

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**



**REPORT OF  
THE EIGHTH MEETING OF THE PERFORMANCE BASED NAVIGATION  
IMPLEMENTATION COORDINATION GROUP (PBNICG/8)**

VTC  
6-7 July 2021

The views expressed in this Report should be taken as those of the Meeting and not the Organization

Approved by the Meeting  
and published by the ICAO Asia and Pacific Office, Bangkok

## **HISTORY OF THE MEETING**

### **1. Introduction**

1.1 The Eighth Meeting of the Performance Based Navigation Implementation Coordination Group (PBNICG/8) was held through Video Teleconference (VTC), from 6-7 July 2021.

### **2. Attendance**

2.1 The meeting was attended by 100 participants from Australia, Bangladesh, China, Fiji, India, Hong Kong China, Indonesia, Japan, Malaysia, Maldives, Myanmar, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand, Viet Nam, United States, IATA, IFALPA, IFATCA and ICAO.

2.2 The participants from States were multi-disciplinary experts in various fields related to PBN implementation including CAA Regulators, Inspectors, ANSPs, instrument flight procedure designers, engineers and airlines. The relevant presentations and documents are available at <https://www.icao.int/APAC/Meetings/Pages/2021-PBNICG-8-.aspx>. The list of participants is placed at **Attachment 1**

### **3. Opening of the Meeting**

3.1 Mr. Raphael Guillet, Chief of ICAO Asia/Pacific Regional Sub-Office (RSO), welcomed the participants of the PBNICG/8. He emphasized that sharing experiences and learning from others were the most important objectives of the meeting. He then invited all States to actively participate in the meeting discussion and provide ideas to sustain the PBN implementation in the APAC region.

3.2 The Chairman of the PBNICG, Mr. Ilaitia Tabakaucoro, [designation], Papua New Guinea, welcomed participants to the meeting.

### **4 Officers and Secretariat**

4.1 The meeting was chaired by Mr. Ilaitia Tabakaucoro. Mr. V. K. Mishra, ICAO Regional Officer ATM (AOM-PBN), acted as secretary.

### **5. Working Arrangements, Language and Documentation**

5.1. The working language of the meeting was English inclusive of all documentation and this Report. 04 Working Papers (WP), 06 Information Papers (IP). A list of Working and Information Papers is provided at **Attachment 2**.

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**Agenda Item 1: Adoption of agenda**

- 1.1 The Chairman introduced the provisional agenda (WP01) to the meeting.
- 1.2 The meeting reviewed and agreed to the proposed agenda without changes, as follows:

- Agenda Item 1: Adoption of Agenda
- Agenda Item 2: Global and Regional PBN Updates
- Agenda Item 3: Implementation status of the Regional Transition Plan for RNP APCH Chart Identification from RNAV to RNP
- Agenda Item 4: States' PBN Implementation Progress
- Agenda Item 5: Review and update of action list
- Agenda Item 6: Any other business

**Agenda item2: Global and Regional PBN updates**

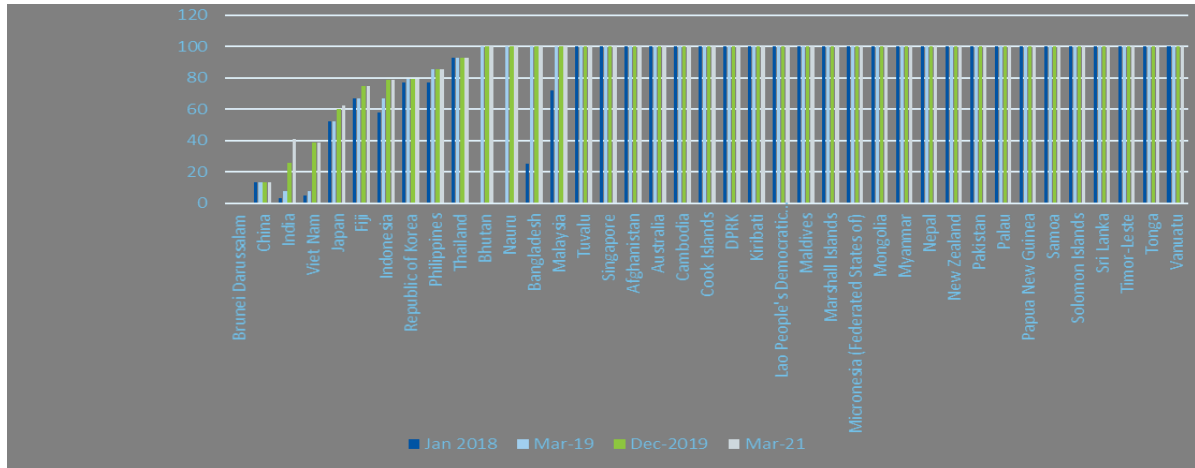
**WP03– Global and Regional PBN Implementation Update (Secretariat)**

