



**Notice of Proposed Rule Making  
NPRM 24/14-43  
28 August 2024**

**Part 171  
Aeronautical Telecommunication  
Service Organisation – Certification  
and Operation**

**Consequential Amendments  
Nil**

**Docket24/14/CAR171/43  
2024 Rules Review**

Proposed Applicable 04<sup>th</sup> November 2024



## Background to the Civil Aviation Rules

The Papua New Guinea (PNG) Civil Aviation Rules (CARs) establish the *minimum* regulatory safety standards and boundary for participants to gain entry into, operate within, and exit the PNG civil aviation system. The PNG Rules are divided into Parts and each Part contains a series of individual rules which relate to a particular aviation activity.

Advisory Circulars accompany many rule Parts and contain information about standards, practices and procedures that the Director has been established to be an ‘*Acceptable Means of Compliance*’ (AMC) for the associated rule. An Advisory Circular may also contain Guidance Material (GMs) and Explanatory Material (EMs) to facilitate compliance with the rule requirements.

The objective of the Civil Aviation Rules system is to obtain a balance of responsibility between, on the one hand, the State and regulatory authority, the Civil Aviation Safety Authority of PNG (CASA PNG) and, on the other hand, those who provide services and exercise privileges in the civil aviation system. This balance must enable the State and regulatory authority to set standards for, and monitor performance of aviation participants whilst providing the maximum flexibility for the participants to develop compliance within the safety boundary.

Section 45 of the *Civil Aviation Act 2000* prescribes general requirements for participants in the civil aviation system and requires, amongst other things, participants to carry out their activities safely and in accordance with the relevant prescribed safety standards and practices. Section 69 of the Act allows the Minister to make ordinary rules for any of the following purposes:

- (a) The implementation of Papua New Guinea’s obligations under the Convention
- (b) To provide for a safe, sustainable, effective and efficient aviation services
- (c) The provision of aviation meteorological services, search and rescue services and civil aviation security programmes and services
- (d) Assisting aviation safety and security, including but not limited to personal security
- (e) Assisting economic development
- (f) Improving access and mobility
- (g) Protecting and promoting public health
- (h) Ensuring environmental sustainability
- (i) Any matter related or reasonably incidental to any of the following:
  - (1) The Minister’s functions and role under section 8 of the Act;
  - (2) The Authority’s general objects and functions under section 11 of the Act;
  - (3) The Authority’s functions in relation to safety under section 12 of the Act; and
  - (4) The Director’s functions and powers under section of 17 the Act
  - (5) The Director’s powers under section 52A, 53 and 54 of the Act
- (j) Any other matter contemplated by any provision of the Act.



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## 1. Purpose of this NPRM

The purpose of this Notice of Proposed Rulemaking (NPRM) is to put forward for consideration the proposed amendments to Civil Aviation Rule (CAR) Part 171 *from the Adoption of Amendment 93 to Annex 10 Volume I and adoption and transposition of Annex 10 Volume V*.

## 2. Background to the Proposal

### 2.1 General Summary

The last major amendment to Part 171 was Amendment 4 with editorial changes for clarity and with no substantive amendments proposed.

This NPRM proposes the Adoption of Amendment 93 to Annex 10 Volume I and adoption of Amendment 90 to Annex 10 Volume V. The Amendment 93 of Volume I supports the introduction of dual-frequencies for air navigation satellite systems with the provision of additional frequencies. The Amendment 90 of Volume V is in relation to the use of Aeronautical Radio Frequency Spectrum Utilization for Remote Pilot Aircraft Systems (RPAS).

The proposed change is due to ICAO State letter reference AN 7/66.2.2-21/17 and AN 7/62.2.3-23/26. The Adoption are on Appendix A and D.

### 2.2 NPRM Development

The outcome of this Rule making activity is to continue to ensure the ICAO standards in Annex 10 Volumes I & V are incorporated into the PNG regulations and rules, and the companion Advisory Circulars (ACs) for industry for the adopting of the latest international standards.

The incorporation into Part 171 applicable standards contained in Annex 10 Volume I and V is incomplete and is an ongoing process under the NPRM.

