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INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY

PBN DEPLOYMENT STATUS IN IN MID REGION

PBN SG/8 (DOHA, QATAR, 12 - 13 DECEMBER 2023)



ICAO Assembly Resolution A37-11 - PBN Global Targets

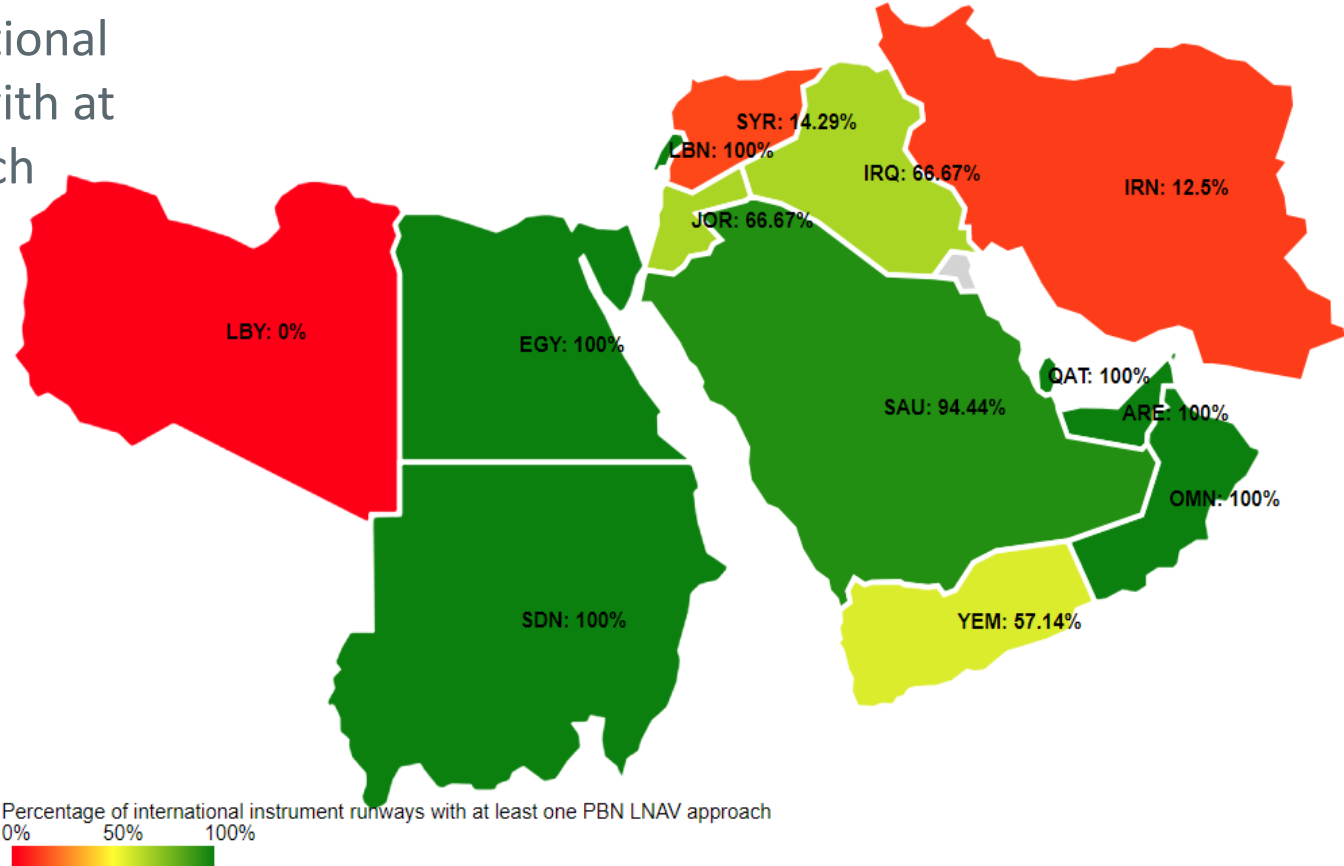
- Approach procedures with vertical guidance (APV Baro-VNAV) including LNAV-only minima for all instrument runway ends by 2016.
- Straight-in LNAV only procedures as an exception to the above where there is:
 - no local altimeter setting; and
 - no aircraft equipped for APV with max certified mass of 5700kg or more