2.1 ICAO presented global PBN implementation status as available in ICAO iSTARS. ICAO informed that regarding key requirement of ICAO Assembly Resolution A37-11, which was the implementation of approach procedures with vertical guidance (APV) for all instrument runway ends by 2016, implementation of APV procedures were behind global achievement. However, implementation of PBN SID/STAR were above the global implementation status (see **Table 1 and Chart 1**).

**Table 1.** ICAO Assembly Resolution A37-11 Implementation Status

<b>March 2021</b>	<b>LNAV(including LNAV only)</b>	<b>APV</b>		<b>PBN SID</b>	<b>PBN STAR</b>
		<b>LNAV/VNAV</b>	<b>LPV</b>		
<b>Global (%)</b>	71.4	59.4	34.4	49.4	44.8
<b>Asia/Pacific (%)</b>	57.5	47.1	0	71.6	68.8

**Chart 1. PBN (Approach) Update, as of March 2021(as per iSTARS)**



2.2 ICAO informed the meeting that the report of PBNICG/7 was reviewed in the CNSSG/24 (30 November– 4 December 2020) and APANPIRG/31 (VTC, 14 – 16 December 2020) and following points were highlighted in APANPIRG/31:

- States' PBN Implementation Progress;
- Discussion on CDO/CCO Implementation by China and India;
- List of Action Items from previous PBNICG meetings and those 6 out of 7 items were closed after discussion; and
- Discrepancy about the list of International Airports in iSTARS and ANP.

2.3 ICAO informed the meeting that RSO discussed the discrepancy in the list of international airports in iSTARS and APAC Air Navigation Plan (ANP) with ICAO HQ where it was agreed that ANP to be used as State reference for number of international airport. This issue was also discussed at AOP SG/4 and APANPIRG/31 reference Para 3.1.4 of APANPIRG/31 report, States have been urged to update their list in ANP Vol-I & Vol-II.

2.4 Maldives stated that some of their airports were limited to LNAV procedures only, as aircraft were not capable of LNAV-VNAV. ICAO suggested that they should also consider designing LNAV-VNAV for those airports to enhance safety by providing vertical guidance for future operations.

2.5 Nepal queried why Required Navigation Performance Authorization Required (RNP AR) Departure criteria had not been included in the list of not commonly used PBN criteria. ICAO clarified that the list contained only ICAO published criteria and that RNP AR departure criteria was still under consideration by the ICAO Instrument Flight Procedures Panel (IFPP).

**Agenda Item 3: Implementation status of the Regional Transition Plan for RNP APCH Chart Identification from RNAV to RNP**

**WP04 – Implementation Status of Regional Transition Plan for RNP Chart Identification (Secretariat)**

3.1 The Secretariat presented the Implementation status of the regional transition plan for RNP APCH chart identification from RNAV to RNP, Asia/Pacific Regional Transition Plan for RNP APCH Chart Identification from RNAV to RNP as adopted by APANPIRG/30 vide Conclusion APANPIRG/30/14 (CNS SG/23/8-PBNICG/6/1). The Secretariat reminded the States about target date as November 2022 for RNP transition. The plan is available at the following link on ICAO APAC webpage:

<https://www.icao.int/APAC/Documents/edocs/APX.%20B%20-%20Regional%20Transition%20Plan%20for%20RNP%20Chart%20Identification.pdf>

3.2 The Secretariat invited the participants to review if there was any change to their APAC Regional Transition Plan and to report the same to [APAC-RSO@icao.int](mailto:APAC-RSO@icao.int).

