and
 - (ii) display signage on the drop box or at a parcel drop off area.

Responsibilities of online retailer

92.01.48 (1) An online retailer or online shopping platform shall develop and provide information to clients regarding the requirements for safe carriage of dangerous goods.

(2) An online retailer or online shopping platform shall develop and provide information to its partners regarding the applicable requirements for safe carriage of dangerous goods.

Dangerous goods accident and incident reporting

92.01.49 (1) An air service operator, cargo warehouse manager, aerodrome manager, and ramp and ground handler involved in a dangerous goods accident or incident within the Republic, shall within 48 hours after such accident or incident has occurred, notify—

- (a) in the case of an accident, the Executive responsible for Aircraft Accident and Incident investigation, the Director, an ATSU, and the South African Police Service; or
- (b) in the case of an incident, an appropriate ATSU who shall immediately on receipt of the notification, notify—
 - (i) the Director; and
 - (ii) where such incident occurs at an aerodrome, an aerodrome manager.

(2) An air service operator of a South African registered aircraft involved in a dangerous goods accident or incident outside the Republic, must, as soon as practicable, —

- (a) in the case of an accident, notify a foreign authority in a territory where such accident or incident has occurred, directly or through an appropriate ATSU as well as the Executive responsible for Aircraft Accident and Incident investigation and the Authority; and
- (b) in the case of an incident, notify a foreign authority in a territory where such incident has occurred, directly or through an appropriate ATSU as well as the Director, .

(3) In the event of an aircraft accident or a serious incident where dangerous goods conveyed as cargo may be involved, an air service operator carrying the dangerous goods as cargo shall provide information about the dangerous goods on board as shown on the NOTOC, without delay to the emergency services responding to such accident or serious incident.

Dangerous goods incident and accident investigation

92.01.50 (1) The Director shall, in case of a dangerous goods incident, assign a person to investigate such incident and report there-on in terms of regulation 92.01.49..

(2) The Executive responsible for Aircraft Accident and Incident investigation shall, in case of a dangerous goods accident, assign an investigator -in-charge to investigate such accident and report there-on in terms of Part 12.

Notification of undeclared or misdeclared dangerous goods

92.01.51 (1) An air service operator of a South African registered aircraft in which dangerous goods are conveyed inside or outside the Republic shall notify the Director and a foreign authority concerned, within 48 hours after the discovery of—

- (a) any undeclared or misdeclared dangerous goods; or
- (b) dangerous goods prohibited in terms of regulation 92.01.37.

(2) An air service operator, shipper, and an organisation engaged in the conveyance of dangerous goods by air shall, in order to prevent the occurrence of instances of undeclared or misdeclared dangerous goods in cargo—

- (a) establish investigation procedures in a dangerous goods operations manual;
- (b) compile information concerning any occurrence of undeclared or misdeclared dangerous goods in a territory in which the conveyed dangerous goods originated or are destined for; and
- (c) investigate any occurrence of undeclared or misdeclared dangerous goods and compile and investigation report.

Reporting of undeclared or misdeclared dangerous goods

92.01.52 (1) An air service operator, shipper, and other organisation engaged in the conveyance of dangerous goods by air, shall report the Director within 48 hours where—

- (a) undeclared or misdeclared dangerous goods are discovered, or
- (b) dangerous goods prohibited in terms of Document SA-CATS 92 are discovered in a passenger's baggage.

Reporting of dangerous goods occurrences

92.01.53 (1) An air service operator, shipper, and other organisation engaged in the conveyance of dangerous goods by air shall report to the Director, within 48 hours, when—

- (a) dangerous goods conveyed by air are found not to have been loaded, segregated, separated and secured as prescribed in Document SA-CATS 92; and
- (b) dangerous goods are found to have been carried on an aircraft without being included on a NOTOC as prescribed in Document SA-CATS 92.

Removal of dangerous goods detained

92.01.54 (1) An air service operator, shipper, and any other entity or person engaged in the conveyance of dangerous goods by air shall, if it is safe to do so, detain a dangerous goods package or consignment that relates to an accident or incident where an investigation of such accident or incident has not been completed.

(2) Dangerous goods referred to in subregulation (1) that form part of the evidence of an ongoing investigation shall only be released on the instruction of the Director or the Executive responsible for Aircraft Accident and Incident investigation, as the case may be.

Dangerous Goods Security

92.01.55 (1) An air service operator, shipper, and other entity or person engaged in the conveyance of dangerous goods including high consequence dangerous goods listed in Document SA-CATS 92 shall, in accordance with the aviation security requirements, develop and implement measures to prevent—

- (a) acts of unlawful interference; and
- (b) misuse of dangerous goods to endanger persons or property as prescribed in Document SA-CATS 92.

(2) An air service operator, shipper, and other entity engaged in the conveyance of dangerous goods shall develop and implement a security plan for high consequence dangerous goods that addresses the elements as prescribed in Document SA-CATS 92.”;

- (c) the substitution for Subpart 2 of the following Subpart:

SUBPART 2: TRAINING

Training requirements

92.02.1 (1) Training required in terms of this Part shall be provided by a training organisation approved in terms of Subpart 3 of these regulations.

(2) Initial dangerous goods training and knowledge assessment shall be conducted as prescribed in Document SA-CATS 92.

(3) Recurrent dangerous goods training and knowledge assessment shall be conducted within 24 months of any previous training to ensure that knowledge is current.

(4) If recurrent dangerous goods training is completed within the final three months of validity of any previous training, the period of validity extends from the month on which the recurrent training was completed until 24 months from the expiry month of that previous training.

(5) Dangerous goods training shall involve undergoing a practical assessment through “on-the-job-training” or training simulation as soon as practicable but no later than 3 months after completion of the training.

(6) An employer of a person required to undergo training in terms of subregulation (5), shall keep an observation report which shall address the gaps identified.

(7) Upon successful completion of dangerous goods training, a training organisation concerned shall issue a certificate to a person who has completed such training.

(8) A course moderator or instructor responsible for a dangerous goods training programme shall successfully complete an initial Group A advanced level dangerous goods course, based on the competency-based training as well as undergo dangerous goods recurrency training when necessary.

(9) A curriculum for the competency-based training and assessment shall contain the subject matter as prescribed in Document SA-CATS 92.

(10) An air service operator, aerodrome operator or ramp handling organisation, and respective service provider and sub-contractor shall—

- (a) maintain on-site, a record of training for personnel, including third party personnel, and
- (b) make training records available for inspection, upon request.

Dangerous goods training programmes – establishment and maintenance

92.02.2 (1) An air service operator or an entity involved in the conveyance of dangerous goods shall establish and maintain a dangerous goods training programme which shall be approved by the Director.

(2) An entity referred to in subregulation (1) shall include—

- (a) a shipper of dangerous goods, including a packer and a person or organisation undertaking the responsibilities of a shipper;
- (b) a ground handling agency which performs, on behalf of an air service operator, the act of accepting, handling, loading, unloading, transferring, or other processing of cargo or mail;

- (c) a ground handling agency located at an aerodrome which perform, on behalf of an air service operator, the act of processing passengers;
- (d) a ground handling agency, not located at an aerodrome, which performs, on behalf of an air service operator, the act of checking in passengers;
- (e) a freight forwarder, consolidator, or courier;
- (f) a ground handling agency engaged in the security screening of passengers and crew and their baggage, cargo, or mail; and
- (g) a designated postal company.

(3) A training programme referred to in subregulation (1) shall be based on the competency-based training and assessment approach, including the following elements:

- (a) applied design methodology,
- (b) initial and recurrent training,
- (c) assessment,
- (d) instructor qualifications and competencies,
- (e) training records; and
- (f) evaluation of the effectiveness of a training programme as prescribed in Document SA-CATS 92.

(4) An entity referred to in subregulation (2), shall issue a competency card, as prescribed in Document SA-CATS 92, upon a successful completion of on-the-job training assessment and such competency card shall be carried at all times by its holder.

(5) An air service operator shall establish a dangerous goods training programme regardless of whether such air service operator is approved to convey dangerous goods or not.

(6) A training programme established and maintained by or on behalf of a foreign air service operator, shall be approved by appropriate authority of a State of such operator and shall be submitted for acceptance by the Director.

- (7) An air service operator or entity referred to in subregulation (1) shall—
- (a) maintain training and assessment records as prescribed in Document SA-CATS 92.
 - (b) remain responsible for aspects of a training programme conducted by a third party organisation;
 - (c) designate personnel to conduct ‘on the job training’ as prescribed in Document SA-CATS 92; and
 - (d) select the correct syllabus for training and define the correct categories or types of personnel as per information prescribed in Document SA-CATS 92.

Issuance of certificate

92.02.3 (1) Upon successful completion of initial dangerous goods training or recurrent dangerous goods training, a trainee shall be issued with a certificate by a training organisation concerned.

(2) A certificate in dangerous goods training issued to an employee by or on behalf of a foreign air service operator who operates services to the Republic, shall be submitted to the Director for acceptance.

Validation of foreign certificate

92.02.4 (1) A holder of a foreign certificate may apply to the Director in writing for a validation of a foreign certificate issued in the handling of dangerous goods to be conveyed by air.

(2) The Director may approve the application referred to in subregulation (1), if a holder submits proof that—

- (a) a concerned certificate has been issued by a foreign air service operator or a training organisation; and
- (b) he or she has successfully completed the recurrent dangerous goods training referred to in regulation 92.02.1.

(3) The application referred to in subregulation (1) shall be accompanied by the appropriate fee as prescribed in Part 187.

Validation of foreign air service operator or organisation

92.02.5 (1) A representative of a foreign air service operator or a training organisation may apply to the Director in writing, for a validation of a foreign air service operator or training organisation's training programme to allow certificates issued by such operator or organisation to be accepted in the Republic.

(2) The Director may approve an application referred to in subregulation (1), if a foreign air service operator or a training organisation—

- (a) submits a concerned application to the Director with supporting documentation as prescribed in Document SA-CATS 92; and
- (b) utilise training systems that provide the same level of compliance and quality as required and maintained by these regulations.

(3) An application referred to in subregulation (1) shall be accompanied by the appropriate fee as prescribed in Part 187.”;

- (d) the substitution for Subpart 3 of the following Subpart:

“SUBPART 3:

Dangerous goods training approval

General

92.03.1 An organisation shall not conduct dangerous goods training unless such organisation is a holder of—

- (a) an ATO approval issued in terms of Part 141, or an ASTO approval issued in terms of Part 109; and
- (c) dangerous good training approval issued in term of regulation 92.03.2.

Requirements for approval

92.03.2 (1) An application for the issuance of a dangerous goods training approval shall be submit to the Director and accompanied by—

- (a) a training and procedures manual;
- (b) training programme and curriculum as prescribed in Document SA-CATS 92 and provisions of Subpart 2 of this Part;
- (c) two copies of training course material; and
- (d) the prescribed fee as stipulated in Part 187.

(2) An application referred to in subregulation (1) shall be submitted at least 90 days before such organisation is scheduled to commence with such training.

(3) Dangerous goods training shall be conducted at a facility that is—

- (a) appropriate for the maximum number of students expected to be taught at any one time as prescribed in Document SA-CATS 92; and
- (b) approved by the Director as prescribed in Document SA-CATS 92.

(4) Dangerous goods training conducted online or virtually shall meet the requirements stipulated in Part 141.

(5) The issuance of an approval to conduct dangerous goods training and the continued validity of such approval shall be based on compliance with the requirements of Part 141 and this Subpart.

Procedures manual and training material

92.03.3 (1) A holder of a dangerous goods training approval—

- (a) shall ensure that their training and procedures manual is amended as necessary to keep information up to date; and
- (b) may use training material which is in line with the ICAO Technical Instructions or the equivalent IATA Dangerous Goods Regulations manual.

(2) A holder of a dangerous goods training approval offering a Group A level dangerous goods training course or Designated Postal Operators Category A training course shall—

- (a) conduct training using the current dangerous goods reference manuals as prescribed in Document SA-CATS 92; and
- (b) ensure that learners are provided with a current version of reference manual.

(3) A holder of a dangerous goods training approval offering dangerous goods training in other groupings shall ensure that learners do not use reference material that is more than two years old.

Personnel requirements

92.03.4 (1) A holder of a dangerous goods training approval shall engage, employ or contract—

- (a) an accountable manager;
- (b) a quality manager;
- (c) a head of training; and
- (d) an adequate number of ground instructors for the courses provided, who meet the following requirements:
 - (i) hold a Group A advanced level dangerous goods training certificate and other appropriate certificates as prescribed in Document SA-CATS 92; and
 - (ii) are certified by the Director as stipulated in Subpart 4 of these regulations.
- (e) an individual responsible for updating, verifying updates and reviewing training material on the online platform who shall hold a current dangerous goods Group A advanced level certificate as set out in the competency based framework for dangerous goods.

Record Keeping and data records – general requirements

92.03.5 (1) A holder of a dangerous goods training approval shall maintain a record of an instructor approved to instruct and assess a course in accordance with this Subpart.

(2) A record referred to in subregulation (1) shall—

(a) indicate that an instructor has complied with all applicable instructor requirements as prescribed in Document SA-CATS 92;

(b) include at least the following:

(i) training records;

(ii) records of all performance reviews;

(iii) a history of training classes conducted;

(iv) a history of examinations conducted;

(v) records of audits conducted by the Authority on the training provided; and

(vi) approvals and certificates required by an instructor to conduct training.

(3) A holder of a dangerous goods training approval shall maintain a record of learners as prescribed in Part 141 and Part 109 which shall include the following:

(a) a copy of all dangerous goods certificates issued;

(b) class attendance registers;

(c) examinations conducted;

(d) other assessment records, if applicable;

(e) full particulars of learners; and

(f) competency based assessment forms, if applicable.

Issue of Certificate

92.03.6 (1) A holder of a dangerous goods training approval shall issue a certificate to a learner who has successfully completed a dangerous goods course in terms of this Part.

(2) A certificate referred to in subregulation (1) shall be issued in the form as prescribed in Document SA-CATS 92.”;

- (e) the substitution for Subpart 4 of the following Subpar:

“SUBPART 4:

Dangerous goods instructor accreditation

Requirements for Instructor certification

92.04.1 (1) A person who desires to conduct dangerous goods training shall apply for an instructor accreditation certificate in accordance with the provisions of regulation 92.04.3.

(2) An application in terms of subregulation (1) shall be—

- (a) made to the Director in the appropriate form;
- (b) accompanied by the documentation prescribed in Document SA-CATS 92; and
- (c) accompanied by proof of payment of appropriate fee as prescribed in Part 187.

(3) The Director shall issue an instructor accreditation certificate if an applicant—

- (a) is a subject matter expert;
- (b) has a minimum qualification and experience as prescribed in Document SA-CATS 92.
- (c) complies with the requirements prescribed in this Subpart and in Document SA-CATS 92.

Authority and Competency to conduct dangerous goods training

92.04.2 (1) A person shall not act as a dangerous goods instructor in terms of this Part, unless such person is a holder of an instructor accreditation certificate.

(2) A holder of an instructor accreditation certificate shall not conduct training unless authorised to do so by a holder of a dangerous goods training approval in terms of this Part.

(3) A holder of an instructor accreditation certificate shall maintain competency by undergoing recurrent training every 24 months.

Period of Validity

92.04.3 (1) An instructor accreditation certificate shall be valid for a period of 24 months.

(2) A holder of an instructor accreditation certificate shall, 30 days prior to an expiry of an instructor accreditation certificate,

- (a) submit an application to the Director for renewal; and
- (b) pay the appropriate fee as prescribed in Part 187.

