



International Civil Aviation Organization

European and North Atlantic Office

EUR REGIONAL TRANSITION PLAN

For change to Instrument Flight Procedure Approach Chart
Identification from RNAV to RNP

First Edition
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1. INTRODUCTION

1.1. In November 2014, Amendment 6 to PANS OPS Vol II became applicable, which introduced a change to the way the PBN Approach Chart Identification was published. The procedure approach chart identification will now align with the designation of the navigation specification.

1.2. In March 2018, a revised guidance material to support implementation of the new PBN approach chart identification was published as Circular 353 (Transition Planning for Change to Instrument Flight Procedure Approach Chart Identification from RNAV to RNP). This guidance material is aimed at enabling the effective management of the transition from RNAV to RNP chart identification for performance-based navigation (PBN) instrument approach procedures. It also emphasizes on the need for coordinated global, regional and State transition planning to ensure that sufficient time would be allocated to this task for the successful implementation of the new charts.

1.3. In order to implement the above mentioned provisions, this document provides a Regional Transition Plan for Europe to support the change in the procedure approach chart identification in a harmonised and coordinated manner.

2. BACKGROUND

2.1 Current PBN approach chart identification is not globally standardized and the chart identification does not match the designation of the RNP approach specifications published in the Performance-based Navigation (PBN) Manual (Doc 9613). Examples of current chart identification conventions used for the RNP APCH specification include RNAV (GPS) RWY XX and RNAV (GNSS) RWY XX. Approaches requiring the RNP AR APCH specification currently bear the chart identification of RNAV (RNP) RWY XX.

2.2 To address this inconsistency, ICAO published provisions for a coherent naming convention that reflect the navigation application being used on the approach, either RNP APCH or RNP AR APCH. The rationale and recommendations made are summarized below.

2.3 The PBN Manual (Doc 9613) stipulates that RNP specifications include requirements for on-board performance monitoring and alerting and that RNAV specifications should have no such requirement. The manual has two navigation specifications for use in the final approach segment. Both of these require on-board performance monitoring and alerting, and are therefore designated, respectively, as RNP APCH and RNP AR APCH in the PBN Manual (Doc 9613), Volume II — Implementing RNAV and RNP Operations, Part B, Chapters 5 and 6, respectively. In the PBN Manual's (Doc 9613) first and subsequent publication in 2008 and 2013, the chart identification for RNP APCH and RNP AR APCH retained the pre-PBN chart identification convention whereby the chart identification for both was indicated as "RNAV...". One of the main motivations being that this term (or its abbreviation 'RNV') was harmonized with a majority of existing avionics displays. However, As part of a continuing effort to ensure coherency of PBN across ICAO provisions, this chart identification discrepancy was one of various discrepancies and clarifications that ICAO sought to improve, and it did so by including a change to the chart identification convention in Amendment 6 to the PANS-OPS.

2.4 During the consultation process leading to Amendment 6, a need was also identified for a PBN box to be included on the chart to indicate the applicable navigation specification (i.e., RNP APCH, RNP AR APCH, Advanced RNP, RNP 0.3) or other optional or additional requirements, for example, RF functionality.

3. SUMMARY OF CHANGES

3.1. Table 1 depicts the change in chart identification for RNP APCH and RNP AR APCH navigation specifications. For each State, the existing chart identification is permitted until a specified date which is the end of the State transition period; the new chart identification depiction is required thereafter.

3.2. Current PBN approach chart identification is not globally standardized and the chart identification does not match the designation of the RNP approach specifications published in the Performance-based Navigation (PBN) Manual (Doc 9613). Examples of current chart identification conventions used for the RNP APCH specification include RNAV (GPS) RWY XX and RNAV (GNSS) RWY XX. Approaches requiring the RNP AR APCH specification currently bear the chart identification of RNAV (RNP) RWY XX.