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Percentage of international instrument runways with at least one PBN approach (LNAV, LNAV/VNAV)
Average: 72.3%





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BHR	Bahrain	100
EGY	Egypt	100
IRN	Iran (Islamic Republic of)	12.5
IRQ	Iraq	66.67
JOR	Jordan	66.67
LBN	Lebanon	100
LBY	Libya	0
OMN	Oman	100
QAT	Qatar	100
SAU	Saudi Arabia	94.44
SDN	Sudan	100
SYR	Syrian Arab Republic	14.29
ARE	United Arab Emirates	100
YEM	Yemen	57.14



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ICAO Assembly Resolution A37-11 – National PBN Plan

All States to complete a national PBN implementation plan as a matter of urgency.





National PBN Plan Submissions from MID Region



■ Submitted ■ Updated ■ No Submission

Total States	15
Submitted	7
Updated	1
No Submission	8



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APTA THREAD/ELEMENTS PRIORITY 1 (Block 0 & 1 IN THE MID REGION)

APTA-B0/1 PBN Approaches (with basic capabilities)

APTA-B0/2 PBN SID and STAR procedures (with basic capabilities)

APTA-B0/4 CDO (Basic)

APTA-B0/5 CCO (Basic)

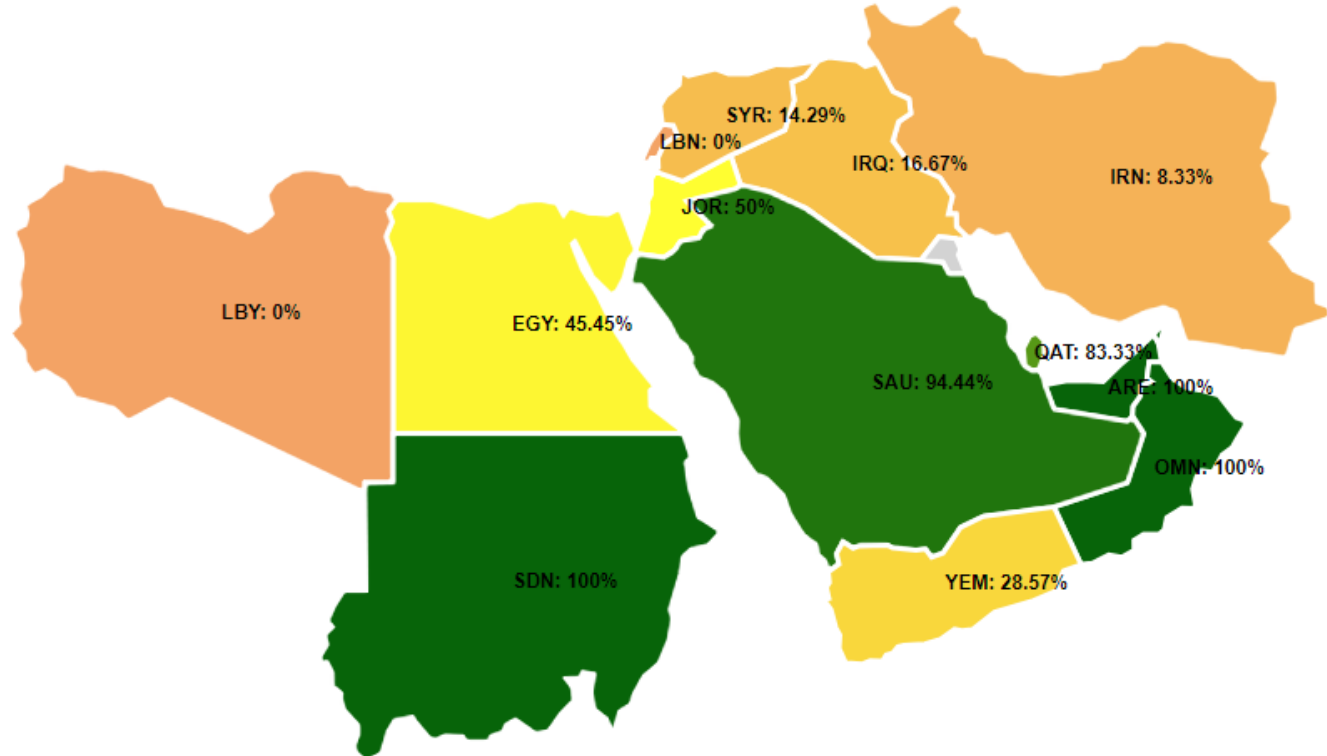
APTA-B0/7 Performance based aerodrome operating minima – Advanced aircraft