3.3 The Republic of Korea and Singapore requested to update their completion status in the transition plan. ICAO clarified that this would be updated, and urged other States to provide their updates on RNP transition and focal point to ICAO.

3.4 Malaysia queried about how other States had managed their promulgation of charts for RNP transition. Australia commented that they had published through an Aeronautical Information Publication (AIP) amendment and had also issued an Aeronautical Information Circular (AIC) as further guide to users about their transition. Australia also shared that during transition of RNP charts, capability of data houses should also be taken into consideration. ICAO reminded States that this was one of the contingency procedures for RNP Transition.

#### **Agenda Item 4: States' PBN Implementation Progress**

##### **IP01 – PBN Implementation in China (China)**

4.1 China presented the background of PBN Road Map in China, their progress of PBN implementation since PBNICG/7, and their update to RNP APCH chart identification transition from RNAV to RNP indicated that their transition was expected to be completed by November 2022.

4.2 Indonesia queried about consideration for RNP 2 implementation in China. China stated that they had published Advisory Circular (AC) on RNP 2. In response to Chair query on RNP AR Departure criteria, China stated that they had implemented RNP AR SIDs at some domestic airports and it was available in their AIP.

##### **IP02 – PBN Implementation in Non-Instrument Runways (India)**

4.3 India presented a paper on implementation of PBN approach procedures at non-instrument runways along with the update on PBN procedures implementation in India. It was informed that PBN implementation to non-instrument runways was a challenging task as it necessitates the involvement of various stakeholders at various stages of IFP implementation. However, it could be implemented with right kind of procedure design, simulator trials, flight trials, safety assessment and air traffic controller (ATC) training.

4.4 Pakistan queried about obstacle limitation surfaces (OLS) and location of missed approach point and Aerodrome Operating Minima (AOM) on the procedure discussed by India. India commented that OLS was protected for non-instrument runway and if there was some infringement, a mitigation through safety assessment could be the way. Regarding missed approach point, India stated that flight visibility and ground visibility were different and pilot could continue approach only after sighting the runway.

##### **IP03 – PBN Implementation Progress (Indonesia)**

4.5 Indonesia presented the PBN implementation progress, PBN implementation plan until 2024, transition plan for RNP APCH chart identification, and some actions taken by Indonesia to improve the PBN implementation. Indonesia PBN implementation plan until 2024 includes international en-route, domestic en-route, PBN SID/STAR and PBN instrument approach procedures (IAP) in international airports. The progress of transition for RNP APCH chart identification was expected to be completed by target date November 2022.

4.6 ICAO proposed to Indonesia to exchange about training program for ATC in PBN implementation. ICAO reiterated the importance of ATC training in PBN implementation as ATC was a vital link for the implementation and advised States to share their experiences in the next meeting.

#### **IP04 – The Progress of PBN Implementation in Myanmar**

4.7 Myanmar provided information on the PBN implementation progress in terminal control area (TMA), approach and en-route in accordance with their PBN implementation plan. However, the implementation process of some procedures had been delayed due to COVID-19 pandemic.

4.8 ICAO appreciated Myanmar for implementing RNP to ILS procedure, advised other States to apply this criteria. Pakistan stated that they had implemented RNP/RNAV to ILS at many of their airports.

4.9 ICAO requested Pakistan to share the experiences in this implementation in the next meeting to which Pakistan agreed. India also stated that they had implemented at two airports and they found it very useful for operations.

#### **IP05 – The Progress of PBN Implementation in Nepal**

4.10 Nepal provided information on the latest progress of PBN implementation in TMA, approach and en-route in accordance with their PBN implementation plan. Currently, 15 international operators (almost 50%) were conducting RNP AR operations at Tribhuvan International Airport, and four major domestic operators were doing RNP operations at the different airports in the country.