Table 1. Summary of chart identification changes (Examples)

| Navigation Specification | Existing Chart Identification | New Chart Identification |
|--------------------------|-------------------------------|--------------------------|
| RNP APCH | RNAV (GNSS) RWY 23 | RNP RWY 23 |
| RNP AR APCH | RNAV (RNP) RWY 23 | RNP RWY 23 (AR) |

3.3. The identification must also include a parenthetical suffix when exceptional conditions occur as described in Table 2 (this table refers to Table III-5-1-1 in Doc 8168, Procedures for Air Navigation Services — Aircraft Operations, Volume II — Construction of Visual and Instrument Flight Procedures).

Table 2. PBN approaches — parenthetical suffixes (Examples)

| Condition | Suffix | Example |
|---|---------------------|----------------------------------|
| Procedure has only an LPV line of minima | LPV ONLY | RNP RWY 23 (LPV ONLY) |
| Procedure has only an LNAV/VNAV line of minima | LNAV/VNAV ONLY | RNP RWY 23 (LNAV/VNAV ONLY) |
| Procedure has both LPV and LNAV/VNAV lines of minima but no LNAV minima | LPV, LNAV/VNAV ONLY | RNP RWY 23 (LPV, LNAV/VNAV ONLY) |
| Procedure has only an LP line of minima | LP ONLY | RNP RWY 23 (LP ONLY) |

3.4. When changing the chart identification, additional procedure requirements must be provided as chart notes if not published earlier. PBN items must be separated out and published in a PBN requirements box that includes the identification of the navigation specification used in procedure design and any optional requirements as specified in Table 3.

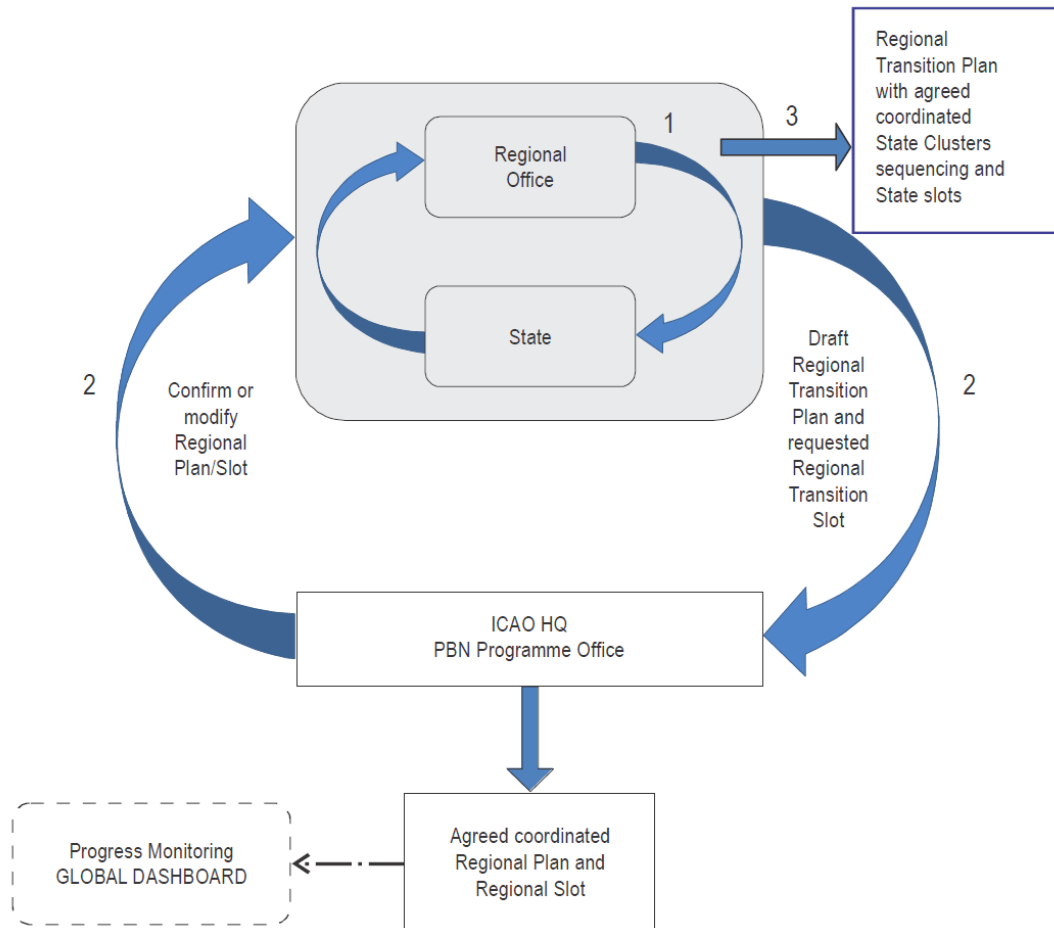
Table 3. Examples of PBN requirements box

