CIVIL AVIATION AUTHORITY
OF NEW ZEALAND
Te Mana Rererangi Tūmatanui o Aotearoa

Notice of Requirement NTC 91.263

Revision 1

RNP/RNAV Definitions

Preliminary

The Director of Civil Aviation issues the following definitions relating to the requirements for the use of the RNP and RNAV navigation specifications under section 28(5) of the Civil Aviation Act 1990 and Civil Aviation Rule 91.263(1).

Purpose

The purpose of this notice is to provide the definitions for certain terms used in the RNP and RNAV navigation specification notices.

Rule 91.263(a)(4) provides for the Director to determine the definitions and abbreviations to give full meaning to the terms used in a notice.

General

Civil Aviation Authority (CAA) notices contain approvals and requirements including the detail about the approvals, standards, conditions, procedures and technical specifications that have been approved or determined by the Director under the Civil Aviation Rules. These details must be complied with by parties to whom it applies. They apply in particular circumstances to particular aviation document holders as specified in the notice.

CAA notices are issued under Civil Aviation Rules in accordance with section 28(5) of the Civil Aviation Act. This section permits the Minister of Transport to make ordinary rules, and to specify any terms and conditions within the rules:

- to require a matter to be determined, or undertaken or approved by the Authority, the Director or another person; or
- to empower the Authority, Director, or another person to impose requirements or conditions as to the performance of any activity, including (but not limited to) any procedures to be followed.

Notices support a performance-based approach to regulation, and improve the flexibility and responsiveness of the Civil Aviation Rules. They may be used where performance-based regulation is the appropriate way to achieve the desired regulatory outcome, for example, in circumstances where new technological changes or challenges require more flexibility than prescribing requirements in the rules (and rulemaking may get quickly out-dated), or where there is a need to respond to safety issues which the rules do not adequately deal with.

Related Rules

Civil Aviation Rules 91.261, 91.263, 91.263B and 91.263C

Effective Date

This notice comes into effect on 21 December 2022.

Issue of CAA Notice

21/12/2022

Signed by
Director of Civil Aviation

Date

Revision History

Revision 1	Original version

RNP/RNAV Definitions

1. Application

(a) The definitions and abbreviations contained in this notice apply to the notices made by the Director under rule 91.263.

(b) A term which is used in any of the notices referred to in paragraph (a) that is not defined in this notice but defined in the Civil Aviation Act or the Civil Aviation Rules, has the same meaning assigned to it under the Act or the Rules.

2. Definitions:

In this notice, unless the context otherwise requires –

Aircraft-based augmentation system means an augmentation system that augments and/or integrates the information obtained from the other GNS elements with information available on board the aircraft:

Approach procedure with vertical guidance refers to an instrument procedure which utilises lateral and vertical guidance but does not meet the requirements established for precision approach and landing operations:

Area navigation means a method of navigation which permits aircraft operation on any desired flight path within the coverage of station-referenced navigation aids or within the limits of the capability of self-contained aids, or a combination of these:

Cyclic redundancy checks refer to a mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data:

Receiver autonomous integrity monitoring refers to a form of ABAS whereby a GNSS receiver processor determines the integrity of the GNSS navigation signals using only GPS signals or GPS signals augmented with altitude (baro-aiding):

RNAV operations means aircraft operations using area navigation for RNAV applications:

RNP operations means aircraft operations using an RNP system for RNP navigation applications:

RNP route means an ATS route established for the use of aircraft adhering to a prescribed RNP navigation specification:

RNP system means an area navigation system which supports on-board performance monitoring and alerting:

Satellite-based augmentation system refers to a wide coverage augmentation system in which the user receives augmentation information from a satellite-based transmitter:

Standard instrument arrival refers to a designated IFR arrival route linking a significant point, normally on an ATS route, with a point from which a published instrument approach procedure can be commenced:

Standard instrument departure refers to a designated IFR departure route linking the aerodrome or a specified runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en-route phase of a flight commences.

