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GOVERNMENT NOTICE

DEPARTMENT OF TRANSPORT

No. R. 701

15 July 2005

AVIATION ACT, 1962(ACT NO 74 OF 1962)**PROPOSED AMENDMENT TO THE CIVIL AVIATION REGULATIONS,
1997**

Under regulation 11.03.2(1)(a) of the Civil Aviation Regulations, the Chairperson of the Civil Aviation Regulations Committee (CARCOM) hereby publishes for comment the proposed amendments to the Civil Aviation Regulations, 1997, as set out in the schedules. Any comments or representations on the proposed amendments should be lodged in writing with the Chairperson of the Regulations Committee, for attention Mr Jabulani Mashinini or Mr. Herman Wildenboer, Private Bag X73, Halfway House, 1685. Fax number: (011) 545-1452, and e-mail-addresses: mashinini@caa.co.za or wildenboerh@caa.co.za, before or on 15 August 2005.

SCHEDULE 1(Relating to Aviation Accidents and Incidents)

Proposer
Civil Aviation Authority
Private Bag X73,
Halfway House
1685

All the proposals contained in these Schedules emanate from the said Authority

Explanation of Interest of the Proposer

The proposer administers the Aviation Act, 1962, (Act No 74 of 1962) and regulations and technical standards issued in terms thereof

1.0 PROPOSAL TO AMEND REGULATION 1.00.1 OF PART 1 OF THE REGULATIONS**1.1 Proposed amendment of regulation 1.00.1 by the insertion of the following definitions:**

- (i) "serious incident" means an incident involving circumstances indicating that an accident nearly occurred.
- (ii) "State of Occurrence" means the state in the territory of which an accident or incident occurs.

1.2 MOTIVATION

As both these definitions does not currently form part of the Regulations, it is proposed that these definitions (which are **ICAO** definitions) be accepted and added to Part 1 of the **CAR**

1.3 CURRENT REGULATION

Current Regulation does not contain the proposed definitions.

2.0 PROPOSAL TO AMEND REGULATION 12.02.1 OF PART 12 OF THE REGULATIONS

2.1 Proposed amendment of regulation 12.02.1 (Notification of accidents)

"12.02.1 (1) The pilot-in-command of an aircraft involved in an accident within the Republic, or if he or she is killed or incapacitated, a flight crew member, or if there are no surviving flight crew members or if they are incapacitated, the operator or owner, as the case may be, shall, as soon as possible but at least within **24** hours since the time of the accident , notify –

- (a) the Commissioner;
- (b) an air traffic service unit; or
- (c) the nearest police station,
of such accident."

2.2 MOTIVATION

The phrase "as soon as possible" is open to be interpreted as whenever it is "possible" for the pilot, owner, operator, etc. It is proposed to that the phrase "as soon as possible" is retained, but is expanded to "as soon as possible, but at least within **24** hours since the time of the accident".

2.3 CURRENT REGULATION

"12.02.1 (1) The pilot-in-command of an aircraft involved in an accident within the Republic, or if he or she is killed or incapacitated, a flight crew member, or if there are no surviving flight crew members or if they are incapacitated, the operator or owner, as the case may be, shall, as soon as possible but at least within **24** hours since the time of the accident, notify –

- (a) the Commissioner;
- (b) an air traffic service unit; or
- (c) the nearest police station,

of such accident."

3.0 PROPOSAL TO AMEND REGULATION 12.02.2 OF PART 12 OF THE REGULATIONS

3.1 Proposed amendment of regulation 12.02.2(Notification of incidents)

“12.02.1(1) The pilot-in-command of an aircraft and any other, a flight crew member, operator or owner, as the case may be, of an aircraft involved in any incident(including a serious incident), other than a an air service incident within the Republic, shall, as soon as possible but at least within **24** hours since the time of such incident , notify –

- (a) the Commissioner;
- (b) an air traffic service unit; or
- (c) the nearest police station,

of such incident.”

3.2 MOTIVATION

The phrase “as soon as possible” is open to be interpreted as whenever it is “possible” for the pilot, owner, operator, etc. It is proposed to that the phrase “as soon as possible” is retained, but is expanded to “as soon as possible, but at least within **24** hours since the time of the incident”.

3.3 CURRENT REGULATION

“12.02.1 (1) The pilot-in-command and any other a flight crew member, operator or owner, as the case may be, of an aircraft involved in an incident, other than an air traffic service incident, within the Republic, shall, as soon as possible,, notify –

- (a) the Commissioner;
- (b) an air traffic service unit; or
- (c) the nearest police station,

of such incident.”

SCHEDULE 2:

(All the proposals contained herein refer to GNSS-related issues)

1.0 PROPOSAL TO AMEND REGULATION 1.00.1 OF PART 1 OF THE REGULATIONS

1.1 Proposed amendment of regulation 1.00.1 by the insertion of the following definitions:

- (i) “**accuracy**” in relation to GNSS refers to the degree of conformance between the estimated, measured, or desired position or velocity of a platform at a given time and its true position or velocity, usually presented

as a statistical measure of system error, and is specified as predictable, repeatable and relative;

- (ii) “**airborne navigation database**” refers to an electronic memory device containing information on aerodromes, navigation aids reporting points, standard instrument departures, standard instrument arrivals, instrument approaches, special-use airspace, and other items of value to the pilot;
- (iii) “**area Navigation**” refers to a method of navigation that permits aircraft operations on any desired course within the coverage of station-referenced navigation signals or within the limits of self-contained system capability;
- (iv) “**availability**” in relation to GNSS refers to an indication of the ability of the system to provide usable service within the specified coverage area and is defined as the portion of time during which –
 - (a) the system is to be used for navigation; and
 - (b) reliable navigation information is presented to the flight crew, auto-pilot or other system managing the flight of the aircraft;
- (v) “**BARO VNAV system**” refers to a non-precision navigation system that presents computed vertical guidance to the pilot, referenced to a specified Vertical Path Angle (VPA), nominally three degrees (**3°**), which computed vertical guidance is based on barometric altitude and is specified as a VPA from the Reference Datum Height (RDH);
- (vi) “**Class A GNSS equipment**” means GNSS equipment incorporating both the GPS sensor and navigation capability, including Receiver Autonomous Integrity Monitoring (RAIM):
 - (a) Class **A1 – en route**, terminal and non-precision approach, other than localiser, Localiser Directional Aid (LDA) and Simplified Directional Facility (SDF), navigation capability;
 - (b) Class **A2 – en route** and terminal navigation capability only;
- (vii) “**Class B GNSS equipment**” means GNSS equipment consisting of a GPS sensor, which provides data to an integrated navigation system:
 - (a) Class **B1 – en route**, terminal and non-precision approach, other than localiser, LDA and SDF, navigation capability;
 - (b) Class **B2 – en route** and terminal navigation capability only, providing RAIM;
 - (c) Class **B3 – en route**, terminal and non-precision approach, other than localiser, LDA and SDF, navigation capability, which equipment requires the integrated navigation system to provide a level of GPS integrity equivalent to that provided by RAIM;
 - (d) Class **B4 – en route** and terminal navigation capability only, which equipment requires the integrated navigation system to provide a level of GPS integrity equivalent to that provided by RAIM;

- (viii) “**Class C GNSS equipment**” means GNSS equipment consisting of a GPS sensor that provides data to an integrated navigation system that in turn provides guidance to an auto-pilot or flight director in order to reduce Flight Technical Error (FTE):
- (a) Class C1 – **en route**, terminal and non-precision approach, other than localiser, LDA and SDF, navigation capability, providing RAIM;
 - (b) Class C2 – **en route** and terminal navigation capability only, providing RAIM;
 - (c) Class C3 – **en route**, terminal and non-precision approach, other than localiser, LDA and SDF, navigation capability, which equipment requires the integrated navigation system to provide a level of GPS integrity equivalent to that provided by **RAIM**;
 - (d) Class C4 – **en route** and terminal capability only, which equipment requires the integrated navigation system to provide a level of GPS integrity equivalent to that provided by **RAIM**.

Note: Class C GNSS equipment shall be limited to installations in large aeroplanes approved for use in domestic and international commercial air transport operations.

- (ix) “**continuity**” in relation to GNSS refers to the capability of the total system, comprising all elements necessary to maintain aircraft position within the defined airspace, to perform its function without non-scheduled interruptions during the intended operation;
- (x) “**follow-on GNSS equipment**” refers to equipment that has already received an initial airworthiness certification;
- (xi) “**GNSS incident**” refers to aircraft GPS equipment installation problems, airborne navigation database discrepancies, GNSS equipment problems, and GNSS **en route** and approach procedure problems;
- (xii) “**GPS sensor**” refers to a single GPS unit used for navigation within a flight management system;
- (xiii) “**ICAO flight plan form**” refers to the International Civil Aviation Organisation flight plan form (MOT/AC 1565);
- (xiv) “**integrity**” in relation to GNSS refers to the ability of a system to provide timely warnings to users when not to use the system for navigation;
- (xv) “**lateral navigation**” refers to azimuth navigation without positive vertical guidance associated with non-precision approach procedures;
- (xvi) “**primary-means navigation system**” refers to a navigation system, approved for a given operation or phase of flight, that meets accuracy and integrity requirements, but does not necessarily meet full availability and continuity requirements. Safety in a primary-means navigation system is

achieved by limiting flights to specific time periods and through appropriate procedural restrictions;

- (xvii) **“RAIM warning”** refers to a warning that the integrity of the navigation position solution from GNSS satellites may be unreliable;
- (xviii) **“Receiver Autonomous Integrity Monitoring”** (RAIM) refers to a technique whereby the airborne GNSS receiver/processor determines the integrity of the GNSS navigation signals, using only GNSS signals or GNSS signals augmented with altitude. This determination is achieved by a consistency check among redundant pseudo-range measurements;
- (xix) **“RNAV/BARO VNAV procedures”** refers to non-precision instrument approach procedures promulgated with a Decision Altitude/Height (DA/H) –
 - (a) in support of non-precision approach operations with vertical guidance;
 - (b) that is intended for use by aircraft equipped with Flight Management Systems (FMS) or other RNAV systems capable of computing barometric VNAV paths, and providing deviations on a instrument display; and
 - (c) the use of which improves the safety of non-precision approach procedures by providing a guided, stabilised descent to landing;
- (xx) **“sole means navigation system”** refers to a navigation system, approved for a given operation or phase of flight, that allows the aircraft to meet, for that operation or phase of flight, the four navigation system performance requirements: accuracy, integrity, availability, and continuity;
- (xxi) **“supplemental-means navigation system”** refers to a navigation system that is used in conjunction with a sole-means navigation system;
- (xxii) **“vertical navigation”** refers to a method of navigation that permits aircraft operation on a vertical flight profile, using altimetry sources, external flight path references, or a combination thereof.

1.2 MOTIVATION

Part 1 of the SA Civil Aviation Regulations does not contain these definitions which are widely referred to in the use of GNSS and are contained in proposed amendments to the Regulations and the SA-CATS documents. This proposal addresses this shortcoming by including these definitions.

1.3 CURRENT REGULATION

The current regulation does not contain the above-mentioned definitions

2.1 The following amendments relating to regulation 1.00.1 also form part of this Schedule

(xxiii) "**cloudbreak/ breakcloud procedure**" means a series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, to a point at which visual contact with the surface may be made and from which a landing or circling approach can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle criteria apply

(xxiv) "**special rules area**" means airspace other than restricted airspace where special non-standard rules are applied in order to promote safety, efficiency and orderliness outside of controlled airspace

(xxv) "**visual approach**" means an approach by an IFR flight when either part or all of an instrument approach procedure is not completed and the approach is executed with visual reference to the terrain

2.2 MOTIVATION

Part 1 of the SA Civil Aviation Regulations does not contain these definitions which are widely referred to in related documentation (**AIP**, instrument approach charts, etc). This proposal addresses this shortcoming by including these definitions.

2.3 CURRENT REGULATION

The current regulation does not contain the above-mentioned definitions.

3.0 PROPOSAL TO AMEND REGULATION 1.00.2 OF PART 1 OF THE REGULATIONS

3.1 Proposed amendment of regulation 1.00.2 by the insertion of the following abbreviations:

- (i)** **ADF** means Automatic Direction Finder;
- (ii)** **AFM** means Aircraft Flight Manual;
- (iii)** **AIRAC** means Aeronautical Information Regulation and Control;
- (iv)** **ATS** means Air Traffic Service;
- (v)** **BARO** means barometric;
- (vi)** **CDI** means Course Deviation Indicator;
- (vii)** **CF** means Course to a Fix;
- (viii)** **DME** means Distance Measuring Equipment;
- (ix)** **DP** means departure procedure
- (x)** **DR** means dead reckoning
- (xi)** **DTK** means Desired Track;
- (xii)** **EFIS** means Electronic Flight Instrument System;
- (xiii)** **EMC** means Electromagnetic Compatibility
- (xiv)** **FAF** means Final Approach Fix;

- (xv) **FAWP** means Final Approach Waypoint;
- (xvi) **FMS** means Flight Management System;
- (xvii) **FTE** means Flight Technical Error;
- (xviii) **GNSS** means Global Navigation Satellite System;
- (xix) **GPS** means Global Positioning System;
- (xx) **GS** means Ground Speed;
- (xxi) **IAF** means Initial Approach Fix;
- (xxii) **IAWP** means Intermediate Approach Waypoint;
- (xxiii) **LDA** means Localiser Directional Aid;
- (xxiv) **LNAV** means Lateral Navigation;
- (xxv) **MAWP** means Missed Approach Waypoint;
- (xxvi) **RAJM** means Receiver Autonomous Integrity Monitoring;
- (xxvii) **RDH** means Reference Datum Height;
- (xxviii) **RNAV (GNSS)** means GNSS facilitated Area Navigation;
- (xxix) **SDF** means Simplified Directional Facility;
- (xxx) **SID** means Standard Instrument Departure;
- (xxxi) **STAR** means Standard Arrival Routing;
- (xxxii) **TK** means Actual Track;
- (xxxiii) **TMG** means Track Made Good;
- (xxxiv) **VPA** means Vertical Path Angle;
- (xxxv) **WGS-84** means World Geodetic System 1984.

3.2 MOTIVATION

These abbreviations are used in the legislation relating to GNSS issues.

3.3 CURRENT REGULATION

As already pointed out, the current regulation does not include the abbreviations referred to above.

4.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 91.03.4 OF PART 91 OF THE REGULATIONS

4.1 Proposed amendment of regulation 91.03.4 by the insertion of sub-regulations (12) and (13)

“(12) A pilot shall only operate an aircraft under IFR using GNSS equipment as a primary means navigation system if the letter “G” is inserted in the block item 10 on the ICAO flight plan form.

(13) No person shall enter the letter “G” in the block item 10 on the ICAO flight plan form unless the requirements prescribed in this regulation have been complied with.”

4.2 MOTIVATION

The current provisions do not contain references to GNSS equipment.

4.3 CURRENT REGULATION:

- (2) The items to be contained in the air traffic service flight plan referred to in sub-regulation (1) shall be as prescribed Document SA-CATS-OPS 91.

5.0 PROPOSAL TO AMEND REGULATION 91.05.2 OF PART 91 OF THE REGULATIONS**5.1 Proposed amendment of regulation 91.05.2 by the insertion of sub-regulation (8):**

- “(8) Whenever G N S S equipment is used for navigation or approach purposes, such equipment shall meet the airworthiness criteria prescribed in Document SA-CATS-OPS 91.”

5.2 MOTIVATION

The current provision does not contain references to G N S S equipment

5.3 CURRENT REGULATION

Such a provision does not currently exist

6.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 91.06.34 OF PART 91 OF THE REGULATIONS**6.1 Proposed amendment of regulation 91.06.34 by the renumbering of the said regulation as sub-regulation (1) (1) and the insertion of sub-regulation (2)**

- “(1) No pilot-in-command of an aircraft may execute, or endeavour to execute an instrument approach or departure at an aerodrome unless—
- (a) the provisions of Regulation 91.06.25 are complied with;
 - (b) the flight is conducted in accordance with procedures for instrument approach or instrument departure authorized by the Commissioner for the specific aerodrome and manoeuvre to be executed ;and
 - (c) the requirements for flights conducted under IMC authorized by the Commissioner are complied with.”
- (2) No pilot-in-command of an aircraft may nominate an aerodrome as an alternate aerodrome unless there is a procedure for an instrument approach authorized by the Commissioner, and the aircraft complies with the requirements for Regulation 91.06.25, and there is reasonable certainty that the requirements for flights conducted under IMC authorized by the Commissioner will be complied with”.