| Navigation specification | Examples of additional requirements in PBN requirements box |
|--------------------------|---|
| RNP APCH | RF required |
| RNP AR APCH | RNP <0.3 Missed approach RNP <1 |
| Advanced RNP | RNP <1 in initial and intermediate segment |
| RNP 0.3 | RF required |

4. EUR REGIONAL TRANSITION PLAN FOR CHANGE TO INSTRUMENT FLIGHT PROCEDURE APPROACH CHART IDENTIFICATION FROM RNAV TO RNP

4.1. The Regional Transition plan aims at supporting a harmonized and coordinated approach in the implementation of the new chart identification convention all over the region. The process of Regional Planning is shown in Figure 1.

Figure 1. Global, Regional and State Coordination Process



4.2. As a follow-up to the EANPG/59 RASG-EUR/06 Decision 01 (Update to the PBN TF Work Programme), the ICAO EUR/NAT Office issued a State Letter (Ref.: EUR/NAT 18-0572.TEC (HAS/DAC)) on 19 November 2018, requesting States to complete the questionnaire on RNP APCH Chart Identification Transition, as at **Appendix A**.

4.3. Available AIRAC Dates and the Regional Slots are shown in Tables 4 and 5.

Summary of the Analysis of Questionnaires (with the support of EUROCONTROL)

- 41 States (out of 56) have responded to the Questionnaire
- Map Tool and States's AIP were used/checked to fill the lack of the responses of some States
- 22 States have either no airports, no RNP Charts or have published their charts with the new chart names (no need for transition)
- 35 States need to transition
- 5 States need a longer period than the proposed EUR Regional Slot (Q2-2019 to Q4-2020)
- The proposed Regional Slot (Q2-2019 to Q4-2020) is confirmed by the majority of the responses and could be considered as the EUR/NAT Regional Slot (after coordination with ICAO HQ)
- Detailed Transition Plan is included in **Appendix B**.
- Based on the above, States clusters could be as follows:

Cluster 1:

States that have already started, are in progress and/or will start in short term and finish by Q3/Q4 2019 (12 States)

Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Czech Republic, Estonia, Ireland, Portugal, Serbia, Slovakia, Spain and Turkey (+German MIL)

Cluster 2:

States that have already started or will be starting and finish by Q1/Q2 2020 (14 States)

Bulgaria(*), Croatia; France, Hungary, Iceland(*), Italy, the Netherlands, Kyrgyzstan, Lithuania, Montenegro, Republic of Moldova, Romania(*), Switzerland and Tunisia(*)

Cluster 3:

States completing/to complete the transition in Q3/Q4 2020 (3 States)

Morocco, Poland and United Kingdom

Cluster 4:

Exceptional; those States that need a longer period than the Regional Slot (5 States)

Denmark, Germany, Greece, Norway and Russian Federation

Cluster 5:

No transition needed / Not Applicable (States with no airports or no RNP charts or already published their RNP charts with the new name) (22 States)

Albania (*), Algeria (*), Andorra, Armenia(*), Belarus, Cyprus, Finland, North Macedonia(*), Georgia(*), Israel, Kazakhstan, Latvia, Luxembourg, Malta, Monaco, San Marino, Slovenia, Sweden, Tajikistan(*), Turkmenistan(*), Ukraine and Uzbekistan(*)

(*): No answer to the questionnaire has been received from these countries

Table 4. AIRAC Dates

| H1/2019 | | H2/2019 | | H1/2020 | | H2/2020 | |
|---------|--------|---------|--------|---------|--------|---------|--------|
| Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| 3 JAN | 25 APR | 18 JUL | 10 OCT | 2 JAN | 23 APR | 16 JUL | 8 OCT |
| 31 JAN | 23 MAY | 15 AUG | 7 NOV | 30 JAN | 21 MAY | 13 AUG | 5 NOV |
| 28 FEB | 20 JUN | 12 SEP | 5 DEC | 27 FEB | 18 JUN | 10 SEP | 3 DEC |
| 28 MAR | - | - | - | 26 MAR | - | - | 31 DEC |
| H1/2021 | | H2/2021 | | H1/2022 | | H1/2022 | |
| Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| 28 JAN | 22 APR | 15 JUL | 7 OCT | 27 JAN | 21 APR | 14 JUL | 6 OCT |
| 25 FEB | 20 MAY | 12 AUG | 4 NOV | 24 FEB | 19 MAY | 11 AUG | 3 NOV |
| 25 MAR | 17 JUN | 9 SEP | 2 DEC | 24 MAR | 16 JUN | 8 SEP | 1 DEC |
| - | - | - | 30 DEC | - | - | - | - |

**Table 5. EUR Regional Slot
(Q2-2019 to Q4-2020)**

| SLOT | H1/2019 | H2/2019 | H1/2020 | H2/2020 | H1/2021 | H2/2021 | H1/2022 | H2/2022 |
|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| States' Clusters | | | | | | | | |
| Exceptions | | | | | | | | |

4.4. Based on the States' responses to the questionnaire, and in accordance with the guidance provided by the ICAO Circular 353, the EUR Regional Transition Plan for the Instrument Flight Procedure Charts Identification from RNAV to RNP is shown in Table 6.

Note – Those States, which have so far not published RNP charts, should start using the new naming convention with immediate effect.

Table 6. EUR Regional Transition Plan for IFP Chart Identification from RNAV to RNP

| SLOT | H1/2019 | | H2/2019 | | H1/2020 | | H2/2020 | | H1/2021 | | H2/2021 | | H1/2022 | | H1/2022 | |
|---|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|-------|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| AIRAC Dates | 3 JAN | 25 APR | 18 JUL | 10 OCT | 2 JAN | 23 APR | 16 JUL | 8 OCT | 28 JAN | 22 APR | 15 JUL | 7 OCT | 27 JAN | 21 APR | 14 JUL | 6 OCT |
| | 31 JAN | 23 MAY | 15 AUG | 7 NOV | 30 JAN | 21 MAY | 13 AUG | 5 NOV | 25 FEB | 20 MAY | 12 AUG | 4 NOV | 24 FEB | 19 MAY | 11 AUG | 3 NOV |
| | 28 FEB | 20 JUN | 12 SEP | 5 DEC | 27 FEB | 18 JUN | 10 SEP | 3 DEC | 25 MAR | 17 JUN | 9 SEP | 2 DEC | 24 MAR | 16 JUN | 8 SEP | 1 DEC |
| | 28 MAR | - | - | - | 26 MAR | - | - | 31 DEC | - | - | - | 30 DEC | - | - | - | - |
| BLOCK 1: Austria, Azerbaijan, Bosnia & Herzegovina, Belgium, Czech Republic, Estonia, Ireland, Portugal, Serbia, Slovakia, Spain and Turkey (+German MIL) | | | | | | | | | | | | | | | | |
| BLOCK 2: Bulgaria(*), Croatia; France, Hungary, Iceland(*), Italy, Kyrgyzstan, Lithuania, Montenegro, the Netherlands, Moldova, Romania(*),Switzerland and Tunisia(*) | | | | | | | | | | | | | | | | |
| BLOCK 3: Morocco, Poland and United Kingdom | | | | | | | | | | | | | | | | |
| BLOCK 4: Denmark, Germany, Greece, Norway and Russian Federation | | | | | | | | | | | | | | | | |
| BLOCK 5: Albania(*), Algeria(*), Andorra, Armenia(*), Belarus, Cyprus, Finland, North Macedonia(*), Georgia(*), Israel, Kazakhstan, Latvia, Luxembourg, Malta, Monaco, San Marino, Slovenia, Sweden, Tajikistan(*), Turkmenistan(*), Ukraine and Uzbekistan(*) | | | | | | | | | | | | | | | | |