(3) The Director may renew an instructor accreditation certificate referred to in subregulation (2) for a further period of 24 months, if the Director is of the opinion that a holder of an instructor accreditation certificate continues to comply with the requirements to be a dangerous goods instructor in terms of this Part.

Validation of certificate issued by foreign authority

92.04.4 (1) A holder of an instructor accreditation certificate issued by a foreign authority, who desires to conduct dangerous goods training within the Republic, shall apply to the Director in a prescribed form for validation of such certificate.

(2) The Director may grant a temporary validation of an instructor accreditation certificate valid for 30 days.

- (3) An application in terms of subregulation (1) shall be accompanied by—
- (a) a certified true copy of a certificate to which the validation refers;

- (b) certified copies of valid training records; and
- (c) the appropriate fee as prescribed in Part 187.

(4) The Director may refuse to grant a validation in terms of subregulation (2) if—

- (a) an applicant fails to provide sufficient proof that the an instructor accreditation certificate was issued by a competent foreign authority recognised by the Director; or
- (b) an instructor accreditation certificate concerned is not issued in accordance with the requirements equivalent to those contained in these regulations.

(5) A validation in terms of subregulation (2) shall be done in accordance with and subject to the requirements and conditions prescribed in Document SA-CATS 92.

(6) A holder of a validation certificate issued by the Director shall comply with the provisions stipulated in this Part and the requirements prescribed in Document SA-CATS 92.

Register of instructor accreditation certificates

92.04.5 (1) The Authority shall maintain a register of instructor accreditation certificates issued in terms of this Part.

(2) A register referred to in subregulation (2) shall contain the following particulars:

- (a) full name of a holder of a certificate;
- (b) physical and postal addresses of a holder of a certificate;
- (c) date on which a certificate was issued;
- (d) nationality of a holder of the certificate;
- (e) details of approved foreign dangerous goods training organisation and associated dangerous goods instructors; and

- (f) Authority number allocated to a dangerous goods instructor accreditation certificate.”.

Amendment of regulation 93.08.1 of the Regulations

13. Regulation 93.08.1 is hereby amended by the insertion after subregulation (9) of the following subregulation:

“(10) A CAO shall include in its operations manual—

- (a) operating instructions and data on aeroplane climb performance for existing take-off conditions; and
- (b) information to enable a PIC to determine climb gradient and intended take-off technique.”.

Amendment of Part 101 of the Regulations

14. Part 101 of the regulations is hereby amended by—

- (a) the substitution for Part 101 in the arrangements of regulations of the following Subparts:

“SUBPART 1:

GENERAL PROVISIONS

- 101.01.1 Applicability
- 101.01.2 Private operations
- 101.01.3 Grouping and classification
- 101.01.4 Directives
- 101.01.5 **[RPA]** UA sales and re-sales labelling

SUBPART 2:**APPROVAL AND REGISTRATION**

- 101.02.1 [RPAS] UAS letter of approval
- 101.02.2 [RPAS] UAS system safety
- 101.02.3 Altimeter
- 101.02.4 Registration and marking

SUBPART 4:**[RPAS] UAS OPERATING CERTIFICATE**

- 101.04.1 General requirements
- 101.04.2 Application
- 101.04.3 Validity
- 101.04.4 Duties of the holder of [an ROC] a UASOC
- 101.04.5 Operations manual
- 101.04.6 Documentation and records
- 101.04.7 Safety management
- 101.04.8 Security
- 101.04.9 Surveillance, safety and security audits and inspections
- 101.04.10 Register of operating certificates
- 101.04.11 Transferability
- 101.04.12 Liability insurance

SUBPART 5:**[RPAS] UAS OPERATIONS**

- 101.05.1 Weather conditions
- 101.05.2 Landing on roads

- 101.05.3 Controlled airspace
- 101.05.4 Releasing object or substance
- 101.05.5 Dangerous goods
- 101.05.6 Accidents and incidents
- 101.05.7 Consumption of alcohol and drugs
- 101.05.8 C2 operational requirements
- 101.05.9 Precautions and safety considerations
- 101.05.10 General restrictions
- 101.05.11 Beyond visual-line-of-sight
- 101.05.12 Night operations
- 101.05.13 Operations in **[the]** vicinity of people
- 101.05.14 Operations in **[the]** vicinity of property, structures and buildings
- 101.05.15 Operations in **[the]** vicinity of public roads
- 101.05.16 Radio communications requirements
- 101.05.17 Pre-flight preparation
- 101.05.18 Duties of **[the]** pilot
- 101.05.19 Flight operations
- 101.05.20 Right of way
- 101.05.21 Use of time
- 101.05.22 Flight folio
- 101.05.23 Power reserves
- 101.05.24 First aid kits
- 101.05.25 Hand-held fire extinguishers

SUBPART 6:

MAINTENANCE

- 101.06.1 Continued system maintenance
- 101.06.2 **[RPAS]** UAS maintenance
- 101.06.3 Issuance of a UASMT authorisation
- 101.06.4 **[RMT]** UASMT logbook.”;

(b) the substitution for regulation 101.01.1 of the following regulation:

“101.01.1 (1) Subject to subregulation (3) this Part applies to aspects relating to operation of Classes 1 and 2 UAS, unless otherwise determined by the Director.

(2) For the purposes of this Part, **[RPAS]** a UAS may be operated for—

- (a) commercial operations;
- (b) corporate operations;
- (c) non-profit operations; and
- (d) private operations.

(3) This Part does not apply to—

- (a) an autonomous unmanned aircraft and its operation;
- (b) an unmanned free balloon and its operations;
- (c) a type of aircraft which cannot be managed on a real-time basis during flight;
- (d) an aircraft operated in terms of Part 94;
- (e) a model aircraft; and
- (f) toy aircraft.”;

(c) the substitution for regulation 101.01.2 of the following regulation:

“101.01.2 (1) The provisions of Subparts 4 and 6 of this Part do not apply to private operation of UAS.

(2) Private operation of UAS shall be conducted only in R-VLOS with a Class 1A or 1B UAS.

(3) An operator of a UAS involved in private operation shall not convey dangerous goods on board UA.”;

- (d) the substitution for regulation 101.01.3 of the following regulation:

“101.01.3 [RPAS] UAS shall be [grouped in accordance with the classifications] classified as prescribed in Document SA-CATS 101.”;

- (e) the substitution for regulation 101.01.4 of the following regulation:

101.01.4 The Director may, from time to time, issue directives which are necessary for safe and secure operation of **[RPAS] UAS.”;**

- (f) the substitution for regulation 101.01.5 of the following regulation

“[RPA] UA sales or re-sales labelling

101.01.5 (1) A UA shall not be sold within the Republic unless a seller has, by way of a packaging label, notified a buyer of the requirements as prescribed in Document SA-CATS 101.

(2) Notwithstanding the provisions of subregulation (1), in case of resale, a reseller may use written notification in lieu of a packaging label.”;

- (g) the substitution for regulation 101.02.1 of the following regulation:

“[RPAS] UAS letter of approval

101.02.1 (1) [No RPAS] A UAS shall not be operated within the Republic, unless such **[RPAS] UAS** has been issued with a UASLA by the Director.

(2) An application for the issuance or renewal of a UASLA shall be made to the Director on the appropriate form and be accompanied by the appropriate fee as prescribed in Part 187.

(3) The Director shall issue a UASLA [RLA] if [the] an applicant complies

with the requirements prescribed in regulation 101.02.2.

(4) **[An] A UASLA [RLA]** shall be valid for a period of 12 months.”;

(h) the substitution for regulation 101.02.2 of the following regulation:

“[RPAS] UAS system safety

101.02.2 (1) An applicant for the issue of a UASLA **[an RLA]**, shall provide the Director with—

- (a) documentation regarding the standard to which **[the RPAS]** a UAS was designed; **[or]**
- (b) equivalent documentation that demonstrates a level of safety acceptable to the Director; or
- (c) documentation demonstrating system safety as prescribed in Document SA-CATS 101.”;

(i) the substitution for regulation 101.02.3 of the following regulation:

“101.02.3 (1) Except as provided for in subregulation (2), **[an RPA]** a UA shall be equipped with an altimetry system or equivalent, that is capable of displaying to **[the]** its operator on **[the RPS]** an RPS, its **[the]** altitude and height **[of the RPA]** above ground level.

(2) **[An RPA]** A UA that is not equipped with an altimetry system or equivalent, required by subregulation (1) shall be operated under R-VLOS only.”;

(j) the substitution for regulation 101.02.4 of the following regulation:

“101.02.4 (1) **[No [RPA]** A UA shall not be operated within the Republic, unless such **[RPA]** UA has been issued with a certificate of registration by the Director.

(2) **[An RPA]** A UA registered on the South African Civil Aircraft Register shall be deemed to have South African nationality.

(3) An application for a certificate of registration for a UA shall be—

- (a) made on the prescribed form; and
- (b) accompanied by the fee prescribed in Part 187.

(4) The Director shall register **[an RPA]** a UA, issue a certificate of registration and a registration mark if **[the applicant complies with the]** such UA meets the applicable registration requirements of this regulation.

(5) The Director shall maintain a register of all UA registered in terms of this regulation.

(6) The format and specification of a nationality mark designated for use on UA shall be as prescribed in Document SA-CATS 101.

(7) If a holder of a certificate of registration transfers to another person ownership of a concerned UA, such a holder shall, within 30 days, notify the Director of such transfer on the appropriate form.”;

(k) the substitution for regulation 101.04.1 of the following regulation:

“SUBPART 4:

[RPAS] UAS OPERATOR CERTIFICATE

General requirements

101.04.1 (1) **[No]** A person shall not operate **[an RPAS]** a UAS in terms of this Part unless such person is **[the]** a holder of—

- (a) in the case of commercial, corporate, and non-profit **[operations]**operation, a valid **[ROC]**UASOC including the **[operations specifications]** OpSpec attached thereto; and
- (b) in the case of commercial **[operations]**operation, an air services licence issued in terms of the Air Services Licensing Act, 1990 (Act No. 115 of 1990).”;

- (l) the substitution for regulation 101.04.2 of the following regulation:

“101.04.2 (1) An application for the a UASOC, renewal or amendment thereof, shall be made to the Director on the appropriate form accompanied by—

- (a) the appropriate fee as prescribed in Part 187;**
- (b) a copy of certificate of registration of each UA to be operated;**
- (c) a copy of a UASLA for each UAS to be operated; and**
- (d) an operations manual required by this Part.**

(2) [No RPA] A UA shall not be registered under more than one [ROC]UASOC.”;

- (m) the substitution for regulation 101.04.3 of the following regulation:

“101.04.3 (1) [An ROC] A UASOC shall be valid for a period of 12 months from the date of issue unless—

- (a) it is surrendered by [the] a holder thereof; or**
- (b) it is [suspended by an authorised officer, inspector or authorised person or] cancelled by the Director.**

(2) [The] A holder of [an ROC] a UASOC shall, at least 60 days immediately preceding the date on which such certificate expires, apply for [the] renewal of such certificate.

(3) [The] A holder of [an ROC] a UASOC which is cancelled shall, within seven days from the date on which [the ROC] such UASOC is cancelled, surrender such document to the Director.”;

- (n) the substitution for regulation 101.04.4 of the following regulation

“Duties of [the] holder of [an ROC] UASOC

101.04.4 (1) [The] A holder of [an ROC] a UASOC shall—

- (a) [conduct the activities] operate in accordance with the requirements**

and specifications **[granted by]** of such certificate **[and ensure compliance with the provisions authorised therein];**

- (b) ensure compliance with any other requirements which the Director may impose;
- (c) report to the Director any changes directly or indirectly related to the **[ROC]UASOC** that may affect the continued validity of **[the]** its certificate **[or approval]** or safety of persons and property; and
- (d) ensure that a UAS operation is conducted in accordance with this Part and in a safe manner to minimise hazards to persons, property, or other aircraft.

(2) For operations approved for E-VLOS, **[the]** an operator shall—

- (a) make use of at least one observer who shall not be younger than 17 years of age; and
- (b) ensure that **[each]** an observer referred to in paragraph (a) has completed the training prescribed by **[the]** an operator **[and as approved by the Director in their operations manual]** in its approved operations manual.”;

(o) the substitution for regulation 101.04.5 of the following regulation:

“101.04.5 (1) **[An ROC]** A UASOC holder shall **[develop]** develop, for approval by the Director, an operations manual containing all the information required to demonstrate how such an operator will ensure compliance with the regulations and how safety standards will be applied and achieved during **[such operations]**operation.

(2) **[An ROC]** A UASOC holder shall set out the type and scope of operations, including the manner in which each type of **[RPAS]UAS** and operation will be safely conducted.

(3) A UASOC holder's operations manual or system of manuals, shall specify how all operational activities are to be conducted and how a UASOC holder will

comply with the requirements of these regulations, in a manner that is commensurate with the size and scope of its operation.

(4) **[The operator]** A UASOC holder shall submit amendments made to the operations manual to the Director for approval—

- (a) prior to a change in any proposed aspect, **[type]** type, or scope of such operator's operation;
- (b) where such operations manual no longer meets the requirements of these regulations or associated technical standards;
- (c) on determining that any part or component thereof is, or becomes, inadequate; or
- (d) as required by the Director.

(5) Upon the approval of an amendment to an operations manual by the Director, a UASOC holder shall—

- (a) make such changes available to all persons engaged in the operation, deployment, handling, security, transportation, and storage of a UAS operated by such UASOC holder; and
- (b) ensure that persons referred to in paragraph (a) are made aware and where necessary, trained in accordance with any relevant aspect relating to such amendment.

(6) The structure and contents of **[the]** an operations manual shall be as prescribed in Document SA-CATS 101.”;

(p) the substitution for regulation 101.04.6 of the following regulation:

“101.04.6 (1) [An RPAS] A UAS operator shall establish a system of record-keeping that allows adequate storage and reliable traceability of all activities [developed]undertaken, covering in particular—

- (a) lines of responsibility and accountability;
- (b) safety policy;
- (c) identification of aviation safety hazards encountered by the activities

of the operator;

- (d) assessment and mitigation of the associated risks, including verification of the effectiveness of the mitigation measures taken;
- (e) personnel training and competence; and
- (f) quality, safety, and security management records.

(2) A format of records referred to in subregulation (1) shall be specified in **[the ROC]** a UASOC holder's operations manual.

(3) Records referred to in subregulation (1) shall be stored for at least 5 years in a manner that ensures protection from damage, alteration and theft.”;

- (q) the substitution for regulation 101.04.7 of the following regulation:

“101.04.7(1) [The] A holder of [an ROC] a UASOC shall establish [a safety management system] an SMS commensurate with [the] its size [of the organisation or entity] and the complexity of its operations.

(2) **[The safety management system] An SMS** established in terms of subregulation (1) shall include—

- (a) a process to identify actual and potential safety hazards and assess the associated risks;
- (b) a process to develop and implement remedial action necessary to maintain an acceptable level of safety;
- (c) **[provision] requirements** for continuous and regular assessment of the appropriateness and effectiveness of safety management activities.”;

- (r) the substitution for regulation 101.04.8 of the following regulation:

“101.04.8 (1) [The] A holder of [an ROC] a UASOC issued under this Part shall—

- (a) conduct background checks on all personnel recruited for deployment, handling, and storage of **[any RPAS] UAS**;

- (b) conduct criminal record checks every 24 months on all personnel employed in the deployment, handling, and storage of **[RPAS]** UAS;
- (c) ensure that **[RPAS]** a UAS not in use **[are]** is stored in a secure manner to prevent and detect unauthorised interference or use;
- (d) ensure that **[the RPAS]** a UAS is protected from acts of unlawful interference;
- (e) ensure that **[the RPA]** a UA is stored and prepared for flight in a manner that will prevent and detect tampering and ensure the integrity of vital systems;
- (f) designate a security coordinator responsible for the implementation, **[application]** application, and supervision of **[the]** security controls; and
- (g) ensure that all personnel employed in the deployment, handling, and storage of **[RPAS]** a UAS have received security awareness training as prescribed in Part 109.