6.2 MOTIVATION

The amended regulation is more specific and also makes reference to aircraft equipment which reference does not appear in the existing provision

6.3 CURRENT REGULATION

- “91.06.34** When an instrument approach to, or instrument departure from, an aerodrome is necessary, the pilot-in-command of an aircraft shall use the standard instrument approach and departure procedure as published by the Commissioner in the AIC, AIP, AIP SUP or NOTAM”.

7.0 PROPOSAL TO INSERT SUBPART 11 INTO PART 91 OF THE REGULATIONS

7.1 *Proposed insertion of Subpart 11 into the Regulations*

SUBPART 11: GLOBAL NAVIGATION SATELLITE SYSTEM

“91.11.1. Departures, arrivals, and instrument departure and arrival procedures

1. (a) In order to fly published IFR departures, IFR arrivals, instrument departures, and instrument arrival procedures, the pilot shall ensure that –
 - (i) the GNSS receiver is set to terminal Course Deviation Indicator (CDI) sensitivity; and
 - (ii) the navigation routes are contained in the database.
- (b) For Flight Management System (FMS) equipped aircraft without the capability of manually setting the CDI, the pilot shall fly the departure with a flight director.
- (c) Helicopter-only GNSS departure procedures shall be flown at 70 knots or less.
- (d) Upon clearance for the approach by the appropriate Air Traffic Service Unit (ATSU), the pilot shall select the appropriate aerodrome, the runway approach procedure and the initial approach fix on the GNSS receiver to determine RAIM integrity for such approach

91.11.2 Operational criteria for the use of RNAV/BARO VNAV systems

- (1) An aircraft equipped with a RNAV/BARO VNAV system approved for the appropriate level of RNAV/VNAV operations may be used to carry out RNAV/BARO VNAV approaches if:
 - (a) The navigation system has a certified performance functioning level equal to or less than 0.3 NM (95 percent probability) that includes:
 - (i) a GNSS navigation systems that is properly certified for approach operations; and

- (ii) a multi-sensor system that uses inertial reference unit(s) in combination with a certified DME/DME or GNSS;
 - (b) the RNAV/BARO VNAV equipment is serviceable;
 - (c) the aircraft and aircraft systems are appropriately certified for the intended RNAV/BARO VNAV approach operations and the aircraft is equipped with an integrated Lateral Navigation (LNAV) system with an accurate source of barometric altitude; and
 - (d) the VNAV altitudes and all relevant procedural and navigational information are retrieved from a navigation database whose integrity is supported by appropriate quality assurance measures.
- (2) The following factors upon which the vertical navigational performance of the BARO VNAV procedure depends, shall be taken into account:
- (a) Atmospheric effects – atmospheric errors associated with non-standard temperatures;
 - (b) along-track position uncertainty – along-track error that may result in an error in the vertical path;
 - (c) FTE;
 - (d) other system errors – errors such as static source error, non-homogenous weather phenomena and latency defects; and
 - (e) blunder errors – errors such as the application of an in-correct or out-of-date altimeter setting either by the ATS unit or the pilot.
- (3) The pilot shall be responsible for performing and verifying any cold temperature correction that is required for all published minimum altitudes/heights, including the preceding initial and intermediate segments, Decision Attitude/Height (DA/H) and subsequent missed approach heights/altitudes.
- (4) BARO VNAV procedures shall not be permitted in cases when the aerodrome temperature is below the promulgated minimum aerodrome temperature for the procedure. If the aerodrome temperature is below the promulgated minimum aerodrome temperature for the procedure, a LNAV procedure may still be used if:
- (a) A conventional RNAV non-precision procedure and RNAV/LNAV Obstacle Clearance Altitude/Height (OCA/H) is promulgated for the approach; and
 - (b) the pilot applies the appropriate cold temperature altimeter correction to all minimum promulgated altitudes/heights.

- (5) The pilot shall have current knowledge of operation of the equipment so as to achieve the optimum level of navigation accuracy.
- (6) BARO VNAV procedures shall only be flown with a current local altimeter setting and the QNH/QFE, as appropriate, set on the altimeter of the aircraft.
- (7) The pilot shall ensure obstacle clearance by limiting vertical path excursions to a range of less than **+30 m (+100 ft)** and over **-15 m (-50 ft)** from the VPA.
- (8) Commercial air transport operations

The operator of an aircraft approved for use in commercial air transport operations, shall, in addition to the operational requirements prescribed in this regulation, comply with the appropriate provisions of its approved operations specifications.”

7.2 MOTIVATION

To facilitate the introduction of the GNSS-related provisions

7.3 CURRENT REGULATION

Does not exist

8.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 172.02.1 OF PART 172 OF THE REGULATIONS

8.1 Proposed amendment of regulation 172.02.1 by the substitution for sub-regulation (1) of the following sub-regulation:

“**172.02.1(1)** The Commissioner may designate a particular portion of the airspace as a –

- (a) flight information region;
- (b) advisory area;
- (c) control area;
- (d) control zone;
- (e) special rules area;
- (f) aerodrome traffic area;**
- (g) aerodrome traffic zone.”

8.2 MOTIVATION

Special rules areas are described in ICAO Documents as contained in ICAO Doc **9426** (ATS planning Manual) paragraph **3.3.4** but are not currently supported by the SA Civil Aviation Regulations. This proposal addresses this shortcoming by specifically empowering the Commissioner for Civil Aviation to designate special rules areas and to publish the details in the appropriate medium.

Aerodrome Traffic Areas (ATAs) & Aerodrome Traffic Zones (ATZs) are included in Part One of the CARs but have been omitted from Regulation 172.02.1. This proposal addresses this shortcoming by specifically empowering the Commissioner for Civil Aviation to designate ATAs & ATZs.

8.3 CURRENT REGULATION:

“172.02.1 (1) The Commissioner may designate a particular portion of the airspace as a –

- (a) flight information region;
- (b) advisory area;
- (c) control area;
- (d) control zone.”

9.0 PROPOSAL FOR THE INSERTION OF SUBPART 4 INTO PART 172 OF THE REGULATIONS

9.1 Proposed amendment of Part 172 (Airspace and Air Traffic Services Airspace and Air Traffic Services) – by the insertion of Subpart 4

“SUBPART 172.04 GNSS ATS PROVISIONS
172.04.1 ATS requirements for GNSS operations are prescribed in SA-CATS-ATS 172.04.”

9.2 MOTIVATION

This amendment provides for the use of GNSS and gives a reference to the correct SA-CATS Document.

9.3 CURRENT REGULATION

Does not provide for the use of GNSS.

10.0 PROPOSAL TO INSERT PART 177 INTO THE REGULATIONS

10.1 Proposed insertion of new Part 177 (Instrument Flight Procedures and ICAO Aeronautical Charts after Part 175:”

“PART 177 INSTRUMENT FLIGHT PROCEDURES AND ICAO AERONAUTICAL CHARTS

CONTENTS

- 177.00.1 Applicability
- 177.00.2 Provision of instrument flight procedures and ICAO aeronautical charts
- 177.00.3 Minimum standards

Applicability

- 177.00.1 This part shall apply to the provision of instrument flight procedures and ICAO aeronautical charts.

Provision of instrument flight procedures

- 177.00.2 The Commissioner shall be responsible for the provision of instrument flight procedures and ICAO aeronautical charts in accordance with Document **SA-CATS-PANS**

Minimum standards for the provision of instrument flight procedures and ICAO aeronautical charts

- 177.00.3 (1) The conditions, requirements, rules, procedures and standards for the design, approval and provision of instrument flight procedures and ICAO aeronautical charts, shall be prescribed in Document **SA-CATS-PANS**;

10.2 MOTIVATION:

This proposed new Part supports the Commissioner's responsibility to provide and publish instrument flight procedures and ICAO aeronautical charts for the safety, regularity or efficiency of air navigation. Such procedures are used by flight operations personnel, including flight crew and the personnel responsible for the provision of pre-flight information, and air traffic services providers

10.3 CURRENT REGULATION

No such Part currently exists

SCHEDULE 3

- 1.0 **PROPOSAL FOR THE INSERTION OF PART 171 INTO THE REGULATIONS**
- 1.1 **Proposed insertion of Part 171 into the Regulations**

"PART 171

Aeronautical Telecommunication Service and Radio-navigation Service Providers

(Electronic Services Organisations)

List of Regulations.