4.11 Pakistan queried about criteria used in implementation of RNP AR SIDs, to which Nepal stated that they were using the criteria in Doc 9905 – *Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual*, for RNP AR APCH procedure. ICAO clarified that RNP AR departure criteria was under development.

#### **IP06 – Thailand PBN Implementation (Thailand)**

4.12 Thailand provided PBN implementation status in approach, SIDs and STARs, and ATS route implementation. In addition, the meeting was informed about the progress of RNP AR APCH procedure at Krabi International Airport.

4.13 ICAO queried about the reason to implement only LNAV procedures at some airports, Thailand commented that these were old procedures and were being reviewed. Thailand also stated that all new procedures would be LNAV/VNAV.

#### **Agenda Item 5: Review and update of action list**

##### **WP05 – Progress of Action Items (Secretariat)**

5.1 ICAO presented the list of action items agreed by the previous meetings. There were two actions left for discussion at the meeting.

5.2 The meeting was informed of the progress of each action item, and agreed to close both items after deliberations (see **Appendix X**).

#### **Agenda Item 6: Any other business**

6.1 ICAO informed the meeting that a webinar on CCO/CDO is scheduled in September 2021 and the States were requested to share their experience about CDO/CCO. It was also informed that GBAS-SBAS ITF/3 is scheduled in September 2021.

6.2 Bangladesh raised some questions about the PBN Ops approval, which is a key component of PBN implementation in APAC. Indeed having PBN procedures published and not used by aircraft will be waste of efforts. ICAO explained that some PBN ops Approval activities have been

conducted through the COSCAPs (South Asia, South East Asia and North Asia), which are ICAO Technical Cooperation Bureau programs funded by States. Australia and Nepal shared their experience and provided the weblink to their regulations. ICAO will contact COSCAPs and States to provide further information in the next meeting.

**Next meeting**

7.1 The Chairperson proposed that PBNICG/9 would, tentatively be held in March/April 2022.

**Closing of the meeting**

7.2 The Chairperson thanked the participants for their contributions and expressed appreciation to the ICAO Asia/Pacific Regional Sub-Office for their support.