Element		Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
APTA B0/1	PBN Approaches (with basic capabilities)	All RWYs ENDs at International Aerodromes	Indicator: % of Runway ends at international aerodromes provided with Baro-VNAV approach procedures (LNAV/VNAV) Supporting metric: Number of Runways ends at international aerodromes provided with Baro-VNAV approach procedures (LNAV/VNAV)	55%	100%	Dec 2017	KPI10/ Capacity



Implementation status of the APTA B0/1 PBN APCH with Basic capabilities





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APTA B0/1 :
PBN
Approaches
(with basic
capabilities)

BHR	Bahrain	100
EGY	Egypt	45.45
IRN	Iran (Islamic Republic of)	8.33
IRQ	Iraq	16.67
JOR	Jordan	50
LBN	Lebanon	0
LBY	Libya	0
OMN	Oman	100
QAT	Qatar	83.33
SAU	Saudi Arabia	94.44
SDN	Sudan	100
SYR	Syrian Arab Republic	14.29
ARE	United Arab Emirates	100
YEM	Yemen	28.57



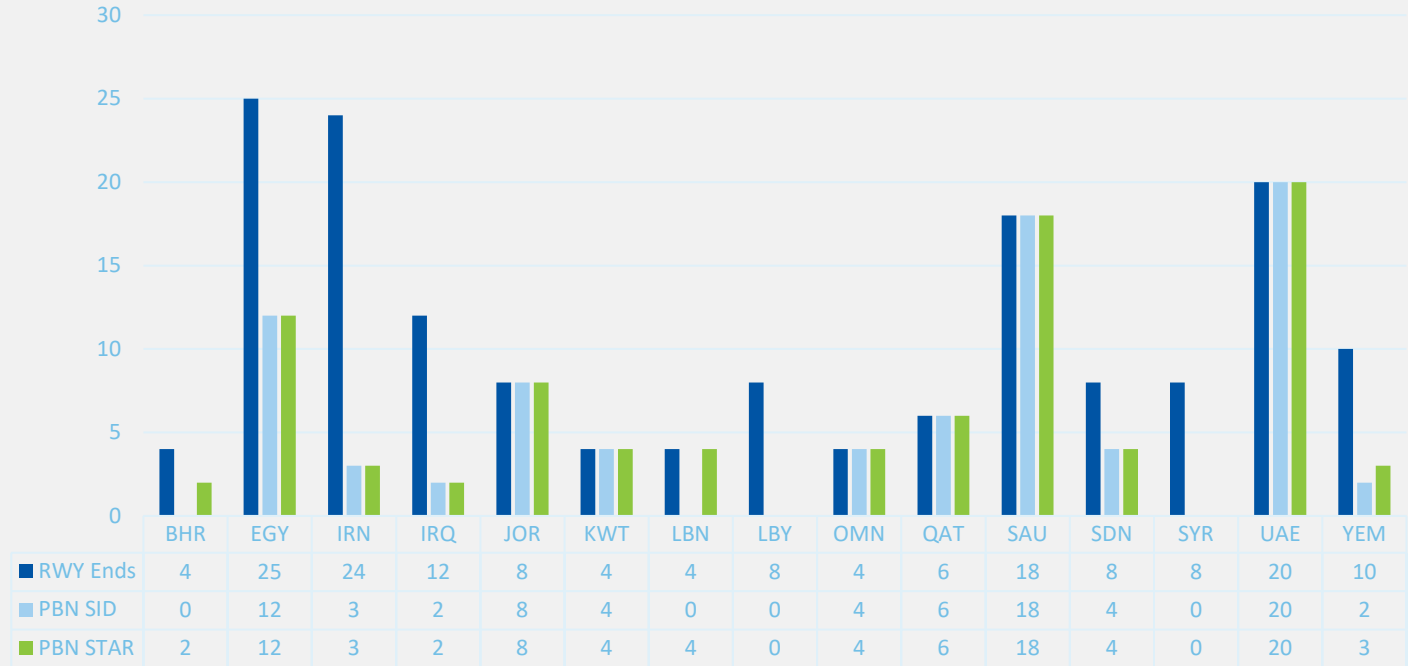
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Element		Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
APTA BO/2	PBN SID and STAR procedures (with basic capabilities)	All RWYs ENDs at International Aerodromes	Indicator: % of Runway ends at international aerodromes provided with PBN SID and STAR (basic capabilities). Supporting Metric: Number of Runway ends at international aerodromes provided with PBN SID and STAR (basic capabilities).	55%	70%	Dec 2022	KPI10 KPI11 KPI17 KPI19/ Efficiency Capacity



Implementation status of the APTA B0/2: PBN SID and STAR procedures (with basic capabilities)