SUBPART 1: GENERAL

- 171.01.1 Applicability**
- 171.01.2 Requirement for approval**
- 171.01.3 Display of electronic services organisation approval**
- 171.01.4 Advertisements**
- 171.01.5 Safety inspections and audits**
- 171.01.6 Suspension and cancellation of electronic services organisation approval and appeal**
- 171.01.7 Categories of ratings**
- 171.01.8 Privileges of approved electronic services organisation**
- 171.01.9 Limitations on approved electronic services organisation**
- 171.01.10 Register of approvals**

SUBPART 2 : APPROVAL OF ELECTRONIC SERVICES ORGANISATION (Category A Rating)

To be developed

SUBPART 3 : APPROVAL OF ELECTRONIC SERVICES ORGANISATION

(Category B Rating)

171.03.1	Manual of procedure
171.03.2	Quality control system
171.03.3	Accommodation and facilities
171.03.4	Human resources
171.03.5	Equipment, tools and material
171.03.6	Application for approval or amendment thereof
171.03.7	Issuing of approval
171.03.8	Privileges
171.03.9	Period of validity
171.03.10	Transferability
171.03.11	Renewal of approval
171.03.12	Changes in quality control system
171.03.13	Duties of holder of approval
171.03.14	Record of authorised personnel
171.03.15	Services records
171.03.16	Equipment specification

SUBPART 4 : APPROVAL OF ELECTRONIC SERVICES ORGANISATION**(Category F Rating)**

171.04.1	Manual of procedure
171.04.2	Quality control system
171.04.3	Accommodation and facilities
171.04.4	Human resources

171.04.6	Application for approval or amendment thereof
171.04.7	Issuing of approval
171.04.8	Privileges
171.04.9	Period of validity
171.04.10	Transferability
171.04.11	Renewal of approval
171.04.12	Changes in quality control system
171.04.13	Duties of holder of approval
171.04.14	Record of authorised personnel
171.04.15	Services records
171.04.16	Equipment specification

SUBPART 5: Communication, Navigation, Surveillance and Meteorological Equipment.

171.05.1	Radio site approval
171.05.2	Frequencies, identification codes and call signs
171.05.3	Protection of radio sites
171.05.4	Interference
171.05.5	Information provided by an aeronautical facility
171.05.6	Test Transmissions
171.05.7	Specifications regarding Navigation Aids
171.05.8	Specifications regarding Communication procedures

171.05.9	Specifications DATA and Voice Communication systems
171.05.10	Specifications regarding RADAR and collision avoidance systems
171.05.11	Specifications regarding Radio Frequency spectrum utilisation
171.05.12	Specifications regarding Meteorological Equipment
171.05.13	Flight inspection of Navigation Equipment
171.05.14	Station (Site) Logs

SUBPART 1: GENERAL

Applicability

171.01.1

This part prescribes the:-

- (1) the regulatory requirements and standards for the approval of organisations that provide, operate, and maintain aeronautical telecommunications used for air traffic services, and radio-navigation services used for air navigation; and
- (2) operating and technical standards for aeronautical telecommunication services used for air traffic services, and aeronautical radio-navigation services used for air navigation.

Requirement for approval

171.01.2

No person or organisation shall install, maintain, repair, modify or calibrate:-

- a) equipment for the use of aeronautical telecommunication services used for air traffic services; or
- b) equipment for the use for aeronautical radio-navigation services, used for air navigation.

except, under the authority of, and in accordance with the provisions of, an electronic services organisation approval with the appropriate rating issued under this Part.

Display of electronic services organisation approval

171.01.3

The holder of an electronic services organisation approval shall display the approval in a prominent place, generally accessible to the public at such holder's principal place of business and, if a copy of the approval is displayed, shall produce the original approval to an authorised officer, inspector or authorised person if so requested by such officer, inspector or person.

Advertisements**171.01.4**

Any advertisement by an organisation indicating that it is an electronic services organisation, shall –

- a) reflect the number of the electronic services organisation approvals issued by the Commissioner; and
- b) contain a reference to the category for which the organisation is rated.

Safety inspections and audits**171.01.5**

- (1) An applicant for the issuing of an electronic services organisation approval shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits, which may be necessary to verify the validity of any application made in terms of this Part.
- (2) The holder of an electronic services organisation approval shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits, including safety inspections and audits of its partners or subcontractors, which may be necessary to determine compliance with the appropriate requirements prescribed in this Part.

Suspension and cancellation of electronic services organisation approval and appeal**171.01.6**

- (1) An authorised officer, inspector or authorised person may suspend for a period not exceeding 30 days, an electronic services organisation approval issued under this Part, if -
 - a) after a safety inspection and audit carried out in terms of regulation 171.01.5, it is evident that the holder of the approval does not comply with

the requirements prescribed in this Part, and such holder fails to remedy such non-compliance within 30 days after receiving notice in writing, from the authorised officer, inspector or authorised person to do so; or

- b) the authorised officer, inspector or authorised person is prevented by the holder of the approval, or any of its partners or subcontractors, to carry out a safety inspection and audit in terms of regulation 171.01.5; or
 - c) the suspension is necessary in the interests of aviation safety.
- (2) The authorised officer, inspector or authorised person who has suspended an approval in terms of sub-regulation (1), shall deliver a report in writing to the Commissioner, stating the reasons why, in his or her opinion, the suspended approval should be cancelled.
- (3) The authorised officer, inspector or authorised person concerned shall submit a copy of the report referred to in sub-regulation (2), to the holder of the approval which has been suspended, and shall furnish proof of such submission for the information of the Commissioner.
- (4) The holder of an approval who feels aggrieved by the suspension of the approval may appeal against such suspension to the Commissioner, within 30 days after such holder becomes aware of such suspension.
- (5) An appellant shall deliver an appeal in writing, stating the reasons why, in its opinion, the suspension should be varied or set aside.
- (6) The appellant shall submit a copy of the appeal and any documents or records supporting such appeal, to the authorised officer, inspector or authorised person concerned and shall furnish proof of such submission for the information of the Commissioner.
- (7) The authorised officer, inspector or authorised person concerned may, within 30 days of receipt of the copy of the appeal referred to in sub-regulation (6), deliver his or her written reply to such appeal to the Commissioner.
- (8) The Commissioner may -
- a) adjudicate the appeal on the basis of the documents submitted to him or her;
or _____
 - b) order the appellant and the authorised officer, inspector or authorised person concerned to appear before him or her, either in person or through a representative, at a time and place determined by him or her, to give evidence.
- (9) The Commissioner may confirm, vary or set aside the suspension referred to in sub-regulation (1).

(10) The Commissioner shall -

- a) if he or she confirms the suspension in terms of sub-regulation (9); or
- b) if an approval is suspended in terms of sub-regulation (1) and the holder thereof does not appeal against such suspension in terms of sub-regulation (4), cancel the approval concerned. The holder of the approval shall be informed accordingly.

Categories of ratings

171.01.7

The categories of ratings for an electronic services organisation approval are -

- a) **Category A - To** be developed
- b) **Category B** rating allows for the supply and installation of any electronic equipment used for air traffic, and for air navigation services that form part of a service approved under Part 172 and level 3 maintenance, including commissioning, decommissioning, refurbishing and upgrading of telecommunication, surveillance and navigation systems to the standard prescribed in the document SA-CATS-ESO.
- c) **Category F** rating allows for the flight inspection of any electronic equipment used for air traffic, surveillance and for air navigation services to which the Commissioner may have a requirement, to the standard prescribed in the document SA-CATS-ESO.

Privileges of approved electronic services organisation

171.01.8

- (1) The holder of an electronic services organisation approval with the appropriate rating shall ensure that the privileges of such rating are not exercised unless the electronic services organisation has the necessary facilities, current technical data, tools, equipment, materials and qualified personnel to perform the work in accordance with all current requirements regarding the maintenance of the particular type of equipment.

Limitations on approved electronic services organisation

171.01.9

- (1) The holder of an electronic services organisation approval may only maintain equipment for which it is approved.
- (2) The holder of an approval shall not maintain equipment for which it is approved unless such holder has available all the facilities, equipment, tooling, technical data and qualified personnel necessary to maintain the equipment in accordance with its manual of procedure and the requirements prescribed in this Part.

