4º Taller PANS-OPS (SAM/PANS-OPS/4)

Información del Miembro del IFPP

FERNANDES JR – DECEA/BRASIL

Departamento de Controle do Espaço Aéreo

OBJETIVO

- Presentar informaciones sobre el 15º Ciclo del IFPP.

TEMARIO

- ¿Qué es IFPP?
- Temas del 15º Ciclo de Trabajo del IFPP

¿Cuáles son los temas del 15º Ciclo del IFPP?

REUNIÓN IFPP/15

WG INTEGRATION

- WP2-002 - Charting NavSpecs and accuracies
- JOB CARD IFPP014 – TRANSITIONS
- WP2-003 - ATS Route Classification Regional/Non-Regional
- Visually Prescribed Tracks (RNAV)
- PBN BOX en procedimientos “híbridos”

REUNIÓN IFPP/15

WG INTEGRATION

- WP2-002 - Charting NavSpecs and accuracies

SUMMARY

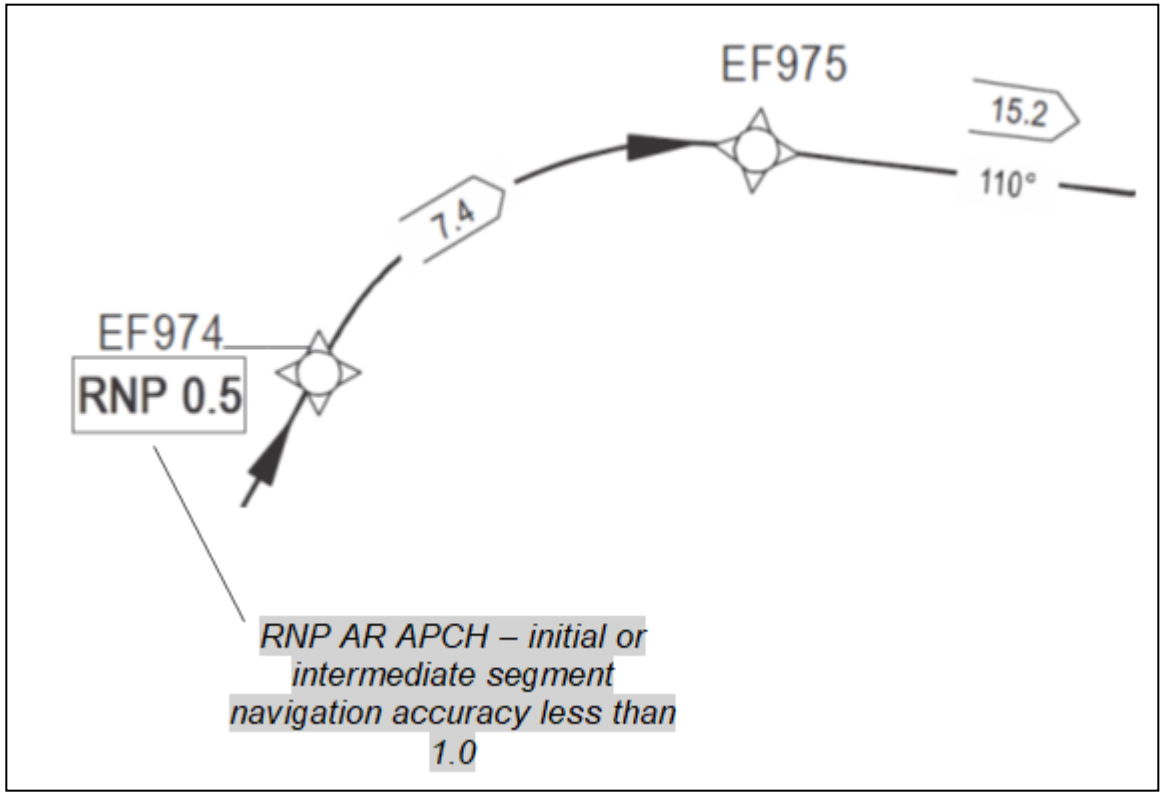
With the introduction of Performance-based Navigation (PBN), the requirement to chart the relevant navigation specification and navigation accuracies was introduced. However, within ICAO Annex 4, PANS-OPS (Doc 8168), and Doc 8697, this requirement was not introduced holistically across all relevant documents and for all PBN procedure types. This Working Paper seeks to improve this guidance by adding requirements where none currently exist and improving guidance where examples are needed.