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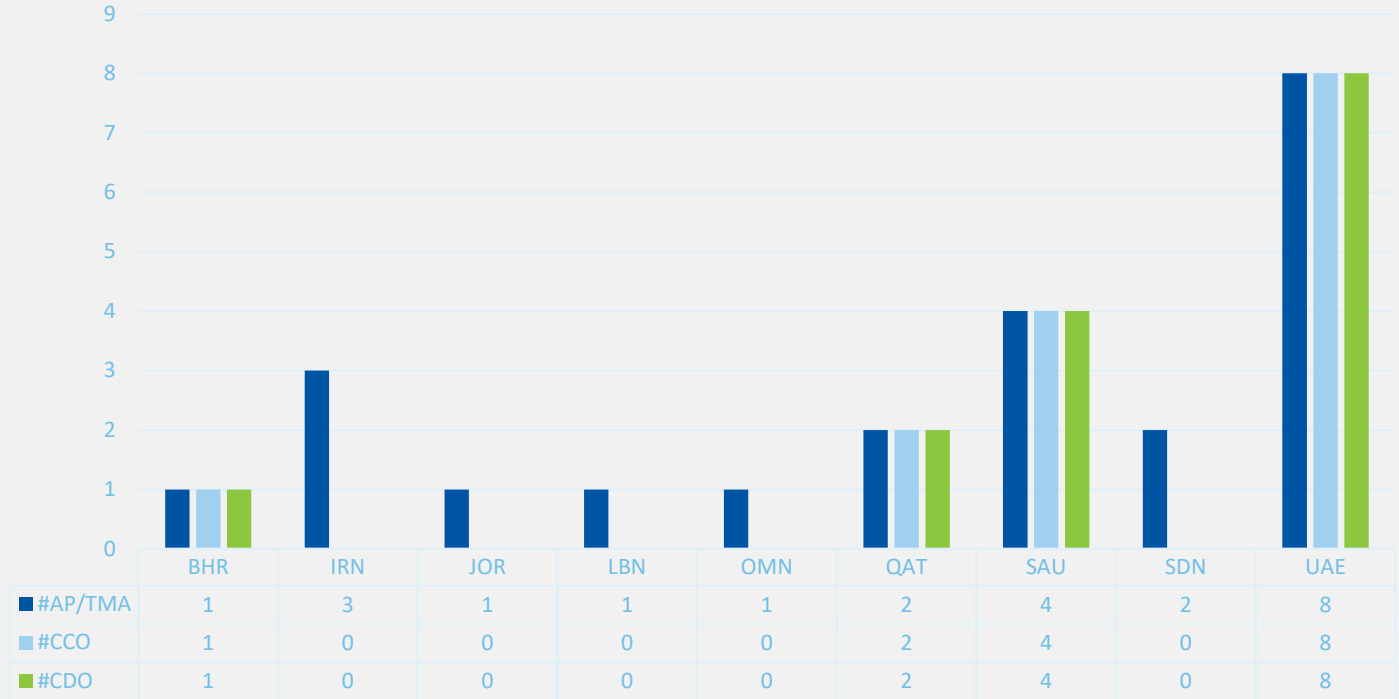
Element		Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
APTA B0/4	CDO (Basic)	OBBI, OIIE, OIKB, OIFM, OJAI, OLBA, OOMS, OTHH, OTBD, OEJN, OEMA, OEDF, OERK, HSSS, HSPN, OMAA, OMAL, OMAD, OMDW, OMDB, OMSJ, OMRK and OMFJ	Indicator*: % of International Aerodromes with CDO implemented as required. Supporting Metric: Number of International Aerodromes with CDO implemented as required. *As per the applicability area	65%	100%	Dec 2021	KPI19/ Efficiency
APTA B0/5	CCO (Basic)	OBBI, OIIE, OIKB, OIFM, OJAI, OLBA, OOMS, OTHH, OTBD, OEJN, OEMA, OEDF, OERK, HSSS, HSPN, OMAA, OMAL, OMAD, OMDW, OMDB, OMSJ, OMRK and OMFJ	Indicator*: % of International Aerodromes with CCO implemented as required. Supporting Metric: Number of International Aerodromes with CCO implemented as required. *As per the applicability area	65%	100%	Dec 2021	KPI17/ Efficiency



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Implementation status of the APTA B0/4 & B0/5 CCO and CDO Basics



