



3^{er} Taller PANS-OPS (SAM/PANS-OPS/3) Circular 353 OACI: IAC RNAV BRASIL



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**Departamento de Controle
do Espaço Aéreo**



ICAO Circular 353-AN/209

Transition Planning for IAC Identification Change

Table 1-1. Summary of chart identification changes

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)

ICAO Circular 353-AN/209

Transition Planning for IAC Identification Change

1.3.2 The identification must also include a parenthetical suffix when exceptional conditions occur as described in Table 1-2 (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 1-2. PBN approaches — parenthetical suffices

Condition	Suffix	Examples
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)

ICAO Circular 353-AN/209

PBN BOX

Table 1-3. 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

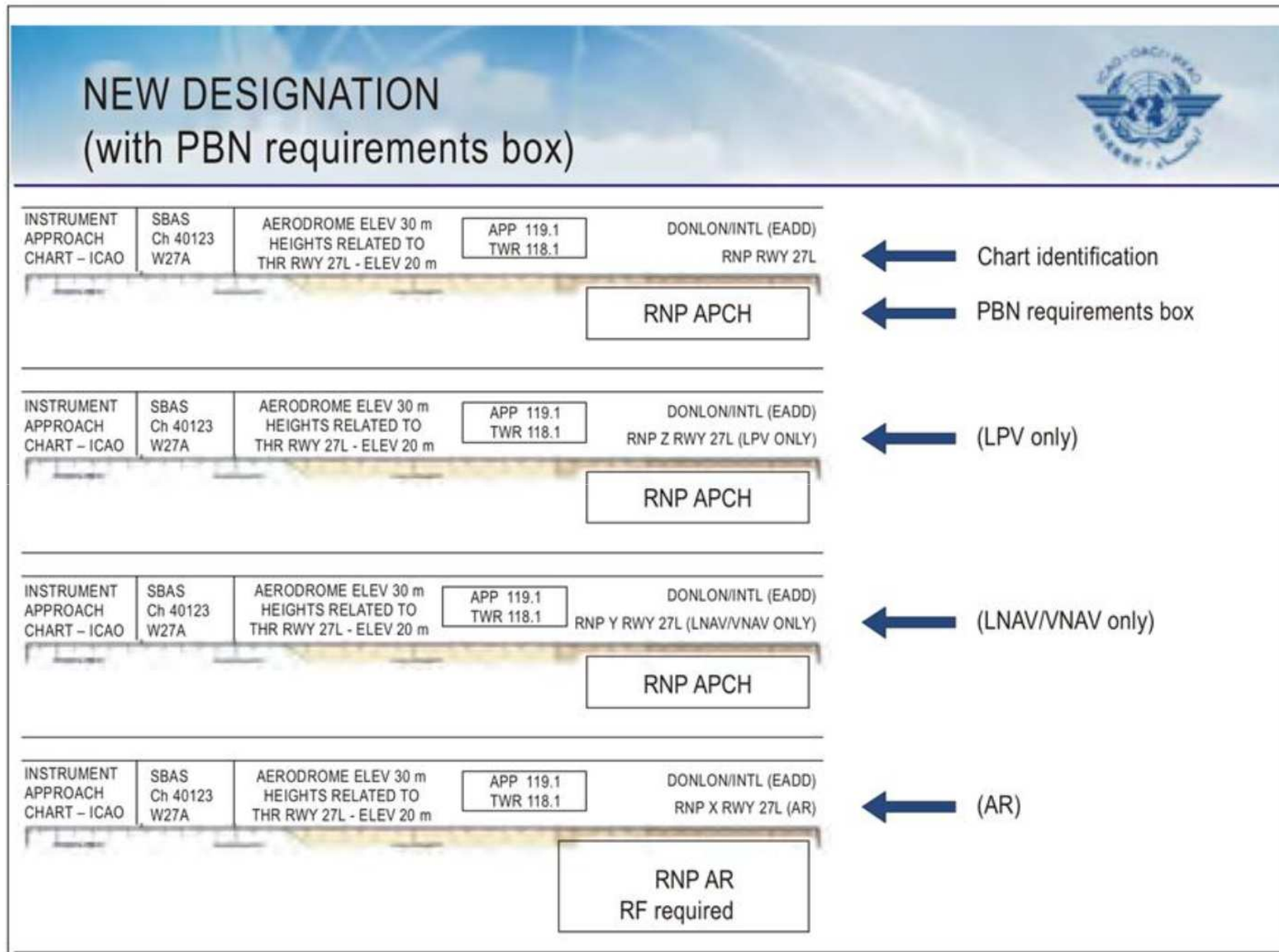
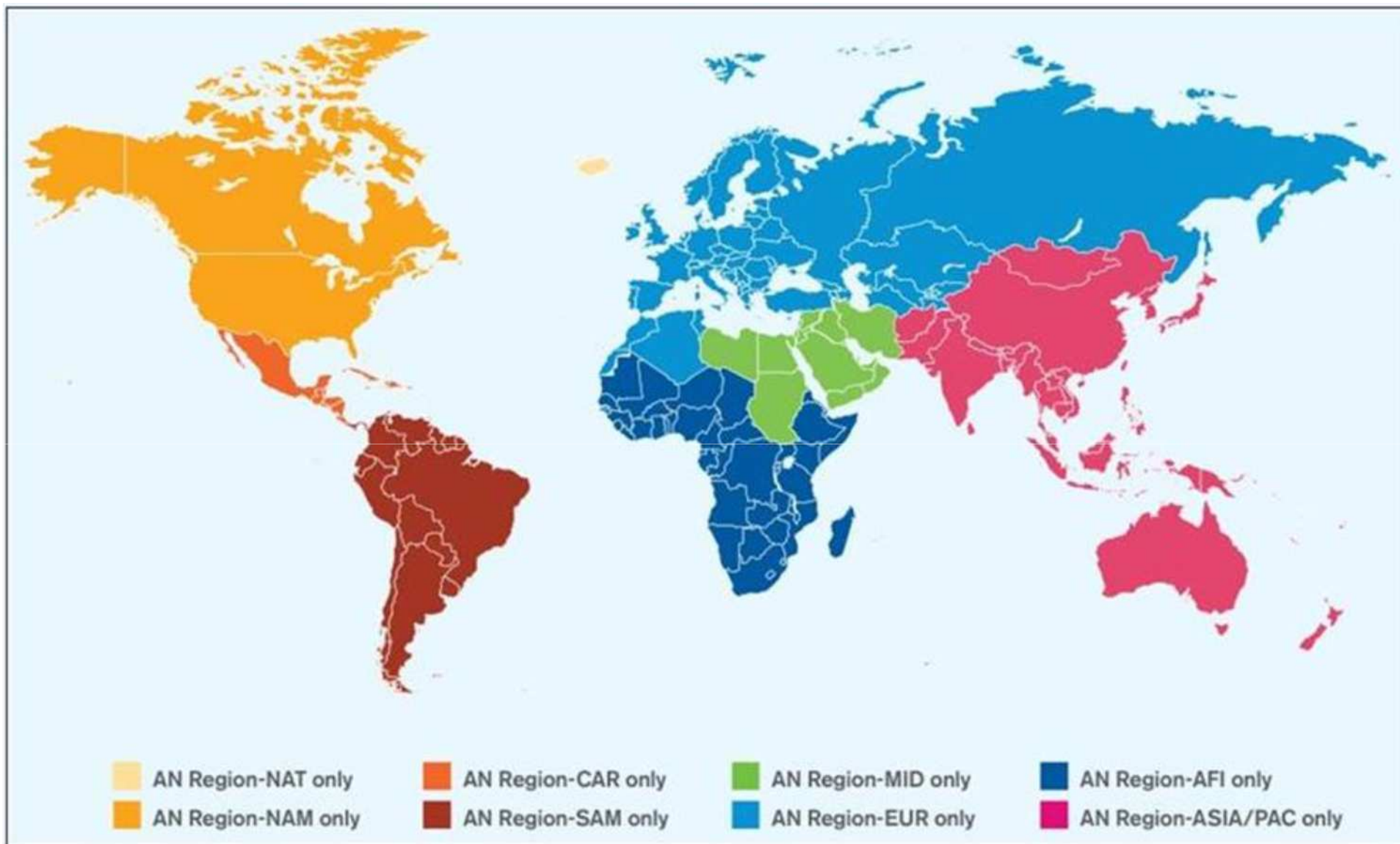
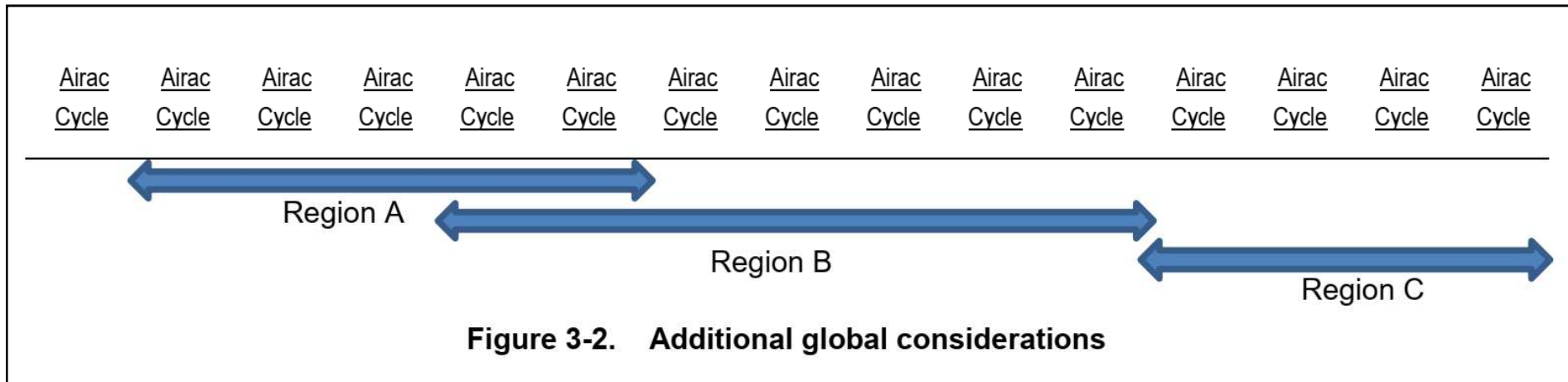


