GENERAL NOTICE

NOTICE 233 OF 2010

PROPOSED AMENDMENT TO THE CIVIL AVIATION REGULATIONS, 1997

Under regulations 11.03.02(1)(a) of the Civil Aviation Regulations, the Chairperson of the Civil Aviation Regulation Committee (CARCOM) hereby publishes for comment the proposed amendments to the Civil Aviation Regulations, 1997, as set out in the schedules hereto. Any comments or representations on the proposed amendments should be lodged in writing with the Chairperson of the Regulations Committee, for attention Ms Monica Sonjani or Mr. Herman Wildenboer, Private Bag 73, Halfway House, 1685, fax: (011) 545-1201, or email at sonjanim@caa.co.za or wildenboerh@caa.co.za before or on 12 April 2010.

SCHEDULE 1

PROPOSAL FOR THE AMENDMENT OF PART 1 OF THE CIVIL AVIATION REGULATIONS, 1997

A. PROPOSER

Civil Aviation Authority Private Bag X73 Halfway House 1685

B. PROPOSER'S INTEREST

The proposer has been established in terms of the South African Civil Aviation Act, 1998, (Act No. 40 of 1998), to control and regulate civil aviation in South Africa and to oversee the functioning and development of the civil aviation industry, and, in particular, to control, regulate and promote civil aviation safety and security.

C. GENERAL EXPLANATORY NOTE

Words underlined with a solid line indicate insertions in the existing regulations

1. PROPOSAL FOR THE AMENDMENT OF REGULATION 1.00.1

1.1 Regulation 1.00.1 is hereby amended by the insertion after the definition of "damp runway" of the following definition:

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

1.2 Motivation:

This proposed definition is identical to the one contained in ICAO Annex 4.

SCHEDULE 2

PROPOSAL FOR THE SUBSTITUTION OF PART 91 OF THE CIVIL AVIATION REGULATIONS, 1997

A. PROPOSER

South African Civil Aviation Authority Private Bag X73 Halfway House 1685

B. PROPOSER'S INTEREST

The proposer has been established in terms of the South African Civil Aviation Act, 1998, (Act No. 40 of 1998), to control and regulate civil aviation in South Africa and to oversee the functioning and development of the civil aviation industry, and, in particular, to control, regulate and promote civil aviation safety and security.

C. Motivation

The South Africa aviation regulations are significantly out of date with those used by most of the international community. The International Civil Aviation Organization is responsible for international standards and has produced standards to be implemented by States. This proposal incorporates the standards used by ICAO, resulting in a basic re-write of the existing regulations.

In addition, the broad aviation community saw a need to make other improvements to the regulations, which have been incorporated. Furthermore, errors, omissions and typographical errors were in need of

correction and additional changes introduced by CARCom needed to be collated in one document. Changes introduced other than those mandated by ICAO were based on internationally accepted best practice.

D. GENERAL EXPLANATORY NOTE:

Words in strike through indicate deletions from existing regulations.

Words underlined with a solid line indicate insertions to existing regulations.

Deletions are indicated by side comment as are the ICAO references where pertinent.

PART 91

GENERAL AVIATION AND OPERATING FLIGHT RULES

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SUBPART 1: GENERAL PROVISIONS

Applicability

- **91.01.1** (1) Subject to the provisions of sub-regulation (2), this <u>Part</u> shall apply to
 - (a) aircraft operated within the Republic;
 - (b) aircraft registered in the Republic and operated internationally;
 - (c) persons acting as crew members of aircraft registered in the Republic; and
 - (d) persons who are on board an aircraft operated under this Part.
- (2) Additional rules to, and exemptions from, the provisions of this <u>Part</u>, are prescribed, in respect of
 - (a) the conveyance of dangerous goods, in Part 92;
 - (b) corporate aviation operations, in Part 93 [reserved];
 - (c) operation of non-type certificated aircraft, in Part 94;
 - (d) commercial operation of non-type certificated aircraft, in Part 96;
 - (e) parachuting operations, in Part 105;
 - (f) aeroplanes engaged in commercial air transport operations <u>carrying</u> more than 19 passengers, in Part 121;
 - (g) helicopters engaged in commercial air transport operations, in Part 127;
 - (h) helicopters engaged in external-load operations, in Part 133;
 - (i) aeroplanes engaged in commercial air transport operations <u>carrying 19</u> or fewer passengers, in Part 135;
 - (i) operations of balloons, in Part 136 [reserved];
 - (k) aircraft engaged in aerial work operations, in Part 137; and
 - (I) aircraft engaged in <u>air ambulance</u> operations, in Part 138.

Authority of pilot-in-command and crew members

91.01.2 All persons on board an aircraft shall obey all lawful commands given by the pilot-in-command <u>or a crew member</u> of the aircraft for the purpose of <u>ens</u>uring the safety <u>and security</u> of such aircraft, of persons or property carried therein or good <u>order and discipline on board the aircraft.</u>

Authorisation of personnel to taxi aeroplanes

- **91.01.3** No owner or operator of an aeroplane shall permit the taxiing of, and no person shall taxi, an aeroplane on the movement area of an aerodrome unless the person at the controls of the aeroplane
 - (a) is the holder of a valid pilot licence; or
 - (b) has received instruction in the taxiing of an aeroplane from, and has been declared competent to taxi an aeroplane by, the holder of a flight instructor rating or, in the case of a foreign aeroplane, a person authorized by an appropriate authority; and
 - (c) if the person uses a radio apparatus, such person is authorized to use the radio apparatus; and
 - (d) is conversant with the aerodrome layout, routes, signs, markings, lighting, air traffic service signals and instructions, phraseology and procedures, if required, and is able to conform to the standards required for safe aeroplane movements at such aerodrome.

Search and rescue information

91.01.4 The pilot-in-command or in the case of an aircraft engaged in commercial air transport operations, the operator, shall ensure that all essential information concerning the search and rescue services in the area over which it is intended that the aircraft will be flown, is available on board the aircraft.

