



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP  
EIGHTEENTH MEETING (APIRG/18)  
Kampala, Uganda (27 – 30 March 2012)**

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**Agenda Item 3.2: Air Traffic management and Search and Rescue (ATM/SAR)**

**PBN Implementation in AFI – TMA**  
*(Presented by IATA)*

<b>SUMMARY</b>
ICAO Assembly Resolution 36/23 urges all States to implement routes and approach procedures in accordance with the ICAO PBN concept. In addition, AFI Regional Plan is calling for 30% of PBN procedure implementation by 2010.  This working paper summarize status of on PBN procedures implementation for AFI airports.
<b>REFERENCE(S):</b> AFI Regional Plan
<b>Related ICAO Strategic Objective(s): A &amp; C</b>

**1. INTRODUCTION**

1.1. ICAO Assembly Resolution 36/23 urges all States to implement routes and approach procedures in accordance with the ICAO PBN concept.

1.2. AFI Regional Plan is calling for 30% of PBN procedure implementation by 2010.

**2. DISCUSSION**

2.1 Although AFI Regional Plan is calling for 30% of PBN procedure implementation by 2010, many States are behind this target.

Below Table indicates status on PBN procedures implementation for AFI airports<sup>1</sup>:

Airport	State	Airport Location	Comment
DAAD	Algiers	Bou Saada	No PBN procedures
DAAE	Algiers	Bejaia	No PBN procedures
DAAG	Algiers	Algiers	No PBN procedures
DAAJ	Algiers	Djanet	No PBN procedures
DAAP	Algiers	Illizi	No PBN procedures
DAAS	Algiers	Setif	No PBN procedures
DAAT	Algiers	Tamanrasset	No PBN procedures
DAAV	Algiers	Jijel	No PBN procedures
DABB	Algiers	Annaba	No PBN procedures
DABC	Algiers	Constantine	No PBN procedures
DABS	Algiers	Tebessa	No PBN procedures
DABT	Algiers	Batna	No PBN procedures
DAOB	Algiers	Tiaret	No PBN procedures
DAOF	Algiers	Tindouf	No PBN procedures
DAOI	Algiers	Chlef	No PBN procedures
DAON	Algiers	Tlemcen	No PBN procedures
DAOO	Algiers	Oran	No PBN procedures
DAOR	Algiers	Bechar	No PBN procedures
DAOV	Algiers	Ghriss	No PBN procedures
DAOY	Algiers	El Bayadh	No PBN procedures
DAUA	Algiers	Adrar	No PBN procedures
DAUB	Algiers	Biskra	No PBN procedures
DAUE	Algiers	El Golea	No PBN procedures
DAUG	Algiers	Ghardaia	No PBN procedures
DAUH	Algiers	Hassi Messaoud	No PBN procedures
DAUI	Algiers	In Salah	No PBN procedures
DAUK	Algiers	Touggourt	No PBN procedures
DAUO	Algiers	El Oued	No PBN procedures
DAUT	Algiers	Timimoun	No PBN procedures
DAUU	Algiers	Ouargla	No PBN procedures
DAUZ	Algiers	Zarzaitine	No PBN procedures
FNCA	Angola	Cabinda	No PBN procedures
FNHU	Angola	Huambo	No PBN procedures
FNMO	Angola	Namibe	No PBN procedures
FNGI	Angola	Ondjiva	PBN procedures published
FNLU	Angola	Luanda	PBN procedures published
DNBE	Benin	Benin	No PBN procedures
DBBB	Benin	Cotonou	PBN procedures published