7.3 Mr. Raphael Guillet thanked all the participants and ICAO secretariat personnel for making this meeting fruitful.

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## Attachment 1

1	Salutati	First Name	Last Name	Participant	Parent Customer (Participant) (Contact)
2	Ms.	Colleen	Kitson	Colleen Kitson	Airservices Australia
3	Mr.	Steven	Kreusser	Steven Kreusser	Civil Aviation Safety Authority - Australia
4	Mr.	Chowdhury Md	Zia Ul Kabir	Chowdhury Md Zia Ul Kabir	Civil Aviation Authority of Bangladesh
5	Mr.	Md Kamal miah	Sarker	Md Kamal miah Sarker	Civil Aviation Authority of Bangladesh
6	Mr.	Md Shakhawat	Hossain	Md Shakhawat Hossain	Civil Aviation Authority of Bangladesh
7	Mr.	Md. Golam Mortoza	Hossain	Md. Golam Mortoza Hossain	Civil Aviation Authority of Bangladesh
8	Mr.	Mohammed Fariduz	Zaman	Mohammed Fariduz Zaman	CAA Bangladesh
9	Mr.	Monirul Haque	Joarder	Monirul Haque Joarder	Civil Aviation Authority of Bangladesh (CAAB)
10	Ms.	Sabera	Rahman	Sabera Rahman	Civil Aviation Authority of Bangladesh
11	Mr.	Arthur Pik Hung	Chan	Arthur Pik Hung Chan	Civil Aviation Department of Hong Kong SAR, China
12	Mr.	BIHE	WANG	BIHE WANG	Civil Aviation Administration of China (CAAC)
13	Mr.	George	Chan	George Chan	IATA
14	Ms.	Jenny	Lee	Jenny Lee	Civil Aviation Department, Hong Kong, China
15	Mr.	Kelvin	CHAN	Kelvin CHAN	Hong Kong Civil Aviation Department
16	Mr.	Long	Meng	Long Meng	Airspace Management Centre, ATMB CAAC
17	Ms.	SHU	YANG	SHU YANG	CAFUC
18	Mr.	XIAWEI	ZUO	XIAWEI ZUO	Northwest Regional Administration of CAAC
19	Ms.	Kalesi	Cagi	Kalesi Cagi	Fiji Airports
20	Ms.	Sereima	Bolanavatu	Sereima Bolanavatu	Civil Aviation Authority of Fiji
21	Mr.	christophe	papon	christophe papon	DGAC France
22	Mr.	DEBOTOSH	MOITRA	DEBOTOSH MOITRA	Airports Authority Of India (AAI)
23	Mr.	GAURAV	RAGHUVANSHI	GAURAV RAGHUVANSHI	Airports Authority of India
24	Mr.	ravinder	jamwal	ravinder jamwal	DGCA India
25	Mr.	Fajar	Sunarjanto	Fajar Sunarjanto	DGCA INDONESIA, DIRECTORATE OF AIR NAVIGATION
26	Mr.	HENDRA AHMAD	FIRDAUS	HENDRA AHMAD FIRDAUS	DGCA INDONESIA
27	Mr.	IWAN	ARDIANSYAH	IWAN ARDIANSYAH	AirNav Indonesia
28	Mr.	mohamad	iqbal firdaus	mohamad iqbal firdaus	Perum Ippnpi airnav indonesia
29	Mr.	Obor Rudiansyah	Mandala	Obor Rudiansyah Mandala	Indonesia/AirNav Indonesia
30	Mr.	Okta	Kurnia Putra	Okta Kurnia Putra	DGCA INDONESIA, DIRECTORATE OF AIR NAVIGATION
31	Mr.	Rino	Laharto	Rino Laharto	AirNav Indonesia
32	Ms.	Waya	Fadini	Waya Fadini	DGCA - Indonesia
33	Mr.	Yuli	Asnanto	Yuli Asnanto	DGCA INDONESIA, DIRECTORATE OF AIR NAVIGATION
34	Mr.	Marcello Davide	Mannino	Marcello Davide Mannino	IDS AIRNAV S.r.l.
35	Mr.	Kyotaro	Harano	Kyotaro Harano	Japan Civil Aviation Bureau (JCAB)
36	Mr.	Makito	Ohashi	Makito Ohashi	Ministry of Land, Infrastructure, Transport and Tourism / Japan Civil Aviation Bureau
37	Mr.	Max	Matsumoto	Max Matsumoto	IFALPA
38	Mr.	SETSUYA	NAGAHATA	SETSUYA NAGAHATA	Ministry of Land,Infrastructure,Transport and Tourism
39	Mr.	Yoshiki	Imawaka	Yoshiki Imawaka	All Nippon Airways (ANA)
40	Mr.	ASHMIL	BIN ABD GHANI	ASHMIL BIN ABD GHANI	Civil Aviation Authority of Malaysia
41	Mr.	HAMIZUN	BIN JENAL	HAMIZUN BIN JENAL	Civil Aviation Authority of Malaysia
42	Mr.	MOHD RAHIMI	BIN JAMALUDIN	MOHD RAHIMI BIN JAMALUDIN	Civil Aviation Authority of Malaysia
43	Mr.	MOHD SYAHRIL AZMIR	BIN REMLI	MOHD SYAHRIL AZMIR BIN REMLI	Civil Aviation Authority of Malaysia