Information on emergency and survival equipment carried

- **91.01.5** (1) The owner or operator of an aircraft shall have available for immediate communication to rescue coordination centres, a list containing information regarding the emergency and survival equipment carried on board the aircraft.
- (2) The minimum information to be contained in the list referred to in sub-regulation (1) shall be as prescribed in Document SA-CATS-OPS 91.

Method of carriage of persons

- **91.01.6** No person shall be in any part of an aircraft in flight which is not a part designed for the accommodation of persons, unless temporary permission has been granted by the pilot-in-command to access such part of the aircraft
 - (a) for the purpose of taking action necessary for the safety of such aircraft or of any person, animal or goods therein; and
 - (b) in which cargo or stores are carried, being a part which is designed to enable a person to have access thereto while such aircraft is in flight.

Admission to flight deck

- **91.01.7** (1) No person other than the assigned flight deck crew shall be carried on the flight deck of a South African registered aircraft except with the permission of the pilot-in-command.
- (2) The admission of any person to the flight deck shall not interfere with the operation of the aircraft.
- (3) Any person carried on the flight deck shall be made familiar with the applicable safety equipment and pertinent operational procedures.

Unauthorised carriage

91.01.8 No person shall conceal himself, herself or cargo on board an aircraft.

Portable electronic devices

- **91.01.9** (1) Subject to the provisions of sub-regulation (2), no owner, operator or pilot-in-command of an aircraft or person shall permit the operation of, or operate on board the aircraft during flight time, any portable electronic device which may adversely affect the performance of the systems and equipment of the aircraft.
 - (2) The provisions of sub-regulation (1) shall not apply to -
 - (a) a heart pacemaker;
 - (b) a hearing aid;
 - (c) a portable voice recorder;
 - (d) an electric shaver;
 - (e) portable equipment used to sustain life or similar equipment with the ability to generate an electrical charge for the purpose of pacing or resuscitation; or
 - (f) any other portable electronic device, the operation of which-
 - (i) in the case of an aircraft engaged in a commercial air transport operation, the operator; or
 - (ii) in the case of an aircraft engaged in an operation other than a commercial air transport operation, the pilot-in-command,

has determined will not cause interference with the systems and equipment of the aircraft in which it is to be used.

(3) A portable electronic device referred to in sub-regulation (2)(c), (d) or (f) shall not be used by any person during the critical phases of flight.

Endangering safety

- 91.01.10 (1) No person shall, through any act or omission -
 - (a) endanger the safety of an aircraft or person therein; or
 - (b) cause or permit an aircraft to endanger the safety of any person or property.
- (2) No person shall cause, by any means, a beam of light or other energy source, either visible or not, to be emitted towards any aircraft or air traffic control tower or any person therein such that there would be the potential for causing blindness or otherwise adversely affecting the ability of such person to safely carry out his or her duties.

Preservation of documents and records

91.01.11 The owner or operator of an aircraft who is required to retain any of the documents <u>and records</u> for the specified period referred to in <u>Subpart</u> 3, shall retain such documents for such specified period irrespective of the fact that such owner or operator, before the expiry of such period, ceases to be the owner or operator of the aircraft.

Use of time

- **91.01.12** (1) For the purposes of reporting and recording time, Coordinated Universal Time (UTC) shall be used and shall be expressed in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight.
- (2) A time check shall be obtained from an air traffic services unit, if possible, prior to operating a controlled flight and at such other times during the flight as may be necessary.
- (3) Wherever time is utilized in the application of data link communications, it shall be accurate to within 1 second of UTC.

Additional flight crew member equipment

91.01.13 A flight crew member assessed as fit to exercise the privileges of a licence, subject to the use of suitable correcting lenses, shall have a spare set of the correcting lenses readily available when exercising those privileges.

Carriage of dangerous goods

91.01.14 The owner or operator of an aircraft shall not carry dangerous goods during flight time unless such goods are carried in accordance with the provisions prescribed in Part 92.

Passenger intoxication and unruly behaviour

- 91.01.15 (1) No person may board an aircraft while under the influence of alcohol or any psychoactive substance such that the safety of the aircraft or its occupants is, or is likely to be, endangered.
- (2) No person may consume alcohol or any psychoactive substance while on board an aircraft if, as a result of such consumption, the effects are, or are likely to, endanger the safety of the aircraft or its occupants.
- (3) No person may act in any manner that will, or is likely to, endanger the aircraft or its occupants.

Psychoactive substances

- 91.01.16 (1) Subject to sub-regulation (2), no person shall act in the capacity of any crew member, ground support, servicing or maintenance personnel, or perform any function or participate in any decision-making process that could affect aviation safety, where such person is, or is likely to be impaired by any psychoactive substance.
- (2) Where a medication that may be considered to be a psychoactive substance has been prescribed by a medical doctor, the duties in sub-regulation (1) may be undertaken provided an aviation medical examiner so designated in terms of Part 67 certifies what duties may be safely accomplished while taking such medication.
- (3) A person who has been prescribed medication that may adversely affect performance or is otherwise of the opinion that his or her performance may be impaired through the use of medication or combinations of medication shall so inform the operator.

SUBPART 2: CREW

Crew composition and qualifications

- **91.02.1** (1) The number and composition of the flight crew shall not be less than the number and composition specified in the aircraft flight manual referred to in regulation 91.03.2 or any other document <u>defining</u> the <u>certification</u> of <u>the</u> aircraft.
- (2) In the case of aircraft originally certified with a passenger seating capacity greater than 19 and not involved in commercial air transport operations, the Commissioner may require the inclusion of cabin crew members for the safe operation of the aircraft. The complement, training and checking requirements of such crew members shall be as prescribed in Document SA-CATS-OPS 91.

- (3) The flight crew members <u>and</u>, <u>if applicable</u>, <u>the cabin crew members</u>, shall –
- (a) be competent and qualified to perform the duties assigned to them;
- (b) hold the appropriate valid crew licences, ratings and certificates; and
- (c) have the ability to speak and understand the language used for aeronautical radiotelephony communications for the routes being flown.
- (4) The flight crew shall include at least one <u>flight crew</u> member who holds a valid radiotelephony operator licence or an equivalent document issued by an appropriate authority, authorising such member to operate the type of radio transmitting equipment to be used.
- (5) In the case of a multi-pilot crew, the owner or operator shall designate one pilot among the flight crew as pilot-in-command of the aircraft and the pilot-in-command may delegate the conduct of the flight to another suitably qualified pilot.
- (6) The owner or operator shall ensure that each flight and cabin crew member meets the requirements of sub-regulation (3).
- (7) Where the Commissioner has determined the need for cabin crew members as prescribed in sub-regulation (2), the owner or operator of that aircraft shall
 - (a) ensure each cabin crew member is seated and secured in the seat prescribed by regulation 91.04.14(2) during take-off, landing or as otherwise directed by the pilot-in-command; and
 - (b) ensure each cabin crew member receives training prior to his or her first flight in that aircraft and annual recurrent training thereafter.

Crew member emergency duties

- **91.02.2** (1) The owner or operator and, where appropriate, the pilot-incommand of a multi-crew aircraft shall assign to <u>each</u> crew member concerned, the necessary functions to be performed in an emergency or a situation requiring emergency evacuation.
- (2) The functions referred to in sub-regulation (1) shall be such as to ensure that any reasonably anticipated emergency can be adequately dealt with and shall take into consideration the possible incapacitation of <u>individual crew</u> members.

Crew member responsibilities

- 91.02.3 (1) No person shall act as a crew member of an aircraft
 - (a) whilst using any <u>psychoactive substance</u> which may affect his or her faculties in any manner that may jeopardize safety;

- (b) if the crew member knows or suspects that he or she is suffering from or, having due regard to the circumstances of the flight to be undertaken, is likely to suffer from fatigue to such an extent that it may endanger the safety of the aircraft or its occupants; or
- (c) if the crew member is in any doubt of being able to accomplish his or her assigned duties on board the aircraft.
- (2) No crew member shall -
- (a) consume any alcohol less than 8 hours prior to commencing standby for operational duty or commencing operational duty, which operational duty shall be deemed to commence at the specified reporting time, if applicable;
- (b) commence an operational 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 gram per 100 millilitres; or
- (c) consume alcohol during flight duty or whilst on standby, or within eight hours after an accident or reportable incident involving the aircraft, unless the accident or incident was not related to his or her duties.
- (3) No person shall act as a flight crew member of an aircraft if, prior to each flight, the expected flight time exceeds, or is likely to exceed, the permissible aggregate of
 - (a) for all flying -
 - (i) for pilots not subject to an approved flight time and duty period scheme, 10 hours within a 24 hour period;
 - (ii) 400 hours, during the preceding 90 days;
 - (iii) 700 hours, during the preceding six months; or
 - (iv) 1000 hours, during the preceding 12 months;
 - (b) in the case of flight instructors conducting ab initio or any training towards an initial rating or licence, six hours within one calendar day:

 Provided that, for the purposes of computing flight time in meeting the limitation referred to in paragraph (a)(i), each flight hour spent in such training shall be deemed to be one and one-half (1½) hours flight time;
 - (c) as part of a multi-pilot crew for a flight to be undertaken wholly or partly under instrument flight rules
 - (i) 120 hours, during the preceding 30 days; or
 - (ii) 300 hours, during the preceding 90 days; or
 - (d) as the sole pilot of an aircraft for a flight to be undertaken wholly or partly under instrument flight rules, 100 hours during the preceding 30 days.

- (4) No person shall act as a cabin crew member of an aircraft for which the Commissioner has determined the need for cabin crew members, as prescribed in regulation 91.02.1(2), if prior to each flight the expected flight time exceeds, or is likely to exceed, the permissible aggregate of
 - (a) 400 hours, during the preceding 90 days;
 - (b) 700 hours, during the preceding six months; or
 - (c) 1000 hours, during the preceding 12 months.

Recency

- **91.02.4** (1) A pilot shall not act as pilot-in-command (PIC) of an aircraft, or second-in-command (SIC) of an aircraft required to be crewed by more than one pilot, carrying passengers by day, unless such pilot has personally, within the 90 days immediately preceding the flight, carried out either by day or by night at least three take-offs and three landings in the same class or, if a type-rating is required, type or variant of aeroplane, and in the case of a helicopter three circuits including three take-offs and three landings in the same type of helicopter as that in which such flight is to be undertaken. The landings required by this sub-regulation may be completed in a flight simulation training device (FSTD) approved for the purpose. In the case of a tail-wheel aeroplane, each landing shall be carried out to a full stop.
- (2) A pilot shall not act as <u>PIC</u> of an aircraft, or <u>SIC</u> of an aircraft required to be <u>crewed by more than one pilot</u>, carrying passengers by night, unless the pilot has <u>personally</u>, within the 90 days immediately preceding the flight, carried out at least three take-offs and three landings by night in the same class or, if a typerating is required, type or variant of aeroplane, and in the case of a helicopter three circuits including three take-offs and three landings in the same type of helicopter as that in which such flight is to be undertaken. The landings required by this sub-regulation may be completed in a FSTD approved for the purpose. In the case of a tail-wheel aeroplane, each landing shall be to a full stop.
- (3) Where the take-off and landing requirement referred to in sub-regulations (1) and (2) have been satisfied in a multi-engine aircraft, the requirement shall be deemed to have been met in respect of single-engine aircraft as well.
- (4) A pilot shall not act as <u>PIC or SIC</u> of an aircraft on an instrument approach to an aerodrome in IMC unless the pilot has, within the 90 days immediately preceding such approach procedure or procedures established by the Commissioner or an appropriate authority
 - (a) executed at least two approaches in an aircraft or a FSTD approved for the purpose or a combination of aircraft and FSTD approved for the purpose, either under actual or simulated conditions, with reference to flight instruments only; or
 - (b) undergone the appropriate skill test as prescribed in <u>regulation</u> 61.15 of Part 61 of these Regulations.