Proposals for amendment can be found in attachments A through E to this Working Paper.

REUNIÓN IFPP/15

WG INTEGRATION

- ✈ WP2-002 - Charting NavSpecs and accuracies

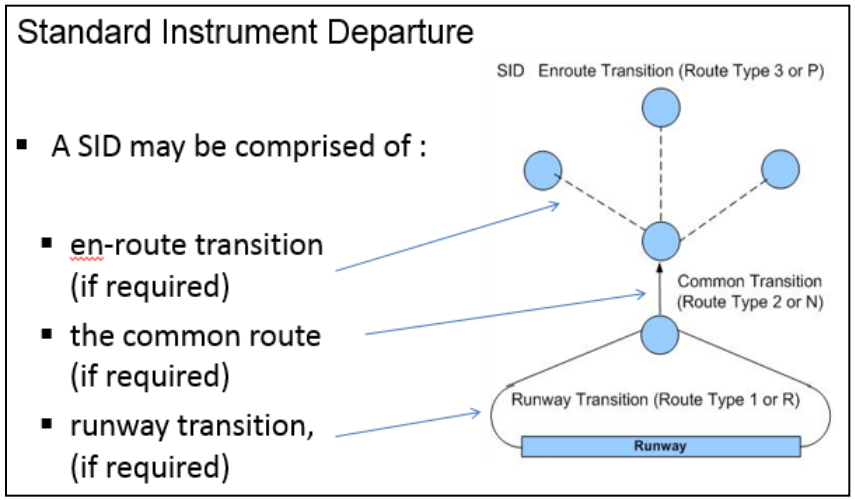


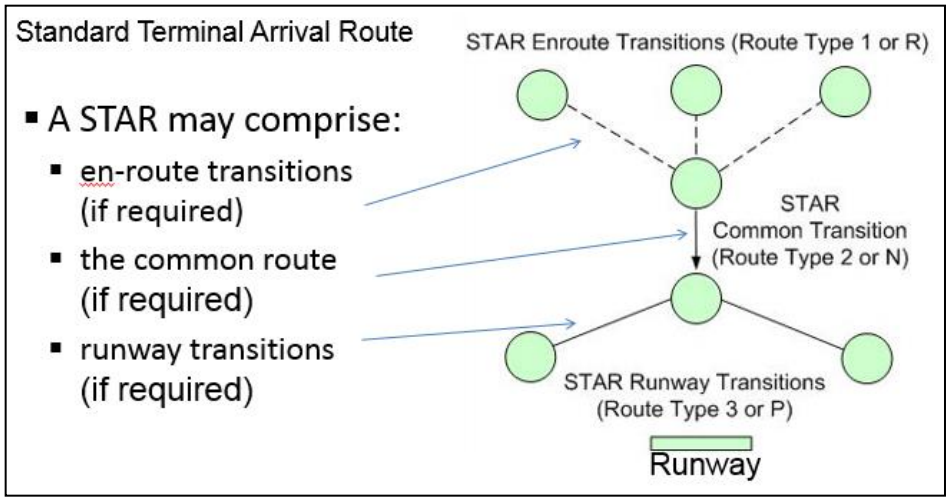
REUNIÓN IFPP/15

WG INTEGRATION

✈ JOB CARD IFPP014 – TRANSITIONS

Discusión se basa en la manera en que los procedimientos son codificados y cargados >> ARINC 424





REUNIÓN IFPP/15

WG INTEGRATION

- WP2-003 - ATS Route Classification Regional/Non-Regional

Job Card 013.01 problem statement indicates that there is an impelling need to address issues concerning the Air Traffic Service (ATS) Routes Designation as described in *Annex 11*. With the increasing rates of traffic growth and the increase of PBN implementation, the existing schema for ATS routes designators as well as the block allocation among regions are not sufficient any more to cope with the changed environment. In addition, the worldwide ATS Route Designation has evolved and the historical definition do not meet the changing environment.

This Working Paper provides an analysis of the present, worldwide ATS Route Designator allocation and proposes recommendations that will allow ATS Route Designators to meet the changed environment and new route development. The Analysis are in Appendix 1 of the Working Paper.

REUNIÓN IFPP/15

WG INTEGRATION

- ✈ WP2-003 - ATS Route Classification Regional/Non-Regional

Table 1: ATS Route Designator allocation, Present Situation.

