

PROPOSAL FOR THE AMENDMENT OF DOCUMENT SA-CATS 172 ISSUED UNDER THE CIVIL AVIATION REGULATIONS, 2011

PROPOSER

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PROPOSER'S INTEREST

This proposer has been established in terms of the Civil Aviation Act, 2009 (Act No. 13 of 2009), 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.

GENERAL EXPLANATORY NOTE

Words in **[bold and square brackets]** indicate deletions from the existing regulations.
Words underlined with a solid line indicate insertions in the existing regulations.

1. PROPOSAL FOR AMENDMENT OF DOCUMENT SA-CATS 172

1.1 It is hereby proposed to amend Document SA-CATS 172 Annexure F: ATS Standard and Procedures Manual by—

(a) the insertion in Section 2, Air Traffic Services, after 2.5.4 of Chapter 6 of the following provisions:

“Chapter 6: Altimeter Setting Procedure:

2.5 Assignment of cruising levels

2.5.5 Where an aircraft is operating on an established ATS route that extends through both controlled and uncontrolled airspace, and differing cruising level systems apply, any required change of cruising level shall, whenever practicable, be carried out within controlled airspace.

2.5.6 Where an aircraft enters a control area at a cruising level lower than the minimum level prescribed for a later segment of its route, the responsible ATSU shall issue an amended clearance to ensure compliance, even if no request has been made by the pilot.

2.5.7 Controlled flights shall be assigned cruising levels from the IFR levels published in CATS 91. This may include the standard tables or any approved modified tables for flights above FL 410. The normal association between track and cruising level does not need to be followed when an ATC clearance explicitly assigns a different level, or when an alternative is specified in the AIP.”;

(b) the deletion in Section 6, Separation Methods and Minima, 3.1.1(f) as follows:

“Chapter 1: General

3.1 Fuel Dumping

3.1.1 Other known traffic should be separated from the aircraft dumping fuel by:

(f) When possible, a specific sterile area should be assigned for fuel dumping, however, this should not take place below **[3000 AGL]** 6000 feet.”;

(b) the substitution for Section 6, Separation Methods and Minima, of the following provisions:

“Chapter 2: Vertical Separation

4 Horizontal Separation

4.2 The provisions on 4.1 do not preclude the ATS authority from prescribing alternative horizontal separation minima or additional conditions for their application, provided that an equivalent or higher level of safety is assured at all times.

Chapter 3: Lateral Separation

1 General

Lateral separation shall be applied so that the distance between aircraft along the portions of their intended routes is never less than a minimum distance. This distance accounts for navigational inaccuracies and includes a buffer, which is determined and incorporated as part of the lateral separation minima.

1.7 Where a route flown by an aircraft involves a specified turn which will result in the minimum lateral separation being infringed, another type of separation or another minimum shall be established prior to the aircraft commencing the turn.

1.8 Lateral separation may be applied by reference to the same or different geographic locations, or by using VOR, or GNSS on intersecting tracks or ATS routes.

Lateral separation between two aircraft exists when:

a) GNSS/GNSS: each aircraft is confirmed to be established on a track with zero offset between two waypoints and at least one aircraft is at a minimum distance from a common point; or

1.8.1 Before applying GNSS-based track separation, the controller shall confirm the following:

a) ensure that the aircraft is navigating using GNSS; and

b) in airspace where strategic lateral offsets are authorized, that a lateral offset is not being applied.

1.8.2 To reduce the risk of operational errors, waypoints from the navigation database or uplinked to the aircraft flight management system shall be used instead of manually entered waypoints when applying GNSS-based track separation. If operational constraints prevent the use of database waypoints, manually entered waypoints shall be limited to increments of half or whole degrees of latitude and longitude.

1.8.3 GNSS-based track separation shall not be applied in cases of pilot-reported receiver autonomous integrity monitoring (RAIM) outages.

1.8.4 GNSS receivers used for applying separation shall meet the requirements in Part 171 and be indicated in the flight plan.

1.8.5 Lateral separation of arriving and departing aircraft using published instrument flight procedures shall exist when:

a) the distance between any combination of RNAV 1 with RNAV 1, or RNP 1, RNP APCH or RNP AR APCH tracks is not less than 13 km (7 NM); or

b) the distance between any combination of RNP 1, RNP APCH or RNP AR APCH tracks is not less than 9.3 km (5 NM); or

c) the protected areas of tracks designed using obstacle clearance criteria do not overlap and provided operational error is considered.

1.8.6 Lateral separation shall be applied to aircraft operating on parallel or non-intersecting tracks or ATS routes in accordance with prescribed minima(in accordance with the table below). When achieving the required separation by assigning a lateral offset to one or both aircraft, vertical separation must be maintained by the controller until the manoeuvring aircraft is established on the assigned offset.

Table. Lateral separation of aircraft on parallel or non-intersecting tracks or ATS routes

b) VOR/GNSS: the aircraft using VOR is established on a radial to or from the VOR and the other aircraft using GNSS is confirmed to be established on a track with zero offset between two waypoints and at least one aircraft is at a minimum distance from a common point as specified.

<u>Minimum Spacing Between Tracks</u>	<u>Performance Requirements</u>	<u>Additional Requirements</u>
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<u>Airspace where SLOP is not authorized, or is only authorized up to 0.5 NM</u>	<u>Airspace where SLOP up to 2 NM is authorized</u>	Navigation	Communication	Surveillance	
93 km (50 NM)	93 km (50 NM)	RNAV 10 (RNP 10) RNP 4 RNP 2	93 km (50 NM) 93 km (50 NM) RNAV 10	<u>Types of communication other than direct controller-pilot VHF voice</u>	
<u>37 km (20 NM)</u>	<u>42.6 km (23 NM)</u>	<u>RNP 4</u> <u>RNP 2</u>	RSP 240	RSP 180	Conformance monitoring shall be ensured by establishing an ADS-C event contract specifying a lateral deviation change event with a maximum of 5 NM threshold and a waypoint change event
<u>37 km (20 NM)</u>	<u>42.6 km (23 NM)</u>	<u>RNP 2 or GNSS equipage</u>	<u>Types of communication other than direct controller-pilot VHF voice</u>		<u>While one aircraft climbs/descends through the level of another aircraft remaining in level flight</u>
<u>27.8 km (15 NM)</u>	<u>33.4 km (18 NM)</u>	<u>RNP 2 or GNSS equipage</u>	<u>Direct controllerpilot VHF voice communications</u>		
<u>16.7 km (9 NM)</u>	<u>22.3 km (12 NM)</u>	<u>RNP 4</u> <u>RNP 2</u>	<u>RCP 240</u>	<u>RSP 180</u>	<u>While one aircraft climbs/descends through the level of another aircraft remaining in level flight</u>
13 km (7 NM)	19 km (10 NM)	<u>RNP 2 or GNSS</u>	<u>Direct controllerpilot</u>		<u>While one aircraft</u>

		<u>equipage</u>	<u>VHF voice communications</u>		<u>climbs/descends through the level of another aircraft remaining in level flight</u>
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Motivation

Furthermore, the amendments address requirements arising from ICAO State Letters on Amendments 12 to PANS-ATM (Doc 4444). These amendments prompted a review of the current standards to ensure that provisions governing separation methods and minima, remain aligned with ICAO PANS-ATM (Doc 4444). The proposed updates will improve regulatory clarity, promote international harmonisation, and support the timely dissemination of safety-critical information to airspace users. It is therefore recommended that CARCOM considers and supports the proposed amendments.