Figure 1-1. Example of new PBN chart designation (with PBN requirements box)

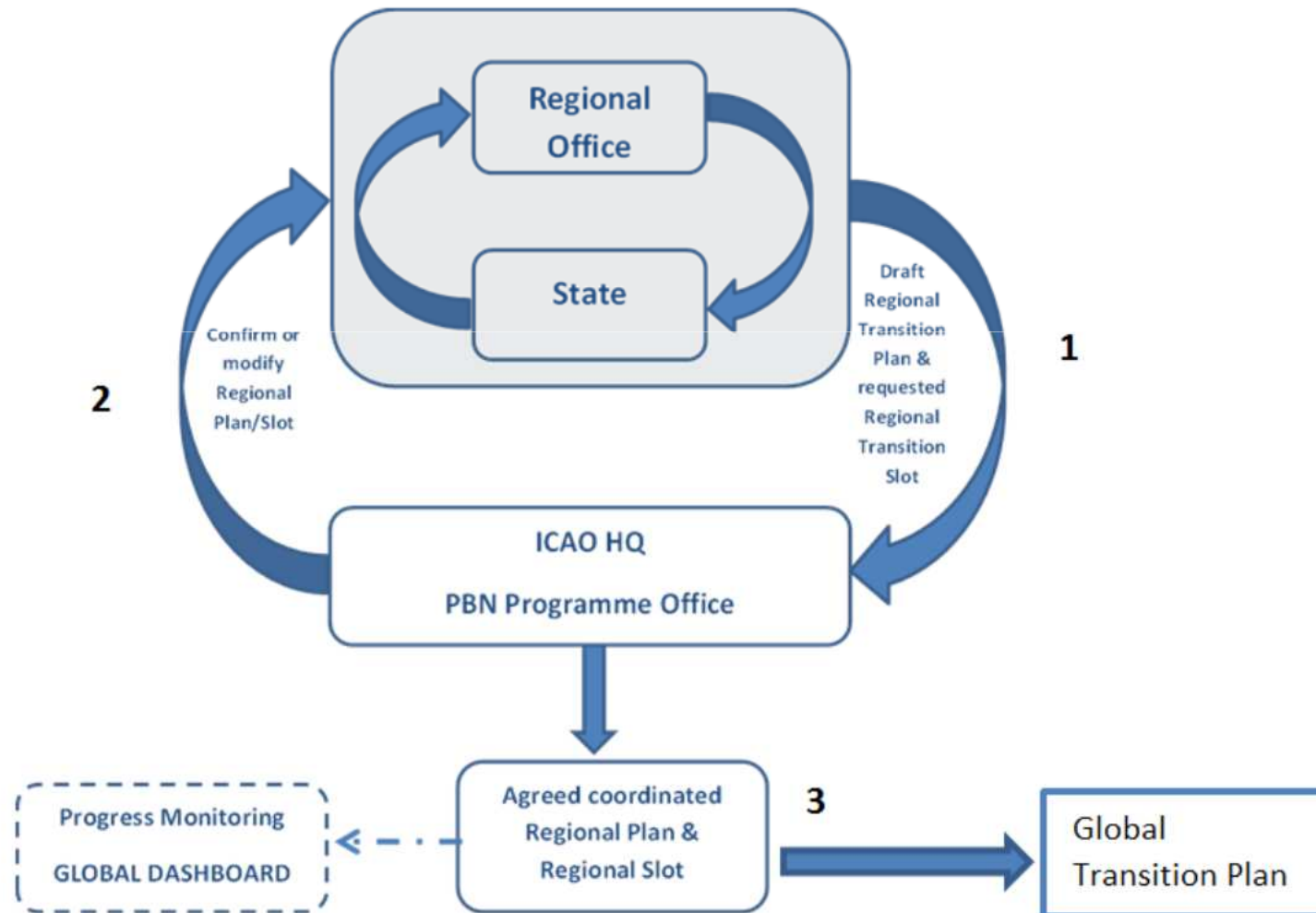


ICAO Circular 353-AN/209

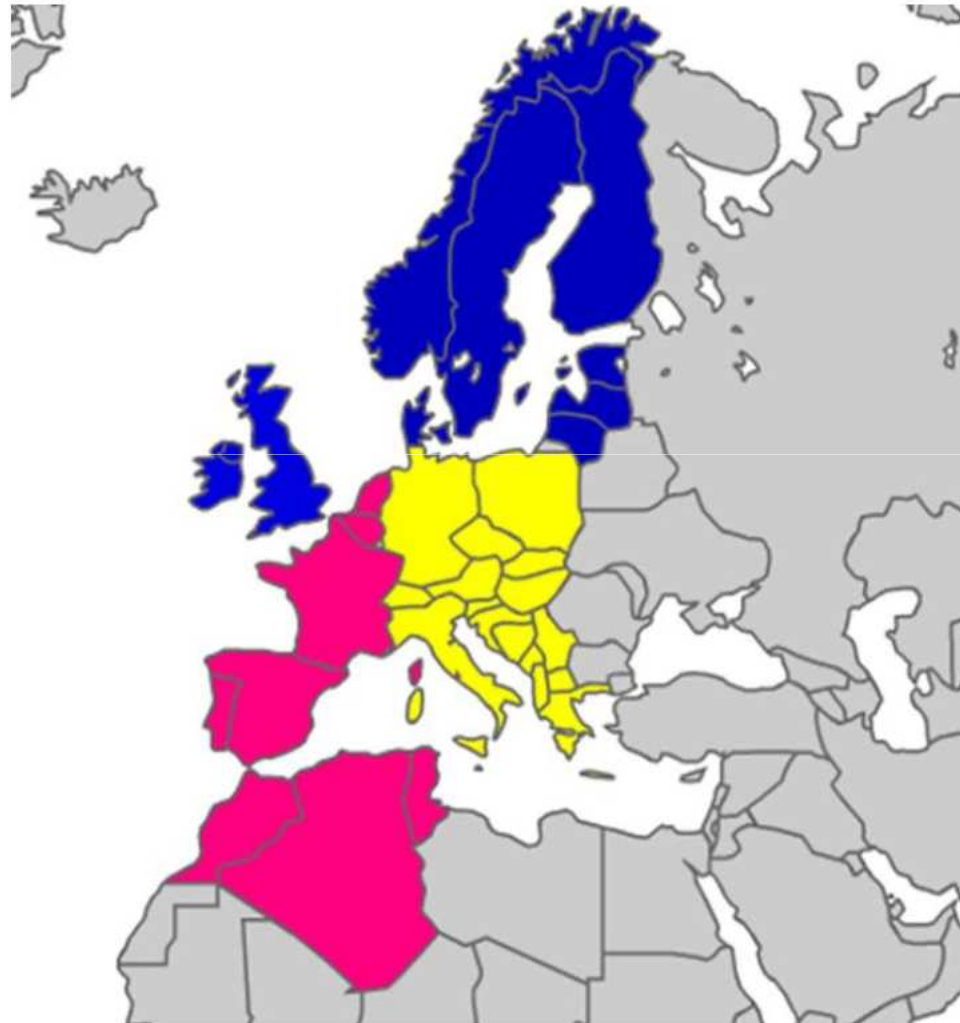
Regional Slot



Coordination Process



State Slot (Ejemplo)



**Figure 4-1. Map equivalent of Table 4-1 State clusters within a region
– example using ICAO EUR and MID**

Table 4-1. State clusters and sequencing within a region – example using ICAO EUR Regions

SAMPLE of geographic clustering for ICAO EUR-NAT & MID Regions	H2/2017	H1/2018	H2/2018		H2/2019		H2/2019		
	Q3/4 2017	Q1/2 2018	Q3/2018	Q4/2018	Q1/2019	Q2/2019	Q3/2019	Q4/2019	
AIRAC CYCLES <i>incl.>></i>	n/a	n/a	7-9	10-12	1-3	4-6	7-9	10-12	
BLOCK 1: Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Norway, Sweden, the United Kingdom.	ICAO REG OFFICES: Develop outline of regional transition plan	ICAO REG OFFICES: Stakeholder buy-in and transition plan finalization							
BLOCK 2: Algeria, Andorra, Belgium, France, Luxembourg, Monaco, Morocco, the Netherlands, Spain, Portugal, Tunisia.									
BLOCK 3: Albania, Austria, Bosnia and Herzegovina, Croatia, Czech Republic, Egypt, Germany, Greece, Hungary, Italy, Malta, Montenegro, Poland, Slovakia, San Marino, Slovenia, Switzerland, the Former Yugoslav Republic of Macedonia.									

30 NOVEMBER 20xx

A State slot allocated by an ICAO regional office for affecting the RNP chart identification change, cannot be comprised of non-adjacent States (or State clusters) within the regional cluster.

¿Cuál la situación de Brasil?

¿Cuántas IAC RNAV tenemos?

¿Cuánto tiempo llevará?

¿Cuál es el plan?

