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GENERAL NOTICE**Transport, Department of***General Notice*

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GENERAL NOTICE

NOTICE 356 OF 2008

AVIATION ACT 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 73 Halfway House, 1685, fax: (011) 545-1201, or e-mail at mashinini@caa.co.za or wildenboerh@caa.co.za,

SCHEDULE 1

PROPOSER

South African Civil Aviation Authority
Ikhaya Lokundiza 1
Building 16, Treur Close
Waterfall Park
Bekker Street
Midrand

Explanation of interest of the Proposer

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

1. PROPOSAL TO AMEND DEFINITION OF "AIR AMBULANCE OPERATION"

It is hereby proposed to amend the definition of "air ambulance operation" as follows:

1.1 CURRENT DEFINITION:

"air ambulance operation" means air transportation of a patient requiring in-flight medical care and operated in terms of Part 138 of the regulations;

1.2 PROPOSED DEFINITION:

“air ambulance operation” means air transportation of a patient, or a person for whom there can be a reasonable expectation that they will require medical attention during the transportation, and operated in terms of Part 138 of the Regulations.

1.3 MOTIVATION:

The proposed definition aims to clarify the issue of transportation of patients by air.

2. PROPOSAL TO INSERT THE DEFINITION OF “AIR AMBULANCE”

It is hereby proposed to insert the definition of “air ambulance” in Part 1 of the regulations.

2.1 CURRENT DEFINITION:

Not in existence

2.2 PROPOSED DEFINITION:

“air ambulance” means an aircraft used for the purposes of transporting a patient, or a person for whom there can be reasonable expectations that they will require medical attention during the transportation, and equipped in accordance with the provisions of Part 138 of the Regulation,

2.3 MOTIVATION:

The proposed definition aims to clarify the issue of transportation of patients by air.

3. PROPOSAL TO INSERT THE DEFINITION OF “PRIMARY MEDICAL CREW MEMBER”

It is hereby proposed to insert the definition of “primary medical crew member” in Part 1 of the regulations.

3.1 CURRENT DEFINITION:

Not in existence

3.2 PROPOSED DEFINITION:

“primary medical crew member” means the medical crew member employed by the operator and trained in accordance with the requirements of Part 138, primarily responsible for the medical aspects of the mission undertaken.

3.2 MOTIVATION:

Part 138 aims to differentiate between Primary crew members employed by the operator and other specialists that may be used by the operator as the patient's condition requires.

4 PROPOSAL TO INSERT DEFINITION OF “MEDICAL SERVICE PROVIDER”

It is hereby proposed to insert the definition of “medical service provider” in Part 1 of the regulations.

4.1 CURRENT DEFINITION:

Not in existence

4.2 PROPOSED DEFINITION:

“medical service provider” means the person, associated with an air ambulance operator for the purposes of taking responsibility for the medical aspects of the operation and who is subject to the legislation and regulations as administered by the Department of Health.

4.3 MOTIVATION:

It is essential to split the aviation aspects of Part 138 from the medical aspects. It therefore becomes essential to define a medical service provider.

5 PROPOSAL TO AMEND REGULATION 12.01.6 OF PART 12 OF THE REGULATIONS

It is hereby proposed to amend Regulation 12.01.6 of the regulations by the substitution for sub-regulation (1) of the following sub-regulation:

5.1 CURRENT REGULATION

"12.01.6.(1) The Commissioner may designate—

- (a) an accredited representative, for the purpose of investigating an accident or incident involving a South African registered aircraft in a territory of a contracting or non-contracting State; or
- (b) an accredited representative of the State of Registry, State of the Operator, State of Design or State of Manufacture for the purposes of investigating an accident or incident involving a South African or foreign registered aircraft in the territory of the Republic."

5.2 PROPOSED REGULATION

"12.01.6 (1) The Commissioner may –

- (a) designate an accredited representative, for the purpose of investigating an accident or incident involving a South African registered aircraft in a territory of another state; or
- (b) accept the accreditation or appointment of an accredited representative of the State of Registry, State of the Operator, State of Design or State of Manufacture for the purposes of investigating an accident or incident involving a South African or foreign registered aircraft in the territory of the Republic."

5.3 MOTIVATION

The amendment is necessary to comply with ICAO requirements.

6 PROPOSAL TO AMEND REGULATION 12.01.7 OF PART 12 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 12.01.7 of the regulations as follows:

6.1 CURRENT REGULATION

"Designation of adviser

12.01.7 (1) The Commissioner may designate an adviser for the purpose of assisting the investigator-in-charge in the investigation of an accident or incident.

(2) The conditions and requirements for and the rules, procedures and standards connected with a designation referred to in sub-regulation (1), shall be as prescribed in Document SA-CATS-ACCID and INCID.”

6.2 PROPOSED REGULATION

“Designation of adviser

12.01.7 (1) The Commissioner may, in consultation with the accredited representative, designate an adviser for the purpose of assisting the accredited representative in the investigation of an accident or incident.