ATS Route Designator 'Part of the regional networks' (% left)		Years left
Conventional	50%	17 years (to 2036)
PBN	63%	8 years (to 2027)
ATS Route Designator 'not Part of the regional networks' (% left)		Years left
Conventional	-1%	ZERO years (to 2019)
PBN	23%	3 years (to 2022)

Table 2: ATS Route Designator allocation with Option 2 and 3.

Expected situation (% left)		Years left with new allocation
Conventional	34%	12 years (to 2031)
PBN	53%	7 years (to 2026)

REUNIÓN IFPP/15

WG INTEGRATION

✈ WP2-003 - ATS Route Classification Regional/Non-Regional

a) A, B, G, R, C, H, J, V, W for routes which ~~form part of the regional networks of ATS routes and~~ are not area navigation routes; and

b) L, M, N, P, D, E, Q, T, Y, Z for area navigation routes. ~~which form part of the regional networks of ATS routes~~;

~~c) H, J, V, W for routes which do not form part of the regional networks of ATS routes and are not area navigation routes;~~

~~d) Q, T, Y, Z for area navigation routes which do not form part of the regional networks of ATS routes.~~

REUNIÓN IFPP/15

WG INTEGRATION

- Visually Prescribed Tracks (RNAV)

The VPT (RNAV) procedure would be a 'Special' and not a public procedure. It would be based on an RNP AR procedure and require operational approval to fly the lateral path and accompanying weather ceiling/visibility.
The IWG had several questions yet to be answered by the PBNSG.
How will these procedures be published in the AIP: not available, available under certain conditions, special authorization required, restricted, etc.?
Why would the VPT (RNAV) have to be based on RNP AR? Why not some other nav spec?
Circling procedures are also being used for ATM clearance with the aircraft flying the procedure as a VPT (RNAV) within their FMS database, but 'visually'. This way the ATM doesn't have a specific procedure for their clearance. Circling along a prescribed track concept. Coding is provided for convenience only; the procedure must be flown visually.

REUNIÓN IFPP/15

WG PBN & NEW CRITERIA >> MANUAL RNP AR (DOC 9905)

- Borrar NAVSPEC
- Considerar solamente OPR normal de vuelo (~~IRU 8NM/h~~)
- 0.5NM para definición del FROP
- Se podrá utilizar otros tipos de Path Terminators
- Bank angle no será limitado
- 15º desde 1 RNP antes de la THEL >> missed approach
- Fórmulas de temperatura = Baro-VNAV