■ #AP/TMA ■ #CCO ■ #CDO



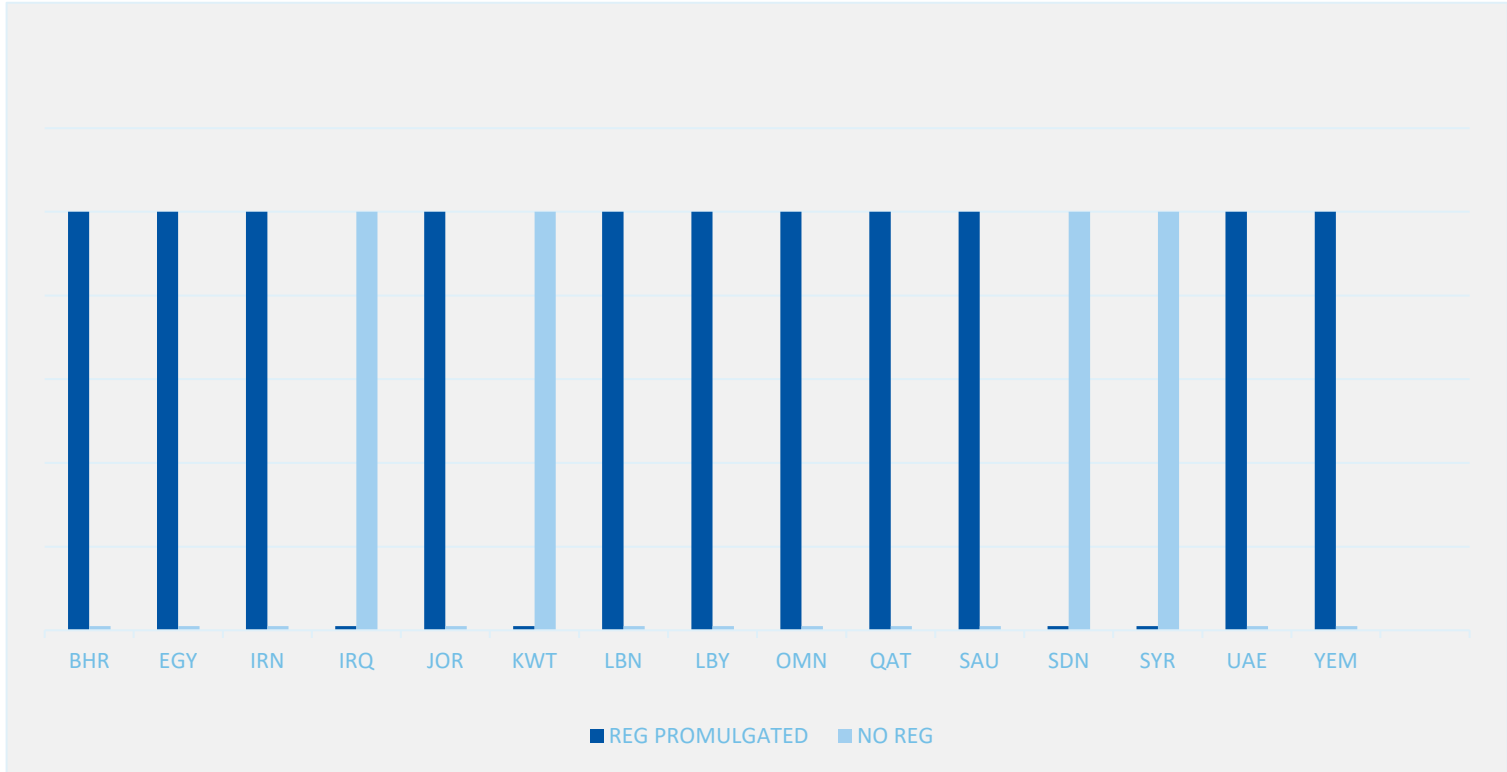
Element		Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
APTA B0/7	Performance based aerodrome operating minima – Advanced aircraft	All States	Indicator: % of States authorizing Performance-based Aerodrome Operating Minima for Air operators operating Advanced aircraft. Supporting Metric: Number of States authorizing Performance-based Aerodrome Operating Minima for Air operators operating Advanced aircraft.	85%	100%	Dec 2021	KPI10/ Capacity



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Implementation status of the APTA B0/7 PBAOM



PBN implementation – Capacity Building and Assistance


- PBN's huge benefits are well recognized and is an important component of our regional priorities. However, the progress of PBN implementation in the MID Region has not been satisfactory and has failed to achieve the objectives set by the 37th ICAO Assembly Resolution in this regard.
- Therefore, States are encouraged to express their needs in term capacity-building and assistance activities to improve their rate of PBN implementation.
- The objective of the PBN assistance activities provide guidance in terms of planning and improvement of practices in PBN Design, operational approval and continuous oversight.



PBN implementation – Capacity Building and Assistance

MIDANPIRG CONCLUSION 20/26: PBN CAPACITY-BUILDING AND ASSISTANCE ACTIVITIES

That, States are encouraged to inform the ICAO MID Office under the MEP framework of their needs in terms of PBN capacity-building and required assistance activities, including PBN National Workshops to provide specific guidance related to PBN planning, implementation, including improvement of practices in PBN Design, operational approval, and continuous oversight.