APPENDIX A – QUESTIONNAIRE ON RNP APCH CHART IDENTIFICATION TRANSITION

Name of State: _____

1. **(PBN approach development status)** How many PBN approach procedures have been or are planned to be published in the near future in your State?

| Chart Identification | | Number of procedures | |
|----------------------|-------------------------|----------------------|---------|
| | | Published | Planned |
| Old | RNAV(GNSS) or RNAV(GPS) | | |
| | RNAV(RNP) | | |
| New | RNP | | |
| | RNP (AR) | | |
| Others | GPS based approaches | | |

2. **(Transition timing)** When can your State begin to publish approach procedures with the new RNP APCH chart identification?
3. **(Transition time slot)** How many consecutive AIRAC cycles do your State need for the transition to the RNP APCH chart identification?
4. **(Forming State cluster)** Do your State want to conduct the chart identification transition by yourselves or with your neighbouring States together?
If you want to do transition with your neighbouring States or a group of States, i.e. existing sub-regional groups, please name the States or a group of States you want to do together.
5. **(Other considerations)** If there are other concerns that need to be considered during the transition, please describe them.

Please answer this additional question (not originally circulated in the Questionnaire for approval)

6. **(ICAO EUR Regional Transition Slot):** Do you agree with the ICAO EUR Regional Office requesting from the ICAO PBN Programme Office, the Regional Transition Slot starting Q2/2019 up to and including end of Q4/2020? Please answer YES or NO after reading the explanation below.

Explanation: In IP/22 of the EANPG06/RASG07, the ICAO Secretariat explains that States which have already begun to transition to the new chart naming, continue this transition, and that those which have not begun the transition, wait until the regional transition plan is finalised in accordance with ICAO Circular 353. However, as several States in the ICAO EUR Region are already transitioning their chart naming from RNAV to RNP and several others have declared plans to affect the transition in 2019, the ICAO EUR regional transition slot Q2/2019-Q4/2020 is requested. Other reasons supporting this time period are (1) It is estimated that a maximum of 200 chart titles a month can be changed in the region, and if the process starts in Q2/2019, the regional transition should be completed within this transition slot. Delaying the start of the process would increase the number of charts that need to be changed and most likely compromise meeting the target date.. (2) as Circular 353 seeks to minimise the use of old and new chart naming within a region, it would be better for the entire ICAO EUR region to switch to the new chart naming sooner by keeping the momentum, rather than ‘freezing’ the change process until a later regional transition slot, which could be allocated for 2022, for example. The latter scenario would extend the period of mixed chart titles. (3) Finally, 31 of the 56 States in the ICAO EUR Region are required to publish RNP APCH procedures at all instrument runway ends by 6 December 2020 (See EU Regulation 1048/2018) and it would assist these States to affect the chart naming change in the same preparatory time frame.