Crew members at duty stations

91.02.5 (1) In the case of a multi-crew aircraft –

- (a) each crew member shall be at his or her assigned station or seat, properly secured by all seat belts and shoulder harnesses provided, during take-off and landing and whenever deemed necessary by the pilot-in-command in the interests of aviation safety: Provided that the shoulder harness of a flight crew member not occupying a pilot seat may be unfastened if it interferes with the performance of his or her duties, but the seat belt must remain fastened;
- (b) each crew member shall keep his or her seat belt fastened while at his or her assigned station, during phases of the flight, other than the phases referred to in paragraph (a);
- (c) each flight crew member required to be on flight deck duty, shall be at his or her assigned station, during take-off and landing;
- (d) all flight crew members on flight deck duty shall remain at their assigned stations during all phases of the flight other than the phases referred to in subparagraph (c): Provided that —
 - a flight crew member may leave his or her assigned station, in the course of the performance of his or her duties with regard to the operation of the aircraft or for physiological needs; and
 - (ii) at least one suitably qualified pilot remains at the controls of the aircraft at all times; and
- (e) the pilot-in-command or, where applicable, the operator shall ensure that flight <u>and</u>, <u>if applicable</u>, <u>cabin</u> crew members do not perform any activities during critical phases of the flight other than those required for the safe operation of the aircraft.
- (2) In the case of a single-pilot aircraft, the pilot-in-command shall, during all phases of the flight, remain at the controls of the aircraft.

Laws, regulations and procedures

- 91.02.6 (1) .The pilot-in-command of an aircraft shall be familiar with the laws, regulations and procedures pertinent to the performance of his or her duties, prescribed for the areas to be traversed, the aerodromes to be used and the air navigation facilities relating thereto and shall ensure that other members of the flight crew are familiar with such of these laws, regulations and procedures as are pertinent to the performance of their respective duties in the operation of the aircraft.
- (2) Subject to sub-regulation (3), the pilot-in-command of an aircraft shall comply with the regulations contained in this Part unless they conflict with the rules published by the State having jurisdiction over the territory over flown:

<u>Provided that if any regulation of this Part is more restrictive and may be followed</u> without violating the rules of that State, it shall be complied with.

- (3) In an emergency situation which endangers, or is likely to endanger the aircraft, persons on board such aircraft, or persons or property on the surface, he or she shall
 - (a) take any action which he or she considers necessary under the circumstances; and
 - (b) <u>if necessary</u>, deviate from any law, regulation and operational procedure of the State within or over the territory of which the aircraft is operated.
- (4) If a pilot-in-command deviates from any law, regulation or operational procedure in an emergency situation referred to in sub-regulation (3), he or she shall notify the appropriate authority of the State within or over the territory of which the deviation occurs, of such deviation without delay.
- (5) If the appropriate authority of the State within or over the territory of which the deviation occurs, requests the pilot-in-command to submit a report on such deviation, the pilot-in-command shall submit the report containing full details of the deviation
 - (a) within the period specified by such appropriate authority, to such appropriate authority; and
 - (b) <u>if the deviation occurred in a foreign State</u>, within 10 days from the date on which such report is requested by such appropriate authority, to the Commissioner.
- (6) Where a report was filed in terms of sub-regulation (5) and in the opinion of the Commissioner the pilot-in-command exercised all due diligence to prevent the commission of an offence and acted appropriately in the interest of safety, the Commissioner may deem that no contravention of South African regulations occurred.

Duties of pilot-in-command regarding flight preparation

- **91.02.7** (1) The pilot-in-command (PIC) of an aircraft shall not commence a flight unless he or she is satisfied that
 - (a) the aircraft is airworthy;
 - (b) the instruments and <u>navigation</u>, <u>communication</u> and <u>other</u> equipment required for the particular type of operation to be undertaken, are installed and are serviceable <u>and functioning correctly</u>, except as provided for in the <u>Minimum Equipment List (MEL)</u>, if any;
 - (c) the aircraft has been released to service in accordance with Part 43:
 - (d) the mass of the aircraft at any time does not exceed the maximum certificated mass calculated from the performance information provided

- in the aircraft flight manual referred to in regulation 91.03.2, in terms of which the operating limitations referred to in <u>Subpart</u> 9 are complied with;
- the load carried by the aircraft is properly secured, fit to be conveyed in accordance with Part 92 and is so distributed that the centre of gravity is within the limits prescribed in the aircraft flight manual referred to in regulation 91.03.2;
- (f) an air traffic service flight plan, referred to in regulation 91.03.4, has been properly completed and filed with the appropriate air traffic service unit, if such flight plan is required in terms of regulation 91.03.4;
- (g) all the documents and forms required to be carried on board are carried as specified in regulation 91.03.1;
- (h) a check has been completed indicating that the operating limitations referred to in <u>Subpart 8</u> will not be exceeded;
- (i) the search and rescue information, referred to in regulation 91.01.4, is available on board:
- (j) the requirements in respect of fuel, oil, oxygen, <u>weather</u>, minimum safe altitudes, aerodrome operating minima and availability of alternate aerodromes <u>for the route being flown and any likely alternatives</u>, <u>whether</u> <u>flown under instrument or visual flight rules</u>, are complied with;
- (k) the aerodrome operating minima are not less than the operating minima of the aerodrome being operated to or from, established by the appropriate authority of the State in which the aerodrome is located, unless such appropriate authority approves lower aerodrome operating minima;
- (I) current and suitable IFR or VFR, as applicable, charts and related publications required to -
 - (i) depart the place of origin;
 - (ii) operate on the route to the destination, or other route that a flight could reasonably be expected to be diverted to; and
 - (iii) arrive at the destination or any alternate,

are carried on board:

- (m) the external surfaces are checked prior to take-off for any deposit which might adversely affect the performance or controllability of the aircraft, unless otherwise permitted in the aircraft flight manual referred to in regulation 91.03.2, and if such deposit is found, to have it removed;
- (n) according to the information available to him or her =
 - (i) in respect of an aeroplane, the condition of the runway intended to be <u>used will</u> not prevent a safe take-off and departure or a safe

- landing at the destination aerodrome or alternate aerodrome, as applicable; and
- the weather at the departure and arrival aerodromes and en route, including any possible alternate aerodromes or routes, will not preclude safe completion of the flight;
- (o) the RVR or visibility in the take-off direction of the aircraft is equal to, or better than, the applicable minimum;
- (p) the flight crew members are properly qualified for the specific operation to be undertaken, except that for commercial air operations, the air operator shall ensure that the flight crew are properly qualified;
- (g) an adequate and suitable aerodrome is available for take-off, *en route* and destination, should it become inadvisable to continue to or land at the destination aerodrome; and
- (r) if flight in <u>reduced vertical separation minima (RVSM)</u> airspace is contemplated
 - (i) the aircraft has been approved by the Commissioner for RVSM operations;
 - (ii) the crew has been trained and is otherwise qualified for the flight;
 - (iii) the minimum required equipment pertaining to <u>height-keeping</u> and alerting systems is installed and serviceable; and
 - (<u>iv</u>) no airframe or operating restrictions prevent operation in the particular RVSM airspace.
- (2) The PIC of an aircraft shall -
- (a) not commence a flight unless he or she has ascertained through the relevant Notice to Airmen (NOTAM), Aeronautical Information Circular (AIC), Integrated Aeronautical Information Publication (IAIP) or IAIP Supplement (IAIP SUP) that the aerodromes, navigation aids and communication facilities are adequate for the manner in which the flight is to be conducted;
- (b) prior to take-off from an aerodrome at which an air traffic service unit is in operation, determine through the aeronautical information services available from the unit or any other reliable source, that the unserviceability of any aerodrome, navigation aids or communication facilities required for such flight, will not prejudice the safe conduct of the flight; and
- (c) advise an air traffic service unit, as soon as it is practical to do so, of any inadequate facilities encountered in the course of operations.
- (3) Where a load and trim sheet is required in terms of these regulations, the load and trim sheet shall be acceptable to and countersigned by the PIC before a

flight commences: Provided that if the load and trim sheet is submitted to the <u>PIC</u> by electronic data transfer, commencement of the flight shall be deemed to be the acceptance thereof by such <u>PIC</u>.

Duties of pilot-in-command regarding flight operations

- **91.02.8** (1) The pilot-in-command (PIC) of an aircraft shall, whether manipulating the controls or not, be responsible for
 - (a) the operation, safety <u>and security</u> of the aircraft, <u>crew members</u>, <u>passengers and cargo in accordance with these Regulations</u> while he or she is in command:
 - (b) operational control of the aircraft unless otherwise provided for in terms of Part 93, 121, 127 or 135 under an approved operational control system;
 - (c) the conduct of crew members and passengers carried; and
 - (d) the maintenance of discipline by all persons on board.
 - (2) The PIC of the aircraft shall have the authority-
 - (a) to give such commands he or she deems necessary in the interest of the safety of the aircraft, persons or property; and
 - (b) to disembark any person or cargo which in his or her opinion, represents a potential hazard to the safety of the aircraft, persons or property.
 - (3) The PIC of the aircraft shall ensure that all passengers are informed as to
 - (a) when and how oxygen equipment is to be used, if the carriage of oxygen is required;
 - (b) the location and use of life jackets or equivalent individual flotation devices, where the carriage thereof is required;
 - (c) the location and method of opening emergency exits;
 - (d) when seat belts are to be fastened;
 - (e) when smoking is prohibited;
 - (f) when portable electronic devices may be used;
 - (g) the existence and location of the passenger safety features card, if carried on board; and
 - (h) before take-off, the location and general manner of use of the relevant emergency equipment carried for collective use and, when an emergency arises, instruct the passengers to take such emergency action as may be appropriate.

- (4) The PIC of an aircraft shall -
- (a) ensure that the pre-flight inspection has been carried out, and that the checklists, and where applicable, the flight deck procedures and other instructions regarding the operation of the aircraft, the limitations contained in the aircraft flight manual referred to in regulation 91.03.2 or equivalent certification document, are fully complied with at the appropriate times during a flight;
- (b) decide whether or not to accept an aircraft with unserviceabilities allowed by the <u>Configuration Deviation List</u> (CDL) or <u>Minimum Equipment List</u> (MEL), where applicable;
- (c) <u>determine that</u> aircraft <u>performance will permit the take-off and departure</u> to be carried out safely;
- (d) ensure that, before take-off and landing and whenever, by reason of turbulence, any emergency occurring during a flight or whenever deemed necessary in the interest of aviation safety the precaution is considered necessary, the pilot-in-command shall ensure that
 - (i) all persons on board the aircraft are secured in their seats by means of the seat belts or shoulder harnesses provided; and
 - (ii) equipment and baggage are properly secured and all exit and escape paths are unobstructed.
- (e) when replanning, whilst in flight, to proceed along a route or to a destination other than the route or destination originally planned, shall amend the operational flight plan, if such a plan was required in terms of regulation 91.02.7(1)(f), and notify the nearest air traffic service unit (ATSU) of such change;
- (f) not continue towards the aerodrome of intended landing unless the latest available information indicates that at the expected time of arrival, a landing can be effected at that aerodrome or at least one destination alternate aerodrome, in compliance with the operating minima established in accordance with regulation 91.07.5;
- (g) report any accident or incident involving the aircraft in accordance with Part 12, unless the pilot-in-command is incapacitated or an operator has established another means of reporting accidents or incidents, in which case the operator shall initiate the report;
- (h) report any dangerous goods accident or incident involving the aircraft in accordance with Part 92;
- if the aircraft is endangered in flight by a near collision with any other aircraft or object, faulty air traffic procedure or lack of compliance with applicable procedures by an <u>ATSU</u> or a flight crew member or a failure of air traffic service facilities, submit an air traffic service incident report as prescribed by regulation 12.02.2;

