



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**THE THIRD MEETING OF THE AERODROMES OPERATIONS AND
PLANNING – WORKING GROUP (AOP/WG/3)**

Malaysia, 2 – 4 June 2015

Agenda Item 5: AOP Air Navigation Service Deficiencies

STATUS OF AIR NAVIGATION DEFICIENCIES IN AOP FIELD

(Presented by the Secretariat)

SUMMARY

This Paper presents a list of Air Navigation Deficiencies noted by the 25th Meeting of APANPIRG (8 to 11 September 2014, Kuala Lumpur, Malaysia) in the AOP field for review by the AOPWG. The list is based on the uniform methodology for the identification, assessment and reporting of such deficiencies as described in Part V of the *APANPIRG Procedural Handbook*.

This paper relates to –

Strategic Objectives:

A: *Safety – Enhance global civil aviation safety*

1. INTRODUCTION

1.1 Under the Terms of Reference of APANPIRG, one of the primary objectives is to identify and address specific deficiencies in the air navigation field. In meeting this objective, APANPIRG facilitates the development and implementation of action plans by States to resolve identified deficiencies, where necessary. Consequently, APANPIRG and its Sub-groups regularly review deficiencies in their respective fields and develop recommendations for remedial actions.

1.2 The uniform methodology for the identification, assessment and reporting of air navigation shortcomings and deficiencies (henceforth referred to as Uniform Methodology) was prepared with the assistance of the Planning and Implementation Regional Groups (PIRGs) of ICAO and approved by the ICAO Council on 23 June 1998 for the efficient identification, assessment and clear reporting of air navigation deficiencies.

1.3 To support the implementation of the Uniform Methodology, every PIRG has developed its own unique deficiency database as a means of sharing safety information related to air navigation systems and viewed/used by that respective region(s) only. The online deficiency database is available through the ICAO APAC website www.icao.int/apac via secure access provided by the Regional Office to States and International Organizations concerned.

2. DISCUSSION

2.1 The status of deficiencies in the AOP field was reviewed by APANPIRG/25 Meeting held in Malaysia (8 to 11 September 2014) and urged States concerned to provide the necessary resources for the elimination of deficiencies. ICAO Regional Office in letter dated 22 January 2015 followed up with the concerned States for resolving the Air Navigation Deficiencies.

2.2 The List of Air Navigation Deficiencies in the AOP Field is provided in the **Attachment A** for review by the Meeting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Review the deficiencies listed in the Attachment;
- b) Update the list based on recent action taken by States if any;
- c) Identify additional deficiency if any; and
- d) Recommend actions for resolving the remaining deficiencies.

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ATTACHMENT A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14, Volume I	Nepal Kathmandu International Airport	Runway/taxiways	ICAO Mission of February 2008	Provision of RESA in accordance with section 3.5 of ICAO Annex 14, Volume I.	RESA will be provided	Tribhuvan International airport/ CAAN	2015	U
				Insufficient runway strip, refer recommendations given in section 3.4 of Annex 14, Volume I.	Provide runway strip as per ICAO recommendations		Not possible	A

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Annex 14, Volume I	Maldives	Runway/ Taxiways	AGA Mission Report April 2008	Insufficient runway strip.	Runway strip available	Maldives Airports Company Pvt Ltd	Runway strip of 150m width on both sides of the runway is available now. However apron is within the strip and will be relocated with the implementation of the new master plan	U
	Male International Airport			Provision of RESA in accordance with section 3.5 of ICAO Annex 14, Volume I.	RESA will be provided	Maldives Airports Company Pvt Ltd	RESA available on runway 36 Declared as runway 36- 90m Runway 18-55m 90m of RESA for runway 18 will be provided with the implementation of the new master plan. Exemption granted by State and published in AIP	U
	Gan International airport	Runway	AGA Mission Report	Provision of RESA in accordance with section 3.5 of ICAO Annex 14, Volume I.	RESA will be provided	Addu International airport Pvt Ltd.	CAP has been submitted. RESA will be provided as per ICAO requirement by 2014	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	India Chennai International Airport	Runway	AGA mission January 2009	RESA not provided in accordance with Para 3.5 of Annex 14, Volume I requirements;	RESA will be provided	AAI	December 2012 RESA provided, however desired strength is yet to be provided.	U
				Runway strip is insufficient-300m strip width is not available for the full length of runway 07/25 in accordance with 3.4.3 of Annex 14, Volume I.	300m strip width for full length of runway 07/25 will be made available.	AAI	December 2013 Action initiated	A
Annex 14, Volume I	Mumbai International Airport	Runway	AGA mission January 2009	RESA not provided for R/W 09 and R/W 14 in accordance with Para 3.5 of ICAO Annex 14, Volume I;	RESA will be provided	MIAL	R/w-09 RESA provided R/w-14- June 2013	U
				Runway strip is insufficient-300m strip width is not available for the full length of runway 09/27 in accordance with 3.4.3 of Annex 14, Volume I	300m strip width for full length of runway 09/27 will be made available	MIAL	R/w 09/27- August 2013 R/w 14/32- June 2013	A