Register of approvals

171.01.10

- (1) The Commissioner shall maintain a register of all electronic services organisation approvals issued in terms of the regulations in this Part.
- (2) The register shall contain the following particulars:
 - a) The full name of the holder of the approval;
 - b) the postal address and physical address of the holder of the approval;
 - c) the date on which the approval was issued or renewed;
 - d) particulars of the rating issued to the holder of the approval; and
- (3) The particulars referred to in sub-regulation (2) shall be recorded in the register within seven days from the date on which the approval is issued by the Commissioner.
- (4) The register shall be kept in a safe place at the office of the Commissioner.
- (5) A copy of the register shall be furnished by the Commissioner, on payment of the appropriate fee as prescribed in Part 187, to any person who requests the copy.

SUBPART 2

APPROVAL OF ELECTRONIC SERVICES ORGANISATION

(Category A Rating)

To be developed

SUBPART 3**APPROVAL OF ELECTRONIC SERVICES ORGANISATION****(Category B Rating)****Manual of procedure****171.03.1**

An applicant for the issuing of an electronic services organisation approval shall provide the Commissioner with its manual of procedure, which shall -

- a) comply with the requirements prescribed in this Subpart;
and
- b) contain the information as prescribed in Document SA-CATS-ESO

Quality control system**171.03.2**

- (1) The applicant shall establish a quality control system for the control and supervision of the management of electronic equipment, covered by the application.
- (2) The minimum standards for a quality control system shall be as prescribed in Document SA-CATS-ESO.

Accommodation and facilities

171.03.3 The applicant shall satisfy the Commissioner that -

- a) it has adequate facilities for all services to be performed by the electronic services organisation;
- b) the working environment is appropriate for each task carried out and, in particular, complies with any special requirements specified in the applicable equipment specification;
- c) appropriate office accommodation is provided for the administration of the services performed and, in particular, for the administration of the organisation's quality, planning and technical records;
- d) storage facilities are provided for parts, equipment, tools and materials required by the organisation;

Human resources**171.03.4**

- (1) The applicant shall engage, employ or contract -
- a) a senior person identified as the accountable manager and compliance officer of the organisation concerned, to whom contractual authority has been granted to ensure that all activities undertaken by the organisation are carried out in accordance with the applicable requirements prescribed in this Subpart, and who shall in addition be vested with the following powers and duties in respect of the compliance with such requirements:
 - (i) unrestricted access to work performed or activities undertaken by all other persons as employees of, and other persons rendering service under contract with, the organisation;
 - (ii) full rights of consultation with any such person in respect of such compliance by him or her;
 - (iii) powers to order cessation of any activity where such compliance is not effected;
 - (iv) a duty to establish liaison mechanisms with the Commissioner with a view to ascertain correct manners of compliance with the said requirements, and interpretations of such requirements by the Commissioner, and to facilitate liaison between the Commissioner and the organisation concerned; and
 - (v) powers to report directly to the management of the organisation on his or her investigations and consultations generally, and in cases contemplated in subparagraph (iii), and with regard to the results of the liaison contemplated in subparagraph (iv);
 - (b) a competent person who is responsible for quality control, and who has direct access to the accountable manager and compliance officer referred to in paragraph (a) on matters affecting aviation safety; and
 - (c) adequate personnel to plan, perform, supervise, inspect and certify all services undertaken by such organisation.
- (2) The applicant shall establish a procedure for initially assessing, and a procedure for maintaining, the competence of those personnel involved in planning, performing, supervising, inspecting or certifying the maintenance undertaken by the organisation.
- (3) The applicant shall ensure that -

- (a) the personnel in all technical departments are of sufficient numbers and experience and have been given appropriate written authority to be able to discharge their allocated responsibilities; and
- b) there is full and efficient coordination between departments and within departments.

Equipment, tools and material

171.03.5

The applicant shall satisfy the Commissioner that it has -

- a) the equipment, tools and material necessary to perform adequately the approved scope of work as required by the applicable equipment specification, its manual of procedure and the regulations in this Part; and
- b) established a procedure to control and, where necessary, calibrate test equipment at a frequency and to a standard to ensure serviceability, accuracy and trace-ability.

Application for approval or amendment thereof

171.03.6

An application for the issuing of an electronic services organisation approval, or an amendment thereof, shall be -

- a) made to the Commissioner in the appropriate form as prescribed in Document SA-CATS-ESO; and
- b) accompanied by -
 - (i) the appropriate fee as prescribed in Part 187; and
 - (ii) the manual of procedure referred to in regulation 171.03.1.

Issuing of approval

171.03.7

- (1) The Commissioner shall issue an electronic services organisation approval, if the applicant complies with the requirements prescribed in regulations 171.03.1 to 171.03.5 inclusive.

- (2) The Commissioner shall issue the approval on the appropriate form as prescribed in Document SA-CATS-ESO.

Privileges

171.03.8

The privileges of an electronic services organisation approval shall be limited to services authorised by the approval and the appropriate specifications as prescribed in Document SA-CATS-ESO

Period of validity

171.03.9

- (1) An electronic services organisation approval shall be valid for the period determined by the Commissioner, which period shall not exceed five years, calculated from the date of issuing or renewal thereof.
- (2) The approval shall remain in force until it expires or is suspended by an authorised officer, inspector or authorised person, or cancelled by the Commissioner, in terms of regulation 171.01.5.
- (3) The holder of an approval, which expires, shall forthwith surrender the approval to the Commissioner.
- (4) The holder of an approval, which is suspended, shall forthwith produce the approval upon suspension thereof, to the authorised officer, inspector or authorised person concerned for the appropriate endorsement.
- (5) The holder of an approval, which is cancelled, shall, within 30 days from the date on which the approval is cancelled, surrender such approval to the Commissioner.

Transferability

171.03.10

- (1) Subject to the provisions of sub-regulation (3), an electronic services organisation approval shall not be transferable.
- (2) A change in ownership of the holder of an approval shall be deemed to be a change of significance referred to in regulation 171.03.12.

Renewal of approval

171.03.11

- (1) An application for the renewal of an electronic services organisation approval, shall be -
 - (a) made to the Commissioner in the appropriate form as prescribed in Document SA-CATS-ESO;
and
 - (b) be accompanied by -
 - (i) the appropriate fee as prescribed in Part 187; and
 - (ii) the manual of procedure referred to in regulation 171.03.1.
- (2) The holder of the approval shall at least 60 days immediately preceding the date on which such approval expires, apply for the renewal of such approval.

Changes in quality control system

171.03.12

- (1) If the holder of an electronic services organisation approval desires to make any change in the quality control system referred to in regulation 171.03.2, which is significant to the showing of compliance with the appropriate requirements prescribed in this Part, such holder shall apply to the Commissioner for the approval of such change.
- (2) The provisions of regulation 171.03.6 shall apply mutatis mutandis to an application for the approval of a change in the quality control system.
- (3) An application for the approval of a change in the quality control system shall be granted by the Commissioner if the applicant satisfies the Commissioner, upon submission of appropriate proposed changes to its manual of procedure, that it will continue to comply with the provisions of regulations 171.03.1 to 171.03.5 inclusive, after the implementation of such approved change.

Duties of holder of approval

171.03.13

- (1) The holder of an electronic services organisation approval shall -
 - (a) hold at least one complete and current copy of its manual of procedure referred to in regulation 171.03.1, at each workplace specified in the manual of procedure;
 - (b) comply with all procedures detailed in the manual of procedure;
 - (c) make each applicable part of the manual of procedure available to the who require those parts to carry out their duties; and

- (d) continue to comply with the appropriate requirements prescribed in this Part.
- (2) The holder of an approval shall ensure that all persons who will be directly in charge of any maintenance, inspection or commissioning performed on behalf of the electronic services organisation are appropriately authorised and rated.

Record of authorised personnel

171.03.14

- (1) The holder of an electronic services organisation shall maintain a record of all authorised personnel, which record shall include particulars of the scope of their authorisation.
- (2) The holder of an approval to provide its authorised personnel with evidence of the scope of their authorisation.
- (3) The record referred to in sub-regulation (1) shall be retained by the holder of the approval for a period of five years from the date on which the personnel member ceases to be an employee.

