



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**TWENTY SEVENTH MEETING OF THE ASIA/PACIFIC
AIR NAVIGATION PLANNING AND IMPLEMENTATION
REGIONAL GROUP (APANPIRG/27)**
Bangkok, Thailand, 5 to 8 September 2016
Agenda Item 4: Regional Air Navigation Deficiencies
STATUS OF AIR NAVIGATION DEFICIENCIES IN THE ASIA/PAC REGION

(Presented by the Secretariat)

SUMMARY

One of the main objectives of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) is to identify and address specific deficiencies in the air navigation field. This Paper presents a list of Air Navigation Deficiencies reviewed by the 26th Meeting of APANPIRG (APANPIRG/26, September 2015) in the ATM, AOP, CNS and MET fields and updated based on information provided by States during the Sub-Group/Working Group Meetings for review and action by APANPIRG/27. 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 presents the List of Deficiencies,

This paper relates to – Strategic Objectives:

- A: **Safety** – *Enhance global civil aviation safety*
- B: **Air Navigation Capacity and Efficiency** — *Increase the capacity and improve the efficiency of the global aviation system*
- E: **Environmental Protection** — *minimize the adverse environment effects of civil aviation activities.*

Action by APANPIRG/27 is at Para 3.

1. INTRODUCTION

1.1 Under the Terms of Reference, the APANPIRG has been regularly reviewing the status of implementation of the Asia Pacific Air Navigation Plan through its subgroups to identify and address the air navigation Deficiencies according to the uniform methodology approved by the ICAO Council. In meeting this objective, APANPIRG facilitates the development and implementation of action plans by States to resolve identified Deficiencies, where necessary.

2. DISCUSSION

2.1 The lists of Deficiencies in the various air navigation fields, as developed by APANPIRG/26 and updated by the respective Sub-groups and the Secretariat, are presented in Appendices A to D.

2.2 Deficiencies in the ATM/AIS/SAR fields

2.2.1 The fourth meeting of the ATM Sub-group (ATMSG/4, July 2016) reviewed and updated the List of ATM Deficiencies based on information provided by concerned States.

2.2.2 The updated List of Air Navigation Deficiencies in the ATM/AIS/SAR field is given in **Appendix A** to this paper.

2.3 Deficiencies in the AOP field

2.3.1 The fourth meeting of AOP Working Group (AOPWG/4) of May 2016 reviewed and updated the List of AOP Deficiencies based on the information provided by the concerned States.

2.3.2 The updated List of Air Navigation Deficiencies in the AOP field is given in **Appendix B** to this paper.

2.4 Deficiencies in the CNS field

2.4.1 The twentieth Meeting of the CNS/SG of July 2016 reviewed and updated the list of Air Navigation Deficiencies in the CNS field.

2.4.2 The updated List of Air Navigation Deficiencies in the CNS field is given in **Appendix C** to this paper.

2.5 Deficiencies in the MET fields

2.5.1 The twentieth Meeting of MET SG of June 2016 reviewed and updated the list of Air Navigation Deficiencies in the MET Field.

2.5.2 The updated List of Air Navigation Deficiencies in the MET field is in **Appendix D** to this paper.

2.6 The Meeting is invited to adopt the following draft Conclusion:

Draft Conclusion APANPIRG/27/XX – Update of information in APANPIRG Air Navigation Deficiencies Reporting Form	
that, States/Administrations be urged to establish action plan with defined target dates for resolution of deficiencies, update the status on the corrective action taken and report progress in the Reporting Form of Air Navigation Deficiencies identified in ATM/SAR/AIM, AOP, CNS and MET fields as detailed in Appendices A to D of APANPIRG/27 Working Paper 11.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input type="checkbox"/> Inter -Regional <input checked="" type="checkbox"/> Ops/Technical
Why: The resolution of air navigation deficiencies in the ATM, SAR, AIM, AOP, CNS and MET fields (in the APANPIRG database) have lacked significant progress over several years, due in part to inadequate information in the Reporting Form, e.g., infrequent updates and lack of concise and concrete Corrective Action Plans with defined target dates	
When: official reports providing full details of the corrective actions taken where deficiencies have been resolved be reported to sub group in 2017.	Status: Draft to be Adopted by PIRG
Who: <input type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other	

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) note the current status of the Deficiencies in the air navigation field as presented in Appendices A to D and update them based on additional information provided at the Meeting;
- b) decide on the further action required for the elimination of the identified deficiencies; and
- c) urge States to establish action plans with fixed target dates for resolution of safety related deficiencies and inform the ICAO Regional Office on action taken.

