



## **Circular 359**

*Development of Procedures for Visual  
Manoeuvring with Prescribed Tracks  
using Required Navigation Performance*

# Circular 359

## *Development of Procedures for Visual Manoeuvring with Prescribed Tracks using Required Navigation Performance*

- ***Development of Required Navigation Performance (RNP) Visual Maneuvering with Prescribed Track (VPT) Procedures***



# Foreword

- This guidance has been developed to provide best practice and assistance to States and operators when developing procedures including an **instrument path followed by a visual path** defined by required navigation performance (RNP) waypoints **to promote stabilized approach** and prescribed visual manoeuvring to a designated runway.

# Objective

Safety

Noise Issues

Fuel Saving

Efficiency

Short Final APP  
Stabilization

# Purpose and Scope

- The guidance is presented in two parts
  - **Part I** Process for developing procedures jointly with the ANSP and a lead operator, which are intended to be published and subject to ATC clearances.
  - **Part II** deals with operator proprietary procedures, which are intended solely for internal use and which remain transparent to the local ANSP.

# Process Outline

- There are two scenarios which could lead to the development of an RNP (VPT) procedure:
  - a) an **ANSP wishes** to implement an RNP (VPT) procedure for traffic flow, environment or other reasons;
  - b) an **operator requests** the development of an RNP (VPT) procedure for increasing the accessibility to a certain aerodrome, typically where an RNP AR approach procedure already exists.

# Process Outline

The development of such an RNP (VPT) procedure should typically be as:

- a) if **ANSP led**, first design an RNP AR approach procedure;  
if **operator led**, there will likely be an existing RNP AR procedure to review;

# Process Outline

b) coordination between ANSP and development operator: determine whether the RNP AR approach procedure is suitable as an RNP (VPT) procedure, typically by reviewing the characteristics of the RNP AR procedure with respect to:

- 1) specific design characteristics of the RNP AR procedure;
- 2) potential positioning of visual fix (VF) and missed approach route;
- 3) consideration of intended fleet capability; and
- 4) ATM considerations;

# Process Outline

- c) design the RNP (VPT) procedure;
- d) test and validate the RNP (VPT) procedure; and
- e) publish the RNP (VPT) procedure, **restricted to authorized operators**, specifying the applicable fleet.



# Authorization

## 2.7.1 Authorization process for operators

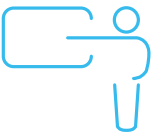
2.7.1.1 Operators wishing to conduct this type of approach should **prepare** the following **evidence**:

- a) details of the operational assessment process used to determine the ability to operate on each RNP (VPT) procedure, with the applicable aircraft types and variants;



# Authorization

- b) **training** requirements **for pilots** to operate on these procedures;
- c) operating procedures detailing normal and contingency procedures to be followed; and
- d) the process for recording the operator's review, assessment and reporting on the procedures.



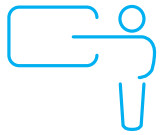
# Authorization

**2.7.1.2 An authorization to conduct RNP (VPT) procedure is required. This should be an authorization of the operator's processes (safety assessment, aircraft eligibility, training, operating procedures) and not a procedure-specific authorization.**



# Authorization

2.7.1.3 The proposed operators process is defined in the checklist in **Appendix A**. The State of the Operator should be satisfied that the operator has the capability to conduct all parts of the process, in particular the flyability assessment and review of the navigation database, before granting such an authorization.

A stack of four overlapping checklists. The top checklist is titled 'CHECKLIST' and contains sections for 'Aircraft eligibility' and 'Operational assessment'. The second checklist is titled 'Operational assessment' and lists 'Characteristics of the procedure affecting flight' and 'Operating conditions'. The third checklist is titled 'Flyability of the procedure' and lists 'Flyability of the procedure' and 'Flight crew training'. The bottom checklist is titled 'Operating procedures' and lists 'Flight preparation procedures to ensure the availability of RNP operational capability must be established' and 'Minimum equipment list (MEL)'.