(2) A **[The]** holder of **[an ROC]** a UASOC shall include in **[the]** its operations manual referred to in regulation 101.04.5 **[the]** security **[aspects]** requirements appropriate for [of the RPA]UA operations as prescribed in this regulation and Document SA-CATS 101.”;

- (s) the substitution for regulation 101.04.9 of the following regulation:

“101.04.9 (1) An applicant for the issuance of a UASOC shall permit an authorised officer, inspector, or authorised person to carry out such safety and security inspections, audits, and oversight as may be necessary to verify the validity of any application made in terms of regulation 101.04.2.

(2) **[The]** A holder of **[an ROC]** a UASOC issued in terms of regulation 101.04.2, shall permit a person authorised by the Director to carry out such safety and security inspections, audits and oversight, including safety or security inspections and audits of its partners or subcontractors, as may be necessary to determine continued compliance with the provisions of these regulations and **[the]**

privileges granted] conditions specified in its [by the] certificate.”;

- (t) the substitution for regulation 101.04.10 of the following regulation:

“101.04.10 The Director shall maintain a register of all certificates issued in terms of this Subpart **[subpart]**.”;

- (u) the substitution for regulation 101.04.11 of the following regulation:

“101.04.11 [An ROC] A UASOC issued in terms of this Part shall not be transferable.”;

- (v) the substitution for regulation 101.04.12 of the following regulation:

“101.04.12 [An ROC] A UAS holder shall at all times be adequately insured for third party liability.”;

- (w) the substitution for regulation 101.05.1 of the following regulation:

UA OPERATIONS

“101.05.1 [No] A person shall not operate **[an RPAS] a UAS** in weather conditions that do not allow unobstructed visual contact to be maintained with **[the RPA] a UA** by other airspace users and by **[the] an** operator unless in B-VLOS or night operations approved by the Director in their operations manual.”;

- (x) the substitution for regulation 101.05.2 of the following regulation:

“101.05.2 [No] A person shall not use a public road as a place of landing or take-off **[of an RPA] for a UA**, except—

- (a) **[by the]** if such person is a holder of **[an ROC] a UASOC** and such take-off or landing [as] has been approved by the Director in **[the operator’s] such person’s** operations manual; and
- (b) when approved by **[the]** relevant local authority.”;

- (y) the substitution for regulation 101.05.3 of the following regulation:

“101.05.3 (1) [No RPAS may] A UAS shall not be operated in controlled airspace, except by **[the] a holder of [an ROC] a UASOC and as approved by the Director in **[the operators’]** UASOC’s operations manual.**

(2) The Director may approve **[an RPA] a UA** operation in controlled airspace as contemplated in subregulation (1) only in—

- (a) VMC in an ATZ and CTR below 400 ft; and
- (b) subject to compliance with the conditions prescribed in Document SA-CATS 101.”;

- (z) the substitution for regulation 101.05.4 of the following regulation:

“101.05.4 [No] An object or substance shall not be released, dispensed, dropped, **[delivered]delivered, or deployed from **[an RPA] a UA** except by **[the]** a holder of [an ROC] a UASOC and as approved by the Director in **[the operators’]** an operations manual of such UASOC holder.”;**

- (aa) the substitution for regulation 101.05.5 of the following regulation:

“101.05.5 (1) Subject to subregulation (2), **[no RPA] a UA shall not carry dangerous goods as cargo, except if operated by **[the]** a holder of [an ROC] a UASOC and **[as]** approved for that purpose by the Director in **[the]** such UASOC’s operations manual.**

(2) The provisions of Part 92 shall apply to the conveyance of dangerous goods by a UA that—

- (a) carries or conveys dangerous goods as payload, including medical supplies, infectious and biological substances, and company material;
- (b) carries or conveys general cargo including airmail; and
- (c) carries or conveys dangerous goods under the exceptions provided in regulation 92.01.3.”;

(bb) the substitution for regulation 101.05.6 of the following regulation:

“101.05.6 (1) [All accidents and incidents] An accident or serious incident involving [an RPA] a UA shall be reported as prescribed in Part 12[, where there is—

- (a) any injury or death to a person;**
- (b) damage to property; or**
- (c) destruction of [the RPA] a UA beyond economical repair].**

(2) [All incidents] An incident involving [an RPA] a UA where loss of control occurred shall be reported to [the] a holder of [the ROC]UASOC.”;

(cc) the substitution for regulation 101.05.7 of the following regulation:

“101.05.7 [No remote] A UAS pilot, [observer]observer, or a UASMT[RMT] shall not—

- (a) consume alcohol less than 8 hours prior to reporting for duty;**
- (b) commence a duty period while the concentration of alcohol in any specimen of blood taken from any part of his or her body is more than 0,02 grams per 100 millilitres;**
- (c) consume alcohol or any psychoactive substance during the duty period or whilst on standby for duty; or**
- (d) commence a duty period while under the influence of alcohol or any psychoactive substance having a narcotic effect.”;**

(dd) the substitution for regulation 101.05.8 of the following regulation:

“101.05.8 A person shall not operate a UAS unless such UAS complies with the C2 operational requirements prescribed in Document SA-CATS 101.”;

(ee) the substitution for regulation 101.05.9 of the following regulation:

“101.05.9 (1) [No] A person shall not operate [an RPAS] a UAS unless—

- (a) [the RPA] a UA concerned is in a safe condition for operation [a fit-to-fly condition];**

- (b) **[the] a UA pilot concerned** is **[the] a holder of [a licence] an RPC** issued in terms of this Part;
- (c) **[the remotely piloted aircraft station]** such RPS is compatible and interoperable with **[the] an aircraft [it] to which it is connected [to]** in all phases of flight; and
- (d) **[the RPA]A UA** is being controlled by only one RPS, **[at any given moment in time.]**

(2) **[No]** A person shall not operate **[an RPAS] a UAS** in a negligent or reckless manner so as to endanger the safety of any person, **[property]property,** or other aircraft in the air or on the ground.

(3) **[The]** A UAS operator shall, in the best interest of safety, ensure that certain **[RPAS] UAS** operations are supplemented with additional personnel for non-flying duties, such that **[the remote pilot] a holder of an RPC** can maintain control and situational awareness in respect to positioning and collision avoidance.”;

(ff) the substitution for regulation 101.05.10 of the following regulation:

“101.05.10 (1) **[No]** A person shall not operate **[an RPA] a UA** unless **[they have] he or she has** in **[their] his or her** possession—

- (a) a valid **[RPA Pilot Licence] RPC**;
- (b) a copy of **[the ROC]UASOC** and associated OpSpec;
- (c) **[the] a** certificate of registration for each **[RPA]UA** in operation;
- (d) a copy of a UASLA **[the RLA]**; and
- (e) a user manual for **[the RPA] a UA** and **[the remote pilot station] RPS.**

(2) A UA shall not tow another aircraft or perform aerial or aerobatic displays.

(3) Unless as otherwise authorised by the Director, A UA shall not be

operated—

- (a) above 400 ft above the surface;
- (b) within a radius of 10 km from an aerodrome reference point;
- (c) within restricted or prohibited airspace; or
- (d) adjacent to or above a nuclear power plant, prison, police station, crime scene, court of law, national key point or strategic installation.”;

(gg) the substitution for regulation 101.05.11 of the following regulation:

“**101.05.11** (1) **[An RPA]** A UA shall not be operated beyond visual-line-of-sight unless **[by the holder of an ROC and]** as otherwise approved by the Director in **[the]** a UASOC’s operations manual.

(2) The Director may approve B-VLOS operation subject to **[the]** an operator meeting the requirements prescribed in Document SA-CATS 101.

(3) Approved B-VLOS operations may only be conducted in VMC, below 400 ft above surface level, unless otherwise approved by the Director.”;

(hh) the substitution for regulation 101.05.12 of the following regulation:

“**101.05.12** (1) **[An RPA]** A UA may not be operated at night except—

- (a) in R-VLOS operation; or
- (b) [by the holder of an ROC, and] as approved by the Director in terms of subregulation (2).

(2) A UA may only be operated at night by a holder of a UASOC if such a UA has been approved for night operation by the Director and—

- (a) such approval is reflected on such UASOC holder’s OpSpec; and
- (b) such operation shall comply with the requirements prescribed in Documents SA-CATS 101.

(3) **[An RPA]** A UA may not be operated at night in controlled airspace

except as approved by the Director and **[prescribed]** as provided for in regulation 101.05.3.”;

- (ii) the substitution for regulation 101.05.13 of the following regulation:

“101.05.13 A person shall not operate a UA directly overhead any person or group of people or within a lateral distance of 50 m from any person, unless such person—

- (a) is a holder of a UASOC and such operation has been approved by the Director;
- (b) is an operator of such UAS or is under the direction of an operator of such UAS; or
- (c) a group of people forms part of an operation of such UAS and is under control of an operator of such UAS, and adequate provisions have been made for their safety.”;

- (jj) the substitution for regulation 101.05.14 of the following regulation:

“101.05.14 (1) A person shall not operate a UA within a lateral distance of 50 m from any structure or building, unless such person—

- (a) is a holder of a UASOC and such operation has been approved by the Director;
- (b) has obtained permission from an owner of such structure or building, and
- (c) takes such measures as are necessary to ensure the safety of all persons on the ground, accessing such building, or are in the vicinity of such a structure.”;

- (kk) the substitution for regulation 101.05.15 of the following regulation:

“101.05.15 [No] A person shall not operate **[an RPA]**a UA over a public road, along the length of a public **[road]**road, or at a distance of less than 50 m from a public road unless—

- (a) such person is **[the]** a holder of **[an ROC]** a UASOC and **[the]** such operation has been approved by the Director **[in the operator's operations manual]; [or]**
- (b) in the case of operations over a public road, such road has been closed for public use; and
- (c) reasonable care has been taken to ensure the safety of road users and pedestrians in the event of a loss of control of **[the RPA]** such UAS.";

(II) the substitution for regulation 101.05.16 of the following regulation:

"101.05.16 (1) Except for R-VLOS **[operations, no RPAS]** operation, a UAS shall not be operated unless **[the]** its pilot is in possession of [has] a functioning air-band radio **[in his possession]**, which is tuned to **[the]** a frequency **[or frequencies]** applicable to **[the]** an ATSU providing services or controlling such area or airspace or to aircraft in such area or airspace.

(2) **[The]** An air-band radio referred to in subregulation (1) shall have the required output and be configured in such a way that the range, strength of **[transmission]**transmission, and quality of communication extends beyond the furthest likely position of **[the RPA]** a UA from **[the]** a pilot.

(3) For VLOS, **[E-VLOS]** E-VLOS, and B-VLOS operations, **[the]** a pilot shall, using **[the registration]** a registration mark of **[the RPA]** a UA as a call-sign, make the required radio calls, indicating the altitude, location and intended operation of **[the RPA]** a UA in that area and at such intervals as are required in order to ensure adequate separation from other aircraft is maintained.

(4) For approved **[RPA]**UA operations in controlled airspace, **[the]** a pilot shall maintain radio contact, using **[the]** a registration mark of **[the RPA]** a UAS as a call-sign, with the relevant ATSU, and acknowledge and execute such instructions as **[the]** an ATSU may give at any time during **[the]** an operation of **[the RPA]** a UAS.";

(mm) the insertion after regulation 101.05.16 of the following regulation:

“Multi-unmanned aircraft operations

101.05.16A (1) A person shall not operate a UAS in multi-unmanned aircraft operations or a swarm unless—

- (a) such person is a holder of a UASOC and such operation is approved by the Director;
- (b) a UAS is controlled by one RPS as approved by the Director; and
- (c) a UAS is controlled using command inputs only.”;

(nn) the substitution for regulation 101.05.17 of the following regulation:

“101.05.17 A pilot shall complete **[the] a** pre-flight **[preparations] preparation** prior to each flight, as prescribed in Document SA-CATS 101.”;

(oo) the substitution for regulation 101.05.18 of the following regulation:

“Duties of a pilot

101.05.18 (1) A pilot of a UAS shall—

- (a) be accountable for the safe operation of a UAS;
- (b) operate each aircraft in accordance with such aircraft’s manual;
- (c) be responsible for the separation from and avoidance of other aircraft and any other obstacles and hazard;
- (d) minimize hazards to persons and property on the ground, and other aircraft in the air; and
- (e) ensure that at least one observer is used for E-VLOS operations.”;

(pp) the substitution for regulation 101.05.19 of the following regulation:

“101.05.19 (1) **[The RPAS] A UAS** shall be operated in such a way that safe separation from other aircraft is maintained and that adequate obstacle clearance is ensured~~[,]~~ during all phases of the flight.

(2) **[The]** A pilot of [an RPA] a UA shall ensure that **[the]** a take-off and landing area is safe and of **[the]** appropriate dimensions, free from obstacles and has adequate surface conditions, with regard to the type of operation, the size of **[the]** an aircraft, **[the]** aircraft's **[performance]**performance, and external factors.”;

(qq) the substitution for regulation 101.05.20 of the following regulation:

“101.05.20 (1) Notwithstanding the provisions of subregulations (2) to (5), **[an RPA]**a UA shall give way to a manned aircraft.

(2) **[The RPA]** A pilot of a UAS shall avoid passing a UA over, **[under]**under, or in front of a manned aircraft, unless it passes well clear and takes into account the effect of aircraft wake turbulence.

(3) When two **[aircraft]**UA are approaching head-on or approximately in a **[way that there is]** manner that poses a danger of collision, each **[aircraft]**UA shall alter its heading to **[the]** its right.

(4) When two **[aircraft]**UA are converging at approximately the same level, **[the the aircraft]** a UA which has the other **[aircraft]**UA on its right, shall give way.

(5) **[An aircraft]** A UA which is being overtaken has **[the]** a right of way, and the one overtaking shall alter its heading to keep well clear.”;

(rr) the substitution for regulation 101.05.21 of the following regulation:

“101.05.21 (1) For the purposes of reporting and recording time, Co-ordinated Universal Time **[(UTC)]** shall be used and shall be expressed in hours and minutes and, when required, seconds of **[the]** a 24-hour day beginning at midnight.

(2) A pilot shall have a timepiece synchronised with Co-ordinated Universal

Time [UTC] prior to operating a [RPAS]UA in controlled airspace and at such other times during [the] a flight as may be necessary.

(3) Wherever time is utilised in the application of data link communications, it shall be accurate to within 1 second of Co-ordinated Universal Time [UTC].”;

(ss) the substitution for regulation 101.05.22 of the following regulation:

“101.05.22 (1) [The] An owner or operator of [an RPA]a UAS shall ensure that [the RPA] such UA has a flight folio or any other similar document which meets the requirements of and contains the information as prescribed in Document SA-CATS 101[, and the flight folio shall be accessible at the remote pilot station all times during flight].

(2) A flight folio referred to in subregulation (1) shall—

(a) be kept up-to-date and maintained in a legible manner; and

(b) be accessible at a concerned RPS at all times during a flight.

(3) All entries made in a flight folio shall be made immediately upon completion of the occurrence to which they refer.

(4) In the case of maintenance being undertaken on [the RPA] a UA, [the] an entry of such maintenance in a flight folio shall be certified by [the] a person responsible for the such maintenance.