(2) An adviser designated in terms of sub-regulation (1) may, under the control of the investigator-in-charge and the supervision of the accredited representative –

- (a) visit the scene of the accident or incident;
- (b) examine the wreckage;
- (c) obtain witness information and suggest areas for questioning;
- (d) have access to all relevant evidence;
- (e) receive copies of all relevant documents, books, notes, photographs, recordings and transcripts;
- (f) participate in readouts of recorded media;
- (g) participate in component examinations, technical briefings, tests and simulations and other investigative activities;
- (h) participate in deliberations on the analysis, findings, cause or causes and safety recommendations; and
- (i) make submissions in respect of the various elements of the investigation.

(3) Should the Republic of South Africa be the State of Occurrence, the Commissioner may, in consultation with the investigator-in charge, accept the designation or appointment of an adviser for the purpose of assisting the accredited representative in the investigation of an accident or incident.

(4) The conditions and requirements for and the rules, procedures and standards connected with a designation referred to in sub-regulation (1) and (2) shall be as prescribed in Document SA-CATS-ACCID and INCID.”

6.3 MOTIVATION

The amendment is necessary to comply with ICAO requirements.

7. PROPOSAL TO AMEND REGULATION 12.05.2 OF PART 12 OF THE REGULATIONS

It is hereby proposed to amend Regulation 12.05.2 of the regulations by the substitution for sub-regulation (1) of the following sub-regulation:

7.1 CURRENT REGULATION

"12.05.2. (1) Any interested person who feels aggrieved by the findings on an investigation may appeal against such findings to the Commissioner, within 30 days after such person becomes aware of such findings".

7.2 PROPOSED REGULATION

"12.05.2 (1) Any interested person who feels aggrieved by the findings on an investigation may appeal against such findings to the Commissioner, within 60 days after the publication of such findings".

7.3 MOTIVATION

This proposal is necessary to be inserted since it became an ICAO finding during the recent audit. The importance for amending such is that members of the public will be given sufficient time to make comment and contribution to an accident report. The 60 days period will afford the Authority to also make comment or bring additional information or make objections to the accident report.

8. PROPOSAL TO AMEND REGULATION 138.01.1 OF THE REGULATIONS

It is hereby proposed to amend Regulation 138.01.1 of the regulations by the substitution for paragraph (c) of sub-regulation (1) of the following paragraph:

8.1 CURRENT REGULATION:

"(c) foreign-registered aircraft utilised in commercial air ambulance operations in terms of the requirements of the International Air Service Act, 1993 (Act No. 60 of 1993) and intending to uplift patients within the Republic;"

8.2 PROPOSED REGULATION:

- "(c) foreign-registered aircraft engaged in commercial air ambulance operations in terms of the requirements of the International Air Service Act, 1993 (Act No. 60 of 1993), and intending to transport one or more patients within or into or out of the Republic".

8.3 MOTIVATION:

The proposed legislation aims to cover all foreign registered aircraft transporting patients within, into or out of the country. The intent is not to prevent anyone from coming in for medical care, but to ensure that the minimum standard of carriage of the patient is adhered to.

9 PROPOSAL TO AMEND REGULATION 138.01.2 OF THE REGULATIONS

It is hereby proposed to amend Regulation 138.01.2 of the regulations by the addition of sub-regulations (2), (3) and (4):

9.1 CURRENT REGULATION

Not in existence

9.2 PROPOSED REGULATION:

"(2) Only aircraft that have been certified on its certificate of airworthiness for use as air ambulance may be used in commercial air ambulance operations.

(3) Should an operator, engaged in commercial air ambulance operations, intends to utilise an aircraft that has not been certified for air ambulance operations as a substitute for one of its certified aircraft, such aircraft shall be utilised for a maximum of seven (7) consecutive days only or during a period of maximum fourteen (14) days, provided that such aircraft is essentially configured according to the provisions of this Part.

(4) Should it not be possible to adhere of the conditions prescribed in sub-regulation (3) above, the operator shall seek permission from the Commissioner for the utilisation of such aircraft."

9.3 MOTIVATION:

The proposed legislation aims to ensure that only aircraft that are endorsed for Part 138 can be utilised as air ambulances, irrespective of the number of aircraft on the operator's AOC.

10 PROPOSAL TO SUBSTITUTE REGULATION 138.02.1 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 138.02.1 of the regulations as follows:

10.1 CURRENT REGULATION:**"Pilot qualifications**

138.02.1 (1) The pilots of aircraft engaged in air ambulance operations shall –

- (a) be the holder of a valid pilot licence appropriate to the category and type of air ambulance aircraft and the mission to be flown;
- (b) have successfully completed the training referred to in Subpart 3; and with a view to the privileges granted in terms of regulations 138.06.3 and 138.06.5, have in respect of helicopters shown to the satisfaction of a Grade I or Grade II flight instructor currency in mountain flying, confined area operations and night flying;
- (c) which shall be contained in a declaration by the flight instructor in question and kept on file by the operator.