<sup>1</sup> Source is Jeppesen database AIRAC 09FEB2012

Airport	State	Airport Location	Comment
FBFT	Botswana	Francistown	No PBN procedures
FBOR	Botswana	Orapa	No PBN procedures
FBSP	Botswana	Selebi Fhikwe	No PBN procedures
FBMN	Botswana	Maun	Procedures require revision
FBSK	Botswana	Gaborone	Procedures require revision
DFFD	Burkina Faso	Ouagadougou	PBN procedures published
DFOO	Burkina Faso	Bobo-Dioulasso	PBN procedures published
HBBA	Burundi	Bujumbura	No PBN procedures
FKKN	Cameroon	N'Gaoundere	No PBN procedures
FKKR	Cameroon	Garoua	No PBN procedures
FKKD	Cameroon	Douala	PBN procedures published
FKKY	Cameroon	Yaounde/Ville	PBN procedures published
FKYS	Cameroon	Yaounde	PBN procedures published
GCFV	Canary	Fuerteventura	No PBN procedures
GCHI	Canary	Hierro	No PBN procedures
GCCR	Canary	Lanzarote	No PBN procedures
GCTS	Canary	Tenerife-South	No PBN procedures
GCLA	Canary	La Palma	PBN procedures published
GCLP	Canary	Gran Canaria	PBN procedures published
GCXO	Canary	Tenerife-North	PBN procedures published
GVAC	Cape Verde	Sal	No PBN procedures
GVBA	Cape Verde	Rabil	No PBN procedures
GVNP	Cape Verde	Praia	No PBN procedures
GVSV	Cape Verde	Sao Vicente	No PBN procedures
FEFF	Central African Republic	Bangui	PBN procedures published
FTTC	Chad	Abeche	No PBN procedures
FTTD	Chad	Moundou	No PBN procedures
FTTJ	Chad	N'Djamena	PBN procedures published
FMCH	Comoros	Moroni	PBN procedures published
FCBB	Congo	Brazzaville	No PBN procedures for new RWY
FCPP	Congo	Pointe Noire	PBN procedures published
DIYO	Cote D'Ivoire	Yamoussoukro	No PBN procedures
DIAP	Cote D'Ivoire	Abidjan	PBN procedures published
HDAM	Djibouti	Djibouti	No PBN procedures
FZJH	DR Congo	Isiro-Matari	No PBN procedures
FZWA	DR Congo	Mbuji-Mayi	No PBN procedures
FZAA	DR Congo	Kinshasa	PBN procedures published
FZEA	DR Congo	Mbandaka	PBN procedures published
FZIC	DR Congo	Kisangani	PBN procedures published

Airport	State	Airport Location	Comment
FZKA	DR Congo	Bunia	PBN procedures published
FZMA	DR Congo	Bukavu	PBN procedures published
FZNA	DR Congo	Goma	PBN procedures published
FZOA	DR Congo	Kindu	PBN procedures published
FZQA	DR Congo	Lubumbashi	PBN procedures published
FZRF	DR Congo	Kalemie	PBN procedures published
FZUA	DR Congo	Kananga	PBN procedures published
HEAR	Egypt	El Arish	No PBN procedures
HEGO	Egypt	El Gouna	No PBN procedures
HEMA	Egypt	Marsa Alam	No PBN procedures
HEMK	Egypt	Suhag	No PBN procedures
HEOW	Egypt	Shark El Oweinat	No PBN procedures
HEPS	Egypt	Port Said	No PBN procedures
HEAL	Egypt	Al Alamain	PBN procedures published
HEAT	Egypt	Asyut	PBN procedures published
HEAX	Egypt	Alexandria	PBN procedures published
HEAZ	Egypt	Almaza	PBN procedures published
HEBA	Egypt	Alexandria	PBN procedures published
HEBL	Egypt	Abu Simbel	PBN procedures published
HECA	Egypt	Cairo	PBN procedures published
HEGN	Egypt	Hurghada	PBN procedures published
HEKG	Egypt	El Kharga	PBN procedures published
HELX	Egypt	Luxor	PBN procedures published
HEMM	Egypt	Mersa Matruh	PBN procedures published
HESH	Egypt	Sharm El Sheikh	PBN procedures published
HESN	Egypt	Aswan	PBN procedures published
HETB	Egypt	Taba	PBN procedures published
HHAS	Egypt	Asmara	PBN procedures published
FGBT	Equatorial Guinea	Bata	No PBN procedures
FGSL	Equatorial Guinea	Malabo	PBN procedures published
HHMS	Eritrea	Massawa	No PBN procedures
HADR	Ethiopia	Dire Dawa	No PBN procedures
HAMK	Ethiopia	Mekele	No PBN procedures
HAAB	Ethiopia	Addis Abeba	PBN procedures published
HAAX	Ethiopia	Axum	PBN procedures published
HABD	Ethiopia	Bahir Dar	PBN procedures published
FOON	Gabon	Franceville	No PBN procedures
FOOG	Gabon	Port Gentil	PBN procedures published
FOOL	Gabon	Libreville	PBN procedures published

