INTERNATIONAL CIVIL AVIATION ORGANIZATION

TWENTY SECOND MEETING OF THE ASIA/PACIFIC AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (APANPIRG/22)

Bangkok, Thailand, 5 – 9 September 2011

Agenda Item 4: Regional Air Navigation Deficiencies

STATUS OF AIR NAVIGATION DEFICIENCIES IN THE ASIA/PAC REGION

(Presented by 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 identified by the 21st meeting of APANPIRG (APANPIRG/21, September 2010) in the ATM/AIS/SAR, AOP, CNS and MET fields for review by the meeting. 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, updated based on information provided by States during the Sub-Group Meetings for review and action by APANPIRG/22.

This paper relates to – Strategic Objectives:

- *A:* ***Safety*** *– Enhance global civil aviation safety*
- *C:* ***Environmental Protection and Sustainable Development of Air Transport*** *– Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives- All

Action by APANPIRG /22 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.

1.2 The online deficiency database is available through the ICAO APAC website www.bankok.icao.int via secure access provided by the Regional Office to States and International Organizations concerned.

2. DISCUSSION

2.1 The lists of deficiencies in the various air navigation fields, as developed by APANPIRG/21 and updated by the respective Sub-groups and the Secretariat, are presented in Attachments A to D. Information on actions taken in the different air navigation fields is presented in the following paragraphs.

2.2 Deficiencies in the ATM/AIS/SAR fields

2.2.1 The 21st Meeting of the ATM/AIS/SAR Sub-group (ATM/AIS/SAR/SG/21, July 2011) reviewed and updated the List of ATM deficiencies based on information provided by concerned States. States were reminded to advise the Regional Office of any change in status of these deficiencies, and to respond accordingly to the State Letter that had been issued on this subject.

2.2.2 Regarding the ATS route deficiencies and the non-implementation of R216 into and out of China, IATA noted that seasonal approvals and the use of flexible entry/exit points were not always compatible with the effective date of new routes/ waypoints. IATA asked China to consider in the future if new routes/waypoints could be automatically included in these seasonal approvals and the flexible entry/exit points as appropriate. IATA had no objections to the deletion of ATS route R216. China noted that they have had some issues in coordinating with Kazakhstan. The Secretariat advised that the Regional Office could assist through the EUR/NAT Office if necessary.

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

2.3 Deficiencies in the AOP field

2.3.1 Myanmar reported in their letter dated 17th January 2011 that simple approach lighting system has been installed for runway 03 in July 2010 and DCA will establish procedures for maintenance programmes by end of 2011.

2.3.2 On 12 January 2011 the Regional Office issued State Letter T 11/2.1 – AP-AGA0003/11 to the States that have recorded Air Navigation Deficiencies, highlighting Conclusion 21/54. Bangladesh, Cambodia, Maldives, and Thailand have reported the action taken by their Administration on the identified deficiencies. Information on the action taken by States is provided in Attachment B1.

2.3.3 The select list of findings observed by the AGA mission in Sri Lanka, Vietnam, Myanmar and Fiji are also placed at Attachment B1. Myanmar and Sri Lanka have informed the corrective action plan initiated by their Administration. The ICAO Regional Office will follow up with the concerned States to validate and provide corrective action plan for the elimination of

aerodrome deficiencies identified in Attachment B1 to this paper. The secretariat has formulated the following conclusion for adoption by APANPIRG/22:

Draft Conclusion 22/XX – Addition of the APANPIRG Air Navigation Deficiencies for non compliance with Annex 14 SARPs

That, the AOP air navigation deficiencies reported and identified in Attachment B1 to Agenda item 4 be added to the APANPIRG air navigation deficiencies list B.

2.3.4 In 2011 the ICAO Regional Officer conducted missions to Lao PDR, Brunei and Mongolia to promote and assist in the implementation of SARPs and regional air navigation plan. The mission report with recommendations has been circulated to the respective Administrations for necessary action.

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

2.4 Deficiencies in the CNS field

The Fifteenth Meeting of the CNS/MET/SG of July 2011 reviewed and updated the list of Air Navigation Deficiencies in the CNS field.

Air-ground VHF Communication in Yangon FIR

2.4.1 The meeting noted that Myanmar had upgraded their air ground Communication capability to provide a reliable, safe and efficient service to the traffic transiting Yangon FIR and loss of communication with aircraft in Yangon FIR is rare now. However a report of communication difficulty was received from a pilot flying over the Yangon FIR in June 2011. The meeting appreciated the efforts made by the Administration. IATA acknowledged the achievement by Myanmar and informed the meeting that a target date is being workout to remove requirement for the In-flight Broadcast Procedure (IFBP) in Yangon FIR and a survey was being circulated seeking feedback from airlines.

HF Communication problem in Mumbai FIR

2.4.2 India informed the meeting that efforts have been made by Airport Authority India to improve the services by replacing the antenna and a significant improvement has been reported. Two new HF Transmitters and 5 New HF antennas have been installed. In addition 43 new HF Receivers are being procured and will be installed shortly. No further report on poor communication has been received from the airspace users.

Navigation Aids Performance deficiencies in Philippines

2.4.3 Disruption of Air Traffic Services in Manila FIR was reported on 13 September 2009 for about two hours. It was reported that standby power supply source failed to take over the load when the main power failed. This was considered a deficiency in CNS field subject to remedial action by the Civil Aviation Authority of Philippines. Philippines further reported that the new CNS/ATM project is in the procurement stage and is expected to be operational by 2013.

