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THE CHICAGO CONVENTION



Workshop for the AFI inter-regional/State ATM coordination

28 June – 02 July 2021





Agenda item 2: APIRG projects status reports

PBN, CCO/CDO implementation





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African Flight Procedure Programme (AFPP)

- ICAO requirements on PBN
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ICAO requirements on PBN

African Flight Procedure Programme (AFPP)

- ❑ PBN is a key enablers of ASBU;
- ❑ Assembly resolution A37-11 (2012):
 - ☞ States to complete a PBN implementation plan as **a matter of urgency** to achieve:
 - Implementation of PBN operations for en-route and Terminal according to establish timelines and intermediate milestones;
 - Implementation of approach procedures with vertical guidance (APV) (Baro VNAV and/or augmented GNSS)
 - Additional requirements.
- ❑ A40-6: Regional cooperation and assistance to resolve safety deficiencies, establishing priorities and setting measurable targets:
 - ☞ Urges Member States to utilize the Flight Procedures Programme, where available, for PBN implementation and, additionally, to provide assistance (financial or otherwise) to ensure continuity and sustainability.



ICAO requirements on PBN

African Flight Procedure Programme (AFPP)

- ❑ **APIRG 22 Conclusion 22/07 : Improvement & funding of States implementation plans:**
 - 👉 Urged States to fund review of their NPIP in order to make it robust.
- ❑ **APIRG/22 Conclusion 22/08: Implementation of PBN with CCO and CDO:**
 - 👉 States that have not already done so, are urged to coordinate with the ICAO AFPP for the review and confirmation of status of their PBN - CCO/CDO procedures; and
 - 👉 ICAO organize workshops to provide the requisite knowledge and assistance to facilitate PBN -CCO/CDO implementation in the AFI Region.



ICAO requirements on PBN

African Flight Procedure Programme (AFPP)

□ APIRG/23 Conclusion 23/05:

- ☞ a) ICAO and AFPP conduct a National PBN Implementation Plan (NPIP) development virtual workshop aiming to assist States in developing/updating their NPIP by 31 March 2021;
- ☞ b) ICAO and AFPP conduct a survey on PBN flight procedure and CCO/CDO implementation in the AFI region by 31 March 2021;
- ☞ c) States that have not yet developed their National PBN Implementation Plan (NPIP) coordinate with the ICAO Regional Offices and AFPP for assistance;
- ☞ d) States that have already developed their NPIP, review as a matter of urgency and align them with the new ICAO NPIP format.



ICAO requirements on PBN

African Flight Procedure Programme (AFPP)

AFI PBN implementation roadmap

PBN application	Navspec (General cases)	Navspecs (specific cases)
En-route oceanic & remote continental	RNAV 10	RNP 4
En-route continental	RNAV 5	RNAV 1/2
Terminal area	RNAV 1 with surveillance RNP 1 without surveillance	
Approach area	RNP APCH (with augmented GNSS) RNP APCH LNAV only	RNP AR APCH



Barriers to PBN implementation in the AFI Region

African Flight Procedure Programme (AFPP)

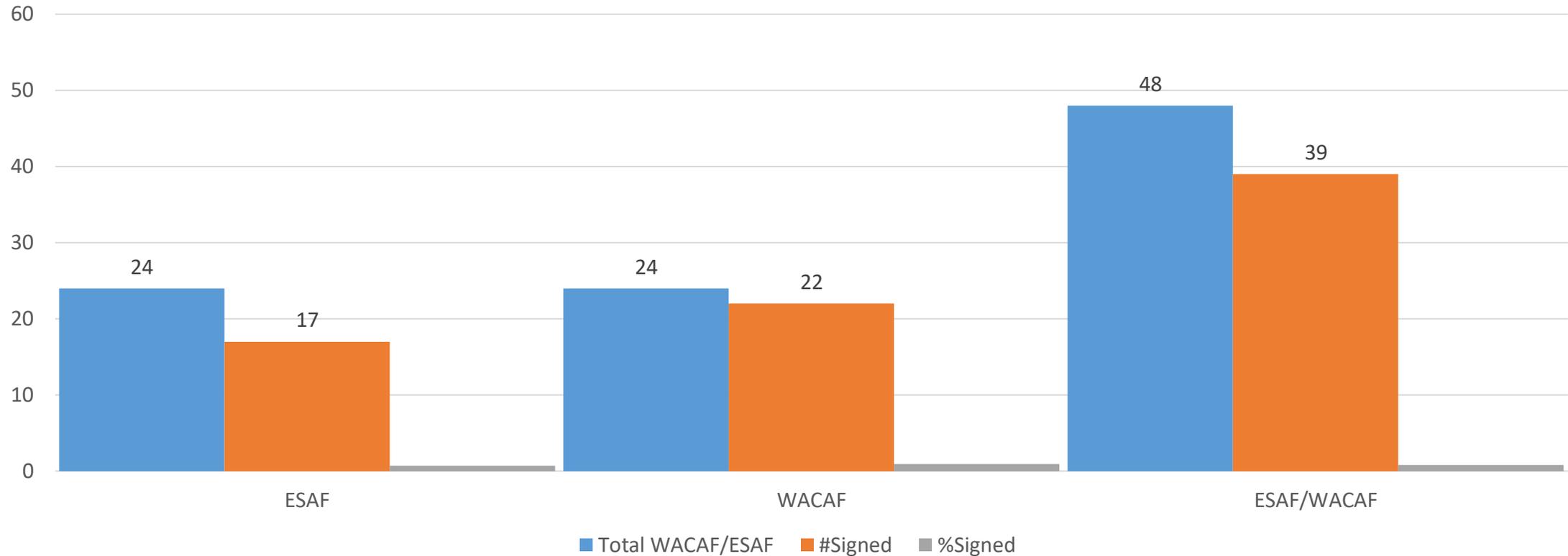
- Poor understanding of the PBN concept by the executive
- WGS-84 implementation and maintenance;
- Poor training;
- Lack of expertise:
 - ☞ Airspace design
 - ☞ Flight procedure design and charting
- Lack of PBN software
- Lack of cooperation