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ATM/AIM/SAR Deficiencies List (Updated 7 September 2016)

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
<u>WGS-84</u>								
Requirements of Paragraph 3.7.1 of Annex 15	Afghanistan	WGS-84 - Not implemented	24/6/2014			Afghanistan	TBD	A
	Bangladesh	WGS-84 - Not implemented	24/6/2014			Bangladesh	TBD	A
	Bhutan	WGS-84 - Not implemented	2/7/1999	Data conversion completed, but not published		Bhutan	TBD	A
	Brunei Darussalam	WGS-84 - Not implemented	24/6/2014			Brunei Darussalam	TBD	A
	Cook Islands	WGS-84 - Not implemented	24/6/2014			Cook Islands	TBD	A
	Kiribati	WGS-84 - Not implemented				Kiribati	TBD	A
	Marshall Islands	WGS-84 - Not implemented	24/6/2014			Marshall Islands	TBD	A
	Micronesia	WGS-84 - Not implemented	24/6/2014			Micronesia	TBD	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Nauru	WGS-84 - Not implemented		Conferring with consultant		Nauru	TBD	A
	Pakistan	WGS-84 - Not implemented	24/6/2014			Pakistan	TBD	A
	Palau	WGS-84 - Not implemented	24/6/2014			Palau	TBD	A
	Philippines	WGS-84 - Not implemented	24/6/2014			Philippines	TBD	A
	Samoa	WGS-84 - Not implemented	24/6/2014			Samoa	TBD	A
	Thailand	WGS-84 - Not implemented	24/6/2014			Thailand	TBD	A
	Vanuatu	WGS-84 - Implemented at main airports	2/7/1999			Vanuatu	1999	A
<u>Airspace Classification</u>								
Requirements of Paragraph 2.6 of Annex 11	China	Airspace Classification - Not implemented	7/7/99		Difference to Annex 11 is published in AIP, China.	China	APANPIRG/19 updated, implementation planned by end 2010.	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Kiribati	Airspace Classification - Not implemented	7/7/99			Kiribati	TBD	A
	Nauru	Airspace Classification - Not implemented	7/7/99			Nauru	TBD	A
	Papua New Guinea	Airspace Classification - Not implemented	7/7/99			Papua New Guinea	Project in place	A
	Solomon Islands	Airspace Classification - Not implemented	7/7/99			Solomon Islands	TBD	A
<u>AIP Format</u>								
Requirements of Chapter 4 of Annex 15	Cook Islands	AIP Format - Not implemented	7/7/99			Cook Islands	ATM/AIS/SAR/G/1 6 (June 2006) updated - AIP COOK ISLANDS in new format in progress with assistance of New Zealand	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Kiribati	AIP Format - Not implemented	7/7/99			Kiribati	ATM/AIS/SAR/SG/ 18 (June 2009) was advised AIP in draft stage	A
	Nauru	AIP Format - Not implemented	7/7/99			Nauru	ATM/AIS/SAR/SG/ 18 (June 2008) was advised work soon to start	A
	Papua New Guinea	AIP Format - Not implemented	7/7/99			Papua New Guinea	TBA	A
<u>AIS Quality Management System</u>								
Requirements of Paragraph 3.2.1 of Annex 15 Quality Management System - Not implemented	Afghanistan	AIS Quality Management System - Not implemented	24/6/2014			Afghanistan	TBD	A
	Bangladesh	AIS Quality Management System - Not implemented	24/6/2014			Bangladesh	TBD	A
	Bhutan	AIS Quality Management System - Not implemented	24/6/2014			Bhutan	TBD	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Brunei Darussalam	AIS Quality Management System - Not implemented	24/6/2014			Brunei Darussalam	TBD	A
	Cambodia	AIS Quality Management System - Not implemented	24/6/2014			Cambodia	TBD	A
	Cook Islands	AIS Quality Management System - Not implemented	24/6/2014			Cook Islands	TBD	A
	DPR Korea	AIS Quality Management System - Not implemented	24/6/2014			DPR Korea	TBD	A
	Indonesia	AIS Quality Management System - Not implemented	24/6/2014			Indonesia	TBD	A
	Kiribati	AIS Quality Management System - Not implemented	24/6/2014			Kiribati	TBD	A
	Lao PDR	AIS Quality Management System - Not implemented	24/6/2014			Lao PDR	TBD	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Maldives	AIS Quality Management System - Not implemented	24/6/2014			Maldives	TBD	A
	Marshall Islands	AIS Quality Management System - Not implemented	24/6/2014			Marshall Islands	TBD	A
	Micronesia	AIS Quality Management System - Not implemented	24/6/2014			Micronesia	TBD	A
	Nauru	AIS Quality Management System - Not implemented	24/6/2014			Nauru	TBD	A
	Nepal	AIS Quality Management System - Not implemented	24/6/2014			Nepal	TBD	A
	Pakistan	AIS Quality Management	24/6/2014			Pakistan	TBD	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
		System – Not implemented						
	Palau	AIS Quality Management System - Not implemented	24/6/2014			Palau	TBD	A
	Papua New Guinea	AIS Quality Management System - Not implemented	24/6/2014			Papua New Guinea	TBD	A
	Philippines	AIS Quality Management System - Not implemented	24/6/2014			Philippines	TBD	A
	Samoa	AIS Quality Management System - Not implemented	24/6/2014			Samoa	TBD	A
	Solomon Islands	AIS Quality Management System - Not implemented	24/6/2014			Solomon Islands	TBD	A
	Thailand	AIS Quality Management	24/6/2014			Thailand	TBD	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
		System - Not implemented						
	Timor Leste	AIS Quality Management System - Not implemented	24/6/2014			Timor Leste	TBD	A
	Vanuatu	AIS Quality Management System - Not implemented	24/6/2014			Vanuatu	TBD	A
	Viet Nam	AIS Quality Management System - Not implemented	24/6/2014			Viet Nam	TBD	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
<u>SAR capability</u>								
Requirements of Annex 12	Afghanistan	SAR Capability Matrix	6/07/2015	SAR Capability (no data)		Afghanistan	2016	U
	Bhutan	SAR Capability Matrix	6/07/2015	SAR Capability (no data)		Bhutan	2016	U
	Cambodia	SAR Capability Matrix	6/07/2015	SAR Capability (14 of 20)		Cambodia	2016	U
	Cook Islands	SAR Capability Matrix	6/07/2015	SAR Capability (19 of 20)		Cook Islands	2016	U
	Cook Islands	Annex 12 requirements not implemented. No agreements with adjacent States.	31/1/95		Cook Islands - implement Annex 12 requirements and co- ordinate LOA with adjacent States ICAO - assist to develop SAR capability and to co-ordinate with adjacent States	Cook Islands	2009. SAR agreement with New Zealand completed 2007.	U
	DPR Korea	SAR Capability Matrix	6/07/2015		SAR Capability (15 of 20 elements non- compliant)	DPR Korea	2016	U