(5) Without detracting from the generality of subregulation (1), **[the remote pilot] a holder of an RPC** shall—

(a) maintain fuel or charging records to enable the Director to ascertain that, the requirements of regulation 101.05.23 are complied with in respect of each flight under his or her control;

(b) ensure that fuel, charging, and oil records of each flight are entered in a flight folio; and

(c) maintain oil records to enable the Director to ascertain that trends for oil consumption are such that a UA has sufficient oil to complete each

flight.";

- (tt) the substitution for regulation 101.05.23 of the following regulation:

"101.05.23 (1) During VLOS operation **[operations]**, **[the remote pilot]** a holder of an RPC shall ensure that **[the aircraft]** a UA has enough fuel or electrical charge to complete the flight, plus a reserve of at least 10%.

(2) During B-VLOS operation, **[operations, the remote pilot]** a holder of an RPC shall ensure that **[the aircraft]** a UA has enough fuel or electrical charge to complete the intended flight plus a reserve of at least 10%.";

- (uu) the substitution for regulation 101.05.24 of the following regulation:

"101.05.24 (1) A person shall not operate a UAS unless a first aid kit consisting of medical supplies as prescribed in Document SA-CATS 91 is available within an RPS and within 300 m of take-off and landing points.

(2) A single first aid kit may be used to comply with the requirements of subregulation (1) when a place of take-off and landing and a location of an RPS is the same.

(3) A first aid kit referred to in subregulation (1) shall be inspected periodically to ensure that, as far as practicable, the contents thereof are in a condition necessary for their intended use.

(4) The contents of a first aid kit shall be replenished at regular intervals, in accordance with instructions contained on their labels, or as circumstances require.

(5) A first aid kit shall be readily accessible to all crew members involved in an operation of UAS."

- (vv) the substitution for regulation 101.05.25 of the following regulation:

“101.05.25 A person shall not operate a UA unless—

(a) a hand-held fire extinguisher suitable for use with electronic equipment and any power generating equipment is available—

(i) at a concerned RPS ; and

(ii) within 300 m of the take-off and landing points

(b) a hand-held fire extinguisher suitable for use on a UA is available within 300 m of the take-off and landing points.”;

(ww) the substitution for regulation 101.06.1 of the following regulation:

“101.06.1 (1) A UAS shall be maintained in compliance with its manufacturer’s instructions for continued equipment maintenance through actions or inspections.

(2) [The] An owner or operator of a UAS shall submit to the Director for approval, a maintenance programme for **[the RPAS] such UAS.**”;

(xx) the substitution for regulation 101.06.2 of the following regulation:

“[RPAS] UAS maintenance

101.06.2 (1) A person shall not perform maintenance on a UAS or any component thereof unless such person is—

(a) in respect of a UA classified as a Class 3 and higher, a holder of a valid UASMT authorisation; or

(b) in respect of a UA classified as a Class 2 and lower, a holder of a UASOC: Provided that such holder can demonstrate to the satisfaction of the Director, ability to perform the required maintenance on a UA.”;

(yy) the substitution for regulation 101.06.3 of the following regulation:

“Issuance of UASMT authorisation

101.06.3 (1) An applicant for the [issuing] issuance or renewal of [an

RMT]a UASMT authorisation shall—

- (a) be not less than 18 years of age; **[and]**
- (b) be a South African citizen or in possession of a valid permanent residence permit or valid temporary work permit with a letter of employment; and
- (c) **[shall]** have successfully completed appropriate UAS maintenance training, provided by—
 - (i) an organisation approved by **[the]** a competent authority **[in the]** of a country where **[the]** such training organisation is located;
 - (ii) **[training provided by]** an approved original equipment manufacturer; or
 - (iii) a training facility approved by the Director; or
- (d) demonstrate to the Director, the ability to perform maintenance functions where no training for **[the]** a particular **[RPA]UA** is offered or available.

(2) An application for the issuance of **[an RMT]** a UASMT authorisation shall be made to the Director in the appropriate form and accompanied by the appropriate fee as prescribed in Part 187.

(3) The Director shall issue **[an RMT]** a UASMT authorisation if **[the]** a concerned applicant complies with the requirements **[prescribed]** stipulated in subregulation (1).

(4) **[The]** A holder of **[an RMT]** a UASMT authorisation shall not exercise privileges other than the specific privileges for which **[the]** such authorisation is issued.

(5) **[An RMT]** A UASMT authorisation shall be valid for a period of 24 months.”;

(zz) the substitution for regulation 101.06.4 of the following regulation:

“[RMT]UASMT logbook

101.06.4 (1) **[Any]**A person responsible for maintenance of **[RPAS]** UAS shall maintain a personal logbook and shall record therein all work carried out on **[an RPAS]**a UAS and its components.

(2) The form of and information to be contained in a logbook referred to in subregulation (1), and the manner in which such logbook shall be maintained, are as prescribed in Document SA-CATS 101.

(3) **[No alterations]** Alterations of a logbook shall not be made once a logbook **[it]** is signed off by a designated person.”.

Amendment of Part 111 of the Regulations

15. Part 111 of the regulations is hereby amended by—

(a) the insertion in Part 111 in the arrangements of regulations of the following Part:

“LIST OF REGULATIONS: AVIATION SECURITY

111.01.1	Applicability
111.01.2	National Aviation Security Program
111.01.3	Airport Security Program
111.01.4	Air Carrier Security Programme
111.01.5	ANSP Security Programme
111.01.6	Security Programme pertaining to other aviation participants
111.01.7	Review of National Aviation Security Programme and other aviation security programmes
111.01.8	Security programme and security manual

- 111.01.9 Security procedures for ground handling service provider
- 111.01.10 Catering stores and catering supplies service provider security manual
- 111.01.11 Reporting of Security Incidents
- 111.01.12 Bomb Threat
- 111.01.13 Security exercise
- 111.01.14 Internal quality control protocol
- 111.01.15 Security controls in restricted areas and on-board **[an]** aircraft
- 111.01.16 Aviation security awareness training
- 111.01.17 Application for designation of **[an]** airport
- 111.01.18 Designation of **[an]** official for aviation security
- 111.01.19 Measures relating to cyber threats
- 111.01.20 Measures relating to security risk assessments
- 111.01.21 Security measures for landside areas of **[an]** airport
- 111.01.22 Measures relating to security culture.”;

(b) the substitution for regulation 111.01.4 of the following regulation:

“**111.01.4** (1) An air carrier shall designate an official responsible for execution of **[an]** such air carrier’s **[carrier]** security programme.

(2) An air carrier shall draw up a security programme which shall provide for—

- (a) a line of command of an air carrier executive management for security related functions;
- (b) a security structure of an air carrier and its charter of duties;
- (c) receipt and dissemination of and accountability for security information circulars, **[reports]** reports, and surveys;

- (d) procedures regarding the channels and methods of communication of information subject to section 107 of the Act;
- (e) a description of an air carrier's activities together with a policy and procedures relating to the security of each activity;
- (f) security measures in effect in regard to air carrier security, security control of passengers, hand baggage, checked baggage, cargo, mail, small parcels courier services, measures relating to certain categories of passengers including VIPs, diplomats, staff members, disabled passengers, inadmissible passengers, deportees and escorted passengers, carriage of firearms and weapons, security of **[aircraft]** aircraft, and security equipment;
- (g) contingency and emergency plans in respect of acts of unlawful interference including unlawful seizure of aircraft, sabotage, extortion, bomb **[threats]** threats, and interference with staff, which must be in accordance with airport security and contingency measures; and
- (h) training of security staff.

(3) An application for the issuance or renewal of AOC or FOP by an air carrier shall be accompanied by **[an]** such air **[operator]** carrier's security programme.

(4) An FOP application made in terms of the International Air Services Act, 1993 (Act No 60 of 1993) shall be accompanied by a written supplementary station procedure for each local station to which such air carrier operates, that meets the relevant requirements of the NASP and provisions of this Part.

(5) A foreign air carrier shall—

- (a) hold an air carrier security programme approved by an appropriate foreign authority;
- (b) establish, implement, and maintain written supplementary station procedures for each local station to which an air carrier operates that meet the requirements of its security programme and the provisions of this Part;

- (c) submit to the Director for approval, a supplementary station procedure for each local station referred to in paragraph (b);
- (d) appoint a person responsible for the implementation and maintenance of its written supplementary station procedures;
- (e) conduct a risk assessment for each local station at least once every two years; and
- (f) adjust its security measures and procedures in accordance with the level of threat facing such foreign air carrier.

6. An air carrier shall not accept catering stores and catering supplies from a service provider that does not have a security manual duly approved by the Director.”;

- (c) the substitution in regulation 111.01.8 of the following subregulation:

“111.01.8 (1) An application for approval or amendment of a security programme, supplementary station procedures by a foreign air carrier, or security manual shall be submitted to the Director as prescribed in Document SA-CATS 111.

(2) A foreign air carrier shall submit a supplementary station procedure for each operating station in the Republic, for approval of the Director.

(3) An application referred to in this regulation shall be accompanied by an appropriate fee prescribed in Part 187 .”;

- (d) the substitution for regulation 111.01.18 of the following regulation:

“111.01.18 (1) An application for designation of an official for aviation security shall be submitted to the Director as prescribed in Document SA-CATS 111 and be accompanied by the appropriate fee prescribed in Part 187.

(2) An official for aviation security shall—

- (a) be a South African citizen as defined in the South African Citizenship Act, 1995 (Act No.88 of 1995);
- (b) be 21 years of age or older;
- (c) have experience and knowledge of international, regional and national aviation security legislation;
- (d) be employed or contracted by an operator or service provider at a managerial level;
- (e) have not breached or contravened any security measures in aviation environment in the past 3 years;
- (f) not have been convicted of criminal offence;
- (g) not be suffering from a mental illness or been incapable of managing own affairs due to mental illness; and
- (h) not be an un-rehabilitated insolvent.

(3) The Minister may, on recommendation of the Director, designate an official who shall be responsible for aviation security of a designated airport.

(4) A designated official for security shall be subjected to security vetting by an appropriate entity responsible for state security.

(5) The Minister may, upon recommendation of the Director, issue to the designated airport, **[air carrier operator, ANSP or catering stores and catering supplies]** a certificate which shall state the following:

- (a) full name of an official for aviation security that has been designated in terms of this Part;
- (b) that a designated official is empowered to perform security functions that include but not limited to—
 - (i) application of the relevant portions of NASP;
 - (ii) developing a security tactical operational plan for a designated airport;
 - (iii) incorporation of stakeholder security needs into a security policy and standard operating procedures;

- (iv) compilation of a security programme or manual which shall include—
 - (aa) objectives and responsibility for ensuring its implementation;
 - and
 - (bb) security functions which include the designation of a person responsible for aviation security; and
- (v) manage security operations, access control and surveillance system, documentation control, quality management system and response measures”.

(6) A designated official for aviation security shall have an unhindered and direct line of communication to the Chief Executive Officer.

(7) Designation of an official for aviation security for a designated airport shall be valid for 5 years and the designation may, on application, be renewed by the Minister.”;

- (e) the insertion after regulation 111.01.21 of the following regulation:

“Measures relating to security culture

111.01.22 (1) A designated airport, an air carrier, an ANSP, a catering store, and a catering supplies service provider shall promote, develop, and implement a security culture.”.

Amendment of Part 121 of the Regulations

16. Part 121 of the regulations is hereby amended by—

- (a) the insertion in regulation 121.01.4 after subregulation (3) of the following subregulations:

“(4) The Authority shall immediately notify a foreign air service operator and if warranted, a State of an Operator and a State of Registry, as the case may be,

if—

- (a) a non-compliance or suspected non-compliance with applicable laws of the Republic by a foreign air service operator is identified, or
- (b) a potential serious safety issue, similar to one encountered by another operator, is identified.

(5) The Authority shall consult with a State of an Operator and a State of Registry, as applicable, concerning safety standards maintained by a foreign air service operator, if a notification as specified in subregulations (4) is issued and is warrants a resolution.”;

- (b) the substitution for regulation 121.01.5 of the following regulation:

“**121.01.5** (1) Where **[the] a** PIC of an aeroplane takes action deemed necessary to ensure the safety of an aeroplane which results in a violation of any regulation of **[the] a** State in, or over which an aeroplane is being operated, he or she shall comply with the requirements of regulation 91.02.6 and, where possible, cause **[the] such** event to be marked on **[the] a** CVR.

(2) Notwithstanding any requirement to file a report in terms of regulation 91.02.6, **[the] a** PIC shall submit a full report of **[the event to] a violation referred to in subregulation (1), to [the] a** person responsible for operations within 48 hours after the conclusion of **[the] flight concerned** in the manner specified in **[the] a concerned air service operator’s operations manual [referred to regulation 121.04.2]**.

(3) A PIC shall within 48 hours following an act of unlawful interference whereby such PIC was incapacitated, report such act to the Authority and a relevant foreign authority.”;

- (c) the substitution in regulation the 121.03.11 of the following regulation:

“(1) [The conduct] An air service operator shall provide checks including an inflight proficiency line check or demonstration of competency [required in terms of this subpart shall be] as prescribed in Document SA CATS 121.

(2) The issuance of any certificate or other means of certifying competency shall be as prescribed in Document SA-CATS 121.

(3) The following training, **[checking]**checking, or demonstration of competency validity periods shall apply:

(a) for flight crew members—

(i) training shall be valid to the first day of the thirteenth month following the month in which **[the]** such training took place;

(ii) except as provided in subparagraph (iv) **[below]**, a pilot proficiency check **[(PPC)]** is valid to the first day of the seventh month following the month in which [the PPC] a pilot proficiency check took place: provided that any two pilot proficiency checks that are similar in nature and occur within four months of each other shall not satisfy this requirement;

[(iii) any two PPC that are similar in nature and occur within four months of each other shall not alone satisfy the requirements of subparagraph (ii);]

(iv) where an air service operator is approved to conduct an advanced qualification training programme on specific aeroplane types, such approvals allow for **[the PPC]** pilot proficiency check on those types to be valid to the first day of the thirteenth month following the month in which **[the PPC]** such pilot proficiency check took place; and

(v) a line check is valid until the first day of the thirteenth month following the month in which a [the] line check took place.