2.4.4 Philippines informed the meeting that the interim project of replacement of EUROCAT ATM system is still going on and is due for validation. ILS at both ends of the runway has been replaced on 4 and 6th April 2011. Replacement of DVOR is expected to be completed in

January 2012. It was informed that associated DME will also be replaced. The backup power supply has been replaced. IATA informed the meeting that there have been no adverse reports about navigation aids performance in the recent past but expressed concern about the discontinuation of CPDLC trial due to some technical problem.

2.4.5 **Poor ground/ground communication between Afghanistan and Pakistan**

Lack of reliable communication infrastructure between Afghanistan and Pakistan, poor performance of Aeronautical Fix Service including data communication between Kabul and Karachi and ATS voice communication between Lahore and Kabul have become issues of concern. Karachi – Kabul AFTN circuit has been intermittent since 29 June 2010 due to unstable performance of VSAT system. Currently e-mail and AFTN messages are reportedly being sent from Karachi AFTN centre but no response is normally received. AFS requirements as specified in the regional air navigation plan are not met. Administrations were urged to work out a remedial solution and improve AFS service.

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

2.5 Deficiencies in the MET fields

2.5.1 The CNS/MET SG/15 meeting noted that nearly one-fourth of APANPIRG deficiencies are in the MET field. Progress has been made to overcome some of the deficiencies based on report of implementation by States and Regional OPMET Data Bank (RODB) monitoring.

SIGMET related

2.5.2 The meeting noted with appreciation that Lao PDR had established a Meteorological Watch Office (MWO) on 1 April 2010 and began issuing SIGMET in March 2011. RODB Bangkok monitored SIGMET issued by Lao PDR for the period from 1 March 2011 to 27 April 2011. Lao PDR was advised of the formatting problems identified during the monitoring and was requested to correct such problems. The meeting considered that this deficiency should be removed provided that: 1) format errors have been addressed; 2) SIGMET is issued routinely when warranted, and 3) the airlines are satisfied with the results. The meeting therefore agreed that further progress was warranted before removing this deficiency from the list.

2.5.3 The Regional Office received notification from DPR Korea on 30 March 2009 of the establishment of a MWO. It was evident that DPR Korea was producing SIGMET on a regular basis and was providing routing SIGMET to RODB Tokyo. The meeting commended the progress associated with the Sunan MWO. It was agreed that if DPR Korea continued issuance of SIGMET in accordance to Annex 3 occurred for another six months and if DPR Korea participated in the APAC SIGMET tests in November 2011, the deficiency would be considered for removal from the list.

2.5.4 SIGMET is currently issued for the Phnom Penh FIR by the Chengdu MWO of China based on the letter of agreement between Cambodia and China. The MWO in Cambodia may be implemented by the end of 2011 and subsequently this deficiency would be considered for removal from the list.

2.5.5 Deficiencies related to volcanic ash SIGMET needs to be corrected by Indonesia, Philippines and Papua New Guinea.

2.5.6 A focus on the lack of SIGMET issued for the Port Moresby, Honiara, and Nauru FIRs raised serious concerns since this sub regional area is prone to tropical cyclones, CB and at times volcanic ash. IATA emphasized the importance of having hazards reported in this large sub-regional

area that straddled the equator and deemed this situation unsafe and unacceptable to airline operations and suggested a State in a position to do so to provide this service until such time the respective States can provide SIGMET. As a result, the CNS/MET SG/15 meeting formulated the following draft Conclusion.

Draft Conclusion 15/39 – Addition of the APANPIRG Air Navigation Deficiency for lack of SIGMET in equatorial region

That,

a) the lack of SIGMET for Port Moresby, Honiara, and Nauru FIRs be included in the list of air navigation deficiency; and

b) States concerned be urged to take urgent action to seek assistance from State in a position to do so to provide the service until such time the States concerned can provide their own SIGMET.

WAFS forecasts for flight briefings

2.5.7 Myanmar had provided the Regional Office with letters from Thai Airways and Silk Air stating that they are receiving WAFS forecasts in flight briefings issued by Myanmar. This has happened as a result of implementation of SADIS FTP. It was therefore agreed to remove this deficiency from the list.

2.5.8 WAFS forecasts for flight briefings can be obtained by the WAFS Internet File Server (WIFS), which would be less expensive than the hardware associated with satellite retrieval. The South Pacific Islands States (all but two – Samoa and Solomon Islands) have registered for WIFS. It was noted that activation and utilization of WIFS will assist in removing the related deficiencies for Nauru, Kiribati and Solomon Islands

Observations

2.5.9 METAR from Nauru is necessary for flight calculations and flight planning and optimizing routes for alternates. A meteorological observing station is needed in Nauru to mitigate the related deficiency (AP-MET-21). Nauru was expected to take remedial action to overcome the problem.

Volcanic ash observations and dissemination

2.5.10 Lack of volcano monitoring for the Kingdom of Tonga (AP-MET-17) was identified by the ICAO Technical Co-operation Project *Cooperative Agreement for Enhancement of the Meteorological Service for Aviation in the South Pacific (CAEMSA-SP).* A letter of agreement is being considered for the observation and dissemination of volcanic ash information between the Ministry of Lands, Survey, and Natural Resources and the Ministry of Transport. A recent account of volcanic ash observed by aircraft, but not reported by MLSNRMT of Tonga to VAAC Wellington, indicated the need for further action.