item	Description / notes
1. Aircraft equipment	
2. Operating conditions	
3. Failure conditions	
4. Flight crew operations	
5. Flyability of the procedure	
6. Flight crew training	
7. Reportable event	
1. Aircraft certified for:	
2. The RNP (VPT) procedure must be coded in the navigation database and selected by name (pilots are not allowed to build or modify these procedures manually)	
3. For procedures designed in accordance with Part I of this circular, the RNP (VPT) must be requested at first contact with the controller and can only be initiated on ATC clearance.	
4. For procedures designed in accordance with Part I of this circular, the pilot must ensure that the required weather conditions (ceiling and visibility) are met before requesting the RNP (VPT) procedure.	
5. Task sharing by the flight crew includes the continuous maintenance of visual references from the approach must be respected.	
6. After the VF, the stabilization criteria for a visual approach must be respected.	
7. Reportable event	
1. Phraseology	
2. Theoretical training	
3. RNP (VPT) practical training	
1. Flight preparation procedures to ensure the availability of RNP operational capability must be established	
2. The RNP (VPT) procedure must be coded in the navigation database and selected by name (pilots are not allowed to build or modify these procedures manually)	
3. For procedures designed in accordance with Part I of this circular, the RNP (VPT) must be requested at first contact with the controller and can only be initiated on ATC clearance.	
4. For procedures designed in accordance with Part I of this circular, the pilot must ensure that the required weather conditions (ceiling and visibility) are met before requesting the RNP (VPT) procedure.	
5. Task sharing by the flight crew includes the continuous maintenance of visual references from the approach must be respected.	
6. After the VF, the stabilization criteria for a visual approach must be respected.	
7. Reportable event	
1. Phraseology	
2. Theoretical training	
3. RNP (VPT) practical training	



## **Circular 359**

**Guía regional sobre implantación de procedimientos  
PBN para pistas de vuelo visual**

# Circular 359

## Guía Regional



# Propósito

El propósito de la presente Guía Regional es proveer un conjunto de lineamientos armonizados para orientar a los Estados en el proceso de **implantación de procedimientos PBN a pistas de vuelo visual**, dirigida a los explotadores de aeronaves, proveedores de servicio PANS-OPS y proveedores de servicios ATS.

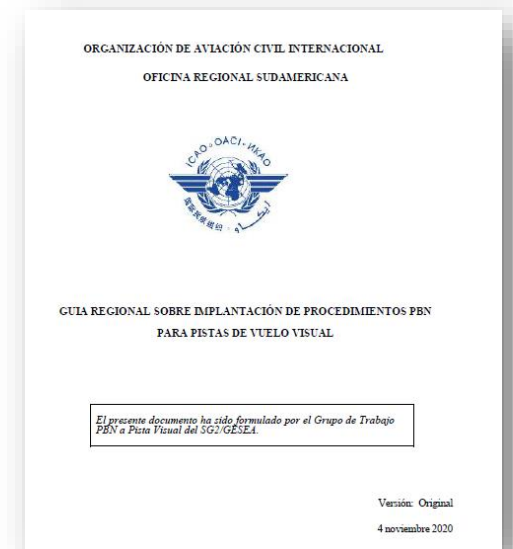


# Alcance

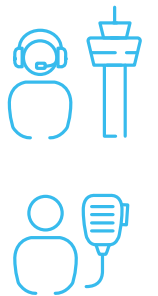
Esta guía aborda **únicamente** procedimientos de vuelo PBN en base a una aproximación directa que se realiza **llegando a una pista de vuelo visual**.