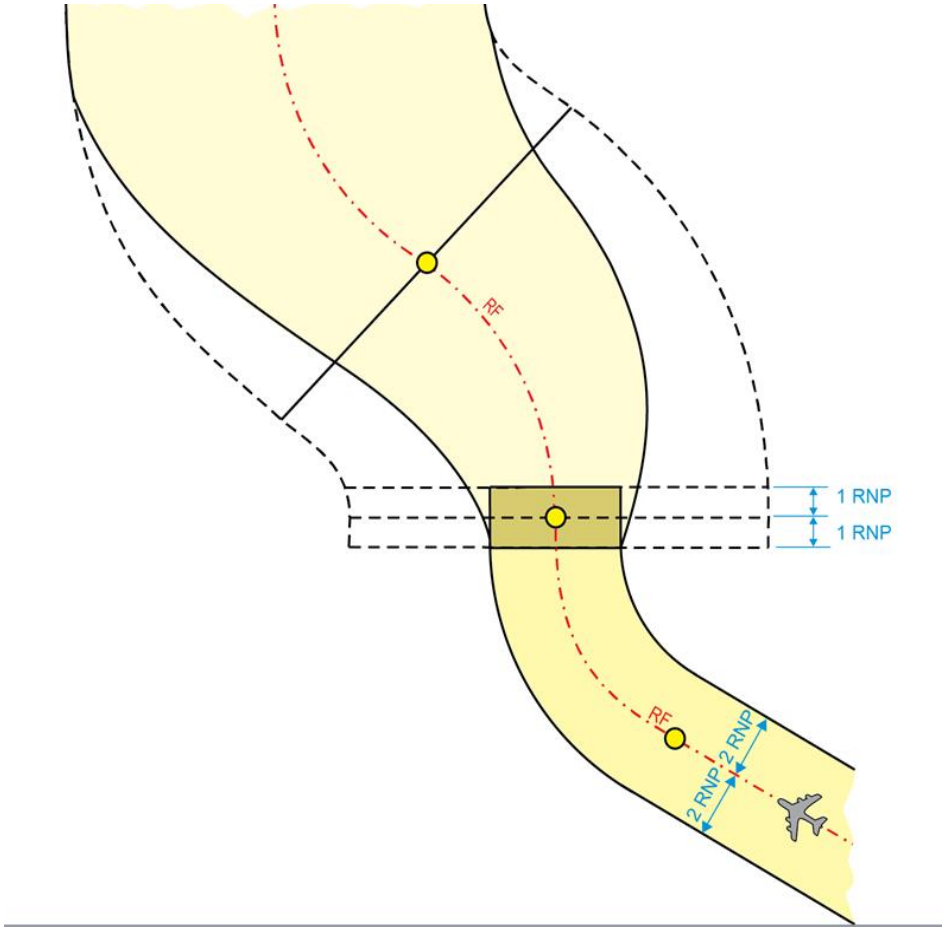
REUNIÓN IFPP/15

WG PBN & NEW CRITERIA >> MANUAL RNP AR (DOC 9905)

- Solamente reducción en el RNP para definición de la trayectória >> simplificar el procedimiento
- Trigonometria básica para calcular altitudes
- Modificación en la construcción de las áreas de viraje

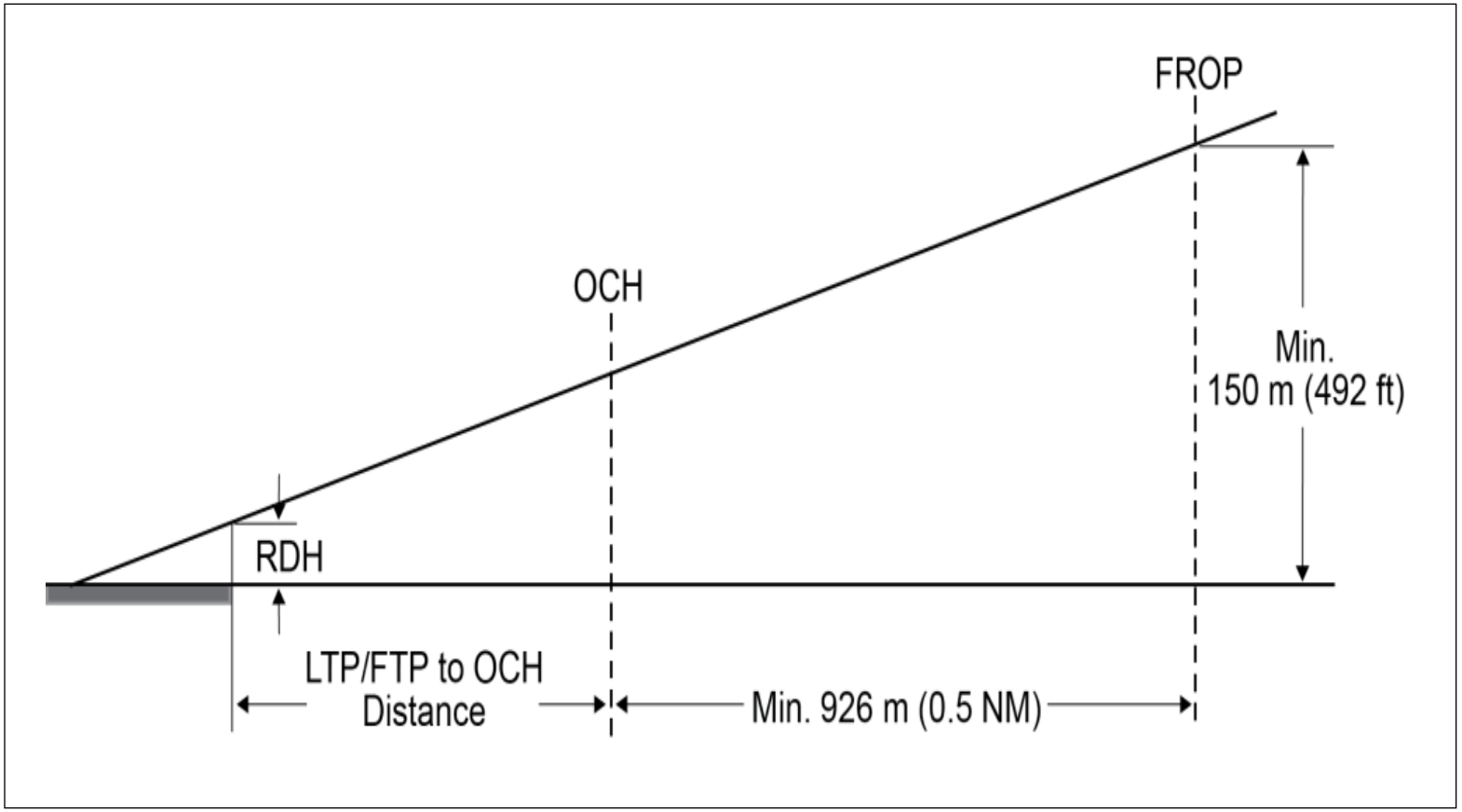
REUNIÓN IFPP/15

WG PBN & NEW CRITERIA >> MANUAL RNP AR (DOC 9905)



REUNIÓN IFPP/15

WG PBN & NEW CRITERIA >> MANUAL RNP AR (DOC 9905)



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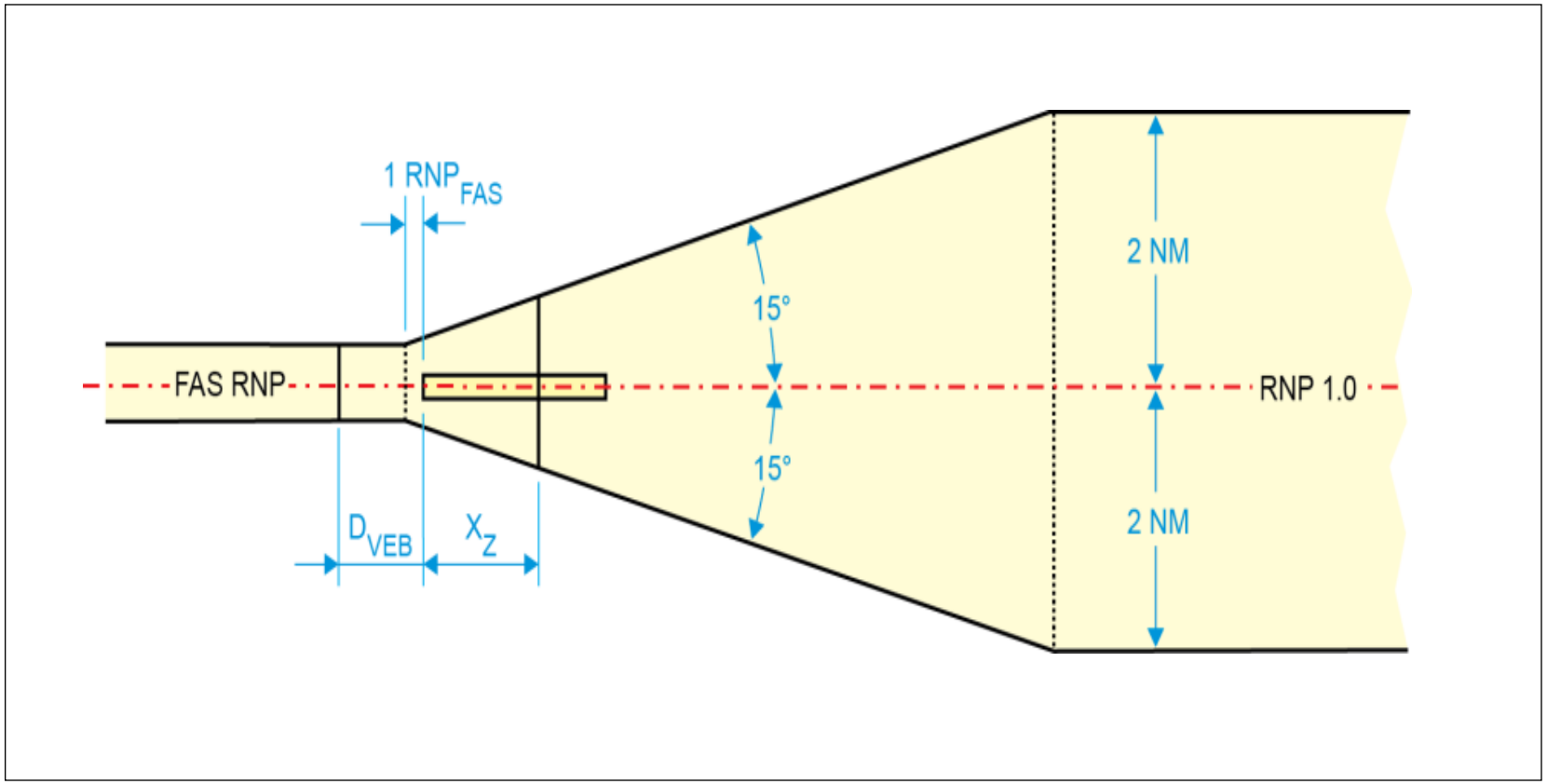
WG PBN & NEW CRITERIA >> MANUAL RNP AR (DOC 9905)