2.5.11 The updated List of Air Navigation Deficiencies in the MET filed is in **Attachment D** to this paper.

2.6 ICAO assistance to States to resolve deficiencies

2.6.1 **IFFAS REGIONAL PROJECT – Assistance to South Pacific Island States in Aerodrome Certification and SMS Implementation**

2.6.2 Deficiencies related to the implementation of aerodrome certification and SMS implementation has been noted during USOAP Audits of some of the South Pacific States concerned and by APANPIRG/19. Recognizing the importance on the implementation of Annex 14, provisions related to aerodrome certification and Safety Management Systems (SMS) in the South West Pacific Small Island States, ICAO is providing assistance to these States in order to build their capacity to provide the required services in a sustainable and cost efficient manner. To this end, an ICAO IFFAS grant to be executed by TCB has been approved. The project will be based and monitored from the ICAO Regional Office Bangkok, and will include project missions by an expert to the 8 participating States. An ICAO expert in Aerodrome certification and SMS implementation has been identified and recruitment process is ongoing. The project is expected to commence by mid Sept 2011.

2.6.3 **Cooperative Agreement for the Enhancement of Meteorological Services for Aviation in the South Pacific (CAEMSA-SP)**

A 2005 fact finding mission by the ICAO Regional Office to the South Pacific region led to the conception of a project to be run under the ICAO TCB initiative, together with the cooperation of the World Meteorological Organization (WMO). This project -Cooperative Agreement for Enhancement of Meteorological Services for Aviation in the South Pacific (CAEMSA-SP) was established for improving the safety and efficiency of air transport operations in the region by enhancing the meteorological services in the South Pacific. Eight States- Cook Islands, Fiji, Kiribati, Nauru, Samoa, Solomon Islands, Tonga and Vanuatu participated in this programme. An ICAO IFFAS grant was approved in 2008 (IFFAS Project RAS/06/802).

Through this project the services of an Aviation Meteorological Expert was sourced to identify the MET deficiencies, assist States develop medium and long term action plans for the provision of meteorological services and facilities and improve coordination of stakeholders. The Project Terminal Report detailing the status of meteorological facilities of the Governments of Cook Islands, Republic of the Fiji Islands, Kingdom of Tonga, Republic of Kiribati, Republic of Nauru, Independent State of Samoa, Solomon Islands, Republic of Vanuatu, was completed in February 2010. The main project achievements/outputs consisted of:

- Action plans by States for the provision of meteorological services and facilities;
- Improved ability to meet the next phase of the USOAP;
- Training on Management techniques, Quality Management Systems carried out; and
- Improved knowledge among stakeholders of ICAO and Met Service obligations under the relevant conventions.

2.6.4 **PASO PROJECT FOR PERFORMANCE BASED AIR NAVIGATION SYSTEMS:**

2.6.5 PASO requested for assistance from ICAO in establishing a project to review and address Air Navigation Issues that currently exist in the South Pacific. The aim of the above mentioned project is to provide assistance to South Pacific Small Island States (SPSIS) of Asia/Pacific Region (APAC), who are also members of PASO, to progress with the implementation of performance based air navigation systems leading to a seamless global ATM system. The project will

cover all of air navigation systems elements (AGA, CNS, ATM, MET and AIM) and meets requirements of the 11 States of PASO.

2.6.6 The implementation plan for the SPSIS is harmonized with the Global Air Navigation Plan (GANP) and Asia/Pacific Regional Air Navigation Plan (ANP). The "Aviation System Block Upgrades" (ASBU) initiative, the framework for global harmonization, will be the basis for the implementation of this TC Project. The project will focus on four key performance areas: Safety; Capacity; Environment; and Cost effectiveness. The Project outcome will meet agreed levels of safety, provides for optimum economic operations and environmentally sustainable.

2.6.7 The project is expected to commence in March 2012. While the funding issue is still at the discussion stage it is expected that the PASO States will have make an annual contribution to the running of the project.

3.0 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 Attachments 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;

c) adopt the draft Conclusions in Paras 2.3.3 and 2.5.6 ; and

d) urge States to establish action plans with fixed target dates for resolution of safety related deficiencies and inform the ICAO Regional Office.

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AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

(deletions and additions are the updates by ATM/AIS/SAR/SG/21)								
Identification		**Deficiencies**			**Corrective Action**			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
ATS Routes								
Requirements of Part VIII, Table ATS 1 of the Air Navigation Plan	~~India/Nepal~~	~~A473 - Not implemented~~	~~16/3/99~~	~~A new proposal was submitted in mid-2003 by Nepal. This was coordinated by Airport Authority of India (AAI) with defense authorities.~~	~~Nepal - propose to delete A473 from BANP. India submitted the proposal in March 2008. Nepal yet to submited the proposal in January 2010. The Regional Office has forwarded the proposal to the headquartes.~~	~~Nepal~~ ~~ICAO~~	~~Item captured in Chapter 2 of the Route Catalogue. APANPIRG/19 (September 2008, Bangkok) updated re progress. No longer applies and replaced by new RNAV route L626.~~	~~B~~
	China	R216 - Not implemented	24/11/93	China advised current the routing B215 KUQA A460 REVKI to Alma Ata met the requirements for traffic from Urumqi to Alma Ata and requests deletion of R216 from BANP (14 Apr 03).	China will coordinate with Kazakhstan to delete R216 from BANP.	China/Kazakhstan ICAO	Captured in Chapter 2 of the Route Catalogue.	B
	Indonesia	R459 - Implemented as W51 and W36	24/11/93	ICAO has requested Indonesia to implement as R459.	Indonesia, Singapore - consider implementation of the route with designator L504. Singapore advised ATM/AIS/SAR/SG/20 (July 2010, Singapore) that a hollistic sub-regional review of ATS routes were being undertaken by Indonesia and Singapore.	Indonesia/Singapore	To be implemented as L504. Target implementation date TBD	B