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Fiji	SAR Capability Matrix	6/07/2015		SAR Capability (13 of 20 elements non- compliant)	Fiji	2016	U
	Kiribati	SAR Capability Matrix	6/07/2015		SAR Capability (no data)	Kiribati	2016	U
	Lao PDR	SAR Capability Matrix	6/07/2015		SAR Capability (10 of 20 elements non- compliant)	Lao PDR	2016	U
	Macau, China	SAR Capability Matrix	6/07/2015		SAR Capability (10 of 20 elements non- compliant)	Macau, China	2016	U
	Maldives	SAR Capability Matrix	6/07/2015		SAR Capability (9 of 20 elements non- compliant)	Maldives	2016	U

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Maldives	Annex 12 requirements not implemented. No agreements with adjacent States.	24/4/97	SAR services and facilities provided (details to be confirmed). SAR agreements with neighbouring States under development	Maldives - implement Annex 12 requirements and co-ordinate LOA with adjacent States ICAO - assist to develop SAR capability and to co-ordinate with adjacent States	Maldives	2009	U
	Marshall Islands	SAR Capability Matrix	6/07/2015		SAR Capability (no data elements non-compliant)	Marshall Islands	2016	U
	Micronesia	SAR Capability Matrix	6/07/2015		SAR Capability (20 of 20 elements non-compliant)	Micronesia	2016	U
	Myanmar	SAR Capability Matrix	6/07/2015		SAR Capability (17 of 20 elements non-compliant)	Myanmar	2016	U
	Nauru	SAR Capability Matrix	6/07/2015		SAR Capability (no data elements non-compliant)	Nauru	2016	U
	Nepal	SAR Capability Matrix	6/07/2015		SAR Capability (12 of 20 elements non-compliant)	Nepal	2016	U
	New Caledonia	SAR Capability Matrix	6/07/2015		SAR Capability (8 of 20 elements non-compliant)	New Caledonia	2016	U

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Palau	SAR Capability Matrix	6/07/2015		SAR Capability (no data)	Palau	2016	U
	Papua New Guinea	SAR Capability Matrix	6/07/2015		SAR Capability (11 of 20 elements non-compliant)	Papua New Guinea	2016	U
	Philippines	SAR Capability Matrix	6/07/2015		SAR Capability (12 of 20 elements non-compliant)	Philippines	2016	U
	Samoa	SAR Capability Matrix	6/07/2015		SAR Capability (no data elements non-compliant)	Samoa	2016	U
	Solomon Islands	SAR Capability Matrix	6/07/2015		SAR Capability (no data)	Solomon Islands	2016	U
	Timor Leste	SAR Capability Matrix	6/07/2015		SAR Capability (no data)	Timor Leste	2016	U
	Tonga	SAR Capability Matrix	6/07/2015		SAR Capability (18 of 20 elements non-compliant)	Tonga	2016	U
	Vanuatu	SAR Capability Matrix	6/07/2015		SAR Capability (no data)	Vanuatu	2016	U