Airport	State	Airport Location	Comment
DGAA	Ghana	Accra	No PBN procedures
DGLE	Ghana	Tamale	No PBN procedures
DGSI	Ghana	Kumasi	No PBN procedures
GGOV	Ginea Bissau	Bissau	No PBN procedures
GUCY	Guinea	Conakry	PBN procedures published
HKEL	Kenya	Eldoret	No PBN procedures
HKJK	Kenya	Nairobi	PBN procedures published
HKKI	Kenya	Kisumu	PBN procedures published
HKLK	Kenya	Lokichogio	PBN procedures published
HKLU	Kenya	Lamu/Manda	PBN procedures published
HKML	Kenya	Malindi	PBN procedures published
HKMO	Kenya	Mombasa	PBN procedures published
HKNL	Kenya	Nanyuki	PBN procedures published
FXMM	Leshoto	Maseru	PBN procedures published
GLRB	Liberia	Monrovia	No PBN procedures
HLGD	Libya	Sirte	No PBN procedures
HLLB	Libya	Benghazi	No PBN procedures
HLLM	Libya	Tripoli	No PBN procedures
HLLQ	Libya	El Beida	No PBN procedures
HLLS	Libya	Sebha	No PBN procedures
HLLT	Libya	Tripoli	No PBN procedures
FMNA	Madagascar	Antsiranana	No PBN procedures
FMNN	Madagascar	Nosy-Be	No PBN procedures
FMNS	Madagascar	Sambava	No PBN procedures
FMSD	Madagascar	Tolagnaro	No PBN procedures
FMSM	Madagascar	Mananjary	No PBN procedures
FMST	Madagascar	Toliary	No PBN procedures
FMMI	Madagascar	Antananarivo	PBN procedures published
FMMT	Madagascar	Toamasina	PBN procedures published
FMNM	Madagascar	Mahajanga	PBN procedures published
FWCL	Malawi	Blantyre	PBN procedures published
FWKI	Malawi	Lilongwe	PBN procedures published
GAGO	Mali	Gao	No PBN procedures
GAKD	Mali	Kayes	No PBN procedures
GASO	Mali	Sikasso	No PBN procedures
GATB	Mali	Tombouctou	No PBN procedures
GABS	Mali	Bamako	PBN procedures published
GAMB	Mali	Mopti	PBN procedures published
GBYD	Mali	Banjul	PBN procedures published

Airport	State	Airport Location	Comment
GMAD	Morocco	Agadir	No PBN procedures
GMAG	Morocco	Guelmime	No PBN procedures
GMAT	Morocco	Tan Tan	No PBN procedures
GMFB	Morocco	Bouarfa	No PBN procedures
GMFF	Morocco	Fes	No PBN procedures
GMFK	Morocco	Errachidia	No PBN procedures
GMFO	Morocco	Oujda	No PBN procedures
GMMB	Morocco	Benslimane	No PBN procedures
GMME	Morocco	Rabat	No PBN procedures
GMMH	Morocco	Dakhla	No PBN procedures
GMMI	Morocco	Essaouira	No PBN procedures
GMLL	Morocco	Laayoune	No PBN procedures
GMMN	Morocco	Casablanca	No PBN procedures
GMMW	Morocco	Nador	No PBN procedures
GMMX	Morocco	Marrakech	No PBN procedures
GMMZ	Morocco	Ouarzazate	No PBN procedures
GMTA	Morocco	Al Hoceima	No PBN procedures
GMTT	Morocco	Tanger	No PBN procedures
GMTN	Morocco	Tetouan	PBN procedures published
GQNN	Mauritania	Nouakchott	PBN procedures published
GQPP	Mauritania	Nouadhibou	PBN procedures published
FIMP	Mauritius	Mauritius	PBN procedures published
FMCZ	Mayotte	Dzaoudzi	PBN procedures published
FQBR	Mozambique	Beira	PBN procedures published
FQCH	Mozambique	Chimoio	PBN procedures published
FQIN	Mozambique	Inhambane	PBN procedures published
FQLC	Mozambique	Lichinga	PBN procedures published
FQMA	Mozambique	Maputo	PBN procedures published
FQNP	Mozambique	Nampula	PBN procedures published
FQQL	Mozambique	Quelimane	PBN procedures published
FQTT	Mozambique	Tete	PBN procedures published
FQVL	Mozambique	Vilankulo	PBN procedures published
FYWB	Namibia	Walvis Bay	No PBN procedures
FYWE	Namibia	Windhoek	PBN procedures published
FYWH	Namibia	Windhoek	PBN procedures published
DRZR	Niger	Zinder	No PBN procedures
DRRN	Niger	Niamey	PBN procedures published
DRZA	Niger	Agades	PBN procedures published