44	Mr.	MOHD ZURAI	BIN SAAD	MOHD ZURAI BIN SAAD	Civil Aviation Authority of Malaysia
45	Mr.	Ibrahim	Hameed	Ibrahim Hameed	Maldives Airports Company Ltd
46	Ms.	Ei Moh Moh	Maung	Ei Moh Moh Maung	Department of Civil Aviation, Myanmar
47	Mr.	Kyaw	Aye Maung	Kyaw Aye Maung	Department of Civil Aviation, Myanmar
48	Ms.	May Zin	Chit	May Zin Chit	DCA MYANMAR
49	Mr.	DEVENDRA PRASAD	SHRESTHA	DEVENDRA PRASAD SHRESTHA	Civil Aviation Authority of Nepal (CAAN)
50	Mr.	Rabindra	Maharjan	Rabindra Maharjan	Civil Aviation Authority of Nepal (CAAN)
51	Mr.	rajendra	singh nayak	rajendra singh nayak	Civil Aviation Authority of Nepal
52	Mr.	Suwarn Raj	Upadhyay	Suwarn Raj Upadhyay	Civil Aviation Authority of Nepal
53	Mr.	Hamish	McKoy	Hamish McKoy	Civil Aviation Authority of New Zealand
54	Mr.	Greg	Perris	Greg Perris	Airways New Zealand
55	Mr.	Arif	Mumtaz	Arif Mumtaz	PAKISTAN CIVIL AVIATION AUTHORITY
56	Mr.	Faisal	Anwar	Faisal Anwar	PAKISTAN Civil Aviation Authority - Ops. Directorate
57	Mr.	FAZAL	UR REHMAN	FAZAL UR REHMAN	PAKISTAN CIVIL AVIATION AUTHORITY
58	Mr.	SHABBIR	AHMED	SHABBIR AHMED	PAKISTAN CIVIL AVIATION AUTHORITY
59	Mr.	Ilaitia	Tabakucoro	Ilaitia Tabakucoro	NiuSky Pacific Limited
60	Mr.	Joselito	Mamuad	Joselito Mamuad	Civil Aviation Authority of the Philippines
61	Ms.	PRISCILLA	BAUTISTA	PRISCILLA BAUTISTA	Civil Aviation Authority of the Philippines
62	Ms.	Rochelle	Aquino	Rochelle Aquino	caap
63	Mr.	Rodrigo	Maglahus	Rodrigo Maglahus	Department of Transportation/Civil Aviation Authority of the Philippines
64	Mr.	Hyeong-cheol	Kwon	Hyeong-cheol Kwon	ATMO, MOLIT, Republic of Korea
65	Mr.	Imshik	Shin	Imshik Shin	Korean Air
66	Mr.	Jaekyoung	Im	Jaekyoung Im	Ministry of Land, Infrastructure and Transport, Republic of Korea / Air Traffic Management Office
67	Mr.	Junho	Lee	Junho Lee	Ministry of Land, transport and Maritime Affairs, Republic of Korea
68	Mr.	Ahmadul Fatta	Mohamed Noor	Ahmadul Fatta Mohamed Noor	Civil Aviation Authority of Singapore (CAAS)
69	Mr.	Anthony	Ang	Anthony Ang	International Federation of Air Traffic Controllers' Associations (IFATCA)
70	Mr.	Jimit	Singh	Jimit Singh	Civil Aviation Authority of Singapore (CAAS)
71	Mr.	John	Moore	John Moore	International Air Transport Association (IATA)
72	Mr.	Roy	Sng	Roy Sng	Civil Aviation Authority of Singapore (CAAS)
73	Mr.	Wee Jui	Chua	Wee Jui Chua	Civil Aviation Authority of Singapore (CAAS)
74	Mr.	Anjula	Samarasekara	Anjula Samarasekara	Airport and Aviation Services (Sri Lanka) Ltd.
75	Mr.	JagathBhatiya	Ratnayake	JagathBhatiya Ratnayake	Airport and Aviation Services Sri Lanka
76	Mr.	Kamal Indrajith	Ranaweera	Kamal Indrajith Ranaweera	Airport & Aviation Services (Sri Lanka) Ltd
77	Ms.	Madhusa	Hettiarachchi	Madhusa Hettiarachchi	AASL Sri Lanka
78	Mr.	Mahesh	Gunawardane	Mahesh Gunawardane	Airport & Aviation Services (Sri Lanka) (Pvt) Ltd
79	Ms.	Mahesha	Hapanweera	Mahesha Hapanweera	Government of Sri Lanka
80	Mr.	Nagalingam	Navajeevan	Nagalingam Navajeevan	Civil Aviation Authority of Sri Lanka
81	Mr.	Sanjaya	Disapathige	Sanjaya Disapathige	Airport and Aviation Services (Sri Lanka) Ltd
82	Mr.	Shavantha	Pedris	Shavantha Pedris	IFALPA - ALPL
83	Mr.	Thilina	Warnasinghe	Thilina Warnasinghe	CAASL
84	Ms.	Thilini	Herath	Thilini Herath	CAASL
85	Mr.	Harit	Chatprasit	Harit Chatprasit	Civil Aviation Authority of Thailand (CAAT)
86	Mr.	Karan	Chantrong	Karan Chantrong	Civil Aviation Authority of Thailand (CAAT)
87	Mr.	Kom	Promsuttikul	Kom Promsuttikul	AEROTHAI, Aeronautical Radio of Thailand Ltd.
88	Mr.	Pongabha	Abhakara	Pongabha Abhakara	The Civil Aviation Authority of Thailand (CAAT)