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
<u>Non Provision of Safety-related Data</u>								
Requirement of Paragraph 3.3.5.1 of Annex 11 (provision of data for monitoring the height-keeping performance of aircraft)	India	Annex 11 requirement not implemented.		Established by RASMAG/20- failure to provide RVSM approvals summary data	Lack of	India		U
Requirement of Paragraph 3.3.5.1 of Annex 11 (provision of data for monitoring the height-keeping performance of aircraft)	Philippines	Annex 11 requirement not implemented.		Established by RASMAG/20- failure to provide RVSM approvals summary data	RMA reports data now provided.	Philippines		U
Failure to provide RVSM Approval Data to the RMA	India	Annex 6 paragraph 7.2.6	RASMAG/20 and 21	Established by RASMAG/21 - Relevant APANPIRG Conclusions: 19/15 (Enhanced communications between States and RVSM RMAs); 23/15 (Long-Term Non-RVSM Approved Aircraft); and 23/16 (Safety Monitoring Data Provision).		India		U

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
<u>Data Link Performance</u> <u>Monitoring and Analysis</u>								
Requirements of Paragraph 2.27.5 of Annex 11 not met.	China	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA		China	TBD	A
	Indonesia	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA. Performance monitoring and analysis not reported to FIT.		Indonesia	TBD	A
	Malaysia	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA. Performance monitoring and analysis not reported to FIT.		Malaysia	TBD	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Myanmar	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA. Performance monitoring and analysis not reported to FIT.		Myanmar	TBD	A
	Maldives	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA. Performance monitoring and analysis not reported to FIT.		Maldives	TBD	A
	Sri Lanka	Post-implementation monitoring not implemented	29/5/2015	Not registered with competent CRA. Problem Reports not provided to CRA. Performance monitoring and analysis not reported to FIT.	Agreed by FIT-Asia/5, endorsed by RASMAG/21	Sri Lanka	TBD	A

Identification		Deficiencies			Corrective Action			
Requirements	States/ facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action**
	Viet Nam	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA. Performance monitoring and analysis not reported to FIT.	Agreed by FIT-Asia/5, endorsed by RASMAG/21	Viet Nam	TBD	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

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	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
				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	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

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	Cambodia 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 3.5.87 to 3.5.10 of Annex 14.	U

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	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	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		Runway and taxiway overlay work completed. Runway edge lights and taxiway centre line lights provided in accordance with 9.9 of Annex 14, Volume I ; Taxiway centerline lights are installed instead of taxiway edge lights.	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	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

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	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.	B
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

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**
				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 § 10.1 § 10.2				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

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

Identification		Deficiencies			Corrective Action			
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Fiji Islands	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

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	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 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			
				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			
				Establishment of a national bird committee in accordance with APANPIRG Conclusion 18/1.	National Bird Committee will be established			

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

Identification		Deficiencies			Corrective Action			
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Viet Nam 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	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

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

Identification		Deficiencies			Corrective Action			
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
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				A
				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

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

Identification		Deficiencies			Corrective Action			
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

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

Identification		Deficiencies			Corrective Action			
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

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

Identification		Deficiencies			Corrective Action			
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date of completion	Priority for action**
Annex 14 Volume I	Mongolia	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, Volume I .				A
				provision of taxiway hold position signs on all hangar taxiways at entrances to the active taxiways/runway.				A

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

Identification		Deficiencies			Corrective Action			
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.

APANPIRG/27
(updated on 7th September 2016)

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE CNS FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
Adequate and reliable VHF COM	Myanmar	Quality and reliability of RCAG VHF inadequate and unavailability of required coverage.	1998	Improvements in the quality of link to RCAG stations and power supply system at some remote stations are required.	An action plan was developed to upgrade equipment at RCAG stations, replace VSAT stations at 5 VSAT location for the relay link to RCAG sites, to improve power supply system. Additional VSAT-RCAG stations will be installed at Coco Island in 2017. From 26 May 16, DCA Myanmar started using 4 VHF channel for 4 ACC sectors covering Yangon FIR. Latest update refer IP/22 from Myanmar to CNS SG/20 meeting	DCA Myanmar	December 2016	A
		Improvements had been observed with occasional communication problems reported.	June 2011		From 26 May 16, DCA Myanmar started using 4 VHF channel for 4 ACC sectors covering Yangon FIR. Latest update refer IP/22 from Myanmar to CNS SG/20 meeting		IATA conducted a survey from its member airlines for the air/ground communication by 8 July 2016. Overall 95% (514 flights) of aircraft, successfully established communications of one form or another with Yangon	
		From 2 to 13 April 2012, a survey was conducted by IATA. 129 of 349 aircraft from 11 airlines reported problems of one sort or another (HF, VHF or Data Link) 50 reported no communication had been established.	April 2012		DCA Myanmar has replaced equipments at all 6 RCAG sites with digital VHF system and has provided VSAT links and solar power supply system at all sites.		5% could not establish communications with ATC on Data Link, VHF or HF at the FIR boundary	
		In Flight Broadcast Procedure (IFBP) currently still in place	July 2014		The interface between new ATM system and CSP was upgraded from X.25 to IP in March 2013. The connectivity was stable but ATM/FANS system exhibits some instability. Further improvements need to be taken by the DCA Myanmar including both operational and technical arrangements			

Identification		Deficiencies			Corrective Action			
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
Reliable ground to ground communication as specified in the regional air navigation plan (Doc.9673)	Afghanistan and Pakistan	Unreliability of AFS communication between Afghanistan and Pakistan was brought to the notice of APANPIRG/21. Lack of reliability in the AFS including data communication between Kabul and Karachi and ATS voice communication between Lahore and Kabul was identified.	September 2010	Follow-up letters from ICAO regional offices were sent to Administrations concerned in April 2010 and further follow-up in March 2011 A COM coordination meeting – Afghanistan and Pakistan was held in June 2012 in Karachi, Pakistan. Further follow-up was made in end of 2014 and early 2015. A Remedial action plan was updated. New proposal for using landline has also proposed to be established between two States.	In March 2012, initial discussion on improvement of AFS communication was held at a special ATS coordination meeting. The COM coordination meeting in June 2012 developed a remedial action plan which was further updated in February 2015. 1. Near-term by end of September 2012, fully utilize the VPN circuit operational since January 2012 for exchange of AFTN traffic, organize users' training if required; (status quo) 2. Mid-term by end of May 2015, harmonize VSAT terminal equipment and select common network service provider to recover the VSAT Links; Afghanistan has successfully changed the service provider in February 2015. Site visits in Pakistan by expert from the VSAT service provider were made in February and March 2016. Remedial recommendations were provided to CAA. Pakistan. 3. Long-term by end of end of 2015, establish a dedicated landline connection with multiplexers between Afghanistan and Pakistan to support both data and voice communication between COM centres and ACCs	Ministry of Transport and Civil Aviation Afghanistan and CAA. Pakistan	December 2016	A
Regional air navigation plan – FASID Table CNS 1A	Myanmar	AFS data circuit between Beijing and Yangon had been out of service since Mid. July 2008.	September 2008	The circuit serves exchanging traffic between Myanmar and Z AFS routing area and also plays a critical role as alternate routing for Bangkok Yangon circuit.	A COM Coordination meeting in February 2014 developed an action item to rectify the deficiency as soon as possible. End of 2014, an E1 (2Mbytes) circuit was ordered by both States. the terminating equipment also purchased.	DCA. Myanmar and ATMB. China	October 2015 This deficiency can be removed from the deficiency list in CNS fields once officially notification is	A

Identification		Deficiencies			Corrective Action			
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
					The E1, IPLC using cross border fiber cable provided by each state's service provider was successfully implemented in the end of 2015. The AFTN connection between Yangon and Beijing was re-established in March 2016. This E1 circuit also enabled the voice communication between Yangon and Kunming.		received from Myanmar.	
Regional air navigation plan – FASID Table CNS 1D	Pakistan & China	Improvement of ATS Direct Speech circuit performance and A/G communication and surveillance coverage between China and Pakistan	May 2014 RASMAG/19	The ATS direct speech circuit via IDD between Urumqi and Lahore was observed not stable. Issues reported were in 2013	<p>Remedial action plan was developed in May 2015 by both States through a COM coordination meeting.</p> <p>A VSAT is planned to be installed at Lahore for connection with Urumqi ACC and additional VHF station is required to be installed to cover the VHF gap at PURPA crossing point.</p> <p>Technical survey for VSAT site in Lahore was done in end of January 2016. Agreement for installation and operation being discussed by two States.</p> <p>MoU for equipment transfer and installation are being negotiated between two Administrations.</p>	China ATMB and CAA. Pakistan	December 2016	A

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		Deficiencies			Corrective action			
Requirements	States/ Facilities (Index No.)	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action *
Meteorological information for operators and flight crew members, including forecasts provided by the WAFCs (Annex 3: Chapter 9)	Cambodia (AP-MET-09)	Briefing and flight documentation not provided as required; WAFC forecasts not available	1999	Airlines do not receive the required flight documentation, including WAFC forecasts	Implement procedures and systems for the required meteorological information to be supplied to operators and flight crew members, including forecasts generated from the digital forecasts provided by the WAFCs. (Status of implementation of CAP to be verified by Cambodia – see Attachment 1, part A)	SSCA, Cambodia	TBC	A
MWO and SIGMET service (Annex 3: Chapter 3, 3.4 and Chapter 7)	Cambodia (AP-MET-11)	Requirements for MWO and SIGMET service not established for Phnom Penh FIR	1992	MWO not established due to lack of trained personnel and technical facilities	Establish MWO to provide required service, including SIGMET information for Phnom Penh FIR. (Status of implementation of CAP to be verified by Cambodia – see Attachment 1, part B)	SSCA, Cambodia	TBC	A
MWO and SIGMET service (Annex 3: Chapter 3, 3.4 and Chapter 7)	Democratic Peoples' Republic of Korea (AP-MET-16)	Requirements for MWO and SIGMET service not established for Pyongyang FIR	2008	Reported by RO mission	Establish MWO to provide required service, including SIGMET information for Phnom Penh FIR. (Details and status of implementation of CAP to be verified by Democratic Peoples' Republic of Korea)	GACA, Democratic Peoples' Republic of Korea	TBC	A
Reporting of information on volcanic eruptions to civil aviation units. (Annex 3: 3.6, 4.8)	Indonesia (AP-MET-03)	Information on volcanic activity not provided regularly to ATS units, MWOs and VAACs.	1995	Observed by States concerned. Reported at the WMO/ICAO Workshop on Volcanic Ash Hazards (Darwin, 1995)	Establish arrangements for State volcano observatories to send the required volcano observation information as quickly as practicable to the associated ACC/FIC, MWO and VAAC. (Status of implementation of CAP to be verified by Indonesia – see Attachment 2, part A)	BMKG, DGCA and CVGHM, Indonesia	TBC	A

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		Deficiencies			Corrective action			
Requirements	States/ Facilities (Index No.)	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action *
Provision of SIGMET for volcanic ash (Annex 3: Chapter 7)	Indonesia (AP-MET-06)	Requirements for issuance and proper dissemination of SIGMET for volcanic ash have not been fully implemented	Dec 2003	Reported by airlines, noted by Volcanic Ash Advisory Centres and confirmed by ICAO mission	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of volcanic ash. (Status of implementation of CAP to be verified by Indonesia – see Attachment 2, part B)	BMKG, Indonesia	TBC	U
Meteorological observations and reports. (Annex 3: Chapter 4)	Kiribati (AP-MET-02)	METAR from Kiribati not available on regular basis.	1998	Reported by airlines	Equipment to be installed and arrangements to be made for regular observations and reports, including: training of personnel; maintenance of equipment; calibration and verification of meteorological observations; and proper/secure transmission of data. (Status of implementation of CAP to be updated by Kiribati)	State designated MET authority	TBC	A
Meteorological information for operators and flight crew members, including forecasts provided by the WAFCs (Annex 3: Chapter 9)	Kiribati (AP-MET-18)	WAFC forecasts not available for inclusion in flight briefings and documentation	2008	Reported by TCB CAEMSA-SP Technical Expert	Implement procedures and systems for the required meteorological information to be supplied to operators and flight crew members, including forecasts generated from the digital forecasts provided by the WAFCs. (Details and status of implementation of CAP to be verified by Kiribati)	State designated MET authority	TBC	U

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		Deficiencies			Corrective action			
Requirements	States/ Facilities (Index No.)	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action *
Provision of SIGMET information (Annex 3: Chapter 7)	Lao People's Democratic Republic (AP-MET-12)	Requirements for issuance and dissemination of SIGMET information for Vientiane FIR have not been fully implemented	2000	SIGMET frequently not available; as reported by airlines	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations. (Details and status of implementation of CAP to be verified by Lao People's Democratic Republic)	State designated MET authority	TBC	A
Meteorological information for operators and flight crew members, including forecasts provided by the WAFCs (Annex 3: Chapter 9)	Nauru (AP-MET-19)	WAFC forecasts not available for inclusion in flight briefings and documentation	2008	Reported by TCB CAEMSA-SP Technical Expert	Implement procedures and systems for the required meteorological information to be supplied to operators and flight crew members, including forecasts generated from the digital forecasts provided by the WAFCs. (Details and status of implementation of CAP to be verified by Nauru)	State designated MET authority	TBC	U
Meteorological observations and reports. (Annex 3: Chapter 4)	Nauru (AP-MET-21)	METAR/SPECI service not provided	2008	Reported by TCB CAEMSA-SP Technical Expert	Equipment to be installed and arrangements to be made for regular observations and reports, including: training of personnel; maintenance of equipment; calibration and verification of meteorological observations; and proper/secure transmission of data. (Details and status of implementation of CAP to be updated by Nauru)	State designated MET authority	TBC	U