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
WGS-84								
Requirements of Paragraph 3.7.1 of Annex 15	Bhutan	WGS-84 - Not implemented	2/7/1999	Data conversion completed, but not published		Bhutan	TBD	A
	China	WGS-84 - Patially implemented * implemented in the Sanya FIR as of 1 Nov 2001	2/7/1999	Differences to Annex 15 - *Aeronautical Information Services* are notified		China	China advised APANPIRG/19 (September 2008, Bangkok) that WGS 84 implementation is in progress and planned to be completed in 2010 for all existing airports. All new airports will use WGS84 immediately. China confirmed to ATM/AIS/SAR/SG/20 that the implementation would be completed by the end of 2010.	A
	DPR Korea	WGS-84 - Not implemented				DPR Korea	DPRK advised ATM/AIS/SAR/SG/18 verbally that WGS 84 implementation was completed. The Regional Office is waiting for a formal report.	A
	Kiribati	WGS-84 - Not implemented				Kiribati	TBD	A
	Nauru	WGS-84 - Not implemented		Conferring with consultant		Nauru	TBD	A
	Solomon Islands	WGS-84 - Not implemented				Solomon Islands	1999	A
	Vanuatu	WGS-84 - Implemented at main airports	2/7/1999			Vanuatu	1999	A

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
Airspace Classification								
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
	Kiribati	Airspace Classifcation - 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~~. Implemented. The secretariat responded by e mail seeking supporting document	A
	Solomon Islands	Airspace Classification - Not implemented	7/7/99			Solomon Islands	TBD	A
	Viet Nam	Airspace Classification - Not implemented	7/7/99			Viet Nam	ATM/AIS/SAR/SG/19 updated implementation planned in 2010.	A

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
AIP Format								
Requirements of Chapter 4 of Annex 15	Cook Islands	AIP Format - Not implemented	7/7/99			Cook Islands	ATM/AIS/SAR/G/16 (June 2006) updated - AIP COOK ISLANDS in new format in progress with assistance of New Zealand.	A
	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~~. Implemented. The Secretariat r	A

ATTACHMENT A

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
SAR capability								
Requirements of Annex 12	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
	Maldives	Annex 12 requirements not implemented. No agreements with adjacent States.	24/4/97	SAR services and facilites 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

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
Carriage of ACAS II								
Requirement of Chapter 6 of Annex 6	Bhutan	Annex 6 requirement not implemented.	26/8/05		Bhutan - implement Annex 6 as required.	Bhutan	TBD	U
	Cook Islands	Annex 6 requirement not implemented.	26/8/05		Cook Island - implement Annex 6 as required.	Cook Islands	TBD	U
	Kiribati	Annex 6 requirement not implemented.	26/8/05		Kiribati - implement Annex 6 as required.	Kiribati	TBD	U
	Marshall Islands	Annex 6 requirement not implemented.	26/8/05		Marshall Islands - implement Annex 6 as required.	Marshall Islands	TBD	U
	Micronesia	Annex 6 requirement not implemented.	26/8/05		Micronesia - implement Annex 6 as required.	Micronesia	TBD	U
	Nauru	Annex 6 requirement not implemented.	26/8/05		Nauru - implement Annex 6 as required.	Nauru	TBD	U
	Palau	Annex 6 requirement not implemented.	26/8/05		Palau - implement Annex 6 as required.	Palau	TBD	U
	Papua New Guinea	Annex 6 requirement not implemented.	26/8/05		Papua New Guinea - implement Annex 6 as required.	Papua New Guinea	~~TBD.~~ Implemented. The Secretariat r	U
	Solomon Islands	Annex 6 requirement not implemented.	26/8/05		Solomon Islands - implement Annex 6 as required.	Solomon Islands	TBD	U

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
	Tonga	Annex 6 requirement not implemented.	26/8/05		Tonga - implement Annex 6 as required.	Tonga	Tonga-advised ATM/AIS/SAR/SG/19 verbally that ACAS II implementation was completed. The Regional Office is waiting for a formal report.	U
	Vanuatu	Annex 6 requirement not implemented.	26/8/05	Pressure altitude reporting transponder required in all airspace since 1/1/00.	Vanuatu - implement Annex 6 as required.	Vanuatu	TBD	U