International Civil Aviation Organization	Organisation de l'aviation civile Internationale	Organización de Aviación Civil Internacional	Международная организация гражданской авиации	منظمة الطيران المدنى الدولي	国际民用 航空组织
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Ref: AN 6/28 – 23/167 14 August 2023

Subject: Follow-up to MIDANPIRG Conclusion 20/26 on PBN Capacity-Building and Assistance Activities

Action required: Inform the ICAO MID Office of your needs in terms of PBN capacity-building and required assistance activities

Sir,


I have the honour to refer to the Twentieth Meeting of the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG/20) held in Muscat, Oman from 14 to 17 May 2023 and in particular to the following Conclusion:

CONCLUSION 20/26: PBN CAPACITY-BUILDING AND ASSISTANCE ACTIVITIES

That, States are encouraged to inform the ICAO MID Office under the MIDANPIRG Enhancement Programme (MEP) framework of their needs in terms of PBN capacity-building and required assistance activities, including PBN National Workshops to provide specific guidance related to PBN planning, implementation, including improvement of practices in PBN Design, operational approval, and continuous oversight.

Accordingly, should you require any assistance related to PBN planning, implementation, including improvement of practices in PBN Design, operational approval, and continuous oversight activities, you are kindly requested to inform the ICAO MID Office of your needs in terms of PBN capacity-building and required assistance activities, including PBN National Workshops.

Accept, Sir, the assurances of my highest consideration.


Mohamed Abubaker Fares
Regional Director
ICAO Middle East Office

M/TF/R/d

Ministry of Civil Aviation Complex Cairo Airport Road P.O. Box 85 Airport Post Office Cairo 11776 A.R.E	Tel: +2 (02) 2287 4840/1/5/6 Fax: +2 (02) 22874845	E-mail: caamids@icao.int http://www.icao.int/mid
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Action by the meeting

- note the information provided in this presentation;
- review and update, as necessary, the status of PBN implementation, at Appendix A; and
- invite States to inform the ICAO MID Office of their needs in terms of PBN capacity-building and required assistance activities.



Thank You

MID REGION PBN IMPLEMENTATION STATUS

Updated on 01st Decemebr 2022

Legend		Not implemented
		Not feasible
		Not applicable
		Data not available
		Implemented

State	Airport	RWY ends	LNAV	LNAV/ VNAV	RNAV SID	RNAV STAR	CDO	CCO	PB-AOM
Bahrain	OBBI	RWY 12R							
		RWY 12L							
		RWY 30R							
		RWY 30L							
Egypt	HEBA	RWY 14R							
		RWY 32L							
		RWY 32							
	HESN	RWY 17							
		RWY 35							
	HECA	RWY 05L							
		RWY 23R							
		RWY 05C							
		RWY 23C							
		RWY 05R							
		RWY 23L							
	HEGN	RWY 16L							
		RWY 34R							
RWY 16R									

State	Airport	RWY ends	LNAV	LNAV/ VNAV	RNAV SID	RNAV STAR	CDO	CCO	PB-AOM	
		RWY 34L								
	HELX	RWY 02								
		RWY 20								
		RWY 02L								
		RWY 20R								
	HEMA	RWY 15								
		RWY 33								
	HESH	RWY 04L								
		RWY 22R								
		RWY 04R								
		RWY 22L								
	Iran	OIKB	RWY 03R							
			RWY 21L							
		OIFM	RWY 08L							
RWY 26R										
RWY 08R										
RWY 26L										
RWY 13L										
OIMM		RWY 31R								
		RWY 13R								
		RWY 31L								
OISS		RWY 29L								