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		Deficiencies			Corrective action			
Requirements	States/ Facilities (Index No.)	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action *
Provision of SIGMET information (Annex 3, Chapter 7)	Nauru (AP-MET-24)	Lack of SIGMET issued for the Nauru FIR.	Sep 2011	IATA deemed this situation unsafe and unacceptable to airline operations.	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations. (Details and status of implementation of CAP to be verified by Nauru)	State designated MET authority	TBC	U
Provision of SIGMET information (Annex 3: Chapter 7)	Nepal (AP-MET-14)	Requirements for issuance and dissemination of SIGMET information for Kathmandu FIR have not been fully implemented	2000		Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations. (Details and status of implementation of CAP to be verified by Nepal)	State designated MET authority	TBC	A
Reporting of information on volcanic eruptions to civil aviation units. (Annex 3, 3.6, 4.8)	Papua New Guinea (AP-MET-04)	Information on volcanic activity not provided regularly to ATS units, MWOs and VAACs.	1995	Observed by States concerned. Reported at the WMO/ICAO Workshop on Volcanic Ash Hazards (Darwin, 1995)	Establish arrangements for State volcano observatories to send the required volcano observation information as quickly as practicable to the associated ACC/FIC, MWO and VAAC. (Details and status of implementation of CAP to be verified by Papua New Guinea)	Rabaul Volcano Observatory, NWS and ASL of Papua New Guinea	TBC	A

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		Deficiencies			Corrective action			
Requirements	States/ Facilities (Index No.)	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action *
Provision of SIGMET for volcanic ash (Annex 3: Chapter 7)	Papua New Guinea (AP-MET-08)	Requirements for issuance and proper dissemination of SIGMET for volcanic ash have not been fully implemented	Dec 2003	Reported by airlines, noted by Volcanic Ash Advisory Centres and confirmed by ICAO mission	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of volcanic ash. (Details and status of implementation of CAP to be verified by Papua New Guinea)	NWS of Papua New Guinea	TBC	U
Provision of SIGMET information (Annex 3, Chapter 7)	Papua New Guinea (AP-MET-22)	Lack of SIGMET issued for the Port Moresby FIR.	Sep 2011	IATA deemed this situation unsafe and unacceptable to airline operations.	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations. (Details and status of implementation of CAP to be verified by Papua New Guinea)	State designated MET authority	TBC	U
Provision of SIGMET for volcanic ash (Annex 3: Chapter 7)	Philippines (AP-MET-07)	Requirements for issuance and proper dissemination of SIGMET for volcanic ash have not been fully implemented	Dec 2003	Reported by airlines, noted by Volcanic Ash Advisory Centres and confirmed by ICAO mission	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of volcanic ash. (Status of implementation of CAP to be verified by Philippines – see Attachment 3)	PAGASA	TBC	U

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		Deficiencies			Corrective action			
Requirements	States/ Facilities (Index No.)	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action *
Meteorological observations and reports. (Annex 3: Chapter 4)	Solomon Islands (AP-MET-01)	Weather information is inadequate and not provided on a regular basis	1996	Reported by airlines operating to Solomon Islands	Equipment to be upgraded and arrangements to be made for regular observations and reports, including: training of personnel; maintenance of equipment; calibration and verification of meteorological observations; and proper/secure transmission of data. (Status of implementation of CAP to be updated by Solomon Islands)	Solomon Is. MET Service	TBC	A
Meteorological information for operators and flight crew members, including forecasts provided by the WAFCs (Annex 3: Chapter 9)	Solomon Islands (AP-MET-20)	WAFC forecasts not available for inclusion in flight briefings and documentation	2008	Reported by TCB CAEMSA-SP Technical Expert	Implement procedures and systems for the required meteorological information to be supplied to operators and flight crew members, including forecasts generated from the digital forecasts provided by the WAFCs. (Details and status of implementation of CAP to be verified by Solomon Islands)	State designated MET authority	TBC	U
Provision of SIGMET information (Annex 3, Chapter 7)	Solomon Islands (AP-MET-23)	Lack of SIGMET issued for the Honiara FIRs.	Sep 2011	IATA deemed this situation unsafe and unacceptable to airline operations.	Implement procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations. (Details and status of implementation of CAP to be verified by Solomon Islands)	State designated MET authority	TBC	U

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		Deficiencies			Corrective action			
Requirements	States/ Facilities (Index No.)	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action *
Reporting of information on volcanic eruptions to civil aviation units. (Annex 3: 3.6, 4.8)	Tonga (AP-MET-17)	Information on volcanic activity not provided regularly to ATS units, MWOs and VAACs	2008	Reported by TCB CAEMSA-SP technical expert	Establish arrangements for State volcano observatories to send the required volcano observation information as quickly as practicable to the associated ACC/FIC, MWO and VAAC. (Status of implementation of CAP to be verified by Tonga – see Attachment 4)	MTKT and MLSNRKT	TBC	U

