

No. R. 29

16 January 2004

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

Under regulation 11.03.2(1)(a) of the Civil Aviation Regulations, the Chairperson of the Civil Aviation Regulations Committee (CARCOM) hereby publishes for comment the proposed amendments to the Civil Aviation Regulations, 1997, as set out in the schedules. Any comments or representations on the proposed amendments should be lodged in writing with the Chairperson of the Civil Aviation Regulations Committee, for attention Mr. Kim Gorringer or Mr. Herman Wildenboer, Private Bag X08, Waterkloof, 0145, fax: (012) 346-5979, or e-mail at gorringerk@caa.co.za or wildenboerh@caa.co.za, before or on 15 February 2004.

**PROPOSAL TO AMEND THE CIVIL AVIATION REGULATIONS OF 1997
(CAR)****Proposer**

Civil Aviation Authority
Private Bag X08
0145 Waterkloof

Explanation of interest of the Proposer

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

SCHEDULE 1**1.1 Proposal to amendment regulation 91.04.6 of Part 91 of the CAR**

It is proposed to substitute the following amended regulation 91.04.6 for the current regulation 91.04.6:

“Additional equipment for single-pilot operation under IMC or at night

91.04.6 (1) No owner or operator of an aircraft shall conduct single-pilot operations in an aircraft under IMC or at night unless –

- (a) the single pilot flying is equipped with a headset with boom microphone or equivalent,

and has a transmit button on the control wheel, joy stick or cyclic stick; and

- (b) if the aircraft is flown under instrument meteorological conditions, such aircraft has been certificated for single pilot IFR operations, and is equipped with a serviceable automatic flight control system with at least altitude hold and heading mode; or
 - (c) if the aircraft is flown at night under visual meteorological conditions, such aircraft is equipped with –
 - (i) in the case of aeroplanes, a serviceable automatic flight control system with at least altitude hold and heading mode; or
 - (ii) in the case of helicopters, a serviceable stability augmentation system.
- (2) Nothing in this regulation shall be construed to mean that a flight under IFR or at night for the purpose of flight instruction conducted by an appropriately rated flight instructor would be a single-pilot operation, or that such a training flight, if conducted in terms of any of the Parts 121, 127 or 135, would require to be operated by two qualified pilots.”

1.2 Motivation

- (a) The current regulation refers to a stability augmentation system (SAS) as an alternative to an automatic flight control system (AFCS). SAS is used in larger helicopters only, and not in aeroplanes at all. SAS does not provide altitude hold and heading control, as required for flight under IMC.

However, a stability augmentation system provides valuable assistance to a pilot conducting a flight at night under marginal visual meteorological conditions (VMC) when attitude in reference to a natural horizon or to objects on the surface is difficult to ascertain.

- (b) The current regulation refers to the instrument flight rules, while the additional workload is caused not so much by having to adhere to certain flight rules, but because of having to control the aircraft with sole reference to instruments, as is the case under IMC.
- (c) An expensive or serviceable automatic flight control system should not be a requirement for flight during the day under VMC, even if flown in accordance with IFR.
- (d) The current regulation may be construed to mean that a training flight towards the issue of a night rating or an

instrument rating is a single-pilot operation (only one qualified pilot on board), that requires the prescribed equipment, or that the relevant provisions of Parts 121, 127 or 135 would apply.

(Although the Parts 121, 127 and 135 do not apply to aviation training organisations (ATOs), most ATOs operate to similar conditions. In commercial air transport operations, conducted by night or according to IFR, two pilots are required to be on board. This is not required in respect of a Part 91 night or IFR operation, nor of a flight training operation.)

1.3 Current Regulation

“Additional equipment for single-pilot operation in accordance with IFR

91.04.6 No owner or operator of an aircraft shall conduct single-pilot IFR operations in the aircraft unless such aircraft has been certificated for such operations and is equipped with –

- (a) a stability augmentation or automatic flight control system with at least altitude hold and heading mode; and
- (b) a headset with boom microphone or equivalent and a transmit button on the control wheel, joy stick or cyclic stick.”

SCHEDULE 2

2.1 Proposal to amend regulations 121.02.1, 127.02.1 and 135.02.1 of Parts 121, 127 and 135 of the CAR

It is proposed to substitute sub-regulation (6) of the regulations 121.02.1, 127.02.1 and 135.02.1, as applicable *mutatis mutandis*, with the following revised sub-regulation:

“Composition of flight crew

121/127/135.02.1 (1) ...

...

(5) ...

- (6) For operations under IFR or by night in a [...] commercial air transport [...], an operator shall ensure that the minimum flight crew is two appropriately-rated pilots: Provided that [...].
- (7) The operator shall designate one pilot among the flight crew as pilot-in-command of a [...] commercial air transport [...] and the pilot-in-command may delegate the conduct of the flight to another suitably qualified pilot.”

2.2 Current regulation

“Composition of flight crew

121/127/135.02.1 (1) ...

...

(5) ...

(6) For operations under IFR or by night in a [...] commercial air transport [...], an operator shall ensure that the minimum flight crew is two pilots: Provided that [...].

(7) The operator shall designate one pilot among the flight crew as pilot-in-command of a [...] commercial air transport [...] and the pilot-in-command may delegate the conduct of the flight to another suitably qualified pilot.”

2.3 Motivation

The current sub-regulations (6) are occasionally construed to mean that only one of the two pilots needs to be qualified to operate the aircraft (the second pilot acting as a kind of safety pilot). That this was not the intention of the rule maker may be concluded from the existing sub-regulations (7) wherein the designated pilot-in-command may “delegate the conduct of the flight to another suitably qualified pilot”.

The insertion of the expression “appropriately-rated” in sub-regulations (6) removes any potential ambiguity.