REUNIÓN IFPP/15

WG PBN & NEW CRITERIA >> MANUAL RNP AR (DOC 9905)

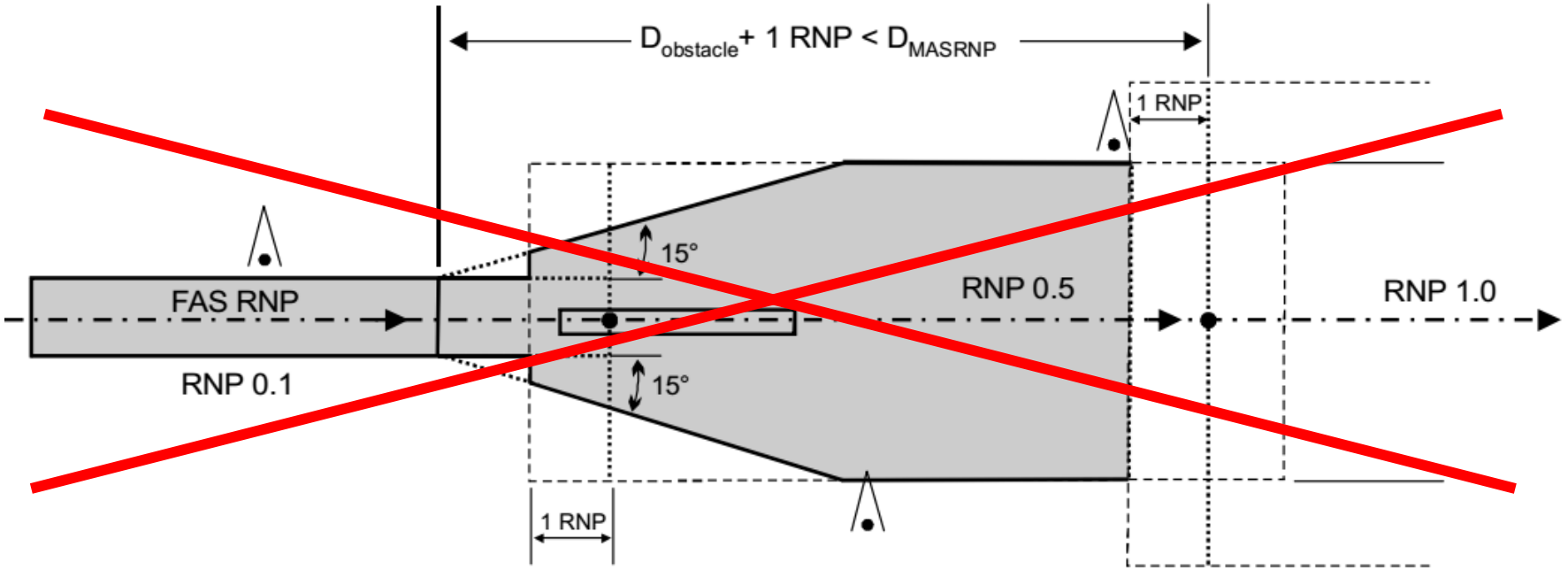


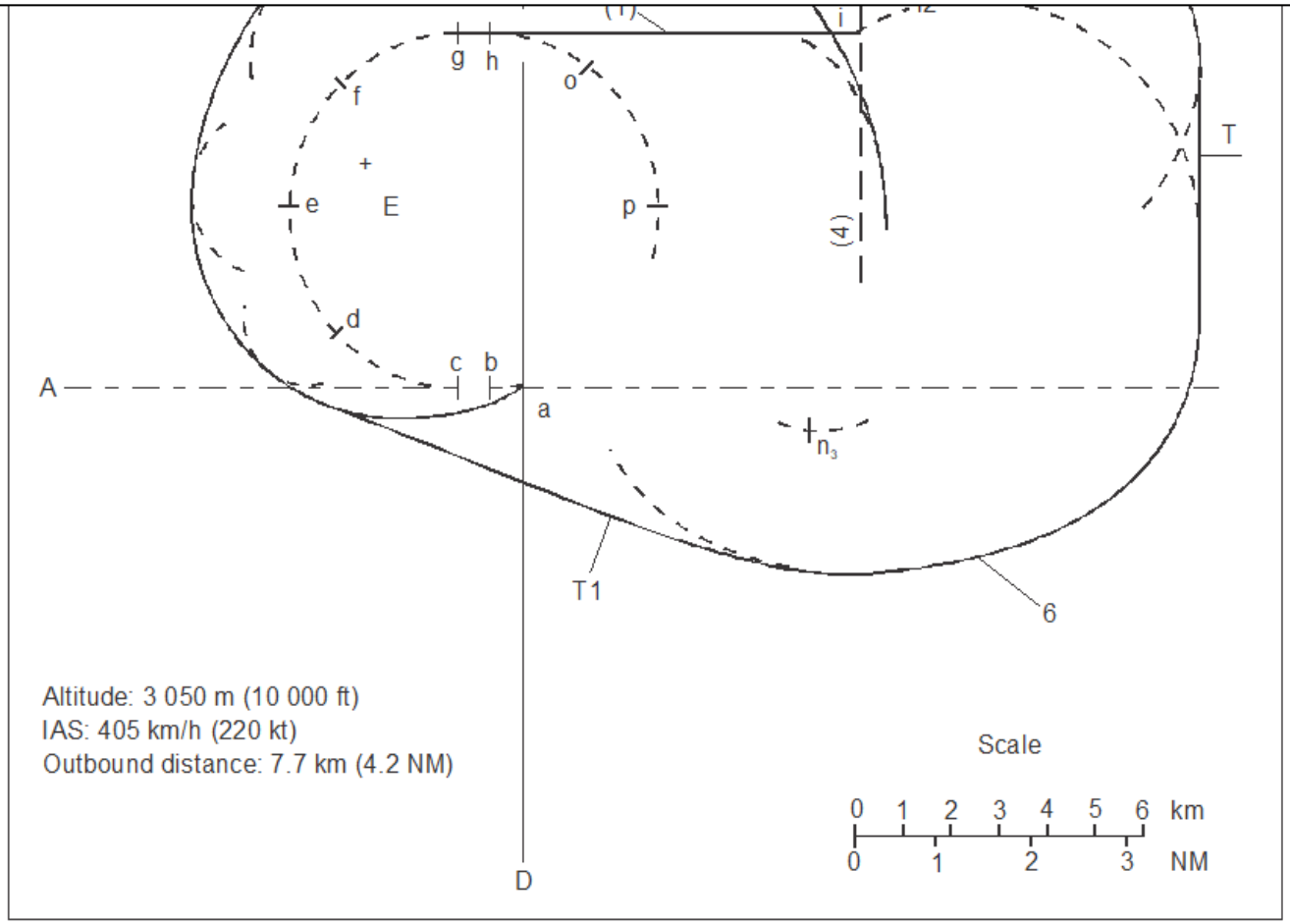
Figure 4-22. Maximum extension of RNP < 1.0 in the missed approach

REUNIÓN IFPP/15

WG MAINTENANCE

- Job Card Doc 9906 Quality Assurance Manual Volume IV
- Job Card IFPP.018.01 Modernización de los critérios SBAS
- Revisión del área de proctección de viraje fly-by/TF
- WP 1b-010 Critérios de funcionalidad espera RNAV

REUNIÓN IFPP/15



~~**Figure III-3-7-App A-1. RNAV template for RNAV system with holding functionality**~~

Editorial note: remove figure entirely.