3. Abbreviations:

In this notice, unless the context otherwise requires -

ABAS means aircraft-based augmentation system:

ADS-C means automatic dependent surveillance — contract:

AFCS means automatic flight control system:

AFM means aircraft flight manual:

AHRS means altitude and heading reference system:

AIRAC means aeronautical information regulation and control:

APV means approach procedure with vertical guidance:

A-RNP means advanced – RNP:

ANP means actual navigation performance:

ANSP air navigation service provider:

AP means autopilot:

APCH means approach:

A-RNP means advanced RNP:

ARP means aerodrome reference point:

ASE means altimetry system error:

ATM means air traffic management:

Baro-VNAV means barometric VNAV:

B-RNAV means basic RNAV:

CA means course to altitude:

CDI means course deviation indicator:

CDU means control and display unit:

CF means course to fix:

CFIT means controlled flight into terrain:

CRC means cyclic redundancy check:

CRM means cockpit resource management:

CFR means Code of Federal Regulations:

DB means data block:

DCPC means direct controller-pilot communications:

DF means direct to fix:

EASA means European Aviation Safety Agency:

ECAC means European Civil Aviation Conference:

EFIS means electronic flight instrument system:

EHSI means electronic horizontal situation indicator:

EPE means estimated position error:

EPU means estimated position uncertainty:

EUROCAE means European Organisation for Civil Aviation Equipment:

EUROCONTROL means European Organisation for the Safety of Air Navigation:

FA means fix to altitude:

FAA means Federal Aviation Administration:

FAF means final approach fix (or point):

FAS means final approach segment:

FDE means fault detection and exclusion:

FGS means flight guidance system:

FM means fix to manual termination:

FMS means flight management system:

FOM means flight operations manual:

FOSA means flight operational safety assessment:

FPAP means flight path alignment point:

FRT means fixed radius turn:

FTE means flight technical error:

FTP means fictitious threshold point:

GBAS means ground based augmentation system:

GNSS means global navigation satellite system:

HIL means horizontal integrity limit:

HM means holding to manual termination:

HPL means horizontal protection level:

HSI means horizontal situation indicator:

IAF means initial approach fix:

IF means intermediate fix:

INS means inertial navigation system:

IRU means inertial reference unit:

JAA means Joint Aviation Authorities:

JTSO means Joint Technical Standard Order:

LNAV/VNAV means lateral navigation/vertical navigation:

LOA means letter of authorisation or letter of acceptance:

LOE means line-oriented evaluation:

LOFT means line-oriented flight training:

LOI Loss of integrity:

LP means localiser performance:

LPV means localiser performance with vertical guidance:

LTP means landing threshold point:

MAHF Missed approach holding fix:

MAPt means missed approach point:

MCDU means multifunction control and display unit:

MLS means microwave landing system:

NAA means national airworthiness authority:

NAVAID means navigation aid:

NSE means navigation system error:

OEM means original equipment manufacturer:

PDE means path definition error:

POH means pilot operating handbook:

PSE means position error:

RAIM means receiver autonomous integrity monitoring:

RF means radius to fix:

RNAV means area navigation:

RTCA means Radio Technical Commission for Aeronautics:

SBAS means satellite-based augmentation system:

SID means standard instrument departure:

SIS means signal-in-space:

STAR means standard instrument arrival:

SBAS means satellite-based augmentation system:

SID means standard instrument departure:

SIS means signal-in-space:

STAR means standard instrument arrival:

TCH means threshold crossing height:

TF means track to fix:

TLS means target level of safety:

TOAC means time of arrival control:

TOGA means take-off/go-around:

TSE means total system error:

VA means heading to an altitude:

VI means heading to an intercept:

VM means heading to a manual termination:

VNAV means vertical navigation:

VOR VHF means omnidirectional radio range:

VTF means vector to final: