Safety Information Bulletin

Operations

SIB No.: 2025-05

Issued: 27 May 2025

Subject: **Development and Usage of Procedures for Visual Manoeuvring with Prescribed Tracks Relying on Required Navigation Performance**

Ref. Publications:

- Commission Regulation (EU) No 965/2012 of 05 October 2012.
- Commission Implementing Regulation (EU) 2017/373 of 01 March 2017.
- ICAO Manual 'Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual' (Doc 9905), 3rd Edition dated 2021.
- ICAO Manual 'Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS), Volume II – Construction of Visual and Instrument Flight Procedures' (Doc 8168), 7th Edition dated 2020.
- ICAO Circular 'Development of Procedures for Visual Manoeuvring with Prescribed Tracks using Required Navigation Performance' (Cir 359).

Applicability:

Aircraft operators, Air Navigation Service Providers (ANSP), aerodrome operators, flight procedure designers, Design Approval Holders (DAH), and National Competent Authorities (NCAs).

Reason:

Traditional visual manoeuvring procedures, particularly circling approaches, require pilots to rely heavily on visual cues. This can be challenging in adverse weather conditions, near complex terrain, or when the flight crew is not familiar with the aerodrome environment and noise-sensitive areas.

The visual segment of a Required Navigation Performance (RNP) Visual manoeuvre with Prescribed Track (VPT) is a visual procedure that allows for more structured and precise visual manoeuvring, whereby the Flight Management System provides horizontal and vertical guidance to be followed during the approach. Thus, it reduces pilot workload and enhances safety and the predictability during visual manoeuvring – provided it is properly designed and coded in the aircraft navigation database, and crews are trained appropriately. However, risks are also existing and need to be properly assessed and effectively mitigated.

A RNP (VPT) procedure may be published by the aerodrome (public approach procedure[1], e.g. in the Aeronautical Information Publication (AIP)) or developed by the aircraft operator as 'Operator Proprietary Procedure' (OPP)[2]. In both cases, an RNP (VPT) can be used to:

- Offer a Flight Management System (FMS) based guidance approach that substitutes a traditional visual approach to improve operational safety and possibly efficiency by providing Air Traffic Control (ATC) with a predictable path to assist with scheduling arrivals.

[1] Term used in the EASA regulatory framework (i.e. SPA.PBN.100, point (c)).
[2] It is also called 'private approach procedure' in SPA.PBN.100, point (c).

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

- Possibly reduce the environmental impact (e.g. it can be used to reduce noise impact to local residents).
- Enhance a visual manoeuvre with prescribed tracks (i.e. circling with prescribed track).
- Replace the whole circling manoeuvre (usually circling without prescribed track) with an RNP-based approach procedure with a 3D-guided final part flown in visual conditions.
- Allow a non-RNP Authorisation Required (RNP AR) approved operator to fly an overlay of an existing RNP AR approach when there is a corresponding RNP (VPT) published by the NCA (see Part I of the ICAO Cir 359).

This Safety Information Bulletin (SIB) is issued to inform stakeholders about best practices, recommendations and potential risks in relation to the development and use of Procedures for Visual Manoeuvring with Prescribed Tracks (VPT) using RNP.

Aircraft operators are encouraged to consider this SIB when introducing RNP (VPT) procedures into operational practices, particularly in environments with challenging terrain or complex airspace, while competent authorities should consider the SIB when assessing these procedures and overseeing operators. EASA is monitoring the implementation of RNP (VPT) and may consider future rulemaking actions.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Safety Directive under Commission Regulation (EU) No 965/2012, Annex II, ARO.GEN.135.

Recommendations:

All – General

Area navigation (RNAV) visual and RNP visual procedures should be converted to RNP (VPT).
Available RNP (VPT) should be published by NCAs in the AIP. Alternatively, aircraft operators may also develop an OPP. In this case, the aircraft operators may apply the following options:

- **Establishing an RNP (VPT) overlaying**[3] **an existing approach procedure**[4] where the visual fix[5] (VF) and existing approach minima are located in the same place (in accordance with PART II of the ICAO Cir 359). The operator may develop an RNP (VPT) as an OPP that overlays an existing approach procedure, typically for circling or circling with prescribed track, but it can also be used in non-directional beacon (NDB) or very high frequency omnidirectional range (VOR) approach, especially on non-straight-in approaches. The VF is located at the same place as the existing MDA/MDH/DA/DH. Since there is no difference in the flight path between the existing approach procedure and the RNP (VPT) OPP, it is not necessary to inform the aerodrome authority and the ANSP. However, the State of the Operator should be satisfied with the operator's process to develop such OPPs, which means the operator should demonstrate to its NCA that it has sufficient capacity to oversee the safe development and operation of these procedures[6].
- **Establishing an RNP (VPT) based on an RNP AR** (in accordance with PART I of the ICAO C.359). The aircraft operator is not required to have an RNP-AR approval to perform these procedures. The baseline for determining obstacle clearance should be the one for RNP AR APCH outlined in the ICAO

[3] During the overlay approach, the underlying conventional navigation aid (e.g. VOR, or NDB) must remain active and be monitored. This is a key difference with the RNP substitution, where the navaid does not need to be active or monitored.
[4] It includes conventional and non-conventional approach procedures such as VOR, NDB, RNAV Baro VNAV, etc followed by a visual path.
[5] The fix, marked by a waypoint, on the RNP (VPT) procedure where the pilot must decide if the weather conditions are sufficient to continue along the RNP (VPT) path visually or follow the missed approach – ref. ICAO Cir 359 Glossary.
[6] ICAO Cir 359, part II, chapter 4, point 4.2.

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

Doc 9905, and an instrument flight procedure design provider[7] is required for the development of these RNP (VPT) procedures. The operator should request acceptance from its NCA, the local authority where the aerodrome is located, and the local ANSP before the procedure is used. The operator and the involved authorities should focus, amongst other things, on the definition of the Visual Fix/Point before which the procedure may be flown in Instrument Meteorological Conditions (IMC) and at which visual reference must be acquired. The NCA should approve the operator's process to develop such OPPs. The operator should demonstrate to its competent authority that it has sufficient capacity to oversee the safe development and operation of these procedures.

Aircraft operators should:

1. Establish dedicated standard operating procedures (SOPs). Establish SOPs for RNP (VPT), as well as RNAV visual and RNP visual, when they are still in use. These SOPs should, amongst others:
   - Follow DAH/Aircraft Flight Manual[8] procedures;
   - Include limitations resulting from the risk assessment;
   - Define actions for contingencies; and
   - Define the level of automation to be used[9].

2. Develop a risk assessment and the relevant mitigations, and, when necessary, contingency procedures for the use of these approach procedures. The risk assessment should at least address the following issues:
   - Errors in the coding of the waypoints.
   - Execution of the RNP(VPT) not in daylight conditions.
   - Human factors, among others in relation to visual illusions.
   - GNSS jamming/spoofing.
   - Pressure to continue the approach also when visual conditions are lost.
   - Overconfidence in the automation and navigation systems.
   - Mistakes in comparing waypoints between FMS and charts (in relation to fly-over/fly-by waypoints, coordinates, altitude, speeds).
   - Outdated terrain and obstacle database.
   - Risk that operators/crews might fly RNP-AR procedures even though not validated and tested.
   - Different conventions in naming RNP(VPT) procedures worldwide, which are causing confusion.
   - Lack of standardisation of approach charts (i.a.w. Cir 359 pt. 2.6.1).
   - Inadequate monitoring by the Pilot Monitoring.
   - Inadequate application of temperature correction.
   - Inadequate QNH setting.

[7] In accordance with ANNEX XI - PART-FPD (specific requirements for providers of flight procedure design services), Regulation (EU) 2017/373 or outside European Union, in accordance with ICAO Annex 11 – Air Traffic Services (see part I, chapter 2, point 2.2.4 of the ICAO Cir 359).

[8] The regulatory basis that may be used is CAT.OP.MPA.126.

[9] For example, for Airbus platforms, the operator should clarify whether the 500 feet limitation to disconnect autopilot in visual approach applies or it should be the final approach mode (FINAL APP) that usually allows 250 ft.

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

- Lack of adequate missed approach and go-around procedures.
- Lack of vertical guidance system (e.g. precision approach path indicator (PAPI), etc).

3. Additionally, a specific safety risk assessment for each approach procedure should be established. The operator should establish and implement a monitoring function of RNP (VPT) operations in accordance with ORO.GEN.200 (management system) to:
   - Monitor the implementation[10] of the procedure and address any emerging risks.
   - Encourage pilot's feedback, reporting and analysis of any occurrence or risk to continuously improve the procedures.

In addition:

Aircraft operators that have an RNP AR APCH approval should:

4. Assess the RNP (VPT) procedure in accordance with their RNP AR assessment and operational assurance procedures (e.g. Flight Operational Safety Assessment (FOSA), etc.). Note that according to ICAO Cir 359, the RNP (VPT) flight procedure design should have been developed in accordance with PANS-OPS[11] or the ICAO Doc 9905 'RNP AR procedure design Manual', the latter is specially used when the RNP (VPT) is based on an RNP AR procedure.

Aircraft operators that do not have an RNP AR APCH approval should:

5. Ensure that flight procedures are designed in a way that allows the aircraft to remain within the prescribed tracks[12], using the RNP capabilities (e.g., radius to fix (RF) capability), taking into account the aircraft manoeuvrability characteristics, performance and considering also the related contingency procedures.

6. Allow RNP (VPT) only if the aircraft is adequately equipped to perform RNP approaches (this would typically be RNP APCH + RNP 1, or A-RNP with RF legs[13]). Appropriate entries for the equipment relevant to RNP operations should be included in the minimum equipment list (MEL). Note that usually, the Master Minimum Equipment List (MMEL) does not provide the necessary equipment for RNP (VPT); nonetheless, the operator should develop minimum equipment for such operation. For certain approaches or conditions, the operator may have to increase the MEL requirements to the minimum equipment required for RNP AR.

7. Perform validation and testing prior to implementation. See RNP (VPT) evaluation checklist. In particular:

[10] For example, by requesting the Flight Data Monitoring programmes to monitor specifically these procedures, Line Operations Safety Assessment (LOSA), etc.

[11] Procedures for Air Navigation Services – Aircraft Operations (ICAO PANS-OPS, (Doc 8168), Volume II – Construction of Visual and Instrument Flight Procedures.

[12] There is a difference between the ICAO PANS-OPS (Doc 8168) standards and the FAA Terminal Instrument Procedures (TERPS) standards for approach design. TERPS provides a smaller circling radius than ICAO PANS-OPS primarily due to slower circling speeds. For example, A Cat C aircraft has a PANS-OPS max speed and bank of 180kts/20 degrees, which results in a circling area radius of 4.2 NM. That same aircraft under TERPS is restricted to 145kts/20degrees which results in a 2.68NM radius - nearly a 1.5 NM difference.

[13] In accordance with ICAO Cir 359 point 2.7.2 Performance-based navigation capabilities of the operator.

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

- Validate and test the procedure in various operational environments and conditions to ensure its reliability and safety (wind, temperature, aircraft mass, etc.).
- Validate the approach by means of flight simulations and, when necessary, flight demonstration to assess the safety and effectiveness of the RNP (VPT).

8. Ensure that flight crews are adequately trained on the use of RNP (VPT) by:
   - Including RNP (VPT) into the pilot training programmes (equivalency of approaches in Evidence Based Training), which should address normal and contingency situations.
   - Focusing on the unique aspects of these procedures compared to traditional visual manoeuvring (e.g. maintain the aircraft within a onetime RNPT value deviation, weather requirements, identification of the visual fix, difference between the missed approach (instrument segment) and go-around procedure for the visual phase of flight and the transition back to possible IMC, etc.).
   - Emphasising the importance of maintaining visual contact with the terrain at or after passing the VF, keeping situational awareness and adhering to the prescribed tracks during visual manoeuvring;
   - Emphasising the importance of maintaining visual contact and separation from other traffic;
   - Ensuring that crews understand the limitations and capabilities of their aircraft's navigation systems (i.e., understand if the flight procedure requires RF vs. track to fix, what the aircraft's capability and its limitations are, etc).
   - Emphasising the importance of being ready to take action in case of contingencies, especially if the aircraft or its automation does not perform as expected during the visual part of the approach;
   - Addressing in theoretical training and/or simulator-based training[14] those items which need special emphasis following the flyability evaluation and the risks identified in the related safety risk assessments.

NCAs should:

1. Enable operators the use of RNP (VPT) by authorising[15] procedures intended to be published for public use, which are developed by the ANSP (ref. Cir 359 part I) and operator proprietary procedures (ref. Cir 359 part II).
2. Consider the recommendations of ICAO Cir 359 when approving new or revised visual manoeuvring procedures, especially when reviewing RNAV/RNP visual procedures to upgrade them to the RNP (VPT) standards.
3. Include in the authorisation processes the evaluation (initial) of RNP (VPT) procedures implemented by operators, the related safety risk assessments and mitigations, SOPs and the integration into the operators' training programs.
4. Include in the oversight programme the verification that RNP(VPT) or overlay[16] of the RNP-AR are performed only as authorised.
5. Refer to Appendix A, "RNP (VPT) evaluation checklist", as guidance for oversight.

[14] The safety risk assessment may be a good tool to determine the training needs, either theoretical, simulator-based or both. This training may be generic for all RNP (VPT) approaches or may be specific to an approach.

[15] The regulatory basis that may be used is CAT.OP.MPA.110 points (c) and (d).

[16] An RNP(VPT) overlay RNP-AR approach required a flight procedure design organisation to develop such an approach (i.e. when it was not published in the AIP, and it is an OPP).

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

ANSP and aerodrome operators should:

1. Have a plan to convert RNAV visual and RNP visual procedures to RNP(VPT), thus ensuring harmonisation as per the ICAO Cir 359.
2. Ensure that a safety assessment[17] is performed where RNP (VPT) are newly introduced in coordination with the aircraft operators.

DAH should:

1. Convert or extend their existing operational recommendation and recommended procedures for RNAV visual and RNP visual to RNP (VPT).

Contact(s):

For further information contact the EASA Safety Information Section, Certification Directorate.
E-mail: ADs@easa.europa.eu.

For further information on the technical content of this SIB, including request the RNP (VPT) evaluation checklist in word format contact air_ops@easa.europa.eu.

[17] In accordance with ATS.OR.205 of Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight.

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

Appendix 1 - Glossary and Evolution of the Concept

The SIB aims to address RNP (VPT); however, to avoid confusion, the following information is provided about similar concepts.

RNAV visual: An RNAV visual approach is a charted instrument approach procedure that combines elements of both area navigation (RNAV) and visual approaches. It requires using RNAV equipment to follow a prescribed track while also requiring the pilot to maintain visual reference to terrain and/or obstacles to continue the approach beyond a defined point.

Key characteristics of an RNAV visual approach are:

1. It utilises the aircraft's RNAV/RNP navigation capabilities.
2. The procedure is charted and published.
3. It requires meteorological conditions, as published on the chart, to continue the approach visually after a defined point.
4. It may be developed by aircraft operators or ANSPs.
5. It often lacks a specific regulatory framework, unlike standard instrument approaches.
6. It can be designed to consider noise abatement and other environmental factors.

There is a subset of these approaches called 'special RNAV visual[18]. They were originally developed as a means to provide some level of RNAV guidance to runways where existing instrument approach procedures could not be developed. These were always considered 'special' and required authorisation for operators to use them.

RNAV visual should gradually be replaced by RNP (VPT) procedures that offer better standardisation and an internationally harmonised way to implement visual operations based on Performance Based Navigation (PBN).

RNP visual: also known as a Visual Guided Approach supplemented by RNP. It is an Instrument Flight Rules (IFR) approach procedure that combines elements of RNP navigation and visual approach techniques. It consists of two main segments:

1. An initial RNP instrument path (instrument segment).
2. A subsequent visual path (visual segment) defined by waypoints.

Key characteristics of an RNP visual procedure are:

1. It utilises the RNP system of the aircraft for precise navigation.
2. It promotes a stabilised approach by providing defined waypoints for the visual segment.
3. It requires the pilot to maintain visual reference to terrain and/or obstacles after passing a defined visual fix.
4. It can be designed as either a public procedure (requiring ATC clearance) or a proprietary procedure (not requiring specific ATC clearance).
5. It aims to enhance safety and efficiency, particularly in challenging terrain or airspace environments.
6. It may be used to address environmental concerns, such as noise abatement.

[18] ICAO C359 Part I, chapter 1 point 1.1.

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

7. The procedure is charted and published with specific meteorological conditions required to continue the approach visually after the defined point.

RNP visual should gradually be replaced by RNP (VPT) procedures that offer better standardisation and an internationally harmonised way to implement visual operations based on PBN.

RNP (VPT) is an IFR approach procedure that combines RNP navigation with visual approach techniques. It consists of two main segments:

1. An initial RNP instrument path (instrument segment).
2. A subsequent visual path (visual segment) defined by waypoints.

Key characteristics of an RNP (VPT) procedure are:

1. As a minimum, it is based on RNP AR APCH navigation specification criteria for obstacle clearance and route design. However, it can be increased to PANS-OPS Vol. II criteria following the relevant navigation specification for the instrument part of the procedure (initial criteria apply up to the VF and missed (usually RNP 1 and RF capability) approach criteria from the VF and for the visual part should be in accordance with Appendix to Chapter 7 using prescribed track PANS-OPS Vol. II criteria.
2. It requires using the aircraft's RNP system for precise navigation.
3. It includes a defined point called the VF, beyond which the pilot must acquire visual references[19] to continue the approach.
4. If visual references are not acquired at the VF, a missed approach must be executed.
5. It promotes a stabilised approach by providing defined waypoints for the visual segment.
6. It can be designed as either a public procedure (requiring ATC clearance) or a proprietary procedure.
7. It aims to enhance safety, efficiency, and address environmental concerns such as noise abatement.
8. It may require specific authorisation for operators to conduct these procedures based on their operational safety risk assessment process, training, and equipment capabilities.

Missed approach: For the purposes of RNP (VPT) in accordance with ICAO Circular 359, the missed approach is defined as an obstacle protected path starting at the VF, which can be followed by the aircraft in case references to proceed visually are not achieved when reaching the VF.

Go-around: For the purposes of RNP (VPT) in accordance with ICAO Circular 359, the go-around is the instructions to abort the approach after passing the VF or reject landing (balked landing) in the form of a note/s on the chart, which includes both lateral and vertical elements to safely climb away from the runway.

[19] Visual reference with the ground to ensure obstacle clearance must be maintained at all times after the VF, however visual reference with the aerodrome is not required at all times. (ICAO Cir.359 Part I point 2.4.2)

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

Appendix 2 - RNP (VPT) Procedure Evaluation Checklist

RNP (VPT) Evaluation Checklist

1.	Date:	2.	Aircraft type:
3.	Title of the Procedure:	4.	Pilot in command:
5.	Terrain & obstacle DATA base (SIM and ACFT):	6.	NAV Data Base / AIRAC cycle:
7.	RF capability (Note 1):	8.	Free text:

Note 1: Although aircraft may have the ability to perform RF legs stated in their AFM, this does not imply that the high bank, low speed and possibly high acceleration cases of the RF legs applied for RNP AR have been assessed. If only the RF leg capability has been stated, without a statement of RNP AR qualification, this applies to relatively benign RF legs applied in the initial and intermediate sections of the approach, not in the final approach segment. RF legs in the final approach segment (FAS) are only assessed for qualification to RNP AR criteria. See items below related to RF, bank angle, etc.