CORREO FERNANDO

POR FAVOR, TODOS LOS PARTICIPANTES SE LES SOLICITA TRAER A LIMA, EN PDF / EN DISCO, EL AIP DE SU ESTADO Y/O LA PARTE CORESPONDIENTE A LA SECCION AD, DONDE SE PUEDA OBSERVAR LAS CARTAS IAP PBN VIGENTES Y LAS SID STARS CON SU NOMENCLATURA, SEA LA ANTIGUA O LA NUEVA (CIRC. 353)

<https://www.aisweb.aer.mil.br/?i=cartas>

The screenshot displays the AISWEB website interface. At the top, there is a navigation bar with the Brazilian flag, the text "BRASIL Serviços", and links for "Participe", "Acesso à Informação", "Legislação", and "Canais". Below this is the logo for "DECEA Departamento de Controle do Espaço Aéreo" and a search bar for "Busca decea.gov.br". The main header features the "AISWEB" logo and a breadcrumb trail: "Abreviaturas > Fale Conosco > Português (Mudar) > AMDT 38/18". A search box for "Código ICAO" is also present. The main navigation menu includes "INÍCIO", "AERÓDROMOS", "ESPAÇO AÉREO", "NOTAM", "CARTAS", and "PUBLICAÇÕES". The current page is titled "Aeródromos/TMA" with the subtitle "Cartas Aeronáuticas". A breadcrumb trail shows "INÍCIO > AERÓDROMOS/TMA". There is a button for "AMDT 11/10/18" and a green button for "Pacote Completo". The search filters are: "Códigos ICAO" (input: "Separados por vírgula"), "Tipo" (dropdown: "IAC (Carta de aproxir)"), "Nome da Carta (Procedimento)" (input: "RNAV"), "PE" (dropdown: "Todos"), and "Uso" (dropdown: "Ostensivo"). A "Procurar" button is located to the right of the filters. At the bottom, a grey box indicates "263 resultados para consulta".

<https://www.aisweb.aer.mil.br/?i=cartas>

Códigos ICAO Tipo Nome da Carta (Procedimento) PE Uso

263 resultados para consulta

100 resultados por página Search...

<input type="checkbox"/>	↑↓ Localidade	↑↓ Tipo	↑↓ Carta		↑↓ Data	↑↓
<input type="checkbox"/>	SBBR	IAC	RNAV(GNSS) X RWY 29L	BR03R	2018-09-13	
<input type="checkbox"/>	SBBR	IAC	RNAV(GNSS) Y RWY 29R	BR00D	2018-09-13	
<input type="checkbox"/>	SBGP	IAC	RNAV(RNP) Y RWY 20	GP00I	2018-09-13	
<input type="checkbox"/>	SBGM	IAC	RNAV (GNSS) RWY 17	GM00I	2018-08-16	
<input type="checkbox"/>	SBGM	IAC	RNAV (GNSS) RWY 35	GM00J	2018-08-16	
<input type="checkbox"/>	SBGR	IAC	IAC RNAV (RNP) W RWY 09R SUP N153/18 e A094/18	GR03X	2018-08-16	
<input type="checkbox"/>	SBUA	IAC	RNAV GNSS RWY 05	UA00L	2018-07-19	

<https://www.aisweb.aer.mil.br/?i=cartas>

<input type="checkbox"/>	SBVT	AOC	AD 2 SBVT B	2018-09-13
<input type="checkbox"/>	SBXX	OTR	PÁGINAS INICIAIS 13SEP18	2018-09-13

Mostrando de 1 até 29 de 29 registros

Anterior 1 Próximo

Baixar Cartas Seleccionadas

- Checklist Tempo Real
- Inserir/Destruir
- Páginas Iniciais

TODOS LOS PROCEDIMIENTOS (IAC, SID, STAR)