State	Airport	RWY ends	LNAV	LNAV/ VNAV	RNAV SID	RNAV STAR	CDO	CCO	PB-AOM
		RWY 29R							
	OITT	RWY 12L							
		RWY 30R							
	OIIE	RWY 11L							
		RWY 29R							
	OIII	RWY 11R							
		RWY 29L							
		RWY 11L							
		RWY 29R							
	OIYY	RWY 13							
		RWY 31							
	OIZH	RWY 17R							
		RWY 35L							
	Iraq	ORNI	RWY 28						
RWY 10									
ORBI		RWY 15R							
		RWY 33L							
		RWY 15L							
		RWY 33R							
ORMM		RWY 32							
		RWY 14							
ORER		RWY 18							
		RWY 36							
ORSU		RWY 31							

State	Airport	RWY ends	LNAV	LNAV/ VNAV	RNAV SID	RNAV STAR	CDO	CCO	PB-AOM
		RWY 13							
Jordan	OJAM	RWY 06							
		RWY 24							
	OJAI	RWY 08R							
		RWY 26L							
		RWY 08L							
		RWY 26R							
	OJAQ	RWY 01							
		RWY 19							
Kuwait	OKBK	RWY 15R							
		RWY 33L							
		RWY 15L							
		RWY 33R							
Lebanon	OLBA	RWY 03							
		RWY 21							
		RWY 16							
		RWY 17							
Libya	HLLB	RWY 15L							
		RWY 33R							
		RWY 15R							
		RWY 33L							

State	Airport	RWY ends	LNAV	LNAV/ VNAV	RNAV SID	RNAV STAR	CDO	CCO	PB-AOM
	HLLS	RWY 13							
		RWY 31							
	HLLT	RWY 09							
		RWY 27							
Oman	OOMS	RWY 08L							
		RWY 26R							
	OOSA	RWY 07							
		RWY 25							
Qatar	OTBD	RWY 15							
		RWY 33							
	OTHH	RWY 16L							
		RWY 34R							
		RWY 16R							
		RWY 34L							
Saudi Arabia	OEDF	RWY 16L							
		RWY 34R							
		RWY 16R							
		RWY 34L							
	OEJN	RWY 16R							
		RWY 34L							
		RWY 16C							
		RWY 34C							

State	Airport	RWY ends	LNAV	LNAV/ VNAV	RNAV SID	RNAV STAR	CDO	CCO	PB-AOM		
		RWY 16L									
		RWY 34R									
	OEMA	RWY 17									
		RWY 35									
		RWY 18									
		RWY 36									
	OERK	RWY 15L									
		RWY 33R									
		RWY 15R									
		RWY 33L									
	Sudan	HSOB	RWY 01								
			RWY 19								
HSSK		RWY 18									
		RWY 36									
HSNN		RWY 04									
		RWY 22									
HSPN		RWY 16									
		RWY 34									
Syria	OSAP	RWY 09									
		RWY 27									
	OSDI	RWY 05L									
		RWY 23R									
		RWY 05R									

State	Airport	RWY ends	LNAV	LNAV/ VNAV	RNAV SID	RNAV STAR	CDO	CCO	PB-AOM
	OSLK	RWY 23L							
		RWY 17							
		RWY 35							
UAE	OMAA	RWY 13 R							
		RWY 31 L							
		RWY 13 L							
		RWY 31 R							
	OMAD	RWY 13							
		RWY 31							
	OMAL	RWY 01							
		RWY 19							
	OMDW	RWY 12							
		RWY 30							
		RWY 13							
		RWY 31							
	OMDB	RWY 12L							
		RWY 30R							
		RWY 12R							
		RWY 30L							
	OMFJ	RWY 11							
		RWY 29							
	OMRK	RWY 16							
		RWY 34							

State	Airport	RWY ends	LNAV	LNAV/ VNAV	RNAV SID	RNAV STAR	CDO	CCO	PB-AOM
	OMSJ	RWY 12							
		RWY 30							
Yemen	OYAA	RWY 08							
		RWY 26							
	OYHD	RWY 03							
		RWY 21							
	OYRN	RWY 06							
		RWY 24							
	OYSN	RWY 18							
		RWY 36							
	OYTZ	RWY 01							
		RWY 19							

- END -