Services records

171.03.15

- (1) The holder of an electronic services organisation approval shall keep adequate records of all services performed by such organisation.
- (2) The records referred to in sub-regulation (1) shall -
 - (a) indicate the name of each person who performed the work;
 - (b) indicate the name of each person who inspected the work; and
 - (c) be retained for at least five years from the date on which the electronic or electronic component to which the work relates, was released to service.
- (3) The holder of an approval provide a copy of each certificate of release to service to the operator of the electronic, together with a copy of any specific equipment specification used for repairs or modifications carried out.
- (4) The holder of an approval shall establish a procedure for recording maintenance details and for the retention of such maintenance records.

Equipment specification

171.03.16

- (1) **The holder** of an electronic services organisation approval shall -

- (a) keep all equipment specification and documentation necessary to support the services to be performed by the organisation; and
- (b) make the equipment specification and documentation available to all personnel who need access to such data to discharge their allocated responsibilities.

SUBPART 4

APPROVAL OF ELECTRONIC SERVICES ORGANISATION

(Category F Rating)

Manual of procedure

171.04.1

An applicant for the issuing of an electronic services organisation approval shall provide the Commissioner with its manual of procedure, which shall -

- a) comply with the requirements prescribed in this Subpart;
and
- b) contain the information as prescribed in Document SA-CATS-ESO

Quality control system

171.04.2

- (1) The applicant shall establish a quality control system for the control and supervision of the management of electronic equipment, covered by the application.
- (2) The minimum standards for a quality control system shall be as prescribed in Document SA-CATS-ESO.

Accommodation and facilities

171.04.3 The applicant shall satisfy the Commissioner that -

- a) it has adequate facilities for all services to be performed by the electronic services organisation;
- b) the working environment is appropriate for each task carried out and, in particular, complies with any special requirements specified in the applicable equipment specification;
- c) appropriate office accommodation is provided for the administration of the services performed and, in particular, for the administration of the organisation's quality, planning and technical records;
- d) storage facilities are provided for parts, equipment, tools and materials required by the organisation;

Human resources

171.04.4

- (1) The applicant shall engage, employ or contract -
- a) a senior person identified as the accountable manager and compliance officer of the organisation concerned, to whom contractual authority has been granted to ensure that all activities undertaken by the organisation are carried out in accordance with the applicable requirements prescribed in this Subpart, and who shall in addition be vested with the following powers and duties in respect of the compliance with such requirements:
 - (i) unrestricted access to work performed or activities undertaken by all other persons as employees of, and other persons rendering service under contract with, the organisation;
 - (ii) full rights of consultation with any such person in respect of such compliance by him or her;
 - (iii) powers to order cessation of any activity where such compliance is not effected;
 - (iv) a duty to establish liaison mechanisms with the Commissioner with a view to ascertain correct manners of compliance with the said requirements, and interpretations of such requirements by the Commissioner, and to facilitate liaison between the Commissioner and the organisation concerned; and
 - (v) powers to report directly to the management of the organisation on **his** or her investigations and consultations generally, and in cases contemplated in subparagraph (iii), and with regard to the results of **the liaison contemplated in subparagraph (iv);**

- (b) a competent person who is responsible for quality control, and who has direct access to the accountable manager and compliance officer referred to in paragraph (a) on matters affecting aviation safety; and
 - (c) adequate personnel to plan, perform, supervise, inspect and certify all services undertaken by such organisation.
- (2) The applicant shall establish a procedure for initially assessing, and a procedure for maintaining, the competence of those personnel involved in planning, performing, supervising, inspecting or certifying the maintenance undertaken by the organisation.
- (3) The applicant shall ensure that -
 - (a) the personnel in all technical departments are of sufficient numbers and experience and have been given appropriate written authority to be able to discharge their allocated responsibilities; and
 - b) there is full and efficient coordination between departments and within departments.

Equipment, tools and material

171.04.5

The applicant shall satisfy the Commissioner that it has -

- a) the equipment, tools and material necessary to perform adequately the approved scope of work as required by the applicable equipment specification, its manual procedure and the regulations in this Part; and
- b) established a procedure to control and, where necessary, calibrate test equipment at a frequency and to a standard to ensure serviceability, accuracy and trace- ability.

Application for approval or amendment thereof

171.04.6

An application for the issuing of an electronic services organisation approval, or an amendment thereof, shall be -

- a) made to the Commissioner in the appropriate form as prescribed in Document SA-CATS-ESO; and
- b) accompanied by -

- (i) the appropriate fee as prescribed in Part **187**; and
- (ii) the manual of procedure referred to in regulation **171.04.1**.

Issuing of approval

171.04.7

- (1) The Commissioner shall issue an electronic services organisation approval, if the applicant complies with the requirements prescribed in regulations **171.04.1** to **171.04.5** inclusive.
- (2) The Commissioner shall issue the approval on the appropriate form as prescribed in Document SA-CATS-ESO.

Privileges

171.04.8

The privileges of an electronic services organisation approval shall be limited to services authorised by the approval and the appropriate specifications as prescribed in Document SA-CATS-ESO

Period of validity

171.04.9

- (1) An electronic services organisation approval shall be valid for the period determined by the Commissioner, which period shall not exceed five years, calculated from the date of issuing or renewal thereof.
- (2) The approval shall remain in force until it expires or is suspended by an authorised officer, inspector or authorised person, or cancelled by the Commissioner, in terms of regulation **171.01.5**.
- (3) The holder of an approval, which expires, shall forthwith surrender the approval to the Commissioner.
- (4) The holder of an approval, which is suspended, shall forthwith produce the approval upon suspension thereof, to the authorised officer, inspector or authorised person concerned for the appropriate endorsement.
- (5) The holder of an approval, which is cancelled, shall, within 30 days from the date on which the approval is cancelled, surrender such approval to the Commissioner.

Transferability

171.04.10

- (1) Subject to the provisions of sub-regulation (4), an electronic services organisation approval, shall not be transferable.
- (2) A change in ownership of the holder of an approval shall be deemed to be a change of significance referred to in regulation 171.04.12.

Renewal of approval

171.04.1 1

- (1) An application for the renewal of an electronic services organisation approval, shall be -
 - (a) made to the Commissioner in the appropriate form as prescribed in Document SA-CATS-ESO;
 - and
 - (b) be accompanied by -
 - (i) the appropriate fee as prescribed in Part 187; and
 - (ii) the manual of procedure referred to in regulation 171.04.1.
- (2) The holder of the approval shall at least 60 days immediately preceding the date on which such approval expires, apply for the renewal of such approval.

Changes in quality control system

171.04.1 2

- (1) If the holder of an electronic services organisation approval desires to make any change in the quality control system referred to in regulation 171.04.2, which is significant to the showing of compliance with the appropriate requirements prescribed in this Part, such holder shall apply to the Commissioner for the approval of such change.
- (2) The provisions of regulation 171.04.6 shall apply *mutates mutandis* to an application for the approval of a change in the quality control system.
- (3) An application for the approval of a change in the quality control system shall be granted by the Commissioner if the applicant satisfies the Commissioner, upon submission of appropriate proposed changes to its manual of procedure, that it will continue to comply with the provisions of regulations 171.04.1 to 171.04.5 inclusive, after the implementation of such approved change.

Duties of holder of approval

171.04.13

- (1) The holder of an electronic services organisation approval shall -
 - (a) hold at least one complete and current copy of its manual of procedure referred to in regulation **171.04.1**, at each workplace specified in the manual of procedure;
 - (b) comply with all procedures detailed in the manual of procedure;
 - (c) make each applicable part of the manual of procedure available to the who require those parts to carry out their duties; and
 - (d) continue to comply with the appropriate requirements prescribed in this Part.
- (2) The holder of an approval shall ensure that all persons who will be directly in charge of any maintenance, inspection or commissioning performed on behalf of the electronic services organisation are appropriately authorised and rated.

Record of authorised personnel

171.04.14

- (1) The holder of an electronic services organisation shall maintain a record of all authorised personnel, which record shall include particulars of the scope of their authorisation.
- (2) The holder of an approval to provide its authorised personnel with evidence of the scope of their authorisation.
- (3) The record referred to in sub-regulation (1) shall be retained by the holder of the approval for a period of five years from the date on which the personnel member ceases to be an employee.