	Flyability Evaluation (usually in SIMULATOR) / Aircraft eligibility		Yes	No
8.	Does the simulator qualify for the evaluation? Full data package of the aerodrome (Note 2).			
Note 2: A partial SIM data package may be acceptable if the terrain database and runway location are correct, even though the visual of the aerodrome is generic).				
9.	Comparison of the database of the SIM and ACFT versus the Chart			
	Comments and notes, reference to the evidence.			
10.	Is the simulator equipped with the exact same FMS as the aircraft?			
11.	Is the FMGS/FMS navigation data coherent with the approach chart?			
12.	Evaluation of the Visual fix (VF) altitude and height.			
13	Speed assessment (e.g.+20k, and/or 20k less than the standard in the chart).			
13.1	Is the maximum speed increment evaluated? (Note 3)	Max speed increment: _____		
13.2	Is the max speed decrement evaluated? (Note 3)	Max speed decrement: _____		
Note 3: This step helps evaluate the sensitivity of the procedure to high energy approaches, to failures that require higher or lower speeds (e.g. flap or slat lock, etc.), indirectly, the sensibility to wind limits, etc. Only one can be evaluated but both are recommended to be evaluated.				
14.	Assess the impact of high tail- and crosswinds on the path-keeping ability while executing RF legs. Is it necessary to establish any wind limitation during the approach?			
15.	Was the max. bank achieved in the RF segment (turn) determined?	Max bank achieved: _____		
16.	Temperature correction: evaluate the approach in a high and low temperature scenario. (Note 4)			
16.1	Evaluation at lower temp (limit) in accordance with operator's cold temperature correction procedure.			
16.2	Evaluation made at higher temp limit in accordance with operator's hot temperature procedure.			
Note 4: Some charts indicate a lower temperature limit, while higher temperature limits are rare. If the simulator accurately represents temperature effects on the atmosphere, operators can assess approaches at reasonable high and low temperature and consider their associated risks. Low temperatures may lead to flying lower than intended, which is especially relevant in close to terrain approaches. In contrast, high temperatures can steepen approaches, increasing risks like high-energy approaches, unstable paths, and runway overruns.				
17.	Flyability of the procedure (in normal conditions). When necessary, mitigation measures. (Note 5)			
17.1	Is the approach in the FMGS/FMS flyable?			
17.2	Is it possible to have the flight trajectory in accordance with the chart? In other words, does the trajectory of the Chart and the real flying trajectory match?			
17.3	Is there any NAV aid (e.g. radio aid) required to be de-selected?			
Note 5: The flight trajectory should not have any discontinuity, and the aircraft should not have an excessive rate of descent ('too steep approach'), for example, in high temperature atmosphere is more likely to occur, etc. Otherwise, mitigation measures should be applied (i.e., early configuration, forbidding a lower flap setting for approach (i.e. Flap 3 approach, etc.).				