Acronyms/Abbreviations/Definitions

ACC — Area control centre
 ASL — Air Services Ltd.
 ATS — Air traffic services
 BMKG — Badan Meteorologi, Klimatologi, Dan Geofisika (Indonesian Agency for Meteorological, Climatological and Geophysics)
 CAEMSA-SP — Cooperative Agreement for the Enhancement of Meteorological Services to Aviation - South Pacific
 CAP — Corrective action plan
 CVGHM — Centre of Volcanology and Geological Hazard Mitigation
 DGCA — Directorate General of Civil Aviation
 FIC — Flight information centre
 FIR — Flight information region
 GACA — General Administration of Civil Aviation
 IATA — International Air Transport Association

MET — Meteorological
 METAR — Aerodrome routine meteorological report (*in meteorological code*)
 MLSNRKT — Ministry of Lands, Survey and Natural Resources of the Kingdom of Tonga
 MTKT — Ministry of Transport of the Kingdom of Tonga
 MWO — Meteorological watch office
 NWS — National Weather Service
 PAGASA — Philippine Atmospheric, Geophysical and Astronomical Services Administration
 RO — Regional Office (ICAO)

SIGMET — Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations
 SPECI — Aerodrome special meteorological report (*in meteorological code*)
 SSCA — State Secretariat of Civil Aviation
 TBC — To be confirmed
 TCB — Technical Cooperation Bureau (of ICAO)
 VAAC — Volcanic ash advisory centre
 WAFC — World area forecast centre
 WMO — World Meteorological Organization

Attachment 1 — Updates on CAP implementation provided by Cambodia (18 August 2016)

State Secretariat of Civil Aviation of Cambodia informed that:

A. With respect to the necessary implementation of procedures and systems for the required meteorological information to be supplied to operators and flight crew members, including forecasts generated from the digital forecasts provided by the WAFCs, the following has been completed:

- i. Installation of equipment at the following aerodromes: Phnom Penh (VDPP), Siem Reap (VDSR) and Sihanouk (VDSV), to obtain the digital forecasts provided by the WAFCs, via the Secure Aviation Data Information Service (SADIS), with full operational status at the end of 2013; and
- ii. Training of personnel to use the above system to generate the required forecasts for operators and flight crew members.

B. With respect to the necessary establishment of the MWO to provide required service, including SIGMET information for Phnom Penh FIR, the following has been completed:

- i. Arrangements for another Contracting State (China) to provide SIGMET service on behalf of Cambodia for the Phnom Penh FIR.

Attachment 2 — Updates on CAP implementation provided by Indonesia (August 2014)

BMKG informed that:

A. With respect to the necessary establishment of arrangements for State volcano observatories to send the required volcano observation information as quickly as practicable to the associated ACC/FIC, MWO and VAAC, the following has been completed:

- i. Arrangements for the dissemination of volcano observation information established in a memorandum of understanding (MOU) between the meteorological authority, State volcano observatory and the civil aviation authority;
- ii. Implementation of a volcanic activity report dissemination system (1 May 2012); and
- iii. Coordination meeting between the meteorological authority, State volcano observatory, civil aviation authority and the VAAC Darwin (June 2014).

B. With respect to the necessary implementation of procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of volcanic ash, the following has been completed:

- i. Coordination meeting between the meteorological authority, State volcano observatory, civil aviation authority and the VAAC Darwin (June 2014); and
- ii. Procedures for the issuance of SIGMET information for the Jakarta and Ujung Pandang FIRs implemented at the designated MWOs (April 2013) and successful participation in ICAO Regional SIGMET tests.

Attachment 3 — Updates on CAP implementation provided by Philippines (6 June 2016)

PAGASA informed that:

A. With respect to the necessary implementation of procedures for SIGMET information to be issued by the designated meteorological watch office/s concerning the occurrence or expected occurrence of volcanic ash, the following has been completed:

- i. Implementation of procedures for the issuance of SIGMET information (for volcanic ash) for Manila FIR by the designated MWO in accordance with the ICAO SARPs

Attachment 4 — Updates on CAP implementation provided by Tonga (10 May 2013)

Ministry of Infrastructure (MOI), Civil Aviation Division informed that:

A. With respect to the necessary establishment of arrangements for State volcano observatories to send the required volcano observation information as quickly as practicable to the associated ACC/FIC, MWO and VAAC, the following has been completed:

- i. Establishment of a memorandum of understanding (MOU) between the national authority providing volcano monitoring (Ministry of Lands, Environment, Climate Change and Natural Resources – MLECCNR) and the national authority providing meteorological service for international air navigation (MOI) for the reporting of volcanic activity to the associated ACCs, MWOs and VAACs in accordance with the relevant ICAO SARPs.