Services records

171.04.15

- (1) The holder of an electronic services organisation approval shall keep adequate records of all services performed by such organisation.
- (2) The records referred to in sub-regulation (1) shall -
 - (a) indicate the name of each person who performed the work;
 - (b) indicate the name of each person who inspected the work; and
 - (c) be retained for at least five years from the date on which the electronic or electronic component to which the work relates, was released to service.

- (3) The holder of an approval provide a copy of each certificate of release to service to the operator of the electronic, together with a copy of any specific equipment specification used for repairs or modifications carried out.
- (4) The holder of an approval shall establish a procedure for recording maintenance details and for the retention of such maintenance records.

Equipment specification

171.04.16

- (1) The holder of an electronic services organisation approval shall -
 - (a) keep all equipment specification and documentation necessary to support the services to be performed by the organisation; and
 - (b) make the equipment specification and documentation available to all personnel who need access to such data to discharge their allocated responsibilities.

SUBPART 5:

Communication, Navigation, Surveillance and Meteorological Equipment,

Radio site approval

171.05.1

- (1) No radio site shall be allowed to come into existence without the prior approval of the Commissioner.
- (2) An approval shall be granted pursuant to paragraph (1) upon the Commissioner being satisfied:
 - (a) as to the intended purpose of the equipment; and
 - (b) that the person or organisation is competent to operate the equipment and that the equipment is fit for its intended purpose.
- (3) The Commissioner shall be notified to the type and availability of operation, of any service, which is available for use by any aircraft.
- (4) The Commissioner may approve a person or organisation to provide particular services in connection with approved equipment.
- (5) The Commissioner may require the flight calibration and/or commissioning of such equipment by an authorised person or organisation.
- (6) The Commissioner may require that the information in (3) be published.

Frequencies, identification codes and call signs

171.05.2

- (1) No person shall operate-
 - a) a radio navigation aid, unless it has been allocated an operating frequency and identification code by the Commissioner.
 - b) a radio communication transmitter on an aeronautical radio frequency, unless it has been allocated an operating frequency and call sign by the Commissioner.
 - c) a radio apparatus licence has been granted in terms of the Telecommunication Act (Act No 103 of 1996) as amended.
- (2) The Commissioner shall allocate an identification code for a navigation aid or call sign for a aeronautical radio communication facility if he or she is satisfied that the allocation of a code or call sign is not contrary to the interest of aviation safety.

Protection of radio sites

171.05.3

No structure or object, whether natural or artificial, which have the potential of interfering or degrading radio signals for the purpose of aviation safety, shall be allowed to come in existence or to move or be moved within the surfaces and slopes as defined in the Document SA-CATS—ESO.

Interference

171.05.4

- (1) The Commissioner shall be notified of any electromagnetic interference to any facility providing radio signals for the purpose of aviation safety, or any source of interference degrading radio signals for the purpose of aviation safety.
- (2) The Commissioner shall investigate, or cause to be investigate, all reports of interference and may require further action to be taken.

Information provided by an aeronautical facility

171.05.5

No facility providing radio signals for the purpose of aviation safety shall be allowed to continue in operation, if there is a suspicion or any cause to suspect that the information being provided by that facility is erroneous.

Test Transmissions

171.05.6

- (1) No test transmission for the purpose of evaluating a radio site, or the operational viability of a facility or equipment, for the purpose of aviation safety, shall be done without the prior approval of the Commissioner.
- (2) The Commissioner shall be notified as to the purpose and duration of such test transmissions.
- (3) Test transmissions shall contain information indicating that it is a test transmission.
- (4) Frequencies allocated for the purpose of testing shall be valid for the duration of the test only and shall not be deemed to negate the requirement in 171.05.2
- (5) The operation of a temporary facility shall not cause any interference with any other operational facility.

Specifications regarding Navigation Aids

171.05.7

Navigation Aids shall comply with the Telecommunication Act (Act No 103 of 1996) as amended and the technical standards defined in the document SA-CATS- ESO.

Specifications regarding Communication procedures

171.05.8

Communication procedures shall comply to the standards defined in the document SA-CATS- ESO.

Specifications DATA and Voice Communication systems

171.05.9

Data and voice communication systems shall comply with the Telecommunication Act (Act No 103 of 1996) as amended and the technical standards defined in the document SA-CATS- ESO.

Specifications regarding RADAR and collision avoidance systems

171.05.10

Radar and collision avoidance systems shall comply with the Telecommunication Act (Act No 103 of 1996) as amended and the technical standards defined in the document SA-CATS- ESO.

Specifications regarding Radio Frequency spectrum utilisation

171.05.11

Radio Frequency spectrum utilisation shall comply with the Telecommunication Act (Act No 103 of 1996) as amended and the standards defined in the document SA-CATS- ESO.

Specifications regarding Meteorological Equipment

171.05.12

Meteorological equipment shall comply with the standards defined in the document SA-CATS- ESO.

Flight inspection of Navigation Equipment.

171.05.13

Navigation equipment is subject to commissioning and periodic flight inspection as defined in the document SA-CATS-ESO.

Station (Site) Logs

171.05.14

Site logs shall be kept for all facilities used to provide an aeronautical telecommunication service or a radio navigation service as defined in the document SA-CATS-ESO.

1.2 MOTIVATION

This proposed new Part supports the Commissioner's responsibility to provide and publish instrument flight procedures and ICAO aeronautical charts for the safety, regularity or efficiency of air navigation. Such procedures are used by flight operations personnel, including flight crew and the personnel responsible for the provision of pre-flight

1.3 CURRENT PART

Does not exist

2.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 1.00.1 OF PART 1 OF THE REGULATIONS

2.1 Proposed amendment of regulation 1.00.1 (Definitions) of the Regulations by the insertion of the following definition:

“**radio site** – means a site for the location of communication, navigation, surveillance or meteorological ground equipment, or a collection thereof, for the purpose of aviation safety.”

2.2 MOTIVATION

The introduction of Part 171 necessitates this definition

2.3 CURRENT REGULATION

The current regulation does not contain this definition

SCHEDULE 4 (Relates to security issues)**1.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 91.02.8 OF PART 91 OF THE REGULATIONS.**

1.1 Proposed amendment of regulation 91.02.8 by the insertion of sub-regulation (8)

“**91.02.8 (8)(1)** The pilot in command of an aircraft, that is equipped with a flight deck door, shall ensure that at all times from the moment the passenger entry doors are closed in preparation for departure until they are opened on arrival, that the flight deck door is closed and locked from within the flight deck.

(2) When the flight deck door is closed and secured only those flight crew members who require entry to the flight deck –

- a) For the performance of their duties;
- b) For physiological needs;
- c) For an over-riding concern related to the safety of the flight; may be admitted to the flight deck.’:

1.2 MOTIVATION

During the development of the current Regulations, no requirements were inserted for the closing and locking of flight deck doors. This proposal is intended to remedy this omission.

1.3 Current Regulation

No current regulation exists.

2.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 121.04.10 OF PART 121 OF THE REGULATIONS.

2.1 Proposed amendment of regulation 121.04.10

"121.04.10 The operator of a large commercial air transport operator aeroplane shall, in addition to the aircraft checklist referred to in Regulation **91.03.3**, compile and make available to the flight crew and other personnel members in such operator's employ, a checklist of the procedures to be followed by such flight crew and personnel members when searching for concealed weapons, explosives or other dangerous devices. This checklist is required **to be** completed when the aircraft is brought into service or when left open and unattended. This completed checklist must be made available for security audit purposes."

2.2 MOTIVATION

It is necessary to increase the scope and applicability of the current regulation **121.04.10**, by stipulating that a security checklist is required to be completed when an aircraft is brought into service or when left open and unattended. Furthermore it is necessary to stipulate that said completed checklist must be available for security audit purposes. This proposal is intended to remedy these omissions.

2.3 CURRENT REGULATION

"The operator of a large commercial air transport operator aeroplane shall, in addition to the aircraft checklist referred to in Regulation **91.03.3**, compile and make available to the flight crew and other personnel members in such operator's employ, a checklist of the procedures to be followed by such flight crew and personnel members when searching for concealed weapons, explosives or other dangerous devices."

3.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 121.06.5 OF PART 121 OF THE REGULATIONS

3.1 Proposed amendment of regulation 121.06.5 (Safety inspections and audits)

"Safety and security inspections and audits

121.06.5 (1) An applicant for the issuing of an operating certificate shall permit an authorised officer, inspector or authorised person to carry out such safety and/or security inspections and audits which may be necessary to verify the validity of an application made in terms of Regulation 121.06.2.