89	Mr.	WORAPHAN	MUANGSRI	WORAPHAN MUANGSRI	AEROTHAI, Aeronautical Radio of Thailand Ltd.
90	Mr.	Dinh Cong	Nguyen	Dinh Cong Nguyen	Viet Nam Air Traffic Management Corporation (VATM)
91	Mr.	Khanh	Trinh Ngoc	Khanh Trinh Ngoc	Viet Nam Aeronautical Information Centre (VNAIC)
92	Mr.	Le Cuong	NGUYEN XUAN	Le Cuong NGUYEN XUAN	Vietnam air traffic management Corporation (VATM)
93	Ms.	LY	DANG HONG	LY DANG HONG	Viet Nam Air Traffic Management Corporation (VATM)
94	Mr.	Nguyen	Huu Duc	Nguyen Huu Duc	Civil Aviation Authority of Vietnam
95	Mr.	Nguyen	Tuan	Nguyen Tuan	Civil Aviation Authority of Viet Nam
96	Mr.	Michael	Watkins	Michael W. Watkins	FAA Senior Asia/Pacific
97	Mr.	Ivan	Wang	Ivan Wong	Fiji Airports
98	Mr.	Ilaitia	Tabakucoro	Ilaitia M. Tabakucoro	Papua New Guinea

## Attachment 2

### List of WPs and IPs for PBNICG/8

#### Working Papers (WPs)

1. WP01-Provisional Agenda\_PBNICG8
2. WP02 - Provisional Order of Business\_PBNICG8
3. WP03- Global and Regional PBN Update\_PBNICG8
4. WP04-Implementation Status of Regional RNP transition plan- PBNICG8

#### Information Papers (IPs)

1. IP01-China's PBN implementation progress-PBNICG 8
2. IP02-PBN Implementation Challenges in Non-Instrument RWY in India\_PBNICG8
3. IP03\_Indonesia PBN Implementation Progress\_PBNICG8\_Indonesia
4. IP04\_Progress of PBN Implementation in Myanmar\_PBNICG8\_2021
5. IP05-PBN Implementation Progress in Nepal\_PBNICG8
6. IP06- Thailand's PBN Implementation Progress\_PBNICG8\_Thailand

RNP APCH Transition Plan-APAC- Status as on 6 July 2021						
State	Project Team Manager or designated focal point	Current number of RNAV Charts	State response (AP051-18) Published	Planned	total	Target date of Completion of Transition
Afghanistan		6			0	
Australia	Jacqueline Vials Jacqueline.Vials@infrastructure.gov.au	639	653		653	To be published in 10 groups, 1st group published to be effective from Sept 2021 and the entire process to be completed by 2023.
Bangladesh	Sabera Rahman mitasr@gmail.com	1	1		1	Completed
Bhutan		3	0	0	0	
Brunei Darussalam		2			0	
Cambodia		5			0	
China	Mr. Wang Bihe, bh_wang@caac.gov.cn	10	317		317	Transition period: 11 Oct 2018 - 31 Dec 2020; 188 Airports completed, rest by Nov 2022. Published PBN approach procedures are in domestic AIP and will not affect regional transition.
Hong Kong, China	Ms. Jenny Lee jyylee@cad.gov.hk		8	0	8	Completed
Macao, China	Mr. Bryan, K.H. Chiu bryanchiu@aacm.gov.mo		4	1	5	
Cook Islands		15			0	
Democratic Peoples Republic of Korea	Mr. An Kyong Hwa gaca@silibank.com	3			0	
Fiji	ILAITIA TABAKAUCORO ilaitia.tabakaucoro@caaf.org.fj	8	8	0	8	Completed