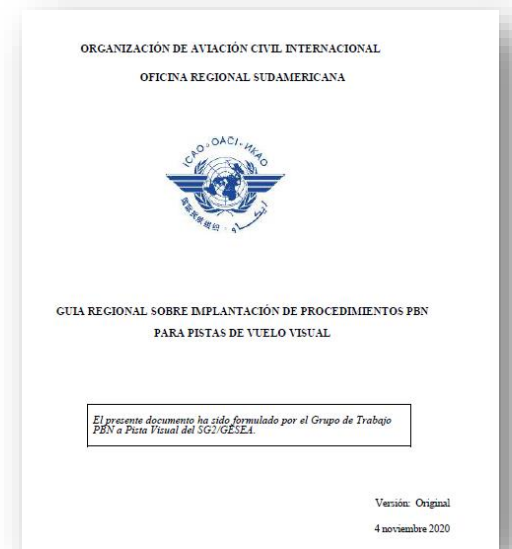
- **Pista de vuelo visual**
- IFP Instrumental DOC 8168 o DOC 9905



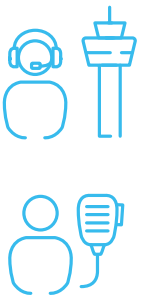
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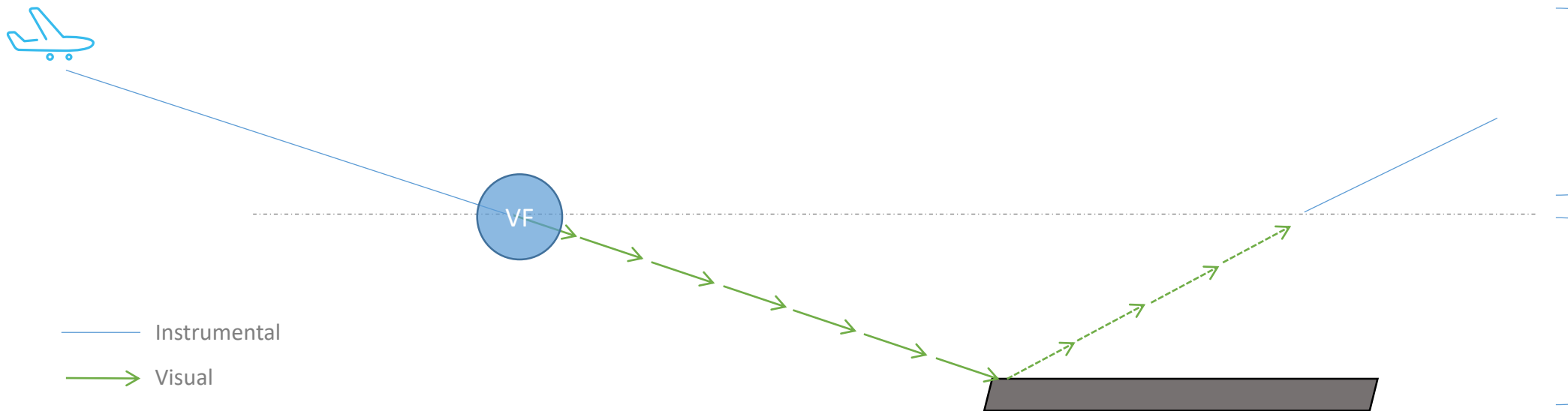
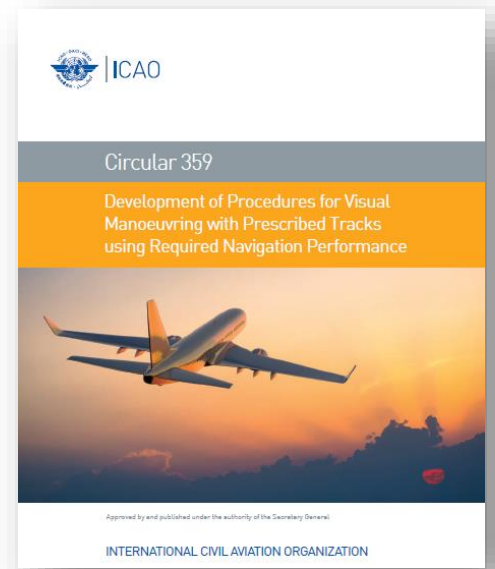
- **Pista de vuelo visual**
- IFP Instrumental DOC 8168 o DOC 9905



OCH 500 ft o mayor



- **Pista de vuelo instrumental**
- IFP Instrumental DOC 8168 hasta VF posterior DOC 9905





**¿Consultas?**