10.2 PROPOSED REGULATION:**"Pilot qualifications**

138.02.1 (1) The pilots of aircraft engaged in air ambulance operations shall –

- (a) as a minimum be the holder of a valid commercial pilot licence with night rating appropriate to the category and type of air ambulance aircraft and the mission to be flown,
- (b) have received training and demonstrated minimum competency for the relevant mission to be flown, as defined in the MOP

- (c) have successfully completed the training referred to in Subpart 3;

(2) The operator's MOP shall set minimum criteria for qualifications of pilots to be used for the missions intended.

10.3 MOTIVATION:

The air ambulance industry is a specialised field and pilots need to be appropriately trained for the missions to be flown. PPL pilots should not be allowed to fly on air ambulance missions due to the inherent risks of the operations, and the fact that their training is not acceptable to have patients exposed to. It is possible to have a Commercial pilot's license without a night rating. It is a well-known fact that helicopter air ambulance operations sometimes run unexpectedly into the night and it is important that any pilot involved in this type of operation have this rating. The SACAA wishes to "up the bar" in terms of the requirements for pilots in this field. Grade 1 and 2 instructors for helicopters to be included in CATS

11 PROPOSAL TO SUBSTITUTE REGULATION 138.02.2 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 138.02.2 of the regulations as follows:

11.1 CURRENT REGULATION:

"Medical qualifications

138.02.2 Medical personnel and medical service providers involved in air ambulance operations shall comply with the relevant legislation and regulations administered by the Department of Health, the Professional Board for Emergency Care and the Health Professions Council of South Africa."

11.2 PROPOSED REGULATION:

"Medical qualifications

138.02.2 Medical personnel and medical service providers involved in air ambulance operations shall comply with the relevant legislation and regulations administered by the Department of Health, the Health Professions Council of South Africa and the South African Nursing Council, as the case may be."

11.3 MOTIVATION:

Some operators utilise nurses as crew members as the patient's condition dictates. The regulation aims to cover these operators.

12 PROPOSAL TO SUBSTITUTE REGULATION 138.03.1 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 138.03.1 of the regulations as follows:

12.1 CURRENT REGULATION:

"Training of flight crew, medical personnel and operations personnel

138.03.1 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that each flight crew member, medical personnel member or operations personnel member, assigned to an air ambulance operation, has successfully completed the initial or recurrent training, as the case may be, as prescribed in Document SA-CATS-OPS 138.

(2) All training referred to in sub-regulation (1) shall be conducted by a training organisation accredited by the Commissioner.

(3) On the successful completion of the initial or recurrent training, as the case may be, the training organisation shall issue a certificate of competency to the flight crew-member, medical personnel member or operations personnel member concerned.

(4) Such a certificate of competency shall be valid for a period of 12 calendar months calculated from the last day of the calendar month in which such certificate is issued.

(5) The owner or operator of an air ambulance operation shall ensure that no flight crew member, medical personnel member or operations personnel member, whose certificate of competency has expired, be assigned flight duties on an aircraft engaged in an air ambulance operation until such time that a new certificate of competency has been issued to such member.

12.2 PROPOSED REGULATION:

"Training of flight crew, medical personnel and operations personnel

138.03.1 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that at each flight crew member, medical personnel member and operations personnel member, assigned to an air ambulance operation, has successfully completed the initial or recurrent training, as the case may be, as prescribed in Document SA-CATS-OPS 138.

(2) Notwithstanding the provisions of sub-regulation (1) above, a medical specialist not trained in terms of these regulations may be taken on a specific air ambulance mission, in addition to the regular primary medical crew, for the benefit of the patient;

(3) The operator shall ensure that all flight crew members, medical personnel members or operations personnel members, as the case may be, who have not completed the training as referred to in sub-regulation (1), shall have a standard safety briefing pertaining to the aircraft to be used for the mission.

(4) On the successful completion of the initial or recurrent training, as the case may be, the operator shall keep records of the said training.

(5) The records referred to in sub-regulation (4) above, shall be valid for a period of 12 calendar months calculated from the last day of the calendar month in which such training is given.

(6) The owner or operator of an air ambulance operation shall ensure that no primary flight crew member, medical personnel member or operations personnel member, whose training has expired, is assigned primary crew duties on an aircraft engaged in an air ambulance operation until such time that recurrent training has been undergone by such member.

(7) Notwithstanding sub-regulation (6) above, a flight crew member, medical personnel member or operations personnel member, as the case may be, may be assigned primary crew duties without having undergone recurrent training as stipulated in sub-regulation (6) above: Provided that such flight crew member, medical personnel member or operations personnel member, as the case may be:

- (a) undergoes such recurrent training within a period not exceeding six (6) months from the date of expiry of the preceding training;

- (b) is, during the period of assignment, assigned to duties with at least one flight crew member, medical personnel member or operations personnel member, as the case may be, whose training has not expired, and
- (c) has, during the period of assignment, not been off active duty for a period exceeding three (3) months.