PBN implementation status in the AFI Region

African Flight Procedure Programme (AFPP)

NPIP implementation rate in the AFI Region

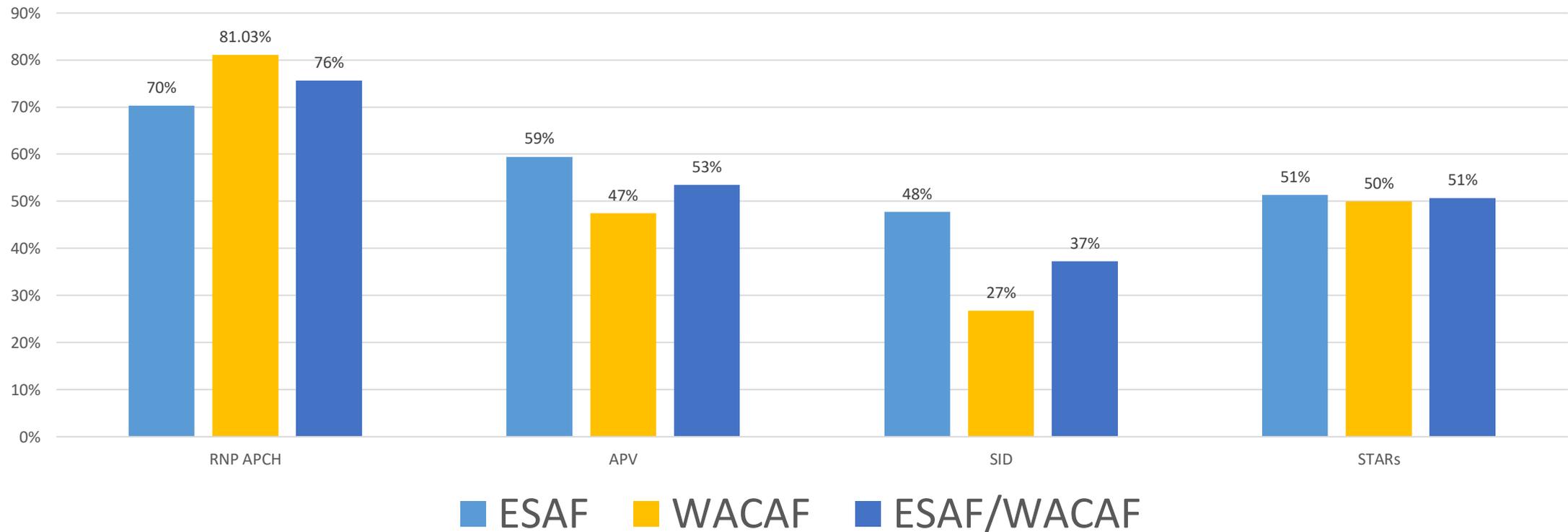




PBN implementation status in the AFI Region

African Flight Procedure Programme (AFPP)

PBN approaches implementation Status





PBN implementation status in the AFI Region

African Flight Procedure Programme (AFPP)

CCO/CDO implementation status

- ❑ Difficulties to assess if an IFP is CCO/CDO compliant:
 - ☞ All SIDs/STARs can be flown using CCO/CDO technics
 - ☞ However a good airspace design with arriving/Departing traffic strategic segregation make it more efficient.
- ❑ Consequently, we'll assume that CCO/CDO is implemented within an aerodrome if the traffic segregation is provided
- ❑ States don't react to APRIG conclusion 22/08:
 - ☞ So, no way to assess CCO/CDO implementation status!!



Way forward

African Flight Procedure Programme (AFPP)

- ❑ As a result of the poor training we've:
 - ☞ Lack of expertise (airspace design, IFP design);
 - Solution: More trainings (executive and professionals)!
- ❑ WGS-84 implementation and maintenance issue can be tackled with:
 - ☞ Cooperation;
 - ☞ Specific control during the ICAO CMA audits.
- ❑ Solution to the software issue:
 - ☞ Funding for common FPD and charting systems;
 - ☞ Cooperation.



Questions:

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