### 2.3 Key Stakeholders

The Civil Aviation Safety Authority identifies the following as key stakeholders for the proposed rule amendments contained in this NPRM:

- (a) The Civil Aviation Safety Authority
- (b) The Ministry for Transport and Civil Aviation
- (c) Aircraft operators
- (d) Aircraft maintenance organizations
- (e) Other aviation industry stakeholders

## 3. Issues Addressed during Development

No major issues addressed during the development of this NPRM only editorial amendments.

### 3.1 Consequential Amendments

No consequential changes and updates to other Parts.

### 3.2 Exemptions

Exemptions are not addressed in this NPRM



### 3.3 ICAO SARPS and Level of Risk to Papua New Guinea Aviation Safety

The ICAO Standards and Recommended Practices (SARPS) are applicable to international operations. Nevertheless, international regulatory standards and industry best practices have also been reviewed, adapted and incorporated in Part 171 for PNG.

### 3.4 Compliance Costs

Operations in compliance with the proposed amendments may impose additional costs.

## 4. Summary of changes

The following is the summary of proposed changes to Part 171:

- (1) 171.201 Additional Specifications and Requirements, New text inserted on point seven (7)
- (2) Appendix A, 4A, (b)(5) word “Volume I Chapter 3.7.3.1 amended – added digit 1 and wording changed to read “Volume 1 Chapter 3.7.3.1.1”
- (3) Appendix A, 4A, (b)(6) word “navigation signal” deleted and Volume I Chapter 3.7.3.2 amended - added digit 1 in between 3 and 2 and reads “Volume I Chapter 3.7.3.1.2.
- (4) Appendix A, 4A(b)(7), New text inserted.
- (5) Appendix A, 4A, (b)(8), New text inserted.
- (6) Addition of Appendix D – Aeronautical Telecommunication Radio Frequency Spectrum Utilization, Annex 10 Volume V

## 5. Legislative Analysis

### 5.1 Power to Make Rules

The Minister may make ordinary rules under sections 69, 70, 71 and 72 of the *Civil Aviation Act 2000*, for various purposes including implementing Papua New Guinea’s obligations under the Convention, assisting aviation safety and security, and any matter contemplated under the Act.

These proposed rules are made pursuant to:

- (a) Section 69(1)(a) which provides for the Minister to make rules for the implementation of Papua New Guinea’s obligations under the Convention;
- (b) Section 72(a) which provides for the Minister to make rule for the designation, classification and certification of-
  - (1) Air services;
  - (2) Aerodrome operators;
  - (3) Aviation security providers;
  - (4) Aviation training organizations;
  - (5) Aircraft design, manufacture, maintenance and supply organizations;
  - (6) Air traffic services;
  - (7) Aviation meteorological services;
  - (8) Aeronautical communication services; and



(9) Aeronautical procedures.

The proposed amendment of Part 171 complies with the requirements of the *Civil Aviation Act 2000* and does not contravene the Constitution, the Aerodrome (Business Concession) Act 2000, Civil Aviation (Air Craft Operator Liability) Act 1975, Aircraft Charges Act, Airport Departure Tax Act, Explosive Act 1952, Firearms Act 1978, Customs Act 1951, Plant, Disease and Control Act 1953, and the Environmental Act 2000.

The proposed Rule has been checked for language and compliance with the legal conventions of Papua New Guinea.

## 5.2 Matters to be taken into account

The development of this NPRM and the proposed rule changes take into account the matters under section 75 of the Act that the Minister must take into account when making ordinary rules including the following:

### 5.2.1 ICAO Standards and Recommended Practices

The proposed rule amendments comply with applicable sections of the International Civil Aviation Organization (ICAO) Annexes listed in 3.3 above.

### 5.2.2 Assisting Economic Development

The proposed rule amendments will have no detrimental impact on economic development, and in some cases will reduce costs incurred by the aviation industry.

### 5.2.3 Assisting Safety and Personal Security

The proposed rule amendments will maintain safety levels in respect to clarifying and maintaining common standards of definitions, abbreviations and units of measurements used throughout the industry.

### 5.2.4 Improving Access and Mobility

The proposed rule amendments will have no impact on access and mobility.

### 5.2.5 Protecting and Promoting Public Health

The proposed rule amendments will have no impact on protecting and promoting public health.