(8) In cases where an operator or any other person(s) will offer training to crew members employed by other operators, such operator will need to be compliant with all the relevant requirements as contained in Part 141 of the Regulations and the Document SA-CATS-OPS 138.

12.3 MOTIVATION:

- a) Some missions require the expertise of ad-hoc personnel for whom there may not be time for training, e.g. flying neonatal patients is better accomplished using a neonatal trained sister than 2 138 trained doctors. The normal passenger safety briefing shall apply to any members not trained in 138 but utilised for their medical expertise.
- b) Having only 1 trained member does not have any impact on the standard of care delivered to the patient nor the standard of flying. It may enhance the service delivered by allowing for the utilisation of relevant medical expertise on flights.
- c) Part 138 operators do not need to be ATOs in order to give the training since the training is always specific to the operator. This is not training for a rating or license, it is simply an orientation to improve relations between the aviation crew and the medical personnel within the specific operation
- d) No certificate need be issued, but all records should be kept.
- e) Should a third party need to give the training, such third party will then need to be an ATO and all Part 141 requirements will then apply

13. PROPOSAL TO AMEND REGULATION 138.04.3 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 138.04.3 of the regulations as follows:

13.2 CURRENT REGULATION:

“Training records

138.04.3 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall retain records of all training undertaken in terms of this Part by the flight crew, medical and operations personnel in his, her or its employ, and such records shall incorporate copies of the certificates indicating the completion of such training issued to the individual personnel member.

(2) The owner or operator of an aircraft engaged in an air ambulance operation shall retain the records of each flight crew member, medical personnel member and operations personnel member for a period of at least 12 months from the date on which the flight crew member, medical personnel or operations personnel member has left the employ of such owner or operator.

(3) The certificate referred to in regulation 138.03.1(3), shall be made available by the flight crew member, medical personnel member or operations personnel member to the owner or operator of the aircraft engaged in an air ambulance operation on request in cases where such personnel are not in the permanent employ of the aircraft owner or operator.

(4) The training organisation shall retain records of all training undertaken in terms of this Part for a period of at least 12 months from the date of the issuance of the certificate referred to in regulation 138.03.1(3).

13.3 PROPOSED REGULATION:

“Training records

138.04.3 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall retain records of all training undertaken in terms of this Part by the flight crew, medical and operations personnel in his, her or its employ.

(2) The owner or operator of an aircraft engaged in an air ambulance operation shall retain the records of each flight crew member, medical personnel member and operations personnel member for a period of at least 12 months from the date on which the flight crew member, medical personnel or operations personnel member has left the employ of such owner or operator.

(3) In cases of third party training as described in Subpart 3 above, all the applicable requirements as set out in Part 141 of the Regulations and the Document SA-CATS-OPS 138 shall apply.

13.4 MOTIVATION:

No certificates will be issued since operators are not required to be ATOs, since Part 138 training is operator specific. In-house training does not require Part 141 accreditation. All third party training will need to be done by ATOs.

14. PROPOSAL TO SUBSTITUTE REGULATION 138.04.4 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 138.04.3 of the regulations as follows:

14.2 CURRENT REGULATION:**"Presumption**

138.04.4 For the purposes of this subpart, a medical personnel member shall be deemed to be in the employ of the owner or operator of the air ambulance aircraft if the medical personnel member is assigned to flight duties by such owner or operator, irrespective of whether such medical personnel member is remunerated by such owner or operator or not.

14.3 PROPOSED REGULATION:**"Presumption**

138.04.4 (1) For the purposes of this subpart, the medical crew and the patient shall be deemed to be passengers on the flight.

(2) Notwithstanding sub-regulation (1) above, a primary medical crew member shall be allowed to take responsibility for the duties he or she has been trained for in accordance with this subpart.

(3) The operator shall ensure that the patient(s) as well as any accompanying family members are covered under the operator's insurance policy in accordance with Insurance Seat coverage required in terms of the International Air Services Act, 1974.

14.4 MOTIVATION:

The regulation aims to ensure that medical crew and the patient are covered by the operator's insurance policies. Medical crew will be governed by the relevant legislations as mentioned in 138.02.2. It would be

unfair for the operator to be forced to assume responsibility such as medical malpractice etc., which they would have to assume if the medical personnel are in their employ.

15. PROPOSAL TO SUBSTITUTE REGULATION 138.05.1 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 138.05.1 of the regulations as follows:

15.2 CURRENT REGULATION:

"Aircraft configuration

138.05.1 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that the aircraft which is to be used in the air ambulance operation, is configured in such a way that –

- (a) the medical personnel have access to a patient in order to administer life-support;
- (b) there is access and the necessary space to ensure that the patient's airway is maintained, and that adequate ventilatory support from the secured seat-belted position of the medical personnel is provided.

(2) If the owner or operator has to modify the aircraft in order to comply with the provisions of this Subpart, such owner or operator shall obtain prior written approval from the Commissioner for such modification.