<b>India</b>	Mr. A.K. Meena akmeena@aai.aero	3	4		4	Completed & all new charts are published as RNP
<b>Indonesia</b>	Mega Herdiyansya m3g4_666@yahoo.com	76			0	62 charts out of 76 completed, rest 5 by 2021 and 9 by Nov 2022.
<b>Japan</b>	Mr. Makito Oohashi oohashi-m07ys@mlit.go.jp	127	93	0	93	
<b>Kiribati</b>		2			0	
<b>Lao Peoples' Democratic Republic</b>	Sohnsacksit KHAMKEO saykhamkeo@gmail.com	5			0	
<b>Malaysia</b>	Mr. Nordin Ibrahim nordin@dca.gov.my	50			50	To start in 4th Qtr 2021 and to complete by 4th Qtr 2022
<b>Maldives</b>	Mr. Ibrahim Hameed i.hameed@macl.aero		16	0	16	Completed
<b>Marshall Islands</b>		6			0	
<b>Micronesia</b>		10			0	
<b>Mongolia</b>	Ms. Zolzaya Yulen zolzaya@mcaa.gov	3			0	
<b>Myanmar</b>	Mr. Soe Paing ats@dca.gov.mm Soepng1@gmail.com	0	0	0	0	Transition is completed as all new charts are published as RNP
<b>Nauru</b>					0	
<b>Nepal</b>	Mr. Mahesh Kumar Basnet atsdr@caanepal.org.np; cnsatm@mos.com.np	4	4	0	4	Completed
<b>New Zealand</b>	Ray Harvey ray.harvey@caa.govt.nz	148	126	10	136	2023
<b>Pakistan</b>	Mr. Muhammad Aslam Awan Aslam.Awan@caapakistan.co.pk	43	43	1	44	Completed
<b>Palau</b>		2			0	
<b>Papua New Guinea</b>		2			0	

<b>Philippines</b>	Mrs. Jessica Adeline D. Jamero jadjamero@caap.gov.ph jamerojessica@gmail.com	33	31	10	41	12 AIRAC cycles in 3 years, completed by 20 Nov 2022 Migration of old charts to new system will be completed in 2019
<b>Republic of Korea</b>	Mr. Koh Hanseung koh119@korea.kr	32	32	0	32	Completed
<b>Samoa</b>		5			0	
<b>Singapore</b>	Mr. Michael Shee michael_shee@caas.gov.sg	6	6	0	6	Completed
<b>Solomon Islands</b>	Mr. Alfred Tannyson Pitaa apitaa@mca.gov.sb; ats@solomon.com.sb				0	
<b>Sri Lanka</b>	M A K Prasanna dans@caa.lk	0			0	
<b>Thailand</b>	Mr. Karan Chantrong karan.c@caat.or.th	62	58	10	72	29 Airports Completed, rest by August 2021.
<b>Timor Leste</b>					0	
<b>Tonga</b>	Tino Fuka tfuka@tongaairports.com	8			0	
<b>Tuvalu</b>		2			0	
<b>Vanuatu</b>	Mr. Paul Lennis paul.civa@vanuatu.com.vu	13			0	
<b>Vietnam</b>	Mr. Nguyen The Hung hungand@caa.gov.vn	9			0	
<b>New Caledonia</b>	Mr. Maxime Fournier maxime.fournier@aviation- civile.gouv.fr		9	5	14	
<b>French Polynesia</b>	Aurélie Laplane aurelie.laplane@aviation-civile- gouv.fr		35	12	47	
<b>Wallis and Futuna Is.</b>	Mr. Maxime Fournier maxime.fournier@aviation- civile.gouv.fr		2	2	4	

<b>United States of America(in APAC)</b>	Victoria Williams		19	0	19	Not to change chart identification . PBN requirements box information on all new and amended approach procedures.