### 5.2.6 Ensuring Environmental Sustainability

The proposed rule amendments will have no impact on environmental sustainability.

## 6. Submissions on the NPRM

### 6.1 Submissions are invited

Interested persons are invited to participate in the making of the proposed rule amendment by submitting written data, views, or comments. All submissions will be considered before final action on the proposed rule amendment is taken. If there is a need to make any significant change to the rule requirements in the proposal as a result of the submissions received, then interested people may be invited to make further submissions.



## 6.2 Examination of submissions

All submissions will be available in the rules docket for examination by interested persons both before and after the closing date for submissions. A consultation summary will be published with the final rule.

Submissions may be examined by application to the Docket Clerk at the Civil Aviation Safety Authority between 8:30 am and 3:30 pm, on weekdays, except statutory holidays.

## 6.3 Disclosure

Submitters should note that any information attached to submissions will become part of the docket file and will be available to the public for examination at the Civil Aviation Safety Authority offices.

Submitters should state clearly if there is any information in their submission that is commercially sensitive or for some other reason the submitter does not want the information to be released to other interested parties.

## 7. How to make submission

Submissions may be sent by the following methods:

By Mail: Docket Clerk (NPRM 2414/171-43)  
Civil Aviation Safety Authority  
PO Box 1941

**BOROKO**  
National Capital District

Delivered: Docket Clerk (NPRM 2414/171-43)  
Civil Aviation Safety Authority  
Morea-Tobo Road  
Six Mile, Jacksons Airport  
Port Moresby NCD

By Email: Docket Clerk (NPRM 2414/171-43)  
[rules@casapng.gov.pg](mailto:rules@casapng.gov.pg)

### 7.1 Final date for submissions

Comments must be received before **COB, 01<sup>st</sup> October 2024.**

### 7.2 Availability of the NPRM

Any person may obtain a copy of this NPRM from CASA web site: [www.casapng.gov.pg](http://www.casapng.gov.pg)  
or at a cost from

Docket Clerk  
Civil Aviation Safety Authority Headquarter  
Building 1, Level 1  
Morea-Tobo Road  
Six Mile, Jacksons Airport  
Port Moresby NCD



### **7.3 Further information**

For further information, contact:

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## Proposed Rule Amendments

### Part 171

## Aeronautical Telecommunication Service Organization – Certification and Operation

### Subpart D — Facility Specifications and Requirements

#### 171.201 Additional Specifications and Requirements

The following specifications and requirements are applicable to the aeronautical facilities referred to in rule 171.53(a)(1)-

- (7) Each radio frequencies allocated in Radio Frequency Spectrum for Distress, frequencies below and above 30MHz and frequencies used for RPAS C2 Link Communication Services listed in the aeronautical telecommunication service certificate holder's exposition must comply with the additional specification and requirements listed in Appendix D

### Appendix A - Radio Navigation Aids

#### A.4. Global Navigation Satellite System (GNSS)

##### (b) GNSS Elements

The GNSS navigation service must be provided using various combinations of the following elements installed on the ground, on satellites and/or on board the aircraft:

- (1) Global Positioning System (GPS) that provides the Standard Positioning Service (SPS) as defined in ICAO Annex 10, Volume 1 Chapter 3.7.3.1.1;
- (2) Global Navigation Satellite System (GLONASS) that provides the Channel of Standard Accuracy (CSA) ~~navigation signal~~ as defined in ICAO Annex 10, Volume 1 Chapter 3.7.3.1.2;
- (3) Galileo that provides a single- and dual-frequency Open Service (OS) as defined in ICAO Annex 10, Volume 1 Chapter 3.7.3.1.3;
- (4) BeiDou Navigation Satellite System (BDS) that provides the BDS Open Service (BDS OS) as defined in ICAO Annex 10, Volume 1 Chapter 3.7.3.1.4;
- (5) Aircraft-based augmentation system (ABAS) as defined in ICAO Annex 10, Volume 1, 3.7.3.3;
- (6) Satellite-based augmentation system (SBAS) as defined in ICAO Annex 10, Volume 1, 3.7.3.4;
- (7) Ground-based augmentation system (GBAS) as defined in ICAO Annex 10, Volume 1, 3.7.3.5;
- (8) Aircraft GNSS receiver as defined in ICAO Annex 10, Volume 1, 3.7.3.6.