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
Carriage of Pressure Altitude Reporting Transponder								
Requirement of Chapter 6 of Annex 6	Bhutan	Annex 6 requirement not implemented.	26/8/05		Bhutan - implement Annex 6 as required.	Bhutan	TBD	U
	Cook Islands	Annex 6 requirement not implemented.	26/8/05		Cook Island - implement Annex 6 as required.	Cook Islands	TBD	U
	Kiribati	Annex 6 requirement not implemented.	26/8/05		Kiribati - implement Annex 6 as required.	Kiribati	TBD	U
	Marshall Islands	Annex 6 requirement not implemented.	26/8/05	ACAS II required.	Marshall Islands - implement Annex 6 as required.	Marshall Islands	TBD	U
	Micronesia	Annex 6 requirement not implemented.	26/8/05		Micronesia - implement Annex 6 as required.	Micronesia	TBD	U
	Nauru	Annex 6 requirement not implemented.	26/8/05		Nauru - implement Annex 6 as required.	Nauru	TBD	U
	Palau	Annex 6 requirement not implemented.	26/8/05		Palau - implement Annex 6 as required.	Palau	TBD	U
	Papua New Guinea	Annex 6 requirement not implemented.	26/8/05		Papua New Guinea - implement Annex 6 as required.	Papua New Guinea	~~TBD~~. Implemented. The Secretariat r	U
	Solomon Islands	Annex 6 requirement not implemented.	26/8/05		Solomon Islands - implement Annex 6 as required.	Solomon Islands	TBD	U

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
	Tonga	Annex 6 requirement not implemented.	26/8/05	ACAS II required.	Tonga - implement Annex 6 as required.	Tonga	Tonga-advised ATM/AIS/SAR/SG/19 verbally that the pressure altitude reporting transponder implementation was completed. The Regional Office is waiting for a formal report.	U

AIR NAVIGATION DEFICIENCIES IN THE ATM/AIS/SAR FIELDS IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action****
Non Provision of Safety-related Data								
Requirement of Paragraph 3.3.4.1 of Annex 11	Bangladesh	Annex 11 requirement not implemented.	11/9/09		Bangladesh - provide the safety-related data as required. Bangladesh advised ATM/AIS/SAR/SG/20 that the data were submitted to MAAR in 2008 and 2009. Thailand to confirm.	Bangladesh		U
	Lao PDR	Annex 11 requirement not implemented.	11/9/09		Lao PDR - provide the safety-related data as required.	Lao PDR		U
	Papua New Guinea	Annex 11 requirement not implemented.	21/8/06		Papua New Guinea - provide the safety-related data as required.	Papua New Guinea	TBD	U

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION

Identification		Deficiencies			Corrective Action			
Requirements	**State/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Date of completion**	**Priority for action**
Annex 14 Vol. I Amendment 6 ***§ 10.1*** ***§ 10.2***	**Myanmar**			A maintenance programme should be established to maintain facilities in a condition which does not impair safety of air navigation.	DCA establishes and implements procedures to aerodrome operators meet national requirements for maintenance programmes	DCA Myanmar	End of 2011	"A"
Annex 14 Vol. I **§** 5.3.4		No approach Lighting RWY 03	1994	PAPI installed in 2002. Approach lights to be Installed when funds available.	Precision approach Cat I available for runway 21 and simple approach has been installed for runway 03.	DCA Myanmar	Complete July 2010 Letter dated 17 January 2011	A

AIR NAVIGATION DEFICIENCIES IN AOP FIELD IN THE ASIA/PACIFIC REGION FOR VALIDATION BY STATES

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Nepal							
Annex 14, Volume I	Katmandu International Airport	Runway/ taxiways	ICAO Mission of February 2008	Poor condition of runway -surface irregular with rut formation, cracks and base failure at some locations. Annex 14,Vol I, Section 10.2	Improve runway surface	Tribhuvan International airport/ CAAN		U
				Growth of thick grass on the airfield pavements.	Removal of grass from the pavement			U
				Provision of RESA in accordance with section 3.5 of ICAO Annex 14, Volume I.	Provision of RESA			U
				Provision of runway markings in accordance with the specifications given in Chapter 5 of Annex 14, Volume I.	Provide runway markings as per ICAO SARPs			A
				Insufficient runway strip, refer recommendations given in section 3.4 of Annex 14, Volume I.	Provide runway strip as per ICAO recommendations			A

AIR NAVIGATION DEFICIENCIES IN THE AOP FIELD IN THE ASIA/PACIFIC REGION FOR VALIDATION BY STATES

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** **Male International Airport**	**Runway/ Taxiways**	AGA Mission Report April 2008	Poor condition of runway shoulders. Water body within runway strip. Insufficient runway strip.	Improve runway shoulders. Fill water body.	MACL/CW Unit	Runway shoulders repaired and water body on runway strip filled Runway strip will be provided as per ICAO requirements by 2014. Exemption granted by State and published in AIP	U
				Growth of grass on the airfield pavements.	Remove grass from pavements		Grass grown removed and process is on going	U
				Provision of RESA in accordance with section 3.5 of ICAO Annex 14, Volume I.	Provide RESA		RESA will be provided as per ICAO requirements before end 2014. Exemption granted by State and published in AIP.	A
				Airfield signs provided are not in accordance with the requirements given in section 5.4 of Annex 14, Volume I.	Provision of signage's as per ICAO requirements		Signage provided as per ICAO requirements except Taxi F. Will be completed before March 2011	A
				Poor condition of alpha and bravo taxiways and shoulders	Improve the pavement conditions		Taxiway Bravo repaired. Taxiway A will be repaired by end of February 2011.	
	Gan International airport	**Runway**	**AGA mission Report**	Provision of RESA in accordance with section 3.5 of ICAO Annex 14, Volume I.	Provide RESA		CAP to be submitted to CAD by end of February 2011. ICAO will be updated.	U