(3) The design and configuration of an aircraft that is to be used in air ambulance operations shall have an entry that allows manoeuvring of the patient during loading and unloading without compromising patient stability or the functioning of medical equipment.

16.3 PROPOSED REGULATION:

"Aircraft configuration

138.05.1 (1) The operator of an aircraft engaged in air ambulance operations shall ensure that the cabin of the aircraft meets the following criteria:

- (a) Entry:
 - (i) shall allow loading of the patient without excessive maneuvering, i.e. no greater than 45° tilt along the lateral axis, and no greater than 30° tilt along the longitudinal axis;

- (ii) loading or unloading shall not compromise the functioning of the monitoring systems, IV lines and manual or mechanical ventilation;
- (b) Must be able to accommodate volumetrically, as a minimum:
 - (i) one stretcher unit large enough to carry a 95 percentile patient full length in supine position (6ft stretcher);
 - (ii) 2 medical personnel, with sufficient access to the patient from a secured seat-belted position; and
 - (iii) All the medical equipment required by the medical service provider for the mission.

(2) If the owner or operator has to modify the aircraft in order to comply with the provisions of this Subpart, such owner or operator shall obtain prior written approval from the Commissioner for such modification.

16.4 MOTIVATION:

- a) The owner or operator of the aircraft is responsible for the provision of an aircraft that is suitable in dimensions as an air ambulance.
- b) The minimum criteria for the environment in which a patient is carried should be standardised irrespective of the type of aircraft used.

17. PROPOSAL TO SUBSTITUTE REGULATION 138.05.2 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 138.05.2 of the regulations as follows:

17.2 CURRENT REGULATION:

“Lighting and electrical equipment

138.05.2 The owner or operator of an aircraft engaged in an air ambulance service shall ensure that –

- (a) adequate lighting equipment is provided in the patient care area;
- (b) portable lighting equipment is provided for use in the event of a failure of the main electrical system;
- (c) the cockpit or the flight deck, as the case may be, is screened from lights in the patient care area during night operations; or alternatively, where such protection is not

possible, shall ensure that only a red light of low intensity is used in the patient care area;

- (d) without compromising the normal operation of any aircraft equipment, electrical power of sufficient capacity is provided to accommodate specialized medical equipment, if such equipment requires power generated by the aircraft."

17.3 PROPOSED REGULATION:

"Lighting and electrical equipment

138.05.2 (1) The owner or operator of an aircraft engaged in an air ambulance service shall ensure that –

- (a) adequate lighting equipment is provided in the patient care area;
- (b) portable lighting equipment is provided for use in the event of a failure or inability to utilise the main electrical system;
- (c) the cockpit or the flight deck, as the case may be, is screened from lights in the patient care area during night operations; or alternatively, where such protection is not possible, shall ensure that sufficient light of low intensity is used in the patient care area; provided that such lighting does not interfere with the operations of the flight deck crew;
- (d) without compromising the normal operation of any aircraft equipment, and if required by the medical service provider, there shall be a power source available from the aircraft."

17.4 MOTIVATION:

- a) Change of "red light" to "sufficient light of low intensity" allows for low-intensity light of any colour to be used. Red light may, in some instances, compromise the safety of the patient since the medical crew may not be able to see what they are doing. If light of low intensity can be used without compromising the flight deck operations, the medical crew should be allowed to utilise such light. The requirements of the flight deck crew shall always override those of the medical crew.
- b) The pilot will inform the medical crew if the cabin lighting interferes with any operations of the flight crew. Standard certified lighting in the aircraft should apply, and the applicable lighting regulations from the SACAA shall still apply (e.g. lights off at take-off and landing etc.)

- (c) The requirement to have a power source available from the aircraft is dictated by the needs of the medical personnel. The capacity will be dictated by the medical service provider, since it will be impossible for the operator to determine such sufficient capacity, and will be regulated under the Department of Health regulations. The proposed sub-regulation also aims to further clarify the current requirement.

18. PROPOSAL TO AMEND REGULATION 138.05.3 OF THE REGULATIONS

It is hereby proposed to amend Regulation 138.05.3 of the regulations by the substitution for paragraph (b) of the following paragraph:

18.1 CURRENT REGULATION:

- “(b) where such aircraft is equipped with an interphone system that provides a means of two-way communication between the flight crew members and medical personnel members, unless the pilot can isolate himself or herself from such system.”

18.2 PROPOSED REGULATION:

- “(b) in cases where unaided verbal communication cannot be sustained, unless –
 - (i) such aircraft is equipped with an interphone system, which provides a means of two-way communication between the flight crew members and medical personnel members; and
 - (ii) the pilot can isolate himself or herself from such system.”

18.3 MOTIVATION:

In cases where all the crew cannot communicate verbally unaided, it is imperative that an interphone system must exist and the pilot must be able to isolate from such a system. The current regulation makes such a requirement optional, and the proposed regulation makes it mandatory.