(b) for cabin crew members—

(i) training shall be valid to the first day of the thirteenth month following the month in which **[the]** such training took place; **[and]**

- (ii) examinations and competency checks are valid to the first day of the thirteenth month following the month in which such [the] examination or check took place; and
 - (iii) an inflight proficiency line check shall be valid for a period of 12 months.
- (c) for persons other than flight or cabin crew members—
 - (i) for a flight [operations officers] operations officer, training and checks are valid to the first day of the thirteenth month following the month [the] such training or demonstration of competency took place; and
 - (ii) for all others, training and checks are valid to the first day of the twenty-fifth month following the month [the] such training, check or demonstration of competency took place.”;
- (d) the substitution for Subpart 5 in the arrangements of regulations of the following Subpart:

“SUBPART 5:

AEROPLANE INSTRUMENTS AND EQUIPMENT

- 121.05.1 Approval of instruments and equipment
- 121.05.2 Flight, navigation and associated equipment for aeroplanes operated under VFR
- 121.05.3 Flight, navigation and associated equipment for aeroplanes operated under IFR
- 121.05.4 Altitude alerting system
- 121.05.5 Terrain awareness and warning system
- 121.05.6 Airborne weather radar equipment
- 121.05.7 Cosmic radiation detection equipment

- 121.05.8 Flight deck crew interphone system
- 121.05.9 Flight crew interphone system
- 121.05.10 Public address system
- 121.05.11 Windshield wipers
- 121.05.12 Internal doors and curtains
- 121.05.13 First aid, emergency medical and universal precaution kits
- 121.05.14 Means for emergency evacuation
- 121.05.15 Airborne Collision Avoidance System
- 121.05.16 Passenger cabin signs and placards
- 121.05.17 Flight recorders
- 121.05.18 Flight data recorders
- 121.05.19 Cockpit voice recorders
- 121.05.20 Data link recorders
- 121.05.21 Lifesaving equipment during flight over open water
- 121.05.22 Equipment requirements for aeroplane on long range over water flight
- 121.05.23 Cabin attendant seats
- 121.05.24 Emergency locator transmitters
- 121.05.25 Microphones
- 121.05.26 Turbo-jet aeroplanes — forward-looking wind shear warning system”;

- (e) the insertion in regulation 121.05.1 after subregulation (5) of the following subregulation:

(6) A person shall not conduct a take-off in an aeroplane with an instrument or equipment that is unserviceable or that has been removed, where such instrument or equipment is required by—

- (a) the standards of airworthiness that apply to a type of flight being operated;
 - (b) any equipment list published by an aeroplane manufacturer indicating aeroplane equipment that is required for an intended flight;
 - (c) an AOC;
 - (d) an airworthiness directive; or
 - (e) this Part.”;
- (f) the substitution for regulation 121.05.4 of the following regulation:

“121.05.4 (1) A large turbine-engine aeroplane shall not be operated unless it is equipped with an altitude alerting system capable of—

 - (a) alerting **[the]** flight deck crew members upon approaching preselected altitude in either ascent or descent in sufficient time to establish level flight at such preselected altitude; and
 - (b) alerting by at least an aural signal the flight deck crew members when deviating above or below a preselected altitude **[by at least an aural signal]**.

(2) A large turbine-engine aeroplane shall not be operated unless such an aeroplane is equipped with a pressure-altitude reporting transponder which operates in accordance with the requirements stipulated in Part 171 and is capable of—

 - (a) providing pressure-altitude information with a resolution of 25 ft, or better from its aeroplane data source; and
 - (b) automatically providing information on its airborne or on-ground status by means of a Mode S transponder.”;
- (g) the insertion in regulation 121.05.5 after subregulation (7) of the following subregulation:

“(8) An air service operator shall implement database management procedures that ensure a timely distribution and update of current terrain and

obstacle data to TAWS.”:

- (h) the insertion in regulation 121.05.17 after subregulation (5) of the following subregulations:

“(6) An air service operator shall not allow use of recordings or transcripts of CVR, CARS, Class A AIR, and Class A AIRS for purposes other than investigation of an accident or incident in terms of Part 12, except where such recordings or transcripts are—

- (a) related to a safety event identified in the context of an SMS;
- (b) restricted to the relevant portions of a de-identified transcript of the recording, and are subject to the protections accorded by Part 140;
- (c) sought for use in criminal proceedings not involving an accident or incident investigation, and are subject to protections accorded by Part 140; or
- (d) used for inspections of flight recorder systems as provided in Part 121 and associated Document SA-CATS 121.

(7) An air service operator shall not allow the use of recordings or transcripts of FDR, ADRS, Class B and Class C AIR, and AIRS for purposes other than investigation of an accident or incident in terms of Part 12, except where recordings or transcripts are subject to protections accorded by Part 140 and are—

- (a) used by an air service operator for airworthiness or maintenance purposes;
- (b) used by an air service operator in the operation of a flight data analysis programme required in this Part;
- (c) sought for use in proceedings not related to an event involving an accident or incident investigation;
- (d) de-identified; or
- (e) disclosed under secure procedures.

Note: Provisions on the protection of safety data, safety information and related sources are contained in Part 140.”:

- (i) the insertion after regulation 121.05.26 of the following regulation:

“Turbo-jet aeroplanes — forward-looking wind shear warning system

121.05.27 (1) A turbo-jet aeroplane of a MCTOM in excess of 5 700 kg or authorised to carry more than nine passengers shall be equipped with a forward-looking wind shear warning system.

(2) A forward-looking wind shear warning system referred to in subregulation (1) shall be capable of providing a pilot with—

- (a) a timely aural and visual warning of wind shear ahead of an aircraft;
- (b) information on whether to execute a missed approach, go-around, or an escape manoeuvre if necessary;
- (c) an indication on when limits on automatic landing equipment are being approached, when such equipment is in use.”;

- (j) the substitution in regulation 121.07.2 for subregulation (1) of the following subregulation:

“121.07.2 (1) An air service operator shall—

- (a) establish for each aeroplane type, procedures and instructions for ground personnel and crew members pertaining to the duties for all types of operations on the ground and in flight;
- (b) establish a checklist system to be used by a flight crew **[members]** member for all phases of operation under normal, **[abnormal]** abnormal, and emergency conditions, to ensure that **[the]** operating procedures **[in the]** contained in an operations manual referred to in regulation 121.04.2 are followed;
- (c) ensure that a flight crew **[members]** member **[do]**does not perform any activities during critical phases of **[the]** a flight other than those required for **[the]** a safe operation of an aeroplane; **[and]**
- (d) ensure specific procedures are developed to instruct **[pilots]** a pilot with respect to rates of climb and descent in **[the]** various stages of flight~~[.]~~;

and

- (e) unless otherwise specified in an air traffic control instruction, specify procedures by which—
 - (i) an aeroplane climbing or descending to an assigned altitude or flight level may do so at a rate less than 1 500 ft per minute throughout the last 1 000 ft of climb or descent to an assigned level; and
 - (ii) a PIC is made aware of another aircraft at or approaching an adjacent altitude or flight level.”;

(k) the substitution for regulation 121.08.2 of the following regulation:

“121.08.2 (1) A person shall not conduct a take-off in an aeroplane if a mass of such aeroplane—

- (a) exceeds MTOW specified in such aeroplane’s flight manual for the pressure altitude and ambient temperature at an aerodrome where the take-off is to be made; or
- (b) exceeds landing mass specified in such aeroplane’s flight manual for a pressure altitude and an ambient temperature at a destination aerodrome or alternate aerodrome, after allowing for planned fuel consumption during a flight.

(2) **[No person shall]** A person shall not conduct a take-off in an aeroplane unless **[the]** such an aeroplane is able, in **[the]** an event of a critical engine failing or for other reasons, at any point in **[the]** a take-off, either to discontinue **[the]** a take-off and stop within the accelerate-stop distance available or to continue **[the]**

a take-off and clear all obstacles along **[the]** a flight path by an adequate vertical or horizontal distance.

(2A) For the purposes of determining an accelerated stop distance, a PIC shall take into account a loss, if any, of runway length due to alignment of an aeroplane prior to take-off.

(2B) For the purpose of determining a resulting take-off obstacle accountability area, a PIC shall take into account the crosswind component and navigation accuracy.

(3) In the determination of **[the]** a maximum take-off mass referred to in subregulation (1)—

- (a) the required accelerate-stop distance shall not exceed the accelerate-stop distance available **[(ASAD)]**;
- (b) the required take-off run shall not exceed the take-off run available **[(TORA)]**; and
- (c) the required take-off distance shall not exceed the take-off distance available **[(TODA)]**.

(4) For the purposes of subregulation (2), the following factors shall be applied—

- (a) **[the]** pressure altitude at **[the]** an aerodrome;
- (b) **[the]** ambient temperature;
- (c) **[the]** runway slope in **[the]** a direction of take-off;
- (d) not more than 50 **[percent]** % of the reported headwind component or not less than 150 **[percent]** % of the reported tailwind component;
- (e) **[Loss]** loss of effective take-off run available during runway alignment except where rolling take-offs are approved; **[and]**
- (f) **[Where the]** where a runway condition is other than dry **[the]** an appropriate penalty based upon **[the]** runway condition or contaminates on **[the]** a runway shall be factored into the performance calculation**[.]**;
- (g) MTOW of an aeroplane;

- (h) specific operating procedures; and
- (i) any other factor that may significantly affect aeroplane performance.”.

(l) the substitution for regulation 121.09.5 of the following regulation:

“121.09.5 (1) An air service operator shall provide a maintenance control manual that meets requirements prescribed in Document SA-CATS 43 for use and guidance of maintenance and operational personnel concerned.

(2) A maintenance control manual referred to in subregulation (1) shall incorporate relevant principles of human factors.

(3) An air service operator shall apply to the Director for approval or amendment of a maintenance control manual by submitting two copies of such maintenance control manual or amendment, as applicable, to the Director who shall retain a copy of each manual or amendment.

(4) An air service operator may, in accordance with the amendment procedures contained in a maintenance control manual amend such manual in order to—

- (a) keep information up to date, and
- (b) accurately reflect company policy with respect to aeroplane maintenance.

(5) Upon approving an amendment to a maintenance control manual, the Director shall furnish an air service operator with a copy of such amendment with clear instructions to insert the amended pages in a timely manner into a maintenance control manual.

(6) The Director may require an air service operator to amend a maintenance control manual where in the Director's opinion, a maintenance control manual requires updating.

(7) An air service operator's maintenance control manual shall have description of—

- (a) procedures required in terms of regulation 121.09.4 including a description of the administrative arrangements between an operator and an approved maintenance organisation;
- (b) maintenance procedures and the procedures for completing and signing a maintenance release;
- (c) names and duties of a person employed to ensure that all maintenance is carried out in accordance with a maintenance control manual;
- (d) references to or maintenance programme required in terms of regulation 121.09.2;
- (e) methods used for completion and retention of an operator's maintenance records;
- (f) methods used for completion and retention of an operator's continuing airworthiness records;
- (g) procedures for monitoring, assessing, and reporting maintenance and operational experience with respect to continuing airworthiness;
- (h) procedures for providing information prescribed by a State of Registry, when operating an aeroplane of over 5 700 kg MTOM;
- (i) procedures for complying with service information reporting requirements;
- (j) procedures for assessing continuing airworthiness information and implementing any resulting actions after receiving continuing airworthiness information or recommendations from an organisation responsible for a type design;
- (k) procedures for implementing resulting actions considered necessary in accordance with a procedure acceptable to a State of Registry;
- (l) procedures for implementing action resulting from mandatory continuing airworthiness information;
- (m) procedures for establishment and maintenance of a system of analysis and continued monitoring of performance and efficiency of a maintenance programme, in order to correct any deficiency in that programme;

- (n) aircraft types and models to which a manual applies;
- (o) procedures for ensuring that any unserviceability affecting airworthiness is recorded and rectified; and
- (p) procedures for advising a State of Registry of any significant in-service occurrence.”.

Amendment of Part 127

17. Part 127 of the regulations is hereby amended by—

- (a) the substitution in regulation 127.01.6 for subregulation (1) of the following subregulation:

“**127.01.6** (1) Notwithstanding the language proficiency requirements specified in Part 61, an operator shall ensure that a flight crew member is able to demonstrate **[shall not assign a flight crew to duty unless at least one member of the flight crew has demonstrated to such operator, his or her]** ability to speak and understand the English language **[used]** for radiotelephony communications over any route and aerodrome named in the operational flight plan for that flight.”;

- (b) the insertion in regulation 127.05.8 after subregulation (5) of the following subregulations.

“(6) On a helicopter for which the individual certificate of airworthiness is first issued on or after 1 January 1991, at least 50 % of life rafts as prescribed in Document SA-CATS 91 shall be deployable by remote control.

“(7) Life rafts which are not deployable by remote control, and which have a mass of more than 40 kg shall be equipped with some means of mechanically assisted deployment.”;

- (c) the substitution for regulation 127.05.14 of the following regulation:

“Flight recorders**127.05.14** (1) For the purposes of this regulation, any reference to—

(a) a specified date upon which an application for type certification is submitted to a Contracting State means the date an application is made for a new aircraft type, not the date of certification of particular aircraft variant or derivative model; and

(b) a specified date upon which an individual certificate of airworthiness is first issued means the first time a certificate of airworthiness is issued for a new individual aircraft serial number that has just come off an assembly line.

(2) A person shall not conduct a commercial operation—

(a) with a helicopter of an MCTOW exceeding 3 180 kg for which an individual certificate of airworthiness was first issued on or after 1 January 2016 unless such helicopter is equipped with a Type IVA FDR that complies with the requirements prescribed in Document SA-CATS 127;

(b) with a helicopter of an MCTOW exceeding 7 000 kg, or having a passenger seating configuration of more than 19, for which an individual certificate of airworthiness was first issued on or after 1 January 1989, unless such helicopter is equipped with a Type IV FDR that complies with the requirements prescribed in Document SA-CATS 127;

(c) with a helicopter of an MCTOW exceeding 7 000kg, or having a passenger seating configuration of more than nine, for which an individual certificate of airworthiness was first issued on or after 1 January 1989, unless if—

(i) such helicopter is equipped with an FDR that complies with the requirements prescribed in Document SA-CATS 127;

(ii) an air service operator has established and maintained a flight data analysis as part of its SMS for such helicopter; and

(iii) a flight data analysis programme contains adequate safeguards to protect the source of data.

(3) An air service operator shall ensure that the following FDRs are not installed in a helicopter referred to in sub-regulation (2):

- (a) engraving metal foil FDR;
- (b) photographic film FDR;
- (c) analogue FDR using frequency modulation; and
- (d) magnetic tape FDR.

(4) A Type IV, Type IVA, and Type V FDR shall be capable of retaining information recorded during at least the last ten hours of its operation.

(5) An air service operator shall not engage in a commercial operation with a helicopter of an MCTOW exceeding 7 000 kg unless—

- (a) if such helicopter is equipped with a CVR; and
- (b) for a helicopter not equipped with an FDR, at least the main rotor speed is recorded on a CVR.

(6) An air service operator shall ensure that a CVR installed in accordance with this regulation is not a magnetic tape and wire CVR.

(7) A helicopter required to be equipped with a CVR shall be equipped with a CVR capable of retaining information recorded during the last two hours of its operation.

(8) A helicopter for which an individual certificate of airworthiness was first issued on or after 1 January 2016, which utilises any of the data link communications applications prescribed in Document SA-CATS 127 and which is required to carry a CVR, shall be capable of recording data link communications messages on a crash-protected flight recorder.

(9) A minimum recording duration on a data link recorder shall be equal to the duration of a CVR.

(10) A data link recording to a data link recorder shall be able to be correlated to the recorded cockpit audio.

(11) The documentation requirement concerning FDR parameters provided by an air service operator to the Executive responsible for Aircraft Accident and Incident investigation shall be in electronic format and take account of industry specifications.”:

(d) the substitution in regulation 127.07.8 for subregulation (5) of the following subregulation:

“(5) An air service operator shall not consider offshore landing alternatives when planning a flight over-water, if it is possible to carry sufficient fuel for an alternate landing on-shore, unless—

- (a) exceptional circumstances exist;
- (b) payload enhancements exist in adverse weather conditions; and
- (c) the on-shore environment is hostile.”:

(f) the substitution for regulation 127.07.18 of the following regulation:

“Operations with head-up displays, vision systems or night vision goggles

127.07.18 (1) An air service operator shall not use automatic landing systems, HUD or equivalent displays, EVS, NVG, SVS, CVS, or any combination of those systems into a hybrid system for operating a helicopter, unless—

- (a) such operator is authorised to do so in its operations specifications;
- (b) such operator complies with the automatic landing systems, HUD or equivalent displays, EVS, SVS, or CVS as applicable and the requirements prescribed in Document SA-CATS 127;
- (c) such equipment meets the appropriate airworthiness certification requirements; and

(d) such an operator has carried out a safety risk assessment of operation concerned supported by such systems.