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

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	India							
Annex 14 Volume I	**Chennai International Airprot**	**Runway**	**AGA mission January 2009**	non frangible signage on runway strip. (5.4.1.3 & 9.9 of Annex 14, volume I)	Provision of frangible signs	AAI	Frangible signs provided. Complete	A
				RESA not provided in accordance with Para 3.5 of Annex 14, Volume I requirements;	Provision of RESA	AAI	December 2012	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	Provision of 300m strip width for full length of runway 07/25.	AAI	December 2013	A
Annex 14, Volume I	**Mumbai International Airprot**	**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;	Provision of RESA	MIAL	R/w-09 RESA provided R/w-14- March 2012	U
				Taxiway light foundations not flush with shoulder - section 9.9 of Annex 14, volume I.	Taxiway light foundations flushed with shoulder surface.	MIAL	complete	A
				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	Provision of 300m strip width for full length of runway 09/27.	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 FOR VALIDATION

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** **Delhi International Airprot**	**Runway/ Taxiway**	**AGA mission of January 2009**	Object(fence) strip near runway 27 threshold;	Relocate fence.	DIAL	Oct 2011	U
				Poor condition of pavement (pre threshold pavement areas of r/w 10-28)- cracking, rutting and vegetation growth; 10.2	Improved pavement conditions	DIAL	Complete	U
				Poor condition of taxiway N adjoining r/w 10.	Improved pavement condition	DIAL	Complete	A
				Taxiway light foundations not flush with shoulder - section 9.9 of Annex 14, volume I.	Taxiway light foundations flushed with shoulder surface	DIAL	October 2011	A

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

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Cambodia						RESA provided. RESA improvement plan under consideration to satisfy Para's 3.5.7 to 3.5.11 of Annex 14	
Annex 14 Volume I	**Phnom Penh International Airport**	**Runway**	**AGA mission of March 2009**	RESA not provided in accordance with Para 3.5 of Annex 14, Volume I.	Provision of RESA	SSCA Cambodia		U
				Runway strip is insufficient-300m strip width is not available for the full length of runway	Provision of 300m strip width for full length of runway.		Full runway strip now available.	U
				non frangible signage on runway strip. (5.4.1.3 & 9.9 of Annex 14, volume I)	Provision of frangible signs		Replacement with frangible equipment in progress	A
	Siem Reap International Airport	**Runway**	**AGA mission of March 2009**	RESA not provided as per Para 3.5 of Annex 14, Volume I. ;	Provision of RESA		RESA provided. RESA improvement plan under consideration to satisfy Para's 3.587 to 3.5.10 of Annex 14	U
				non frangible signage on runway strip. (5.4.1.3 & 9.9 of Annex 14, volume I)	Provision of frangible signs		Non Frangible signs removed	A

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

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Bangladesh							
Annex 14 Volume I	**Zia International Airport, Dhaka**	**Runway/ Taxiway**	**ICAO mission April 2009**	Runway strip width insufficient(300m strip not available for the full length of runway);	Provide runway strip in accordance with Annex 14, volume I	CAABD	December 2011	A
				RESA not provided in accordance with Section 3.5 of Annex 14, Volume I requirements;	Provide RESA		December 2011	U
				runway edge lights and taxiway edge lights does not meet frangibility requirements in accordance with 9.9 of Annex 14, Volume I. ;	Provision of airfield lighting system satisfying frangibility requirements		August 2010	A
Annex 14, Volume I	**Shah Amanat International Airport, Chittagong**	**Runway**	**ICAO mission April 2009**	RESA not provided in accordance with Section 3.5 of Annex 14, Volume I requirements;	Provide RESA		June 2010	U
				Runway strip width insufficient(300m strip not available for the full length of runway;	Provide 300m runway strip for full length of runway		Dec 2010	A

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

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Thailand					DCA/AOT		
Annex 14 Volume I	**Chiang Mai**	**Runway**	**AGA mission of July 2009**	300m strip width not available for the full length of precision approach CAT I runway in accordance with the standard 3.4.3, Annex 14, Volume I;	Provide 300m strip for full length of runway		Oct 2011	A
				RESA to satisfy Section 3.5 of Annex 14, Volume I requirements; and	Provide RESA		Oct 2011	U
				road hold position signage not provided at roads intersections crossing the runway/active taxiways.	Provide road holding position signage		Complete	A
Annex 14, Volume I	**Phuket International Airport**	**Runway**	**AGA mission of July 2009**	R ESA to satisfy Section 3.5 of Annex 14, Volume I requirements;	Provide RESA		Dec 2011	U
				Runway strip width insufficient(300m runway strip for precision approach runways in accordance with Para 3.4.5 of Annex 14, Volume I;	Provide 300m runway strip width for full length of runway		AOT has submitted risk assessment report to DCA. Approved by DCA.	A

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

Identification		Deficiencies			Corrective Action			
Requirements	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date of completion**	**Priority for action****
	Myanmar							
Annex 14 Volume I	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.	Provide enhanced taxiway markings		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;	Provide RESA		March 2011	A
				Provisions of shoulders for taxiways	Provide taxiway shoulders		Beginning of 2012	B
				Provision of road holding position signs at entrances to active runways	Provide road holding position signs		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