19. PROPOSAL TO AMEND REGULATION 138.05.4 OF THE REGULATIONS

It is hereby proposed to amend Regulation 138.05.4 of the regulations by the substitution for sub-regulations (1), (3), (4), (5) of the following sub-regulations and the addition of sub-regulation (6):

19.1 CURRENT REGULATION:

138.05.4 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall not operate the aircraft unless such aircraft –

- (a) is equipped with –
 - (i) an approved restraining strap for each patient; and
 - (ii) an additional restraining device for a child or small adult who will not be adequately restrained with the restraining strap referred to in paragraph (a), if applicable;
- (b) is equipped with –
 - (i) a stretcher and mounting system which is strong enough to support a person weighing not less than 120 kilograms, and is sufficiently rigid to withstand the forces incurred during cardiopulmonary resuscitation should the aircraft in question be equipped with a stretcher and mounting system; and
 - (ii) an incubator, which is properly secured in position.

(3) The attachment of the stretcher or incubator to the aircraft structure shall allow its rapid detachment for evacuation.

(4) All restraint systems to be used in the aircraft shall be approved by the Commissioner.

(5) Suitable measures should be taken to protect the pilot, aircraft controls, communication and navigation equipment from any interference whatsoever by the patient, medical personnel or medical equipment on board the aircraft during flight or during loading.

19.2 PROPOSED REGULATION:

138.05.4 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall not operate the aircraft unless such aircraft –

- (a) is equipped with –
 - (i) an approved restraining strap for each patient;
 - (ii) an additional restraining device for a child or small adult who will not be adequately restrained with the restraining strap referred to in paragraph (i), if applicable; and

- (iii) an incubator, which is properly secured in position, should an incubator be needed for the flight; and
 - (b) is equipped with a stretcher and mounting system certified by the manufacturer or any other recognised certification body deemed acceptable by the Commissioner: Provided that all recommendations by such manufacturer or certification body shall be implemented and adhered to for the above to be acceptable to the Commissioner.
- (3) The stretcher shall be certified for use in an aircraft by the manufacturer and allow for rapid detachment from the base unit.
- (4) Where such certification is not available, the operator shall seek permission from the Commissioner for the use of such stretcher.
- (5) All other restraint systems to be used in the aircraft shall be approved by the Commissioner.
- (6) Suitable measures should be taken to protect the pilot, aircraft controls, communication and navigation equipment from any interference whatsoever by the patient, medical personnel or medical equipment on board the aircraft during flight or during loading and unloading.

19.3 MOTIVATION:

Re-worded for clarity. Manufacture's certification needed for the stretcher unit and attachments.

20. PROPOSAL TO SUBSTITUTE REGULATION 138.05.5 OF THE REGULATIONS

It is hereby proposed to substitute Regulation 138.05.5 as follows:

20.1 CURRENT REGULATION:

"Medical equipment

138.05.5 The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that –

- (a) any medical equipment, supplies or other items on board of the aircraft shall be –
 - (i) properly secured in accordance with aviation practices;
 - (ii) so positioned that they do not or are not likely to –
 - (aa) cause injury to any person on board of the aircraft;
 - (ab) obstruct access to any regular or emergency exit; or
 - (ac) obstruct access to any emergency equipment.

- (iii) such equipment is appropriately certified by its manufacturer for use ; and
- (b) prior to flight, any medical equipment, which transmits any signals, has been –
 - (i) certified by the manufacturer for use in an aircraft or has been certified by an aviation authority acceptable to the Commissioner for use in an aircraft; and
 - (ii) tested to ensure that it does not interfere with any aircraft system, in particular with the avionics equipment of the aircraft, and that such avionics equipment does not interfere with the proper functioning of the medical equipment.

20.2 PROPOSED REGULATION:

“Medical equipment

138.05.5 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that –

- (a) any medical equipment, supplies or other items on board of the aircraft shall be –
 - (i) properly secured in accordance with good practise;
 - (ii) so positioned that they do not or are not likely to –
 - (aa) cause injury to any person on board of the aircraft;
 - (bb) obstruct access to any regular or emergency exit; or
 - (cc) obstruct access to any emergency equipment.
 - (iii) appropriately certified by its manufacturer for use in an aircraft; and
- (b) prior to flight, any medical equipment which transmits any signals has been certified by the manufacturer for use in an aircraft or has been certified by an aviation authority acceptable to the Commissioner for use in an aircraft;

20.3 MOTIVATION:

Re-worded for clarity. The need for testing is replaced by the need for certification by the manufacturer.