- record any technical defect and the exceeding of any technical limitation which occurred while he or she was responsible for the flight, in the flight folio;
- (k) if a potentially hazardous condition such as bird accumulation, an irregularity in a ground or navigation facility, meteorological phenomena, a volcaric ash cloud or a greater than normal radiation level is observed during flight, notify an <u>ATSU</u> as soon as possible;
- (i) if the aircraft is equipped with an ELT, prior to engine shut-down at the end of each flight as part of the post-flight checks, tune the VHF receiver to 121,5 MHz to listen for ELT activation. If the ELT has been activated inadvertently as the result of a hard landing or for other reasons, this shall be reported—
 - (i) immediately through the nearest <u>ATSU</u> to the <u>rescue coordination</u> <u>centre</u>; and
 - (ii) in the appropriate flight log as maintenance may be required before it is returned to service; and
- (m) report any occurrence of height keeping errors encountered in a reduced vertical separation minima (RVSM) environment, as prescribed in paragraph (7) of section 8 of technical standard 91.07.31 of Document SA-CATS-OPS 91.
- (5) The PIC of the aircraft shall ensure that -
- (a) breathing oxygen is available to crew members and passengers if flights in a non-pressurised aircraft are contemplated above 10 000 feet and up to 12 000 feet in excess of 120 minutes intended flight time, or above 12 000 feet; and
- (b) breathing oxygen is carried in sufficient quantities for all flights at such altitudes where a lack of oxygen might result in impairment of faculties of crew members or harmfully affect passengers.
- (6) The PIC of the aircraft shall not -
- (a) require a crew member to perform any duties during a critical phase of the flight, except those duties required for the safe operation of the aircraft:
- (b) permit any activity during a critical phase of the flight which could distract any crew member from the performance of his or her duties or which could interfere in any way with the proper conduct of those duties; and
- (c) commence a flight in the event a crew member is incapacitated by any cause such as injury, fatigue, sickness or the effects of any psychoactive substance or continue a flight beyond the nearest suitable aerodrome in the event of a flight crew member becoming unable to perform any essential duties as a result of fatigue, sickness or lack of oxygen.

- (7) The PIC of an aircraft which is being subjected to unlawful interference —
- (a) shall notify the appropriate ATSU of this fact, any significant circumstances associated therewith and any deviation from the current flight plan necessitated by the circumstances, in order to enable the ATSU to give priority to the aircraft and to minimize conflict with other aircraft;
- (b) shall attempt to land as soon as practicable at the nearest suitable aerodrome or at a dedicated aerodrome assigned by the appropriate authority unless considerations aboard the aircraft dictate otherwise; and
- (c) immediately following the incident unless unable, in which case the owner or operator of the aircraft shall report the act of unlawful interference with the operation of the aircraft or the authority of the pilot-in-command
 - (i) if the act of unlawful interference occurs within the Republic, to the Commissioner; or
 - (ii) if the act of unlawful interference occurs within or over the territory of a foreign State, to the appropriate authority of the State and the Commissioner.
- (8) The <u>PIC</u> 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.

SUBPART 3: DOCUMENTATION AND RECORDS

Documents to be carried on board

- **91.03.1** The owner or operator of an aircraft shall ensure that the following documents, or certified true copies thereof, are carried on board the aircraft on each individual flight $\underline{\ }$
 - (a) If the aircraft is engaged in an international flight -
 - (i) the certificate of registration;
 - (ii) the certificate of airworthiness;
 - (iii) the appropriate licence <u>and medical certificate</u> of each crew member;
 - (iv) the general declaration;
 - (v) the aircraft radio station licence:

- (vi) if passengers are carried, the passenger manifest, unless the information is included in the general declaration referred to in <u>subparagraph</u> (iv);
- (vii) if cargo is carried, a manifest and detailed declaration of the cargo;
- (viii) the certificate of release to service;
- (ix) the navigation log when a navigator is carried;
- (x) the aircraft flight manual, referred to in regulation 91.03.2, or an equivalent document, which document shall include the statements referred to in technical standard 91.07.31 5(5)(a) of Document SA-CATS-OPS 91, if flight in reduced vertical separation minima (RVSM) airspace is contemplated;
- (xi) the mass and balance report;
- (xii) the flight folio;
- (xiii) the Minimum Equipment List (MEL), if applicable;
- (xiv) the noise certificate, if such certificate has been issued for the type of aircraft; and
- (xv) a list of visual signals <u>and procedures</u> for use by intercepting and intercepted aircraft;
- (xvi) if a flight in RVSM airspace is contemplated -
 - (aa) a valid RVSM <u>licence endorsement</u> issued by the Commissioner; and
 - (bb) if applicable, a valid RVSM operational approval for the particular RVSM airspace.
- (b) if the aircraft is engaged in a domestic flight -
 - (i) the certificate of registration;
 - (ii) the certificate of airworthiness;
 - (iii) the appropriate licence <u>and medical certificate</u> of each crew member;
 - (iv) the aircraft radio station licence;
 - (v) the certificate of release to service;
 - (vi) the aircraft flight manual referred to in regulation 91.03.2 or an equivalent document;
 - (vii) the mass and balance report;
 - (viii) the flight folio;

- (ix) the MEL, if applicable;
- (x) the noise certificate, if such certificate has been issued for the type of aircraft; and
- (xi) the list of visual signals <u>and procedures</u> for use by intercepting and intercepted aircraft.