(2) An air service operator shall include suitable operational procedures for use of equipment referred to in subregulation (1) in its operations manual, which shall cover at least the following:

- (a) limitations;
- (b) operational credits as specified in Document SA-CATS 127;
- (c) flight planning;
- (d) ground and airborne operations;
- (e) crew resource management;
- (f) standard operating procedures; and
- (g) ATS flight plans and communication.”.

Amendment of regulation 135 of the Regulations

18. Part 135 of the regulations is hereby amended by—

- (a) the insertion in Subpart 1 in the arrangements of regulations of the following Subpart:

“SUBPART 1: GENERAL

135.01.1 Applicability

135.01.2 Admission to flight deck

135.01.3 Passenger intoxication and unruly behaviour

135.01.4 Compliance with foreign and domestic regulations

135.01.5 Language proficiency – other languages

135.01.6 Regulatory infractions during emergency situations”;

- (b) the substitution for regulation 135.01.4 of the following regulation:

“Compliance with foreign and domestic regulations

135.01.4 (1) An air transport operator shall ensure that its flight crew is familiar with the laws, regulations, and procedures, pertinent to the performance of their flight duties and prescribed for areas to be traversed, aerodromes to be used, and air navigation facilities relating thereto.

(2) An air transport operator shall ensure that all its employees, when performing their functions abroad, know that they must comply with the laws, regulations, and procedures of a concerned State.

(3) The Authority shall immediately notify a foreign air service operator and if warranted, a State of such operator and a State of Registry, as the case may be, if—

- (a) a non-compliance or suspected non-compliance with applicable laws of the Republic by a foreign operator is identified, or
- (b) a potential serious safety issue similar to one encountered by another operator is identified.

(4) The Authority shall consult with a State of an Operator and a State of Registry as applicable concerning safety standards maintained by a foreign air service operator, if a notification as specified in subregulation (3) is issued and its resolution warrants it.”:

(c) the insertion after regulation 135.01.5 of the following regulation:

“Regulatory infractions during emergency situations

135.01.6 (1) If a PIC takes an action deemed necessary to ensure the safety of an aeroplane which results in a violation of any regulation of a State in, or over which an aeroplane is being operated, such PIC shall comply with the requirements

of regulation 91.02.6 and, where possible, cause such event to be marked on a CVR.

(2) Notwithstanding any requirement to file a report in terms of regulation 91.02.6, a PIC shall submit a full report of the event to a person responsible for operations within 48 hours after conclusion of such flight in the manner specified in a concerned air carrier's operations manual.

(3) A PIC shall, within 48 hours following an act of unlawful interference whereby such PIC was incapacitated, report such act to the Authority and any other appropriate authority.”;

(d) the substitution for regulation 135.03.5 of the following regulation:

“135.03.5 (1) [No] An air service operator [may assign nor may] shall not assign, and a PIC or second-in-command, if applicable, shall not accept an assignment to operate an aeroplane under this [part] Part unless he or she has completed the check requirements specified in Document SA-CATS 135.

(2) The conduct of the checks required in terms of this subpart shall be as prescribed in Document SA-CATS 135.

(3) An initial and recurrent flight training, and proficiency and competency checks for a flight crew member conducting single pilot operation, shall be performed—

(a) in a single pilot role on the same class of aeroplane, and

(b) in an environment representative of an operation.”;

(e) the substitution for regulation 135.05.1 of the following regulation:

“135.05.1 (1) An air service operator shall ensure that a flight does not commence unless instruments and equipment required under this Subpart, or otherwise installed on an aircraft will enable a flight crew to—

(a) control the flight path of an aeroplane,

- (b) carry out any required procedural manoeuvres; and
- (c) observe the operating limitations of an aeroplane in the expected operating conditions.

(2) Instruments and equipment referred to in subregulation (1) shall be—

- (a) approved and installed in accordance with the requirements, including operational and airworthiness requirements, applicable to such instruments and equipment ;and
- (b) serviceable and in a condition for safe operation for the kind of operation being conducted, except as provided for in the MEL.

(3) A person shall, subject to subregulation (4), not conduct a take-off in an aeroplane with instruments or equipment that are unserviceable or that have been removed where such instruments or equipment are required by—

- (a) standards of airworthiness that apply to a flight being operated;
- (b) any equipment list published by a manufacturer of such aeroplane regarding aeroplane equipment that is required for the intended flight;
- (c) an AOC;
- (d) an airworthiness directive; or
- (e) this Part.

(4) Notwithstanding the provisions of subregulation (3), the Director may, under exceptional circumstances, issue a flight permit authorising a take-off for an aeroplane that has instruments or equipment that are unserviceable or that have been removed.

(5) A person shall not conduct a take-off in an aeroplane—

- (a) for which an MEL has not been approved;
- (b) with instruments and equipment that are unserviceable other than instruments and equipments specified in subregulation (2);
- (c) with instruments and equipment that have been removed unless—
 - (i) removal of such instruments and equipment is authorised in such aeroplane flight manual; and

(ii) appropriate placards are installed as required by such aeroplane's maintenance control manual; and

(iii) an entry recording actions referred to in subparagraphs (i) and (ii) is made in the flight folio or other document approved for that purpose.

(6) An extinguishing agent used in a built-in fire extinguisher for a lavatory disposal receptacle for towels, paper, or waste in an aeroplane which was first issued with a certificate of airworthiness from 31 December 2011 shall—

(a) meet applicable prescribed minimum performance requirements; and

(b) not be of a type listed in the Montreal Protocol on Substances that Deplete the Ozone Layer, 1987.

(7) An extinguishing agent used in a portable fire extinguisher in an aeroplane which was first issued with a certificate of airworthiness on or after 31 December 2016 shall—

(a) meet applicable prescribed minimum performance requirements; and

(b) not be of a type listed in the Montreal Protocol on Substances that Deplete the Ozone Layer 1987.

(8) Information regarding extinguishing agents to be used in an aeroplane is prescribed in Document SA-CATS 135.”;

(f) the insertion in regulation 135.05.5 after subregulation (8) of the following subregulations:

(9) An air service operator shall implement database management procedures that ensure timely distribution and update of current terrain and obstacle data to TAWS.

(10) A turbine-engine aeroplane with an MCTOM of less than 5 700 kg and authorised to carry between five and nine passengers shall be equipped with TAWS that provides—

(a) warnings stipulated in subregulation (6);

- (b) a warning of unsafe terrain clearance; and
- (c) a predictive terrain avoidance function.”;

(g) the insertion in regulation 135.05.9 after subregulation (5) of the following subregulations:

“(6) An air service operator shall not allow the use of recordings or transcripts of CVR, CARS, Class A AIR, and Class A AIRS for purposes other than an investigation of an accident or incident in terms of Part 12, except where such recordings or transcripts are:

- (a) related to a safety event identified in an SMS;
- (b) restricted to the relevant portions of a de-identified transcript of the recording, and are subject to the protections accorded by Part 140;
- (c) sought for use in criminal proceedings not involving an accident or incident investigation, and are subject to the protections stipulated in Part 140; or
- (d) used for inspections of flight recorder systems as provided in Part 135 and its associated Document SA-CATS 135.

(7) An air service operator shall not allow the use of recordings or transcripts of FDR, ADRS, Class B and Class C AIR, and AIRS for purposes other than the investigation of an accident or incident in terms of Part 12, except where recordings or transcripts are subject to protections stipulated in Part 140 and are—

- (a) used by an air service operator for airworthiness or maintenance purposes;
- (b) used by an air service operator in an operation of a flight data analysis programme required in terms of this Part;
- (c) sought for use in proceedings not related to an event involving an accident or incident investigation;
- (d) de-identified; or
- (e) disclosed under secure procedures.

Note- Provisions on the protection of safety data, safety information and related sources are contained in Part 140.”;

- (h) the substitution in regulation 135.07.2 for subregulation (1) of the following subregulation:

“**135.07.2** (1) An air service operator shall—

- (a) establish for each aeroplane type, **[procedures]**procedures, and instructions for ground personnel and crew members pertaining to **[the]** duties for all types of operations on the ground and in flight;
- (b) establish a checklist system to be used by flight crew members for all phases of operation under normal, **[abnormal]**abnormal, and emergency conditions, to ensure that **[the]** operating procedures in **[the]** its operations manual **[referred to in regulation 135.04.2]** are followed;
- (c) ensure that flight crew members do not perform any activities during critical phases of **[the]** a flight other than those required for the safe operation of **[the]** an aeroplane; **[and]**
- (d) ensure specific procedures are developed to instruct pilots with respect to rates of climb and descent in **[the]** various stages of flight~~[.]~~; and
- (e) unless otherwise specified in an air traffic control instruction, specify procedures by which—
 - (i) an aeroplane climbing or descending to an assigned altitude or flight level may do so at a rate less than 1 500 ft per minute throughout the last 1 000 ft of climb or descent to the assigned level; and
 - (ii) a PIC is made aware of another aircraft at or approaching an adjacent altitude or flight level.”;

- (i) the substitution for regulation 135.08.2 of the following regulation:

“135.08.2 (1) [No] A person shall not conduct a take-off in an aeroplane if **[the mass of the aeroplane] such aeroplane’s mass—**

- (a) exceeds **[the maximum take-off mass]** an MTOM specified in **[the] an** aeroplane flight manual for the pressure altitude and the ambient temperature at **[the] an** aerodrome where **[the] a** take-off is to be made; or
- (b) exceeds a landing mass specified in such an aeroplane’s flight manual for pressure altitude and ambient temperature at a destination aerodrome or alternate aerodrome after allowing for planned fuel consumption during a flight.

(2) In the determination of **[the maximum take-off mass]** MTOM referred to in **[sub-regulation] subregulation (1)—**

- (a) the required accelerate-stop distance shall not exceed the accelerate-stop distance available **[(ASDA)]**;
- (b) **[the] a** required take-off run shall not exceed **[the] a** take-off run available **[(TORA)]**; and
- (c) **[the] a** required take-off distance shall not exceed **[the] a** take-off distance available **[(TODA)]**.

(3) For the purposes of subregulation (2), the factors to be taken into account are—

- (a) **[Maximum take-off weight of the]** MTOW of an aircraft;
- (b) specific operating procedures;
- (c) **[the]** pressure altitude at **[the] an** aerodrome;
- (d) **[the]** ambient temperature;
- (e) **[the]** runway slope in the direction of take-off;
- (f) not more than **[50 percent]** 50% of **[the] a** reported headwind component or not less than **[150 percent]** 150% of **[the] a** reported tailwind component;

- (g) loss of effective **[TORA] take off run available** during runway alignment except where rolling take-offs are approved; **[and]**
- (h) where **[the] a** runway condition is other than bare and dry, **[the] an** appropriate penalty based upon **[the] a** runway condition or **[contaminates] contaminants** such as slope, ice, snow, slush, standing **[water]water**, or water surfaces for **[seaplanes]seaplanes**, shall be factored into the performance calculation; and
- (i) any other factor that may significantly affect aeroplane performance.

(4) A person shall not conduct a take-off in an aeroplane unless such aeroplane is able, in the event of a critical engine failure or for any other reason, at any point in a take-off, either to discontinue such take-off and stop within an accelerate-stop distance available or to continue a take-off and clear all obstacles along a flight path by an adequate vertical or horizontal distance.

(5) For the purposes of determining an accelerated stop distance, a PIC shall take into account a loss, if any, of runway length due to alignment of an aeroplane prior to take-off.

(6) For the purpose of determining a resulting take-off obstacle accountability area, a PIC shall take into account the crosswind component and navigation accuracy.”.

Amendment of Part 139 of the Regulations

19. Regulation 139 is hereby amended by—

(a) the substitution in regulation 139.01.1 for the following subregulation:

“139.01.1 (1) This Part applies to—

- (a) licensing of areas demarcated for the development of aerodromes; and**
- (b) licensing and operation of aerodromes.”;**

(b) the substitution for regulation 139.01.6 of the following regulation:

“**139.01.6** (1) The Director shall maintain a register of all licences of intent, aerodrome licences, **[licences and]** heliport **[licences]**licences, and helistop approvals issued in terms of **[the regulations in]** this **[part]**Part.

(2) **[The]** A register referred to in subregulation (1) shall contain the following particulars:

- (a) **[the]** full name and, if any, **[the]** a trade name of **[the]** a holder of **[the]** a licence or approval;
- (b) **[the]** postal address of **[the]** a holder of **[the]** a licence or approval;
- (c) **[the]** name and **[the]** location of **[the]** an aerodrome for which **[the]** a licence was issued;
- (d) **[the]** name and **[the]** location of **[the]** a heliport or helistop for which **[the]** a licence or approval was issued;
- (e) **[the]** a number **[of the]** allocated to a licence or approval issued **[to the holder]**;
- (f) **[the]** date on which **[the]** a licence or approval was issued;
- (g) file reference numbers of initial and subsequent safety inspection records and audit reports in respect of all aerodromes, heliports, **[and heliports licensed]** and helistops; and
- (h) **[the]** nationality of **[the]** a holder of **[the]** licence or approval.

(3) The particulars referred to in subregulation (2) shall be recorded in the register within seven days from the date on which **[the]** a licence or approval is issued by the Director.

(4) **[The]** A register **of licences and approvals** shall be kept in a safe place at the premises of the Authority **[office of the Director]**.

(5) A copy of **[the]** register of licences and approvals shall be furnished by the Director, on payment of the appropriate fee as prescribed in part 187, to any person who requests **[the]** a copy.”;

- (c) the substitution for regulation 139.01.30 of the following regulation:

139.01.30

(1) A holder of an aerodrome licence shall monitor a concerned aerodrome and its surroundings to assess permanent or temporary obstacle limitation and penetration surfaces, to establish if any obstacle has an impact on the safety of aircraft operations at such aerodrome.

(2) If an assessment referred to in subregulation (1) identifies any obstacle that negatively impacts on aircraft safety, a holder of an aerodrome licence shall take appropriate action to mitigate the risk and restrict or remove such obstacle.

(3) A holder of an aerodrome licence shall not erect or allow to be erected, without the prior approval of the Director, a building, structure, or object which projects above a slope of 1 in 20 and which is within 3 000 m measured from the nearest point on a boundary of such aerodrome or heliport.

(4) An object, whether temporary or permanent, which projects above the obstacle limitation surfaces within a radius of 8 km as measured from an aerodrome reference point shall be marked as prescribed in Document SA-CATS 139.

(5) An object, whether temporary or permanent, which projects above the obstacle limitation surfaces beyond a radius of 8 km and constitutes a potential hazard to aircraft, shall be marked as prescribed in Document SA-CATS 139.

(6) A holder of an aerodrome licence shall not erect or allow to be erected, without the prior approval of the Director, a building or object which constitutes an obstruction or potential hazard to an aircraft operating in a navigable airspace in the vicinity of an aerodrome, or navigation aid, or which will adversely affect the performance of a radio navigation or ILS.

(7) A holder of an aerodrome licence shall not erect or allow to be erected, without the prior approval of the Director, an object higher than 45 m above the

mean level of a landing area or within 8 km measured from the nearest point on a boundary of an aerodrome.

(8) A holder of an aerodrome licence shall not erect or allow to be erected, without the prior approval of the Director a building, structure, or object which projects above a slope of 1 in 20 and which is within 3 000 m measured from the nearest point on a boundary of an aerodrome or heliport.

(9) A holder of an aerodrome licence shall not erect or allow to be erected, without the prior approval of the Director, a building, structure or other object which will project above the obstacle limitation surfaces of an aerodrome or heliport.