21. PROPOSAL TO AMEND REGULATION 138.05.6 OF THE REGULATIONS

It is hereby proposed to amend Regulation 138.05.6 of the regulations by the substitution for sub-regulations (2), (4) and (5) of the following sub-regulations:

21.1 CURRENT REGULATIONS:

- "(2) All portable gas cylinders shall be properly secured during flight.
- (4) The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that all oxygen and medical gas cylinders used in such aircraft are certified by the manufacturer for use at the pressure altitudes at which the cylinders are to be used, and shall keep a record of such certification and the serial numbers of such cylinders.
- (5) All oxygen and medical gas cylinders used in an air ambulance operation shall have an annual visual and a five-yearly hydrostatic inspection by a testing facility approved for the purpose by the Department of Labour, and shall be marked with a sticker denoting approval for 'return to service' and 'next service due' date, which sticker shall be clearly visible to flight crew and medical personnel.

21.2 PROPOSED REGULATION:

- "(2) All portable gas cylinders shall be properly secured with approved devices during flight.
- (4) (a) All oxygen and medical gas cylinders used in an air ambulance operation shall have an annual visual and a five-yearly hydrostatic inspection by a testing facility approved for the purpose by the Department of Labour, and shall be marked with a sticker denoting approval for 'return to service' and 'next service due' date, which sticker shall be clearly visible to flight crew and medical personnel, unless
- (b) (i) Wherever applicable, such cylinders shall bear a stamp of approval from an appropriately approved provider clearly visible on each cylinder certifying such cylinder as approved for use at altitude; or
- (ii) the appropriately approved provider shall certify that all their cylinders are approved for use at altitude.
- (5) All oxygen and medical gas cylinders fixed in an air ambulance operation shall be maintained as per the manufacturer's specifications."

MOTIVATION:

Oxygen and gas cylinders are usually provided by a specific provider which is governed by the Department of Labour. The provider will have its own procedures of testing the cylinders. The important aspect is for the provider only to certify that the cylinder is safe for use at altitude,

irrespective of the provider's procedures for testing. In this way the onus or responsibility lies with the provider should anything go wrong with the cylinder. It is almost impossible to meet the requirements of the existing regulation in the current South African setting and in the foreseeable future. Consultations with Afrox have shown that all cylinders are routinely certified by the manufacturers for use at altitude (certified for use under certain pressure, which covers all aviation activity pressures), and it is impossible to stamp each cylinder with such certification (due to cylinder rotation).

Should an operator, however, decide to own and decant their own Oxygen cylinders (without using an approved provider), the operator is then subject to all the Department of Health and Department of Labour regulations as is appropriate, as contained in the existing regulation.

22. PROPOSAL TO AMEND REGULATION 138.05.7 OF THE REGULATIONS

It is hereby proposed to amend regulation 138.05.7 by the deletion of sub-regulation (1).

22.1 CURRENT REGULATION:

138.05.7 (1) Intravenous glass containers shall not be used in an aircraft engaged in an air ambulance operation unless absolutely unavoidable.

22.2 MOTIVATION:

There is no basis for legislating the use of glass containers. Any risks associated with such use shall be regulated in the Department of Health regulations.

23. PROPOSAL TO SUBSTITUTE REGULATION 138.06.1 OF THE REGULATIONS

It is hereby proposed to substitute regulation 138.06.1 as follows:

23.1 CURRENT REGULATION:

"Control of Operations

138.06.1 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that he or she has access to a doctor trained in aeromedical transport to consult with on matters pertaining to –

- (a) the advisability of the transportation by air of the patient;
- (b) the class of air ambulance aircraft required for the transport;
- (c) the level of patient- care required;
- (d) medical equipment needed on board the aircraft; and
- (e) precautions to be taken during the flight and during ground transportation.

(2) The medical personnel on board the aircraft shall be responsible for patient care from the time of hand-over by the dispatching medical unit until the time of hand-over to the receiving medical unit.

(3) The pilot-in-command of the aircraft shall at all times be responsible for the safety of the aircraft operation.

23.2 PROPOSED REGULATION:

“Control of Operations

138.06.1 (1) The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that he or she is aligned with a medical service provider compliant with all the relevant legislature as contained in the National Department of Health regulations to consult with pertaining to –

- (a) the advisability of the transportation by air of the patient;
- (b) the type of air ambulance aircraft required for the transport;
- (c) the level of patient care required;
- (d) medical equipment needed on board the aircraft; and
- (e) precautions to be taken during the flight and during ground transportation.

(2) Where the operator of an aircraft is also the medical service provider, such operator shall ensure that the medical aspects of the operation are compliant with all the relevant legislature as contained in the regulations of the Department of Health.

(3) The medical personnel on board the aircraft shall be responsible for patient care from the time of hand-over by the dispatching medical unit until the time of hand-over to the receiving medical unit.

(4) The pilot-in-command of the aircraft shall at all times be responsible for the safety of the aircraft operation.

23.3 MOTIVATION:

The medical aspects of the operation remain the responsibility of the medical services provider, and such medical service providers are regulated through the Department of Health. It should be borne in mind that this regulation has been drafted for operators intending to engage in

such services on a regular basis. "Ad-hoc" operations are covered under Part 91.