Aircraft flight manual

- **91.03.2** (1) The owner or operator of an aircraft shall keep an approved aircraft flight manual for each aircraft of which he or she is the owner or operator and shall keep such manual current with amendments and implement changes issued by an appropriate authority.
- (2) The flight crew members of the aircraft shall, on each flight, operate such aircraft in accordance with the aircraft flight manual, unless an unforeseen emergency dictates otherwise.

Aircraft checklists

- **91.03.3** (1) The owner or operator of an aircraft shall establish and make available to the flight crew and other personnel in his or her employ needing the information, a checklist system for the aircraft, to be used by such flight crew and other personnel for all phases of the operation under normal, abnormal and emergency conditions.
- (2) The pilot-in-command shall ensure the checklists used on board the aircraft are complied with and utilised having due regard to human factors principles.
- (3) The checklists required in terms of sub-regulation (1) shall be designed having due regard to human factors principles as prescribed in Document SA-CATS-OPS 91.

Air traffic service flight plan and associated procedures

- **91.03.4** (1) The owner or operator of an aircraft shall ensure that an air traffic service flight plan is completed if required in terms of sub-regulation (4).
- (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.
- (3) The air traffic service flight plan shall be filed with the appropriate air traffic service unit (ATSU) unless other arrangements have been made for submission of repetitive flight plans and such unit shall be responsible for transmitting such air traffic service flight plan to all ATSUs concerned with the flight.
 - (4) The air traffic service flight plan shall be filed in respect of -
 - (a) all flights to be conducted in controlled or advisory airspace: Provided that this requirement shall not apply in respect of –

- (i) a local flight;
- (ii) a flight crossing an airway or advisory routes at right angles; or
- (iii) a VFR flight entering or departing from an aerodrome traffic zone or control zone, from or to an unmanned aerodrome and where no other controlled or advisory airspace will be entered during the flight;
- (b) an international flight;
- (c) all flights undertaken in terms of a Class I or Class II licence issued in terms of the Air Services Licensing Act, <u>No. 115 of</u> 1990 or the International Air Services Act, <u>No. 60 of</u> 1993;
- (d) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate the provision of flight information, alerting and search and rescue services; and
- (e) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate coordination with appropriate military units or with air traffic service units in adjacent States in order to avoid the possible need for interception for the purpose of identification.
- (5) An <u>ATSU</u> may instruct a flight for which an air traffic service flight plan is required in terms of sub-regulation (4) and for which an air traffic service flight plan has not been filed, to clear or to remain clear of controlled airspace, and not to cross the border of the Republic or to enter its airspace until such time as the required air traffic service flight plan has been filed.
- (6) Unless otherwise authorized by the responsible $\underline{\text{ATSU}}$, an air traffic service flight plan for a flight to be conducted in controlled or advisory airspace, shall be filed
 - (a) for domestic flights, at least 30 minutes before departure;
 - (b) for international flights, at least 60 minutes before departure; or
 - (c) if filed during flight while outside controlled or advisory airspace for a flight to be conducted in such airspace, it shall be filed with the responsible <u>ATSU</u> at least 10 minutes before the aircraft is estimated to reach the intended point of entry into the controlled or advisory airspace or the point of crossing the airway or advisory route.
- (7) The pilot-in-command (PIC) of an <u>aircraft operating an IFR or controlled VFR flight</u> shall ensure that all changes which become applicable to an air traffic service flight plan before departure or in flight are reported, as soon as practicable, to the responsible <u>ATSU</u>. For other VFR flights, changes regarding fuel endurance or total number of persons carried on board shall, as a minimum, be reported.

- (8) If an air traffic service flight plan has been filed with an <u>ATSU</u> prior to departure, and is not activated with an <u>ATSU</u> within one hour of original estimated time of departure or amended estimated time of departure, the air traffic service flight plan shall be regarded as cancelled and a new air traffic service flight plan shall be filed.
- (9) Where an <u>ATSU</u> is not in operation at the aerodrome of intended landing, a report of arrival as prescribed in <u>Document SA-CATS-OPS 91</u> shall be submitted to an <u>ATSU</u>, by the quickest means of communication available, immediately after landing, in respect of a flight for which an air traffic service flight plan was submitted and not as yet closed or for which search and rescue notification was requested and designated with a particular ATSU.
- (10) When communication facilities at the arrival aerodrome are inadequate and alternate arrangements for the handling of arrival reports on the ground are not available, the PIC shall, prior to landing the aircraft or immediately thereafter, if practicable, transmit to the appropriate ATSU, a message comparable to an arrival report, in respect of a flight for which an air traffic service flight plan was submitted and not as yet closed or for which a search and rescue notification was requested with a nominated ATSU.
- (11) Subject to the provisions of sub-regulation (12), the <u>PIC</u> shall ensure that the aircraft adheres to the current air traffic service flight plan filed for a controlled flight, unless a request for a change has been made and accepted by the <u>ATSU</u> responsible for the controlled airspace in which the aircraft is operating, or unless an emergency situation arises which necessitates immediate action, in which event the responsible <u>ATSU</u> shall, as soon as circumstances permit, be notified of the action taken and that such action was taken under emergency authority.
- (12) In the event of a controlled flight inadvertently deviating from its current air traffic service flight plan, the following action shall be taken \pm
 - (a) if the aircraft is off track, action shall be taken forthwith to adjust the heading of the aircraft to regain track as soon as practicable;
 - (b) if the average true airspeed at cruising level between reporting points varies, or is expected to vary, from that given in an air traffic service flight plan by approximately five per cent of the true airspeed, the responsible ATSU shall be so informed;
 - (c) if the estimated time at the next applicable reporting point, flight information regional boundary, or aerodrome of intended landing, whichever comes first, is found to be in error in excess of three minutes from that notified to the responsible <u>ATSU</u>, a revised estimated time shall be notified to such air traffic service unit as soon as possible; or
 - (d) if the aircraft deviates from its altitude, action shall be taken forthwith to correct the altitude of the aircraft.