(10) A person or authority involved in land development, shall not compromise air safety by authorising or developing any land or erecting a building or obstacle on such land.”;

(d) the insertion in Subpart 2 in the arrangements of regulations of the following Subpart:

“SUBPART 2: LICENSING AND OPERATION OF AERODROMES

- 139.02.1 Requirements for licence
- 139.02.2 Application for licence or amendment thereof
- 139.02.3 Processing of application for licence or amendment thereof
- 139.02.4 Adjudication of application for licence or amendment thereof
- 139.02.5 **[[Issuing]** Issuance of licence
- 139.02.6 Period of validity
- 139.02.7 Transferability
- 139.02.8 Renewal of licence
- 139.02.9 Licence of intent
- 139.02.10 Aerodrome design requirements

- 139.02.11 Aerodrome manual
- 139.02.12 Quality assurance system
- 139.02.13 Personnel requirements
- 139.02.14 Establishment of aerodrome emergency management system
- 139.02.15 Aerodrome rescue and firefighting
- 139.02.16 Aerodrome rescue and firefighting training facility
- 139.02.17 Aerodrome rescue and firefighting personnel training standards
- 139.02.18 Aerodrome rescue and firefighting deviations
- 139.02.19 Establishment of aerodrome environment management programme
- 139.02.20 Maintenance of aerodrome environment management programme
- 139.02.21 Notification of aerodrome data and information
- 139.02.22 Changes in quality assurance system
- 139.02.23 General duties of holder of licence
- 139.02.24 Works on aerodrome
- 139.02.25 Maintenance of aerodrome emergency management system
- 139.02.26 Aerodrome inspection programme
- 139.02.27 Demarcation of restricted area
- 139.02.28 Control of entry into restricted area
- 139.02.29 Demarcation of routes on apron
- 139.02.30 Safety measures against fire
- 139.02.31 Access of ground vehicles to aerodrome movement area
- 139.02.32 Protection of navigational aids
- 139.02.33 Aerodrome abandoned or not maintained
- 139.02.34 Approval of airside driving personnel training
- 139.02.35 Airside driving training standards

139.02.36 Airport Design and Master Plan.:

(e) the substitution in regulation 139.02.14 for subregulation (2) of the following subregulation:

“(2) An aerodrome emergency management system referred to in sub-regulation (1) shall provide for all types of emergencies likely to take place on or in the vicinity of an aerodrome and shall include—

- (a) an index depicting all aspects contained in such emergency management system;
- (b) types of emergencies planned for;
- (c) procedures for periodic testing of the adequacy of an emergency management system plan and for reviewing the results in order to improve its effectiveness;
- (d) call out procedures for prompt response to emergencies planned for;
- (e) **[the]** roles of agencies and persons involved in executing the allocated tasks;
- (f) sufficient details to provide adequate guidance to each person responsible for executing such emergency management system;
- (g) provision for a fully equipped emergency operations centre and command post for each type of emergency which may be encountered;
- (h) a description of all available rescue and medical equipment and a location of such equipment;
- (i) information on the particulars of personnel and persons to be contacted in the case of a particular emergency;
- (j) a grid map of an aerodrome indicating available water resources and other landmarks of significance;
- (k) a grid map indicating a location of such aerodrome and its surroundings up to a radius of **[ten kilometres]** 10 km indicating the location of hospitals, clinics, water **[resources]**resources, and road layout;

- (l) a coordinator designated to implement an emergency management system plan when necessary;
 - (m) characteristics of aircraft that may be expected to operate;
 - (n) arrangements for rapid receipt of aircraft recovery equipment available locally, or from other aerodromes;
 - (o) a plan for the removal of an aircraft disabled on, or adjacent to, a movement area and particulars of a coordinator designated to implement the aforementioned plan;
 - (p) information concerning the capability to remove an aircraft disabled on or adjacent to a movement area; **[and]**
 - (q) the establishment, **[testing]**~~testing~~, and assessment at regular intervals of a predetermined response for a specialist rescue service in case an aerodrome is located close to water, swampy area, or difficult terrain~~[.]~~;
 - “(r) a procedure to control, amend, and distribute an aerodrome emergency management system manual; and.
 - (s) designation of a person or group of persons in writing to maintain an aerodrome emergency plan.”;
- (f) the substitution in regulation 139.02.15 for subregulations (11) and (12) of the following subregulations:
- “(11) A task resource analysis shall be completed for the staffing levels to determine **[the]** a minimum number of rescue and firefighting personnel required ~~[.]~~ : Provided that—
- (a) a minimum of three personnel shall be deployed for each rescue and fire fighting vehicle; and
 - (b) a rescue and fire fighting vehicle shall be staffed to ensure that it is able to discharge extinguishing agents at a maximum designed capability of such vehicle.
- (12) All responding aerodrome rescue and firefighting personnel shall be provided with full protective clothing and respiratory equipment that is subjected to

pressure tests as required by the South African National Standard ISO 10019 to enable them to perform their duties in an effective manner.”;

- (g) the insertion in regulation 139.02.17 after subregulation (4) of the following subregulation:

“(5) A holder of an aerodrome licence shall ensure that aerodrome rescue and firefighting personnel employed in an aerodrome concerned are physically and medically fit as prescribed in Document SA CATS 139.”;

- (h) the substitution for regulation 139.02.19 of the following regulation:

“Establishment of aerodrome environment management programme

139.02.19 (1) Subject to the provisions of the National Environmental Management Act, 1998 (Act 107 of 1998), a holder of an aerodrome licence with a Category higher than 3, shall, in the area within its authority, establish an aerodrome environment management programme—

- (a) where any foreign object debris, oil and fuel spillage, bird, and wildlife presents or is likely to present a hazard to aircraft operating to or from an aerodrome; or
- (b) where any aviation operation which is likely to impact on the environment is conducted.

(2) A holder of an aerodrome licence referred to in sub-regulation (2) shall ensure that the EMP—

- (a) is kept on site and clearly indicates all identified environmental issues that may affect operations or the environment; and
- (b) meets the requirements prescribed in Document SA-CATS 139.

(3) The Director may, in the interest of aviation environmental protection, issue a directive or notice regarding the establishment of a consultative environmental committee for an aerodrome of any category in order that the objects of the Act and the regulations may be achieved.

(4) A holder of an aerodrome licence issued under this Subpart shall—
(a) record and report all known bird and wildlife strike incidents occurring
on and in the vicinity of a concerned aerodrome and submit on
monthly basis statistical data of such incidents to the Director;
(b) appoint a wildlife control officer who is responsible for implementing
and maintaining an aerodrome's bird or wildlife hazard control
programme; and
(c) ensure that a wildlife control officer employed at an aerodrome
concerned meets the training requirements for aerodrome wildlife hazard control
or management prior to their employment as prescribed in Document SA CATS
139.

(5) A holder of **[the]** an aerodrome **[license]** licence shall assess wildlife strike hazards in the vicinity of an aerodrome through—

- (a) **[the]** establishment of a procedure for recording and reporting bird and wildlife strikes to aircraft as prescribed in Document SA-CATS 139;
- (b) **[the]** collection of information from aircraft operators, ATS, land developers and other sources on the presence of birds and wildlife around **[the]** an aerodrome constituting a potential hazard to aircraft operations; and
- (c) an ongoing evaluation of the wildlife hazard by competent personnel.

(6) **[An aerodrome licence holder]** A holder of an aerodrome licence shall take action to decrease the risk to aircraft operations by adopting measures to minimize the likelihood of collisions between wildlife and aircraft as prescribed in Document SA-CATS 139.

(7) **[An aerodrome licence holder]** A holder of an aerodrome licence shall notify authorities responsible for waste disposal of any source which may attract wildlife to **[the]** an aerodrome or in its vicinity.

(8) **[An aerodrome operator]** A holder of an aerodrome licence shall ensure, based on an appropriate wildlife assessment, that any risk to aircraft posed by waste disposal dump sites is assessed **[as prescribed in Document SA-CATS 139]** and reduced to as low as reasonably practicable.

(9) A holder of an aerodrome licence shall record, treat and submit on monthly basis statistical data of all noise complaints and oil and fuel spillages that may cause danger to environment or disruption to operations, to the Director.”;

(i) the substitution in regulation 139.02.23 for paragraph (x) in subregulation (2) of the following paragraph:

“(x) a paved runway shall be maintained in a condition so as to provide surface friction characteristics at or above a minimum friction level as prescribed in Document SA-CATS 139.”;

(j) the substitution in regulation 139.02.23 for subregulation (3) of the following subregulation:

- (3) A holder of an aerodrome licence shall—
- (a) in the case of an aerodrome licence with a Category 4 and higher, furnish the Director with aerodrome financial data and aerodrome traffic statistics as prescribed in Document SA-CATS 139;
 - (b) in the case of aerodrome which serves aircraft used in international air transport operations, establish a facilitation committee and compile a facilitation plan in accordance with the requirements and standards as prescribed in Document SA-CATS 139;
 - (c) be responsible for handling of aircraft noise complaints related to an aerodrome and may, subject to such conditions and limitations as the Director may prescribe in the interest of aviation environmental protection, be required to—
 - (i) conduct appropriate aircraft noise studies to determine whether a noise problem exists at an aerodrome;

- (ii) calculate and predict aircraft noise contours in accordance with the requirements and standards as prescribed in Document SA-CATS 139;
 - (iii) adopt a balanced approach to noise management in accordance with the requirements and standards as prescribed in Document SA-CATS 139;
 - (iv) install aircraft noise monitoring stations and equipment to monitor adherence to aircraft flight track in accordance with the requirements and standards as prescribed in Document SA-CATS 139;
 - (v) report violations of noise abatement operating procedures and non-adherence to aircraft flight trajectories, to the Director, in accordance with the requirements and standards as prescribed in Document SA-CATS 139;
 - (vi) not to introduce aircraft operating procedures for noise abatement unless—
 - (aa) the Authority has conducted appropriate studies and consultations and thereafter determines that a noise problem exists; and
 - (bb) operators that utilise an aerodrome have been consulted on the development of aircraft operating procedures for noise abatement.”;
- (k) the insertion after regulation 139.02.35 of the following regulation:

“139.02.36 Airport Design and Master Plan

- (1) An application for an aerodrome licence submitted to the Director in terms of this subpart shall be accompanied by an airport design and master plan containing the following:
 - (a) Architectural and infrastructure-related requirements for the optimum implementation of international civil aviation security measures.

(b) Physical planning which includes the development of facilities as prescribed in SA-CATS 139.”;

(l) the substitution in regulation 139.03.3 for subregulation (1) of the following subregulation:

“**139.03.3** (1) An applicant for the issuance of a heliport licence shall provide the Director with a heliport manual which shall contain—

(a) a statement by accountable manager and compliance officer confirming that an **[operations]** heliport manual and any included manuals define the organisation of an applicant and demonstrate the procedures and methods for ensuring that the provisions of this Part shall be complied with at all times;”;

(m) the substitution in regulation 139.03.16 for subregulation (3) of the following subregulation:

“(3) The Director shall approve a change in the quality assurance system if the Director is satisfied , that a holder of an aerodrome licence—

(a) has made appropriate changes to his or her **[operations]** heliport manual; and

(b) shall continue to comply with the provisions of regulations 139.03.2 to 139.03.10 , after the implementation of such approved change.”;

(n) the substitution in regulation 139.03.19 for subregulation (1) of the following sub-regulation:

“**139.03.19** (1) A holder of a heliport licence **[must]** shall—

(a) keep at least one complete and current copy of an approved **[operations]** heliport manual referred to in regulation 139.03.3, at a **[concerned]** relevant heliport;

(b) comply with all procedures detailed in its **[operations]** heliport manual;

- (c) make each applicable part of its **[operations]** heliport manual available to the personnel who require those parts to carry out their duties; **[and]**
 - (d) continue to comply with the appropriate requirements prescribed in this Part; and[.]
 - (e) comply with the requirements of Part 140.”;
- (o) the substitution for regulation 139.04.1 of the following regulation:

“139.04.1 (1) A helistop intended for commercial use or private use in a built-up area, shall be approved in accordance with this Subpart.

(2) A helistop located inside a licensed aerodrome as provided for in Subpart 2 shall not require approval in terms of subregulation (1) .

(3) A helistop approval referred to in subregulation (1) shall be issued subject to a helistop complying with—

 - (a) these regulations and associated technical standards as prescribed in Document SA-CATS 139; and
 - (b) any directives as may be issued by the Director.

(4) The Director shall not issue a helistop with an approval until an authorised officer, inspector or authorised person has audited such helistop and determined that it complies with these regulations and the requirements as prescribed in Document SA-CATS 139.”;
- (p) the substitution in regulation 139.04.3 for subregulation (1) of the following subregulation:

“139.04.3 (1) An applicant for the issuance of a helistop approval shall provide the Director with a copy of the standard operating procedures [(SOP)] commensurate with the operations at that helistop as required by [Subpart 7] [‘Flight Operations’] [of Part 127].”;

- (q) the substitution in regulation 139.04.5 for the following regulation:

“**139.04.5** An application for the issuance or amendment of a helistop approval shall be made to the Director on the prescribed application form and accompanied by—

- (a) the standard operating procedures referred to in regulation 139.04.3;
- (b) written approval from the authority in control of the land;
- (c) written approval from relevant **[authorities in control of airspace]** ATSU, if a helistop is located inside controlled airspace;
- (d) letter of consent from all licensed aerodromes within 2km radius;
- (e) particulars of any non-compliance with, or deviations from **[the]** an appropriate helistop design, operation or equipment standards prescribed in this Part; and
- (f) the appropriate fee as prescribed in Part 187.”;

- (r) the insertion after Subpart 6 in the arrangements of regulations of the following Subpart:

“SUBPART 7: AERODROME SURVEY

139.07.1 Applicability

139.07.2 Requirements for person to conduct survey

139.07.3 Aerodrome Survey Classifications

139.07.4 Standard of accuracy, resolution, and integrity considerations for survey points

139.07.5 Survey Package.”;

- (s) the insertion after Subpart 6 of the following Subpart:

“SUBPART 7: AERODROME SURVEY

Applicability

139.07.1 (1) This Subpart applies to:

- (a) survey of an aerodrome, heliport, and navigational facility in the Republic; and
- (b) a person conducting a aeronautical survey in the Republic.

Requirements for person to conduct survey

139.07.2 (1) A person conducting a survey at an aerodrome, heliport or navigational facility shall —

- (a) hold a Geomatics qualifications from an accredited institution of higher learning within the Republic; and
- (b) hold a valid and current registration with the South African Geomatics Council .

Aerodrome Survey Classifications

139.07.3 A person conducting a survey at an aerodrome, heliport or navigational facility shall survey according to the Aerodrome Survey Classifications as prescribed in Document SA-CATS 139.

Standard of accuracy, resolution, and integrity considerations for survey points**139.07.4 (1) A person conducting a survey for—**

- (a) PACS and SACS shall ensure that accuracy, resolution, and integrity of all control points comply with the Land Survey Act, 1997 (Act No. 8 of 1997); and
- (b) other aerodrome survey points shall ensure that the accuracy, resolution, and integrity of such points comply with the standards as prescribed in Document SA-CATS 139.

Survey Package

139.07.5 (1) A person conducting a survey at an aerodrome, heliport, or navigational facility shall, on completion of such survey and at least 30 days prior to an annual airport licence renewal inspection, submit to the Director—

- (a) a report as required in terms of regulation 139.02.23; and
- (b) a copy of a survey package in the format prescribed in Document SA-CATS 139.”.