REUNIÓN IFPP/15

Appendix B Chapter 7

~~EXAMPLE OF ALTERNATIVE AREA NAVIGATION (RNAV) HOLDING ENTRIES FOR REDUCED HOLDING ENTRY AREAS~~ RNP HOLDING

8.1 INTRODUCTION

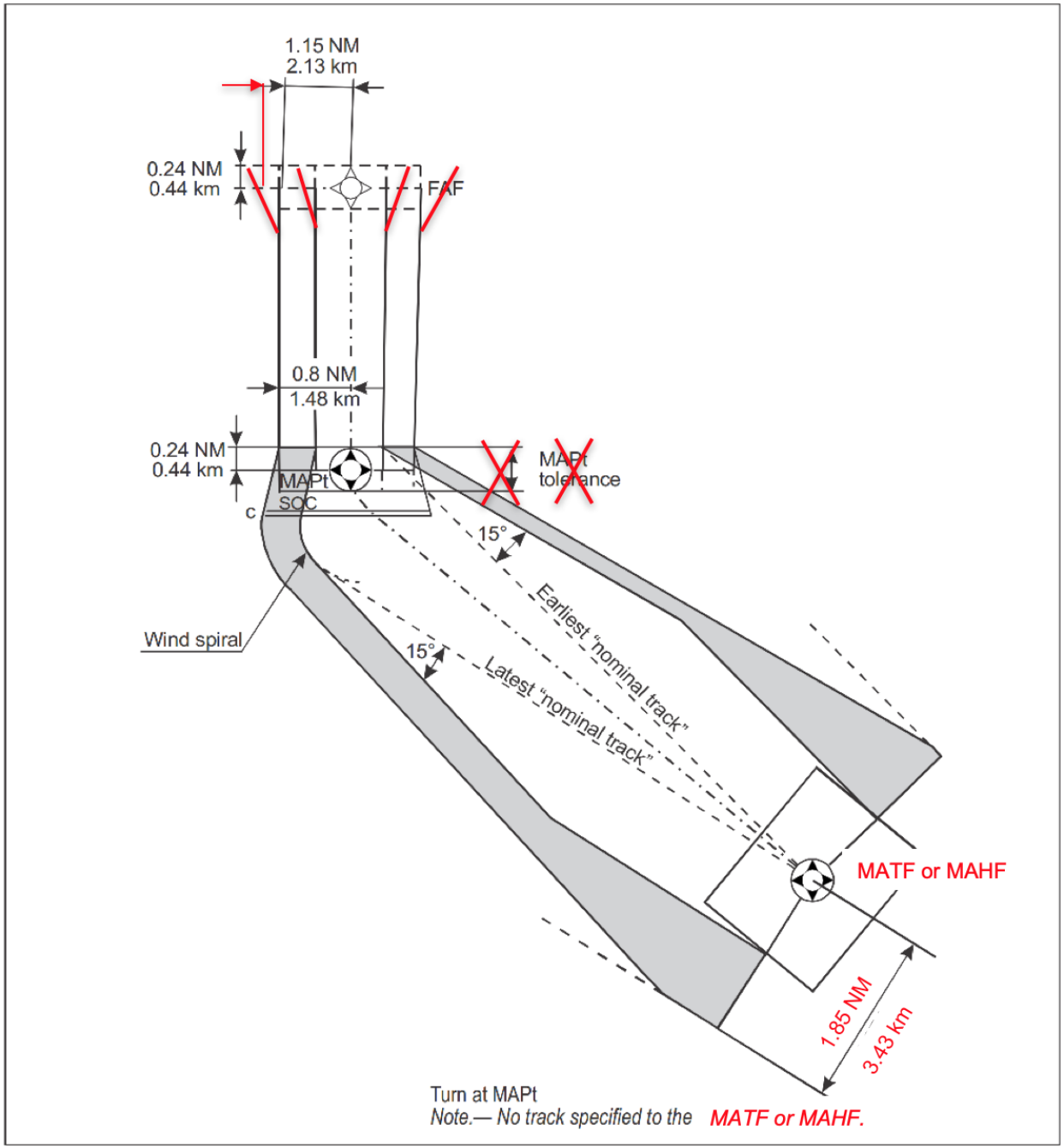
8.1.1 RNP holdings are characterized by a maximum track geometrically defined by the length of the inbound track and the diameter of turn. Avionics compliant with RTCA DO236C are capable to remain (during 95 per cent of the time) within the limits of the RNP holding.

REUNIÓN IFPP/15

WG HELICOPTERS

- Tramo de aproximación frustrada PinS LPV
- IFP for helicopter PBN operations
- Ajustes en el HL para definición de la OCA/H
- Revisión de los critérios para procedimientos RNP 0.3
- Helicopter Annex 14 Surfaces

WG HELI


1.15 NM
2.13 km
0.24 NM
0.44 km
FAF
0.8 NM
1.48 km
0.24 NM
0.44 km
MAPt
SOC
c
MAPt
tolerance
15°
Earliest "nominal track"
Wind spiral
15°
Latest "nominal track"
MATF or MAHF
1.85 NM
3.43 km
Turn at MAPt
Note.— No track specified to the MATF or MAHF.

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Información del Miembro del IFPP

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