- (13) When an automatic dependent surveillance (ADS) agreement is in place, the ATSU shall be informed automatically via data link whenever changes occur beyond the threshold values stipulated by the ADS event contract.
- (14) If prior to departure it is anticipated that, subject to a reclearance in flight, a decision may be taken to proceed to a revised destination aerodrome, the appropriate ATSUs shall be so notified by the insertion in the flight plan of information concerning the revised route, where known, and the revised destination. The revised destination shall be subject to the fuel and oil provisions of regulation 91.07.12.

Flight folio

- **91.03.5** (1) The owner or operator of a South African registered aircraft shall ensure that the aircraft carries a flight folio or any other similar document which meets the requirements of and contains the information as prescribed in Document SA-CATS-OPS 91, at all times.
- (2) The flight folio shall be kept up-to-date and maintained in a legible manner by the pilot-in-command.
- (3) All entries shall be made immediately upon completion of the occurrence to which they refer.
- (4) In the case of maintenance being undertaken on the aircraft, the entry shall be certified by the person taking responsibility for the maintenance performed.
- (5) The owner or operator shall retain the flight folio for a period of five years calculated from the date of the last entry therein.

Fuel record

- **91.03.6** (1) The owner of operator of an aircraft shall maintain fuel records for each flight undertaken by the aircraft under the control of such owner or operator.
- (2) The pilot-in-command of the aircraft shall enter the fuel and oil records referred to in sub-regulation (1) in the flight folio.

Certificate of release to service

- 91.03.7 (1) No owner or operator of an aircraft shall operate
 - (a) a South African registered aircraft without holding a valid certificate of release to service signed by the holder of an appropriately rated aircraft maintenance engineer licence or aircraft maintenance organisation approval; or
 - (b) a foreign aircraft without holding a valid certificate, equivalent to the certificate referred to in paragraph (a), issued by an appropriate authority.
 - (2) The owner or operator shall -

- (a) ensure that one copy of the certificate of release to service or equivalent certificate is carried on board the aircraft to which it relates and, in the case of a South African registered aircraft, a second copy shall be filed at the normal station of the aircraft; and
- (b) retain the certificate of release to service for a period of 12 months calculated from the date of issue of such certificate of release to service.

Flight recorder records

- **91.03.8** (1) The owner or operator of an aircraft on which a flight recorder is carried, shall
 - (a) in the case of an accident or incident involving such aircraft, preserve the original recording, as retained by the flight recorder, for a period of not less than 60 days calculated from the date of the accident or incident, or until permission for disposal of such recording has been given by the investigator-in-charge or an appropriate authority, whichever is the latter date; and
 - (b) when the Commissioner so directs, preserve the original recording, as retained by the flight recorder, for a period of not less than 60 days calculated from the date of such direction or until permission for disposal of such recording has been given by the Commissioner.
- (2) If an aircraft is required under this <u>Part</u> to be fitted with a flight data recorder, the owner or operator of the aircraft shall
 - (a) have the recording for the period of operating time as required by subregulations (1)(a) and (b): Provided that for the purpose of testing and maintaining a flight data recorder one hour of the oldest recorded material at the time of testing may be erased;
 - (b) keep a recording of at least one representative flight made within the preceding 12 months which includes a take-off, climb, cruise, descent, approach and landing, together with a means of identifying the recording with the flight to which it relates; and
 - (c) keep a document which represents the information necessary to retrieve and convert the stored data into engineering units.
- (3) The owner or operator of an aircraft on which a flight recorder is carried shall, within a reasonable time after being requested to do so by the Commissioner or an appropriate authority, produce any recording made by such flight recorder which is available or has been preserved.
- (4) A cockpit voice recorder recording may be used for purposes other than for the investigation of an accident or incident only with the consent of all the flight crew members concerned.

- (5) The flight data recorder recordings may be used for purposes other than the investigation of an accident or incident which is subject to mandatory reporting, only when such recordings are
 - (a) used by the owner or operator for airworthiness or maintenance purposes only;
 - (b) de-identified; or
 - (c) disclosed under secure procedures.

Logbooks

- **91.03.9** (1) The following logbooks shall be kept in respect of South African registered aircraft and in respect of other specified equipment for the purpose of recording therein the maintenance history of the equipment to which each relates
 - (a) an aircraft logbook for each aircraft;
 - (b) an engine logbook for each aircraft engine; and
 - (c) a propeller logbook for each propeller.
- (2) The provisions of sub-regulation (1) shall not apply to aircraft which do not qualify for the issue of a certificate of airworthiness.
- (3) Logbooks to be kept in terms of sub-regulation (1) shall conform to such format as the Commissioner may from time to time prescribe in an AIC.
- (4) Logbooks should preferably be kept at the aircraft's base of operation. Details in respect of maintenance carried out while away from base shall be transferred to the appropriate logbook or logbooks within 48 hours after the return of the aircraft to its base of operation or entered within 48 hours on completion of any maintenance performed on the aircraft or installed equipment at a base other than its base of operation.
- (5) All logbooks to be kept and maintained in terms of the preceding subregulations shall on demand be made available at all times for inspection by an authorised officer.
- (6) The logbooks required to be kept in accordance with this Part shall be preserved in a safe place at all times and for a period of 6 (six) months after the date of destruction of the airframe, engine or propeller for which they were kept.
- (7) Logbooks shall not be carried in the aircraft to which they relate unless the aircraft is flown to a place where the logbooks are required for compliance with maintenance to the aircraft. Where a logbook is carried on board an aircraft, a suitable record of the last inspection performed shall be maintained at the base of operation of the aircraft.
- (8) Entries in the logbooks required to be kept in accordance with this Part shall be made and signed by the holder of an appropriate licence or by a person