24. PROPOSAL TO AMEND REGULATION 138.06.3 OF THE REGULATIONS

It is hereby proposed to amend regulation 138.06.3 by the addition of sub-regulation (4):

24.1 CURRENT LEGISLATION:

Not existent

24.2 PROPOSED REGULATION:

(4) The Manual of procedure of the operator shall clearly state conditions under which landings at non-registered landing areas may be carried out.

24.3 MOTIVATION:

Although exempt from the prohibition to land on public roads, operators need to show their commitment to taking extreme care prior to such landings by detailing all such procedures in their Manual of procedure.

25. PROPOSAL TO SUBSTITUTE REGULATION 138.06.4 OF THE REGULATIONS

It is hereby proposed to substitute regulation 138.06.4 as follows:

25.1 CURRENT REGULATION:

"Loading and unloading

138.06.4 (1) The pilot-in-command of a helicopter engaged in an air ambulance operation shall only perform the loading or unloading of a patient with the rotors turning –

- (a) under strictly controlled circumstances;
- (b) in times of a serious emergency; and
- (c) if the loading or unloading of a patient is undertaken by appropriately trained personnel.

(2) Provision shall be made in the manual of procedure referred to in regulation 138.04.2 concerning circumstances and procedures for rapid patient loading and unloading.

- (3) Medical personnel shall inform the pilot-in-command regarding add-on equipment for calculation of the aircraft's mass and balance.

25.2 PROPOSED REGULATION:

"Loading and unloading

138.06.4 (1) The pilot-in-command of a helicopter engaged in an air ambulance operation shall allow the loading or unloading of a patient with the rotors turning only –

- (a) under strictly controlled circumstances overseen by appropriately trained personnel;
 - (b) in times of a serious emergency; and
 - (c) if the loading or unloading of a patient is undertaken by appropriately trained personnel.
- (2) In cases of fixed wing multi-engine aircraft, such loading or unloading shall only be undertaken provided the engine on the side of the exit is switched off
- (3) In cases of single-engine aircraft, such loading or unloading shall not be undertaken
- (4) Provision shall be made in the Manual of Procedure referred to in Regulation 138.04.2 concerning circumstances and procedures for rapid patient loading and unloading.
- (5) Medical personnel shall inform the pilot-in-command regarding add-on equipment for calculation of the aircraft's mass and balance.

25.3 MOTIVATION:

Hot loading and unloading is a risky procedure that needs to be undertaken only under strictly controlled conditions. In most instances hot loading is done in areas that the operator utilises on a regular basis, or can be reasonably anticipated by the operator, and it is possible to have trained personnel for the operation.

26. PROPOSAL TO SUBSTITUTE REGULATION 138.07.1 OF THE REGULATIONS

It is hereby proposed to substitute regulation 138.07.1 as follows:

26.1 CURRENT REGULATION:

“Infection control and fluid contamination

138.07.1 The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that –

- (a) each employee, before performing duty on, or cleaning an aircraft,
 - (i) is familiar with any infection control procedure which may apply in respect of the aircraft; and
 - (ii) has taken appropriate precautions before performing duty on or cleaning such aircraft, as prescribed by the Occupational Safety and Health Act (OSHA) and other relevant health acts, and set out in the Manual of Procedure referred to in Regulation 138.04.2; and
- (b) such aircraft shall not be operated unless it is equipped with measures to protect the aircraft against bodily fluid contamination.

26.2 PROPOSED REGULATION:

“Infection control and fluid contamination

138.07.1 The owner or operator of an aircraft engaged in an air ambulance operation shall ensure that –

- (a) every employee, before performing duty on, or cleaning an aircraft –
 - (i) is familiar with any infection control procedure which may apply in respect of the aircraft; and
 - (ii) takes appropriate precautions before performing duty on or cleaning such aircraft, as prescribed by the Occupational Safety and Health Act, 1993 (Act No. 85 of 1993) and other relevant health legislation, and set out in the manual of procedure referred to in Regulation 138.04.2; and
- (b) such aircraft shall not be operated unless it is equipped with measures to protect the aircraft against bodily fluid contamination.
- (c) the protection measures referred to in paragraph (b) above are set out in the manual of procedures and are compliant with the minimum standards as prescribed in the regulations issued by the Department of Health; and
- (d) only cleaning agents are used that are non-corrosive or non-abrasive to the aircraft.

26.3 MOTIVATION:

The responsibilities of the operator and the medical service provider in terms of infection control need to be clearly demarcated.

27. PROPOSAL TO DELETE REGULATION 138.08.2 OF THE REGULATIONS

It is hereby proposed to delete regulation 138.08.2.

27.1 CURRENT REGULATION:**“Maintenance of medical equipment**

138.08.2 (1) All medical equipment used in air ambulance operations shall be maintained according to the manufacturer's recommendations.

(2) The maintenance of such medical equipment is the responsibility of the medical service provider associated with the air ambulance operation.

27.2 MOTIVATION

Maintenance of medical equipment is regulated by the Department of Health. This regulation cannot be imposed on the operator, and thus the operator cannot be held accountable for something that the medical service provider is responsible for.