(2) The holder of an operating certificate shall permit an authorised officer, inspector or authorised person to carry out such safety and security inspections and audits which may be necessary to determine compliance with the appropriate requirements prescribed in this part."

3.2 MOTIVATION

The above mentioned amendment is necessary to grant authority to the CAA to perform security audits on the operators of large commercial aeroplanes. This authority is not included in the current regulations.

3.3 CURRENT LEGISLATION

"Safety inspections and audits

121.06.5 (1) An applicant for the issuing of an operating certificate shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits which may be necessary to verify the validity of an application made in terms of Regulation 121.06.2.

(2) The holder of an operating certificate shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits which may be necessary to determine compliance with the appropriate requirements prescribed in this part."

4.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 121.06.6 OF PART 121 OF THE REGULATIONS

4.1 Proposed amendment of regulation **121.06.6** (Suspension and cancellation of operating certificate and appeal)

- “**121.06.6** (1) An authorised officer, inspector or authorised person may suspend for a period not exceeding 30 days, an operating certificate issued under this subpart, if-
- (a) after a safety and/or security inspection and audit carried out in terms of Regulation 121.06.5, it is evident that the holder of the operating certificate does not comply with the requirements prescribed in this part, and such holder fails to remedy such non-compliance within 30 days after receiving notice in writing from the authorised officer, inspector or authorised person to do so; or
 - (b) the authorised officer, inspector or authorised person is prevented by the holder of the operating certificate to carry out a safety and/or security inspection and audit in terms of Regulation 121.06.5; or
 - (c) the suspension is necessary in the interests of aviation safety and/or security.”

4.2 MOTIVATION

The above mentioned amendment is necessary to grant authority to the CAA to take enforcement action, by cancelling or suspending an operating certificate, where the security requirements contained in Part 121 are not complied with.

4.3 CURRENT REGULATION

- “**121.06.6** (1) An authorised officer, inspector or authorised person may suspend for a period not exceeding 30 days, an operating certificate issued under this subpart, if-
- (a) after a safety inspection and audit carried out in terms of Regulation **121.06.5**, it is evident that the holder of the operating certificate does not comply with the requirements prescribed in this part, and such holder fails to remedy such non-compliance within 30 days after receiving notice in writing from the authorised officer, inspector or authorised person to do so; or
 - (b) the authorised officer, inspector or authorised person is prevented by the holder of the operating certificate to carry out a safety inspection and audit in terms of Regulation **121.06.5**; or

- (c) the suspension is necessary in the interests of aviation safety"

5.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 121.07.18 OF PART 121 OF THE REGULATIONS

5.1 Proposed amendment of regulation 121.07.18 by the insertion of the following regulation after regulation 121.07.18

"Hold Baggage Screening

- 121.07.18 A (1)** The operator of a large commercial air transport operator aeroplane, engaged in international civil aviation operations, shall not carry any originating hold baggage unless such baggage has been screened prior to being loaded into the aircraft.
- (2) The minimum requirements for the procedures referred to in sub regulation (1) shall be as prescribed in the National Aviation Safety Plan [NASP].
- (3) As from 1 January 2009, the operator of a commercial air transport aeroplane engaged in a scheduled commercial air service shall not carry any originating hold baggage unless such baggage has been screened prior to being loaded into the aircraft.
- (4) The minimum requirements for the procedures referred to in sub regulation (3) shall be as prescribed in Document SA-CATS-OPS-121-AVSEC."

5.2 MOTIVATION

During the development of the current Civil Aviation Regulations, 1997, no requirements were inserted for hold baggage screening. This proposal is intended to remedy this omission.

5.3 CURRENT REGULATION

No current regulation exists.

6.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 139.01.7 OF PART 139 OF THE REGULATIONS

6.1 Proposed amendment of regulation 139.01.7

"Safety and security inspections and audits

- 139.01.7**
- (1) An applicant for the issuing of an aerodrome or heliport licence shall permit an authorised officer, inspector or authorised person to carry out such safety and/or security inspections and audits which may be necessary to verify the validity of the application concerned.
 - (2) The holder of an aerodrome licence shall permit an authorised officer, inspector or authorised person to carry out such safety and/or security inspections and audits of such holder's aerodrome, documents and records which may be necessary to determine compliance with the appropriate requirements prescribed in this part.
 - (3) The holder of a heliport licence shall permit an authorised officer, inspector or authorised person to carry out such safety and/or security inspections and audits of such holder's heliport, documents and records which may be necessary to determine compliance with the appropriate requirements prescribed in this part.

6.2 MOTIVATION

The above mentioned amendment is necessary to grant authority to the CAA to perform security audits on the operators of large commercial aeroplanes.

6.3 CURRENT REGULATION**"Safety inspections and audits**

- 139.01.7(1)** An applicant for the issuing of an aerodrome or heliport licence shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits which may be necessary to verify the validity of the application concerned.
- 2)** The holder of an aerodrome licence shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits of such holder's aerodrome, documents and records which may be necessary to determine compliance with the appropriate requirements prescribed in this part.
 - (3)** The holder of a heliport licence shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits of such holder's heliport, documents and records which may be necessary to determine compliance with the appropriate requirements prescribed in this part."

7.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 139.01.8 OF PART 139 OF THE REGULATIONS (Suspension and Cancellation of License and Appeal).

7.1 Proposed amendment of regulation 139.01.8

“Suspension and cancellation of license and appeal

- 139.01.8** (1) An authorised officer, inspector or authorised person may suspend for a period not exceeding 30 days, an aerodrome or heliport licence issued under this subpart, if-
- (a) after a safety and/or security inspection and audit carried out in terms of Regulation **139.01.7**, it is evident that the holder of the licence does not comply with the requirements prescribed in this part, and such holder fails to remedy such non-compliance within 30 days after receiving notice in writing from the authorised officer, inspector or authorised person to do so; or
 - (b) the authorised officer, inspector or authorised person is prevented by the holder of the licence to carry out a safety and/or security inspection and audit in terms of Regulation **139.01.7**; or
 - (c) the suspension is necessary in the interests of aviation safety and/or security.”

7.2 MOTIVATION

The above mentioned amendment is necessary to grant authority to the CAA to take enforcement action, by cancelling or suspending an operating certificate, where the security requirements contained in Part 121 are not complied with.

7.3 CURRENT REGULATION

- “**139.01.8** (1) An authorised officer, inspector or authorised person may suspend for a period not exceeding 30 days, an aerodrome or heliport licence issued under this subpart, if-
- a) after a safety inspection and audit carried out in terms of Regulation **139.01.7**, it is evident that the holder of the licence does not comply with the requirements prescribed in this part, and such holder fails to remedy such non-compliance within 30 days after receiving notice in writing from the authorised officer, inspector or authorised person to do so; or

- b) the authorised officer, inspector or authorised person is prevented by the holder of the licence to carry out a safety inspection and audit in terms of Regulation 139.01.7; or
- c) the suspension is necessary in the interests of aviation safety."

8.0 PROPOSAL FOR THE AMENDMENT OF REGULATION 139.02.19 OF PART 139 OF THE REGULATIONS

8.1 Proposed amendment of regulation 139.02.19 by the insertion of the following sub-regulation after sub-regulation (3)

"139.02.19 (4) The holder of the licence shall ensure that:

- (a) All originating hold baggage to be carried on a commercial air transport aeroplane engaged in international civil aviation operations shall be screened prior to being loaded onto the aircraft;
- (b) As from 1 January 2009, the operator of a commercial air transport aeroplane engaged in a scheduled commercial air service shall not carry any originating hold baggage unless such baggage has been screened prior to being loaded into the aircraft.
- (c) The minimum requirements for the procedures referred to in sub-paragraphs (a) and (b) above shall be as prescribed in the National Aviation Safety Plan [NASP].

8.2 MOTIVATION

During the development of the current Civil Aviation Regulations, 1997, no requirements were inserted for hold baggage screening. This proposal is intended to remedy this omission.

8.3 CURRENT REGULATION

No current regulation exists.

NOTE:

Proposed amendments to SA-CATS Documents which relate to certain of the above – mentioned proposals, are published on the CAA Website, www.caa.co.za for comments to reach the CARCom Secretariat by no later than 15th August 2005.