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	**Mandalay Airport**	**Runway/ Taxiway**	**April 2010**	Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	Provide RESA	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.	Provide enhanced taxiway markings		DCA is reviewing the requirement for taxiway enhanced centerline marking	A
				Provision of road holding position signs at entrances to active runways	Provide road holding position signs		Oct 2011	A

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

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** Nadi international Airport	**Runway/ Taxiway**	**ICAO mission June 2010**	Flush the strip with the adjacent runway shoulder	Flush strip with adjacent runway shoulder	Civil Aviation Authority of Fiji		A
				Provision of runway hold position lights in accordance with Para 5.3.19 of ICAO Annex 14, Volume I	Provide runway hold position lights			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
				Provision of Airfield signage in accordance with ICAO Annex 14, volume I, section 5.4	Provide signage as per ICAO standards			A
		Bird Hazard		Establishment of a national bird committee in accordance with APANPIRG Conclusion 18/1.	Establish National Bird Committee			B

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	Nausori International Airport	**Runway/ Taxiway**	**June 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	Provide runway strip, flush strip with adjacent runway shoulder	Civil Aviation Authority of Fiji		A
				Provision of RESA in accordance with Section 3.5 of Annex 14, Volume I requirements;	Provide RESA			A
				Provision of runway hold position lights in accordance with Para 5.3.19 of ICAO Annex 14, Volume I	Provide runway hold position lights			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

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

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	Provide runway strip in accordance with Annex 14, volume I, remove obstacles from strip 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	Provide runway hold position lights		Airside safety committee has been formed to study all runway makings, 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.	Provide enhanced taxiway markings		February 2011	A
				Establishment of a national bird committee in accordance with APANPIRG Conclusion 18/1.	Establish National Bird Committee		July 2010	A

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

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

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	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	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
				Wildlife strike report submission to ICAO for inclusion in IBIS	Submission of wildlife strike reports to ICAO for inclusion in IBIS			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.

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE CNS FIELD 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. Improvement has been observed and pilot reports continued to indicate occasional communication difficulties. Further improvement has been observed with occasional communication problems reported.	1998 Early 2008 **June 2011**	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, provide VSAT link at all RCAG stations, to improve power supply system. ICAO missions were conducted. 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. The installation of new high power HF with full associated equipment to be done at Yangon ACC by the end of year 2011; The current VCSS (Voice Control Switching System) has already been upgraded since first quarter 2011 Initiated an action to integrate a new ADS-C/ CPDLC system into the new ACC displays (EUROCAT-C) at the Yangon ACC. The timeline for implementation of this integrated system is planned for the end of 2011; - Replacement of new communication equipments such as head set, inter-com system and DSC line configuration have already been completed since the end of May 2011;	DCA Myanmar	Revised target date is end of 2011 This deficiency will be removed from the list upon receipt of official report providing full details of action taken by Myanmar and confirmation by the users.	A

Identification		Deficiencies			Corrective Action			
Requirement	**States/facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action**
~~Requirements for provision of AFS circuits between Hong Kong and Manila is specified in FASID Table CNS 1A and 1D (Doc.9673 Vol.II)~~	~~Philippines~~	~~Total disruption of the AFTN circuit between Manila and Hong Kong after Philippines Long Distance Telephone Company (PLDT) failed to provide communication link between Manila and Hong Kong.~~ ~~The fluctuation of service availability of AFTN circuit and ATS direct speech circuit were recently observed from total outage of 4,000 minutes in June to over 13,000 minutes in August 2009~~	~~February 2007~~ ~~June 2009~~ ~~The normal operation fully restored in February 2010.~~	~~It is urgently required to improve the performance of the AFTN circuit to meet the requirement for the exchange of safety messages between Manila and Hong Kong within the established transit time of 5 minutes.~~	~~Prolonged delay in rectification of problem experienced at Manila has resulted in diversion of message traffic for a long time via Taipei with alternate routing via Hong Kong/Fukuoka/Singapore/Manila causing traffic congestion as well as higher transit time of AFTN message.~~ ~~Remedial actions for improvement of the circuit performance were discussed among ICAO Secretariat, Hong Kong CAD and the CAAP Philippines.~~ ~~ICAO mission was carried out and action plan was developed.~~	~~Civil Aviation Authority of the Philippines (CAAP)~~	~~By the end of September 2009~~ ~~The circuit was resumed fully normal operational in February 2010. Latest monthly performance report indicates its serviceability meets the operational requirements.~~ ~~The CAAP is invited to notify Regional Office to remove the deficiency from the list.~~	~~U~~

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 Navaids and navigation service	Philippines	Un-serviceability of both the ILSs and the DVOR at Manila airport	19 June 2010	In the APANPIRG/21 meeting, Philippines reported that the ILS system was installed on 26 August 2010.	The significant breakdown of the services was considered a deficiency if remedial action was not taken. The Administration was requested to inform about the remedial action taken to avoid breakdown of power supply. ILS on both ends of the runway have been replaced on 4 and 6 April 2011. Replacement of DVOR expected to be completed in January 2012; Backup power supply has been replaced; The associated DME has also been replaced.	Civil Aviation Authority of the Philippines (CAAP)	Feb. 2012 The CAAP is invited to notify Regional Office to remove the deficiency from the list once normal navigation service is provided.	A
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	On 13 July 2011, it was reported by Pakistan that the performance of the Karachi-Kabul circuit is still unsatisfactory and most of the incoming messages from Kabul are rejected by the system at Karachi side due to format errors. A COM coordination meeting was recommended to identify problems and develop solutions. Necessary training to the operators on the procedures was also recommended.	Ministry of Transport and Civil Aviation Afghanistan and CAA. Pakistan	July 2013	A