Amendment of Part 140 of the Regulations

20. Regulation 140.01.1 is hereby amended by the substitution for subregulation (1) of the following subregulation:

“**140.01.1** (1) This Part applies to—

- (a) a holder of a category 4 or higher aerodrome licence issued in terms of Part 139 where commercial activities take place;
- (b) a holder of an ATO approval issued in terms of Part 141 that is exposed to safety risks related to aircraft operations during the provisions of the services for flight activities;
- (c) holder of an AMO approval issued in terms of Part 145 that provides services to holders of AOC issued in terms of Parts 121, 127 or 135;
- (d) an organisation responsible for manufacturing of aircraft approved in terms of Part 148;
- (e) a holder of an ATSU approval issued in terms of Part 172;
- (f) an organisation responsible for **[the] a** type design of aircraft, engine, or propeller**[,etc.]** approved in terms of Part 147; **[and]**
- (g) a holder of an operating certificate issued in terms of Part 121, 127 or 135**[.]**; and
- (h) a holder of a heliport licence issued in terms of Part 139.”.

Amendment of Part 141 of the Regulations

21. Regulation 141.01.14 is hereby amended by the substitution for subregulation (2) of the following subregulation:

“(2) The Director shall approve a foreign ATO activities in accordance with [the procedures as contained in the five-phase approval] an alternative approval process for a foreign ATO as prescribed in Document SA-CATS 141.”.

Amendment of Part 172

22. Part 172 of the regulations is hereby amended by—

(a) the substitution in Subpart 2 in the arrangements of regulations of the following Subpart:

SUBPART 2: DESIGNATION AND CLASSIFICATION OF AIRSPACE

172.02.1 Designation of airspace

172.02.2 Classification of airspace and level of service provision

172.02.3 Designation of control areas

172.02.4 Designation of flight information regions

172.02.5 Designation of advisory areas

172.02.6 Designation of Prohibited, Restricted and Danger Areas.”;

(b) the insertion after regulation 172.02.5 of the following regulation:

“Designation of Prohibited, Restricted and Danger Areas

172.02.6 (1) The Director shall designate a particular portion of airspace as a prohibited, restricted, or danger area in terms of regulation 172.02.1.

(2) A designation referred to in subregulation (1) shall be done in accordance with the requirements prescribed in Document SA-CATS 172.”.

Amendment of Part 174 of the Regulations

23. Part 174 of the regulations is hereby amended by—

- (a) the substitution for Subpart 1 of the following Subpart:

“SUBPART 1: GENERAL

Applicability

174.01.1 (1) This Part applies to the provision of meteorological information services for air navigation for the following meteorological information users—

- (a) an aerodrome open to public;
- (b) an aircraft operator;
- (c) a flight crew member;
- (d) a search and rescue service provider;
- (e) an ANSPs;
- (f) an ATSU;
- (g) an MWO;
- (h) aerodrome meteorological office; and
- (i) any other aerodrome or other participant in civil aviation as may be determined by the Director.

174.01.2 (1) The South African Weather Service as designated in terms of section 3 of the South African Weather Service Act, 2001 (Act No. 8 of 2001), as the aviation meteorological authority to fulfil the international obligations of the Republic shall be deemed to have been so designated in terms of these regulations.

(2) The Meteorological Service Provider shall provide aeronautical meteorological services and related facilities in support of safety, efficiency, and regularity of air navigation.

(3) The Meteorological Service Provider may delegate some or all of its functions for the provision of aeronautical meteorological services to another person or entity, provided that such delegation is approved by the Director and published in an AIP.

174.01.3 (1) The Director shall determine the requirements for aeronautical meteorological services to be provided by the Meteorological Service Provider to ensure that such services meet the needs of users of air navigation services and contributes towards safe and efficient air navigation in the Republic.

(2) When determining the provision of aeronautical meteorological services, the Director shall take into consideration the provisions of ICAO Annex 3 – Meteorological Service for International Air Navigation as well as the Africa and Indian Ocean regional air navigation agreement.

(3) The Meteorological Service Provider shall provide aeronautical meteorological services referred to in subregulation (1) when required, over international waters and in areas which are outside a territory of the Republic.

174.01.4 The Meteorological Service Provider shall supply meteorological information to meteorological information users referred to in subregulation (1) in order to fulfil their respective mandates and develop air navigation systems.

174.01.5 (1) The Meteorological Service Provider, a holder of an aerodrome licence, and an ATSU shall enter into an agreement regarding the operation of an integrated aeronautical meteorological station installed at an aerodrome.

(2) An agreement referred to in subregulation (1) shall provide for—

- (a) establishment of display equipment for aeronautical meteorological information, by an ATSU;
- (b) calibration, maintenance, and serviceability of display equipment for aeronautical meteorological information;
- (c) use of aeronautical meteorological information display equipment by ATSU personnel;
- (d) provision of information regarding meteorological phenomenon observed by visual means by ATSU personnel at an aerodrome and in a terminal area;

- (e) integration of information regarding meteorological phenomenon made through visual means by ATSU personnel in local meteorological reports at an aerodrome;
 - (f) sharing of meteorological information reported by a flight crew member during take-off and landing phases of a flight;
 - (g) sharing of information regarding activities at an aerodrome that may interfere with or affect monitoring, dissemination, and accurate measurements of meteorological elements amongst all relevant stakeholders; and
 - (h) the provision of meteorological information obtained from weather radar by an ATSU, if available.”;
- (b) the insertion in Subpart 2 in the arrangements of regulations of the following Subpart:

SUBPART 2: REQUIREMENTS FOR PROVISION OF METEOROLOGICAL SERVICES

- 174.02.1 Personnel requirements
- 174.02.2 Facilities requirements
- 174.02.3 QMS
- 174.02.4 SMS
- 174.02.5 Manual of procedure

- (c) the substitution for Subpart 2 of the following Subpart:

**“SUBPART 2:
REQUIREMENTS FOR PROVISION OF METEOROLOGICAL SERVICES**

Personnel requirements

174.02.1 (1) The Meteorological Service Provider shall employ, contract, or engage qualified, trained, and competent personnel to provide aeronautical meteorological services for air navigation.

(2) The Meteorological Service Provider shall determine, implement, and assess competencies of its personnel providing aeronautical meteorological services for air navigation.

(3) The Meteorological Service Provider shall assess the competency of its personnel at least once every three years and such competencies shall include the ability to—

- (a) analyse and continuously monitor weather situation;
- (b) forecast aeronautical meteorological phenomenon and parameters;
- (c) warn of a hazardous phenomenon;
- (d) ensure quality of meteorological information and services;
- (e) communicate meteorological information to users;
- (f) observe and record an aeronautical meteorological phenomenon and parameters;
- (g) ensure quality of system performance and of meteorological information; and
- (h) supervise production and release of meteorological information to users referred in regulation 174.01.1.

(4) Personnel providing aeronautical meteorological services for air navigation shall be suitably trained and qualified.

(5) The Meteorological Service Provider shall establish and implement a comprehensive training programme as well as a training plan to ensure that its personnel are adequately trained.

(6) The Meteorological Service Provider shall establish a system to maintain training and competency assessment records for personnel providing aeronautical meteorological services for air navigation.

(7) The Meteorological Service Provider shall maintain job profiles of personnel providing the aeronautical meteorological service for air navigation.

(8) The training programme and training plan referred to in subregulation (5) shall provide for on the job and refresher training.

Facilities requirements

174.02.2 (1) The Meteorological Service Provider shall establish necessary facilities to enable the provision of meteorological information.

(2) Facilities referred to in subregulation (1) shall include—

- (a) an aerodrome meteorological office;
- (b) an MWO;
- (c) an aerodrome meteorological station; and
- (d) a telecommunication and data link facility.

(3) An MWO shall continuously monitor hazardous meteorological conditions over a delegated airspace.

(4) An MWO shall maintain a continuous watch over an area that coincides with a designated FIR including delegated areas over international waters.

(5) The Meteorological Service Provider shall implement procedures to ensure that—

- (a) facilities and systems established in terms of subregulation (2) are maintained and tested on a regular basis for normal operations; and
- (b) records of facilities, systems, and equipment failures and degradation are maintained and periodically reviewed.

QMS

174.02.3 (1) The Meteorological Service Provider shall establish and maintain a QMS that is certified by an approved certification body for conformity with ISO 9001 series of quality assurance standards.

(2) A QMS referred to in subregulation (1) shall provide assurance to users that meteorological information supplied complies with user requirements in terms of—

- (a) geographical and spatial coverage;
- (b) format and content;
- (c) time and frequency of issuance;
- (d) period of validity;
- (e) accuracy of measurements, observations and forecasts; and
- (f) overall quality of meteorological information and services.

(3) A QMS shall consist of the following —

- (a) validation and verification procedures;
- (b) procedures for handling of non-conforming products;
- (c) documents and records of management procedures;
- (d) procedures for monitoring adherence to bulletin transmission times;
- (e) automatic error detection and correction procedures; and
- (f) procedures for the preparation and dissemination of meteorological products and information.

(4) The Meteorological Service Provider shall maintain close liaison with users regarding the quality of meteorological information.

(5) The Director may, on safety grounds, conduct an audit of the Meteorological Service Provider's QMS.

(6) The Meteorological Service Provider shall maintain records of audits conducted on its QMS.

SMS

174.02.4 The Meteorological Service Provider shall establish and implement SMS in accordance with Part 140 of these regulations.

Manual of procedure

174.02.5 (1) The Meteorological Service Provider shall maintain an updated manual of procedure which details, the following—

- (a) sites involved in the provision of aeronautical meteorological services;
- (b) aviation meteorological services and information provided at each site;
- (c) a list of programmes, systems, test equipment or tools used in the provision of such services;
- (d) telecommunication facilities used to acquire, process and disseminate meteorological information;
- (e) a number of personnel providing the services at each site;
- (f) minimum performance levels for meteorological services and meteorological information provided; and
- (g) quality assurance procedures including backup procedures.”;

- (d) the insertion in Subpart 3 in the arrangements of regulations of the following Subpart:

SUBPART 3: METEOROLOGICAL OBSERVATIONS AND REPORTS

174.03.1 General

174.03.2 Maintenance and calibration of aeronautical meteorological station

174.03.3 Siting of aeronautical meteorological stations

174.03.4 Routine observations and reports

174.03.5 Special observations and reports

174.03.6 Special aircraft observations

174.05.7 Recording and post-flight reporting of aircraft observations of volcanic activity.”;

- (e) the substitution for Subpart 3 of the following Subpart:

“SUBPART3:

METEOROLOGICAL

OBSERVATIONS AND REPORTS

CONTINUES ON PAGE 258 OF BOOK 3

Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001
Contact Centre Tel: 012-748 6200. eMail: info.egazette@gpw.gov.za
Publications: Tel: (012) 748 6053, 748 6061, 748 6065



Government Gazette Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID AFRIKA

Regulation Gazette

No. 11556

Regulasiekoerant

Vol. 693

17

March
Maart

2023

No. 48228

PART 3 OF 3

N.B. The Government Printing Works will not be held responsible for the quality of "Hard Copies" or "Electronic Files" submitted for publication purposes

ISSN 1682-5845



9 771682 584003



4 8 2 2 8



AIDS HELPLINE: 0800-0123-22 Prevention is the cure

General

174.03.1 (1) A holder of an aerodrome licence shall establish at an aerodrome or on an off-shore structure for helicopter operations, a fully or semi-automated aeronautical meteorological station for—

- (a) acquisition, processing, dissemination, and displaying in real time of meteorological parameters to support landing and take-off flight operations; and
- (b) measuring, assessing and monitoring, and remotely indicating meteorological parameters.

(2) An aeronautical meteorological station shall make routine meteorological observations and reports in accordance with the requirements prescribed in Document SA-CATS 174.

(3) If a holder of an aerodrome licence uses a semi-automatic aeronautical meteorological station, such station shall be capable of accepting a manual insertion of data covering meteorological elements which cannot be observed by automatic means.

(4) A holder of an aerodrome licence shall ensure that an aeronautical meteorological station is inspected at frequent intervals, maintained, and sited in accordance with the requirements prescribed in Document SA-CATS 174 to ensure that—

- (a) a high standard of observation is maintained;
- (b) instruments and all their indicators are functioning correctly; and
- (c) exposure of instruments has not changed significantly.

Routine observations and reports

174.03.4 (1) A holder of an aerodrome licence shall ensure that an aeronautical meteorological station makes routine observations and reports of meteorological parameters throughout each day, unless agreed otherwise

between the Meteorological Service Provider, the Director, an ANSP, and an operator concerned.

(2) Routine observations referred to in subregulation (1) shall be supplemented by special observations whenever there are changes in observed meteorological parameters.

(3) Routine observations shall be used for compilation of the following meteorological reports —

- (a) local routine report for dissemination at an aerodrome of origin for use in voice-ATIS and D-ATIS whichever is available; and
- (b) METAR for dissemination beyond an aerodrome of origin for flight planning, VOLMET broadcast and D-VOLMET.

(4) Routine observations shall be issued during the operating hours of an aerodrome.

Special observations and reports

174.03.5 (1) A holder of an aerodrome licence shall ensure that special observations and reports are made throughout the hours of operation of an aerodrome, unless agreed otherwise between the Meteorological Service Provider, the Director, an ANSP, and operator concerned.

(2) Special observations referred to in subregulation (1) shall be prepared and issued in accordance with the criteria described by the Meteorological Service Provider in collaboration with the Director, an ANSP, and operator concerned.

(3) Special observations shall be prepared and reported as local special reports and SPECI.

(4) A local special report shall be disseminated at an aerodrome of origin for arriving and departing aircraft.

(5) Meteorological information contained in a local special report shall be used in voice-ATIS and D-ATIS where appropriate.

(6) A holder of an aerodrome licence shall ensure that SPECI are disseminated beyond an aerodrome of origin for flight planning, VOLMET broadcasts, and D-VOLMET except at an aerodrome where half hourly METARs are issued.

(7) SPECI shall be issued during operational hours of an aerodrome.

Special aircraft observations

174.03.6 (1) A flight crew member shall make an aircraft observation of meteorological parameters or conditions encountered during a flight in the form of special air reports.

(2) An aircraft observation referred to in subregulation (1) shall be reported to a local ATSU by—

- (a) air-ground data link for a routine observation; and
- (b) voice communication for a special and non-routine aircraft observation.

(3) An ATSU shall relay special air reports received by voice communication to a meteorological office or associated MWO without delay.

(4) An ATSU shall relay routine and special air-reports received by data link communication without delay to—

- (a) an associated MWO,
- (b) a WAFC, and
- (c) an aeronautical fixed service.

(5) The Meteorological Service Provider shall upon receipt of a special air-report from an ATSU, issue—

- (a) AIRMET or SIGMET information;
- (b) a wind-shear warning; and

(c) an aerodrome warning.

Recording and post-flight reporting of aircraft observations of volcanic activity

174.05.7 (1) A flight crew member shall record special aircraft observation of pre-eruption volcanic activity, a volcanic eruption, or volcanic ash cloud, in a volcanic activity reporting form.

(2) A copy of a volcanic activity reporting form shall be included with flight documentation provided to flights operating on routes which may be affected by volcanic ash clouds.

(3) An air service operator or aircraft owner as applicable shall submit a copy of a volcanic activity reporting form referred to in subregulation (1) to the Meteorological Service Provider.

(4) The Meteorological Service Provider shall include a copy of a completed volcanic activity reporting form in flight documentation provided to a flight operating on routes which may be affected by a volcanic ash cloud.”.

Amendment of Part 178 of the Regulations

24. Part 178 of the regulations is hereby amended by the substitution for regulation 178.02.4 of the following regulation:

“178.02.4 (1) A competent person referred to in regulation 178.02.3 shall satisfy the minimum requirements prescribed in Document SA-CATS 178.”.

Short title and commencement

25. The regulations are called the Twenty-Sixth Amendment of the Civil Aviation Regulations, 2023 and shall come into operation on date of publication thereof in the Government Gazette.