Airport	State	Airport Location	Comment
DNAA	Nigeria	Abuja	Under development
DNCA	Nigeria	Calabar	Under development
DNEN	Nigeria	Enugu	Under development
DNGO	Nigeria	Gombe	Under development
DNIB	Nigeria	Ibadan	Under development
DNIL	Nigeria	Ilorin	Under development
DNIM	Nigeria	Owerri	Under development
DNJO	Nigeria	Jos	Under development
DNKA	Nigeria	Kaduna	Under development
DNKN	Nigeria	Kano	Under development
DNKT	Nigeria	Katsina	Under development
DNMA	Nigeria	Maiduguri	Under development
DNMM	Nigeria	Lagos	Under development
DNMN	Nigeria	Minna	Under development
DNPO	Nigeria	Port Harcourt	Under development
DNSO	Nigeria	Sokoto	Under development
DNSU	Nigeria	Osubi	Under development
DNYO	Nigeria	Yola	Under development
DNZA	Nigeria	Zaria	Under development
FMEE	Reunion	La Reunion	PBN procedures published
FMEP	Reunion	St Pierre	PBN procedures published
HRYR	Rwanda	Kigali	No PBN procedures
FPST	Sao Tome	Sao Tome	No PBN procedures
GOGG	Senegal	Ziguinchor	No PBN procedures
GOSS	Senegal	St Louis	No PBN procedures
GOGS	Senegal	Cap Skiring	PBN procedures published
GOOY	Senegal	Dakar	PBN procedures published
FSPP	Seychelles	Praslin	No PBN procedures
FSIA	Seychelles	Seychelles	PBN procedures published
GFL	Siera Leone	Freetown	No PBN procedures
FAAB	South Africa	Alexander Bay	No PBN procedures
FABL	South Africa	Bloemfontein	No PBN procedures
FAEL	South Africa	East London	No PBN procedures
FAGG	South Africa	George	No PBN procedures
FAGY	South Africa	Greytown	No PBN procedures
FAHS	South Africa	Hoedspruit	No PBN procedures
FAKM	South Africa	Kimberley	No PBN procedures
FAKN	South Africa	Kruger Mpumalanga	No PBN procedures
FALA	South Africa	Lanseria	No PBN procedures
FALW	South Africa	Langebaanweg	No PBN procedures

Airport	State	Airport Location	Comment
FAMM	South Africa	Mafikeng	No PBN procedures
FAOB	South Africa	Overberg	No PBN procedures
FAPE	South Africa	Port Elizabeth	No PBN procedures
FAPN	South Africa	Pilanesberg	No PBN procedures
FAPP	South Africa	Polokwane	No PBN procedures
FARB	South Africa	Richards Bay	No PBN procedures
FAUP	South Africa	Upington	No PBN procedures
FAWB	South Africa	Pretoria	No PBN procedures
FAWK	South Africa	Waterkloof	No PBN procedures
FACT	South Africa	Cape Town	PBN procedures published
FAJS	South Africa	Johannesburg	PBN procedures published
FALE	South Africa	Durban	PBN procedures published
FAPM	South Africa	Pietermaritzburg	PBN procedures published
FAUT	South Africa	Mthatha	PBN procedures published
HSDN	Sudan	Dongola	No PBN procedures
HSDZ	Sudan	Damazin	PBN procedures published
HSFS	Sudan	El Fashir	PBN procedures published
HSLI	Sudan	Kadugli	PBN procedures published
HSNN	Sudan	Nyala	PBN procedures published
HSOB	Sudan	El Obeid	PBN procedures published
HSPN	Sudan	Port Sudan	PBN procedures published
HSSG	Sudan	Sebera Geneina	PBN procedures published
HSSJ	Sudan	Juba	PBN procedures published
HSSM	Sudan	Malakal	PBN procedures published
HSSS	Sudan	Khartoum	PBN procedures published
HSWW	Sudan	Wau	PBN procedures published
FDMS	Swaziland	Manzini	No PBN procedures
HTMW	Tanzania	Mwanza	No PBN procedures
HTZA	Tanzania	Zanzibar	No PBN procedures
HTDA	Tanzania	Dar-Es-Salaam	PBN procedures published
HTKJ	Tanzania	Kilimanjaro	PBN procedures published
DXNG	Togo	Niamtougou	No PBN procedures
DXXX	Togo	Lome	PBN procedures published
DTKA	Tunis	Tabarka	No PBN procedures
DTNH	Tunis	Enfidha	No PBN procedures
DTTF	Tunis	Gafsa	No PBN procedures
DTTX	Tunis	Sfax	No PBN procedures
DTMB	Tunis	Monastir	PBN procedures published
DTTA	Tunis	Tunis	PBN procedures published
DTTG	Tunis	Gabes	PBN procedures published
DTTJ	Tunis	Djerba	PBN procedures published

Airport	State	Airport Location	Comment
DTTZ	Tunis	Tozeur	PBN procedures published
HUSO	Uganda	Soroti	No PBN procedures
HUEN	Uganda	Entebbe	PBN procedures published
FLND	Zambia	Ndola	No PBN procedures
FLLI	Zambia	Livingstone	PBN procedures published
FLLS	Zambia	Lusaka	PBN procedures published
FVBU	Zimbabwe	Bulawayo	No PBN procedures
FVHA	Zimbabwe	Harare	No PBN procedures
FVWN	Zimbabwe	Hwange	No PBN procedures

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) Request States and Air Navigation Service Providers to implement 2010 agreed regional Performance-Based-Navigation (PBN) performance objectives, in accordance with AFI Regional PBN Roadmap.

-END-