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Identification		Deficiencies			Corrective Action			
Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Siem Reap International Airport	Runway	AGA mission of March 2009	RESA not provided as per Para 3.5 of Annex 14, Volume I. ;	RESA will be provided		RESA provided. RESA improvement plan under consideration to satisfy Para's 3.587 to 3.5.10 of Annex 14.	U

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Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Bangladesh Hazrat Shahjalal International Airport, Dhaka	Runway/ Taxiway	ICAO mission April 2009	Runway strip width insufficient(300m strip not available for the full length of runway);	runway strip in accordance with Annex 14, volume I will be provided	CAABD	a)Runway strip width 300m available for the full length of runway (mitigation measures for storm water drain on the western side strip under process. No obstructions on graded area)	A
				runway edge lights and taxiway edge lights does not meet frangibility requirements in accordance with 9.9 of Annex 14, Volume I.	airfield lighting system satisfying frangibility requirements will be provided		c) Runway & taxiway edge lights provided in accordance with 9.9 of Annex 14, Volume I. ; (runway overlay work in progress, new runway lights meeting Annex-14 requirement will be installed).	A

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Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14, Volume I	Thailand Phuket International Airport	Runway	AGA mission of July 2009	RESA to satisfy Section 3.5 of Annex 14, Volume I requirements;	RESA will be provided		Risk assessment study in process [DCA letter dated 9 April 2014)	U
				Runway strip width insufficient(300m runway strip for precision approach runways in accordance with Para 3.4.5 of Annex 14, Volume I;	300m runway strip width for full length of runway will be made available		Risk assessment study in process [DCA letter dated 9 April 2014)	A

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Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Myanmar Yangon International Airport	Runway/ Taxiway	ICAO mission April 2010	Runway shoulder higher than adjacent strip	Flush strip with adjacent runway shoulder	Department of Civil Aviation	October 2011	A
				Provision of enhanced taxiway centre line marking in accordance with standard in Para 5.2.8.11 of Annex 14, Volume I.	enhanced taxiway markings will be provided		DCA has planned to implement SMGCS. The system will start in 2012	A
				Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	RESA will be provided		March 2011	A
				Provisions of shoulders for taxiways	taxiway shoulders will be provided		Beginning of 2012	B
				Provision of road holding position signs at entrances to active runways	road holding position signs will be provided		October 2011	A
				Bird Hazard	Establishment of a national bird committee in accordance with APANPIRG Conclusion 18/1.	Establish National Bird Committee		DCA will establish National Bird committee.
Annex 14, Volume I	Mandalay Airport	Runway/ Taxiway	April 2010	Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	RESA will be provided	Department of Civil Aviation	Oct 2011	A
				Provision of enhanced taxiway centre line marking in accordance with standard in Para 5.2.8.11 of Annex 14, Volume I.	enhanced taxiway markings will be provided		DCA is reviewing the requirement for taxiway enhanced centerline marking	A

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Requirements	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
				Provision of road holding position signs at entrances to active runways	road holding position signs will be provided		Oct 2011	A
Annex 14 Vol. I Amendment 6 <i>§ 10.1</i> <i>§ 10.2</i>				A maintenance programme should be established to maintain facilities in a condition which does not impair safety of air navigation	DCA establishes and implements producers to aerodrome operators meet national requirements for maintenance programme		End of 2011	A

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Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Fiji Islands Nadi international Airport	Runway/ Taxiway	ICAO mission June 2010	Flush the strip with the adjacent runway shoulder	Flushed strip with adjacent runway shoulder	Civil Aviation Authority of Fiji	4 th Quarter 2013	A
				Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	RESA will be provided		3 rd quarter 2012	A
				Provision of Airfield signage in accordance with ICAO Annex 14, volume I, section 5.4	signage as per ICAO standards will be provided		4 th Quarter 2013	A
				Establishment of a national bird committee in accordance with APANPIRG Conclusion 18/1.	Established National Bird Committee		May 2012	B
				Provision of 300m strip width for the full length of precision approach CAT I runway in accordance with the standard 3.4.3, Annex 14, Volume I; remove obstacles from runway strip; flush the strip with the adjacent runway shoulder	runway strip will be provided and strip flushed with adjacent runway shoulder		4 th Quarter 2013	A
Annex 14 Volume I	Nausori International Airport	Runway/ Taxiway	June 2010	Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	RESA will be provided		4 th Quarter 2013	A

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Annex 14 Volume I	Sri Lanka Bandaranaike International Airport	Runway/ Taxiway	ICAO mission April 2010	Provision of 300m strip width for the full length of precision approach CAT I runway in accordance with the standard 3.4.3, Annex 14, Volume I; remove obstacles from runway strip; flush the strip with the adjacent runway shoulder	runway strip in accordance with Annex 14, volume I will be provided, obstacles from strip will be removed and flush strip with adjacent runway shoulder	CAASL	AASL has been granted a period of 12 years to cover the drains. Exemption for the period granted has been published in the AIP.	A
				Provision of runway hold position lights in accordance with Para 5.3.19 of ICAO Annex 14, Volume I	runway hold position lights will be provided		Airside safety committee has been formed to study all runway markings, signs and lighting to determine the adequacy of the system in order to prevent runway incursion	A
				Provision of enhanced taxiway centre line marking in accordance with standard in Para 5.2.8.11 of Annex 14, Volume I.	Enhanced taxiway markings will be provided		February 2011	A
				Establishment of a national bird committee in accordance with APANPIRG Conclusion 18/1.	National Bird Committee will be established		July 2010	A