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

18.1	Has the procedure been evaluated at daylight, and/or at night?		
18.2	Has the procedure been evaluated in Instrument meteorological conditions (IMC) before the VF?		
19.	Assess the ability of the FMS to cope with the accelerations experienced when going around while following an RF leg with a small radius.		
20.	Assess the ability of the autopilot and flight control system to command a 30-degree bank angle at low altitudes and speeds.		
Evaluation of the flight procedure (i.e. chart evaluation, etc.)		*Yes*	*NO*
21.	Has the chart provided sufficient details?		
22.	Check if the APP proc is RNP 0.3 required. (Note 6) Check if the GA has RNP < 1 required. (Note 6)		
Note 6: If the RNP is required to be below 0.3 in the approach procedure or less than RNP<1 in the missed approach. Those procedures are non-standard and usually may not be flown as RNP(VPT). Note that the minimum navigation performance for RNP(VPT) should be not less than 0.3NM. Note 6B: This may not apply in the USA due to different requirements between TERPS and PANS-OPS, for example, at KSFO. Therefore, in the USA, RNP(VPT) procedures may be flown with less than 0.3 NM. Note 6C: in France, the RNP value may only be provided for the segment before VF and missed approach, and no information may be provided for the visual segment.			
23.	Is the missed approach (MA) and the go-around (GA) standard or not standard? (Note 7)		
Note 7: What is the reason, if it is not standard? This identification will help to better understand the mitigations that might be necessary (see the next step). *Non-standard, or sometimes called non-conventional means amongst others that MA or GA has an RF leg.*			
23.1	When non-standard, is there any mitigation necessary in the missed approach/go-around? (Note 8)		
Note 8: The operator may use one or more mitigation means, such as the use of the secondary FPL in the FMGS/FM, for example, when there are different paths depending on when the pilot initiates the go-around in a nonstandard missed approach and/or go-around.			
24.1	Notes chart: is RF required and evaluated? If yes, is the RF req. visible for the pilot in the chart?		
24.2	Notes chart: is there any non-standard speed?		
24.3	Note charts: if there are non-standard speeds, are they clearly identifiable in the chart?		
24.4	Notes chart: is there a note indicating the go-around that should be flown? And balked landing?		
24.5	Notes chart: any temperature correction? (see point above)		
24.6	Notes chart: any note restricting operations at night?		

Evaluation of the approach segments (mark what it was checked)						
		Initial	Intermediate	Final	G/around	Holding
25.	Heading/track of the segment					
26.	Distance					
27.	Glide path					
What descent angle was achieved in each segment's flight/SIM assessment?						
28.	TAWS					
What was the behaviour of the TAWS? Any spurious warnings? Or non-spurious warnings? Can they be mitigated?						
29.	Wind					
What wind component is in each approach segment? Is it necessary to adjust any wind limitation?						
30.	RF Max Bank angle					

Evaluation of abnormal and emergency aircraft scenarios	
31.	Assess the impact of a 'one engine inoperative' (OEI) situation on the path-keeping ability, particularly for the go-around. Note that some aircraft may have higher than expected yaw-moments in a go-around.
32.	Where practical (i.e. where the simulator allows doing so), assess the impact of flight control system failures, including hardcovers (rapid un-commanded deployment of flight control surfaces) on the path-keeping ability of the aircraft.

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.

33.	In relation to flight control failures, assess the effects of weight on the path-keeping ability of the aircraft.
34.	Assess the adequacy of the information that remains available to the flight crew following a loss of FMS guidance.
35.	Assess the effects of loss of the autopilot on the ability to maintain the aircraft on the desired path.
36.	Assess appropriate contingency actions when the RNP value deviation is exceeded (see point 22 and note 6).
37.	Identify any specific training elements resulting from the assessments defined above.
The assessments proposed above are based on the guidance provided in CS-ACNS (and formerly AMC 20-26), although the CS requires the assessments to be performed in combinations where required. Also, the CS requires all RNP relevant system failures to be assessed. This is a subset of the most relevant failures.	
Closing summary	
38.	Description of the activities conducted: *(If the RNP (VPT) has a missed approach or go-around, verify the level of autopilot required and check if such missed approach or go-around is in the database or required to be introduced, as well as if it is necessary to make use of the secondary FPL).*
39.	Observations: *(Recommendations, findings during the evaluation)*
40.	Conclusions: *(Is the procedure appropriate to the operation planned)*
41.	Participants:

An agency of the European Union

TE.CAP.00117-008 © European Union Aviation Safety Agency. All rights reserved. ISO9001 Certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA-Internet/Intranet.