TABLA DE IAC SID STAR

1509	SBSV	STAR	STAR LONEN 1A - TELIB 1A - TOKIL 1A - RWY 10	27.04.2017
1510	SBSV	STAR	STAR LONEN 1B - TELIB 1B - TOKIL 1B - RWY 28	27.04.2017
1511	SBSV	STAR	STAR RNAV ASUGA 1A RWY 10	27.04.2017
1512	SBSV	STAR	STAR RNAV ASUGA 1B RWY 28	27.04.2017
1513	SBSV	STAR	STAR RNAV MASTU 1A - UDESI 1A RWY 10	27.04.2017
1514	SBSV	STAR	STAR RNAV UDESI 1B RWY 28	27.04.2017
1515	SBSV	STAR	STAR RNAV ZIPAR 1A RWY 10	27.04.2017
1516	SBSV	STAR	STAR RNAV ZIPAR 1B RWY 28	27.04.2017
1517	SBVT	STAR	RNAV ISILA 1A - SARLA 1A RWY 02	11.10.2018
1518	SBVT	STAR	RNAV ISILA 1B - SARLA 1B RWY 06	11.10.2018
1519	SBVT	STAR	RNAV ISILA 1C - SARLA 1C RWY 20/24	11.10.2018
1520	SBVT	STAR	RNAV KIGOK 1A - MIKEM 1A RWY 02	11.10.2018
1521	SBVT	STAR	RNAV KIGOK 1B - MIKEM 1B RWY 06	11.10.2018
1522	SBVT	STAR	RNAV KIGOK 1C - MIKEM 1C RWY 20/24	11.10.2018
1523	SBWL	STAR	RNAV BLOCK 1-DINER 1- LAP 1-PTL 1	12.11.2015
1524	SBWL	STAR	MULSO 1A MUMLI 1A SRG 1A	05.03.2015

TABLA DE IAP PBN (Circular 353)

Localidade	Tipo	NavSpec	PNA	RWY	Regional	Atualizada	FPDAM
SBAC	RNAV	RNAV	RNAV (GNSS) RWY 09	09			
SBAC	RNAV	RNAV	RNAV (GNSS) RWY 27	27			
SBAE	RNAV	RNAV	RNAV (GNSS) RWY 17	17			
SBAE	RNAV	RNAV	RNAV (GNSS) RWY 35	35			
SBAN	RNAV	RNAV	RNAV (GNSS) Z RWY 06L	06L			
SBAN	RNAV	RNAV	RNAV (GNSS) Y RWY 24R	24R			
SBAN	ILS	RNAV	ILS Z RWY 24R	24R			
SBAQ	RNAV	RNAV	RNAV GNSS RWY 17	17			
SBAQ	RNAV	RNAV	RNAV GNSS RWY 35	35			
SBAR	RNAV	RNAV	RNAV (GNSS) RWY 11	11			
SBAR	RNAV	RNAV	RNAV (GNSS) RWY 29	29			
SBAU	RNAV	RNAV	RNAV (GNSS) RWY 22	22			

IAC RNAV EN BRASIL

TABLA OACI

(Monitoring the Transitioning to RNP Approach)

STATE	PBN APTs	PBN APTs using new name	% PBN APTs	PBN Approaches	RNP APCH	RNP AR
BRASIL	110	0	0 %	244	219	25

IAC RNAV EN BRASIL

TIPO	NÚMERO
RNAV (GNSS)	219
RNAV (RNP)	25
ILS (RNAV)	50
PINS (RNAV)	11
LOC (RNAV)	05
TVD (RNAV)	04
HEL (RNAV)	02
TOTAL	316 IAC

¿CUÁNTO TIEMPO LLEVARÁ?

→ Difícil estimar/predecir:

>> Identificación + PBN Box es simple... pero...

- Muchas IAC “antiguas” >> revisión total
- Rutina de diseño y Proyectos PBN no pueden “parar”
- Proveedores de base de datos tienen limitaciones

¿CUÁL ES EL PLAN?

- Dividir en bloques/fases >> grupo de AD o TMA
>> Empezar por los más simples
- Adecuar las normas internas (MACAR, CIRCEA, etc)
- Adecuar herramientas (FPDAM, etc)
- Entrenar pilotos y ATCO
- Coordinar con proveedores
- AIC para divulgar la información
- Coordinar con ANAC

ATENDER EL PLAN REGIONAL !!

CIRCULAR 353 OACI: IAC RNAV BRASIL



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