## **Appendix D – Aeronautical radio frequency spectrum utilization**

### **D.1 Definitions**

Definitions relating to aeronautical radio frequency spectrum utilization as prescribed in ICAO Annex 10, Volume V.

### **D.2 Distress frequencies as prescribed in ICAO Annex 10, Volume V.**

- (a) Frequencies for emergency locator transmitters (ELYTs) for search and rescue.
- (b) Search and rescue frequencies.

### **D.3 Utilization of Frequencies below 30 MHz as prescribed in ICAO Annex 10, Volume V.**

- (a) Method of operations.
- (b) NDB frequency management.

### **D.4 Utilization of Frequencies above 30 MHz as prescribed in ICAO Annex 10, Volume V.**

- (a) Utilization in the frequency band 117.975 – 137.000 MHz
- (b) Utilization in the frequency band 108 – 117.975 MHz
- (c) Utilization in the frequency band 960 – 1 215 MHz for DME
- (d) Utilization in the frequency band 5 030.4 – 5 150.0 MHz

### **D.5 Utilization of Frequencies for RPAS C2 Link Communication Services as prescribed in ICAO Annex 10, Volume V.**

#### **(a) Satellite-based C2 Link systems**

- (1) Satellite-based RPAS C2 Link systems must operate in the following frequency bands:
  - (i) frequency bands with an appropriate allocation to aeronautical safety services under the aeronautical mobile satellite (route) service (AMS(R)S). Frequency bands that meet these criteria and may be used for RPAS C2 Links, subject to the conditions associated with the allocations, are: 1 610 – 1 626.5 MHz and 5 000 – 5 150 MHz;
  - (ii) frequency bands with an allocation to aeronautical safety services under the mobile-satellite service (MSS) where AMS(R)S operations have priority access. Frequency bands that meet these criteria and may be used for RPAS C2 Links are: 1 545 – 1 555 MHz and 1 646.5 – 1 656.5MHz;



(iii) frequency bands with an allocation to the fixed satellite service (FSS) where the conditions in ITU Resolution 155 (WRC-15) are met. Frequency bands in which this resolution applies are:

- 10.95 – 11.2 GHz (space-to-Earth);
- 11.45 – 11.7 GHz (space-to-Earth);
- 11.7 – 12.2 GHz (space-to-Earth) in Region 2;
- 12.2 – 12.5 GHz (space-to-Earth) in Region 3;
- 12.5 – 12.75 GHz (space-to-Earth) in Regions 1 and 3;
- 19.7 – 20.2 GHz (space-to-Earth);
- 14.0 – 14.47 GHz (Earth-to-space); and
- 29.5 – 30.0 GHz (Earth-to-space) with an ITU satellite earth station class of “UG”.

- (2) Remotely piloted aircraft (RPA) and remote pilot station (RPS) earth stations must operate within the notified and recorded technical parameters of the associated satellite network, including specific or typical earth stations as published by the ITU.
- (3) RPA and RPS earth stations operating in accordance with 5.1.1 (c) must use FSS assignments that have been successfully coordinated under Article 9 of the ITU Radio Regulations and recorded in the Master International Frequency Register (MIFR) with a favorable finding under Article 11 of the ITU Radio Regulations including Nos. 11.31, 11.32 or 11.32A where applicable, and except those assignments that have not successfully completed coordination procedures under No. 11.32 by applying Appendix 5 paragraph 6.d.i of the ITU Radio Regulations.

**(b) Terrestrial C2 Link communication systems**

- (1) Terrestrial RPAS C2 Link systems must operate in bands allocated to the Aeronautical Mobile (Route) Service (AM(R)S). Frequency bands with such allocations include 113.250 MHz and 136.925 MHz (common signaling frequencies for VDL Mode 4), 960-1164 MHz and 5030-5091 MHz. The operation of the C2 Link within any of these bands must be implemented so as to be compatible with the systems currently using these allocations. Compatibility must be ensured through the development and application of necessary SARPs and determined on the basis of regional air navigation agreements.