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Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Vietnam Noi Bai International Airport, Hanoi	Runway/ Taxiway	ICAO mission March 2010	Runway shoulder higher than adjacent strip and obstacles on strip	Flush strip with adjacent runway shoulder and remove obstacles	Civil Aviation Administration of Vietnam		A
				Provision of enhanced taxiway centre line marking in accordance with standard in Para 5.2.8.11 of Annex 14, Volume I.	Provide enhanced taxiway markings			A
				Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	Provide RESA			A
		Bird Hazard		Wildlife strike report submission to ICAO for inclusion in IBIS	Submission of wildlife strike reports to ICAO for inclusion in IBIS			B
Annex 14, Volume I	Tan Son Nhat International Airport, Ho Chi Minh City	Runway/ Taxiway	March 2010	Runway shoulder higher than adjacent strip and obstacles on strip	Flush strip with adjacent runway shoulder and remove obstacles			A
				Provision of enhanced taxiway centre line marking in accordance with standard in Para 5.2.8.11 of Annex 14, Volume I.	Provide enhanced taxiway markings			A
				Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	Provide RESA			A
				Wildlife strike report submission to ICAO for inclusion in IBIS	Submission of wildlife strike reports to ICAO for inclusion in IBIS			B

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Annex 14 Volume I	Brunei Darussalam Brunei International Airport	Runway/	ICAO Mission of April 2011	vegetation along pavement edges and strip higher than the adjacent runway pavement; uneven earth mounds on strip				A
				faded centre line and other markings;				A
		Taxiway		non provision of enhanced taxiway centre line marking in accordance with Para 5.2.8 of Annex 14, Volume I Objects on taxiway strips; vegetation on pavement joints and maintenance of joints				A
		Apron		non provision of ICAO compliant signage in accordance with section 5.4 Annex 14, Volume I				A
		Rescue and Fire Fighting (RFF):		non provision of direct access for the rescue and fire fighting vehicles from the fire station into the runway;				A
				non provision of road holding position sign at all road entrances to a runway; and				A
		Wildlife Hazards:		Establishing a national bird control committee in accordance with APANPIRG Conclusion 18/1;				B

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Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Lao PDR Wattay International Airport	Runway/	ICAO Mission of March 2011	Non provision of RESA in accordance with section 3.5 of Annex 14, Volume I				U
				rubber deposits and faded centre line markings.				A
		Taxiway		Provision of runway hold position lights in accordance with Para 5.3.19 of ICAO Annex 14, Volume I				A
				Provision of enhanced taxiway centre line marking in accordance with Para 5.2.8 of Annex 14, Volume I				
		Rescue and Fire Fighting (RFF):		Provision of road holding position sign at all road entrances to a runway;				A
	Wildlife Hazards:		Establishing a national bird control committee in accordance with APANPIRG conclusion 18/1.					B
	Luang Prabang International Airport	Runway		Provision of enhanced taxiway centre line marking in accordance with standard in Para 5.2.8.11 of Annex 14, Volume I				A

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Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
		Taxiway		Provision of runway hold position lights in accordance with Para 5.3.19 of ICAO Annex 14, Volume I on new taxiways				A
		Rescue and Fire Fighting (RFF)		Provision of road holding position sign at all road entrances to a runway				A

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Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**	
Annex 14 Volume I	Mongolia Ulaan Baatar International Airport	Runway	ICAO Mission of July 2011	rubber deposits and faded centre line and other faded markings;				A	
		Taxiway		Resealing cracks on pavement surface with sealants to prevent ingress of water and broken edges which could cause FOD issues.				A	
				Provision of enhanced taxiway centre line marking in accordance with Para 5.2.8 of Annex 14, Volume I ;					A
				faded taxiway markings					A
				Maintenance of pavement cracks					A
				provision of runway hold position lights in accordance with Para 5.3.19 of ICAO Annex 14,					A
				provision of taxiway hold position signs on all hangar taxiways at entrances to the active taxiways/runway.					A

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Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
		Apron		sealing the cracks on the apron surface				A
		Airfield signage		Provision of ICAO compliant signage in accordance with section 5.4 Annex 14, Volume I and to cut the vegetation in front of the signs.				A
		Wildlife Hazards		establishing a national bird control committee in accordance with APANPIRG conclusion 18/1; collect wildlife reports and forward to ICAO for inclusion in the ICAO IBIS;				B B

* Priority for action to remedy the shortcoming is based on the following safety assessments:

“U” priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions. Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

“A” priority = Top priority requirements necessary for air navigation safety. Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

“B” priority = Intermediate requirements necessary for air navigation regularity and efficiency. Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.