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		**Deficiencies**			**Corrective action**			
Requirements	**States/ facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action ***
Meteorological observations and reports. (Annex 3, Chapter 4)	Solomon I.	Weather information is inadequate and not provided on a regular basis	1996 Confirmed 2006 SOA	Reported by airlines operating to Solomon I.	Equipment to be upgraded and arrangements to be made for regular observations TC expert recommendation to replace and/or calibrate MET obs. equipment AGGH – 2008 State made aware of MET Services gaps identified by ICAO TC Project, CAEMSA-SP, in late 2008 CAEMSA-SP Phase II plan for Donors and associated remedies Activation of WIFS will assist in overcoming deficiency	Ministry of Transport, Works and Aviation, Solomon I. *Note: OPMET/MTF to carry out survey*	2011	A
Meteorological observations and reports. (Annex 3, Chapter 4)	Kiribati	METAR from Kiribati not available on regular basis.	1998 Confirmed 2005 SIP	Reported by airlines	State's MET authority to consider urgent action to be taken for providing regular observations and reports TC expert recommendation to purchase/install AWOS – 2008 ICAO SIP conducted in 2005 State made aware of MET Services gaps identified by ICAO TC Project CAEMSA-SP, in late 2008 CAEMSA-SP Phase II plan for Donors and associated remediesActivation of WIFS will assist in overcoming deficiency	Directorate of Civil Aviation, Kiribati. *Note: OPMET/MTF to carry out survey*	2011	A

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION

Identification		**Deficiencies**			**Corrective action**			
Requirements	**States/ facilities**	**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 p. 4.14 (recom.))	Indonesia	Information on volcanic activity not provided regularly to ATS units and MWOs.	1995 Confirmed by ICAO SIP mission Dec 2003	Observed by States concerned. Reported at the WMO/ICAO Workshop on Volcanic Ash Hazards (Darwin, 1995)	Three-party LOA to be signed between the MGA, DGCA and DVGHM Information exchange between CVGHM & ABA in draft form. VSAT comms installed to improve the monitoring in E Nusa Tenggara – provides direct transfer of data to CVGHM HQ full time. (AusAID-funded project) Bilingual reporting form based on VONA to improve comm. to VAAC in Sulawesi	DGCA, MGA Indonesia	TBD (no action plan submitted to RO)	A
Reporting of information on volcanic eruptions to civil aviation units. (Annex 3 p. 4.14 (recom.))	Papua New Guinea	Information on volcanic activity not provided regularly to ATS units and MWOs.	1995 Confirmed by ICAO SIP mission Dec 2003	Observed by States concerned. Reported at the WMO/ICAO Workshop on Volcanic Ash Hazards (Darwin, 1995)	Procedures to be set up for exchange of data between NWS, ATS and Rabaul Volcano Observatory (RVO) and a LOA to be signed Discussion of an agreement between RVO & PNG CAA to provide volcanic information to aviation through cost recovery is underway.	NWS, ATS Papua New Guinea *Note: ICAO Regional Office to monitor*	TBD (no action plan submitted to RO)	A
Provision of SIGMET for volcanic ash (Annex 3, Chapter 7; ASIA/PAC FASID Table MET 1B)	Indonesia Philippines Papua New Guinea	Requirements for issuance and proper dissemination of SIGMET, including SIGMET for volcanic ash, have not been fully	ICAO SIP mission Dec 2003	a) Reported by airlines b) Noted by Volcanic Ash Advisory Centres	a) ICAO to carry out a Special Implementation Project (SIP) with the primary objective to improve implementation of SIGMET procedures, especially for VA. b) State to take urgent actions to implement the SIGMET procedures. Note. ICAO SIP carried out in 2003, progress in	a) State's Met authorities b) ICAO to implement the SIP. c) ICAO	To be advised	U

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION

Identification		Deficiencies			Corrective action			
Requirements	**States/ facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action ***
		implemented			issuance of SIGMET for VA is noted; the outstanding problems to be resolved within 1-year (progress reported by VAAC Darwin) LOA between ATO, PHIVOCS & PAGASA signed in 2004 to make reporting part of information dissemination practice. LOA is undergoing periodic review (ref. letter of PAGASA dated March 12, 2008) VAAC Darwin trained forecasters in PNG and Philippines to prepare VA SIGMET Participated in VA SIGMET test 17 Nov 2009	Regional Office to co-ordinate and monitor.		
a) Service for operators and flight crew members. (Annex 3, Chapter 9). b) WAFS products for flight documentation. (ASIA/PAC FASID Table MET 1A).	Cambodia ***(AP-MET-09)***	Briefing and flight documentation not provided as required. WAFS products not available	1999	Airlines do not receive the required flight documentation including WAFS forecasts.	States to consider urgent action for installation of SADIS VSAT for receiving WAFS products and OPMET information. Action plan proposed by ICAO MET mission 2003 A TC project proposal submitted to SSCA, Cambodia Cambodia expects to have SADIS FTP operational in 2011 and may require training from a nearby State	State's MET authorities	End 2011	A
MWO for Phnom Penh FIR and SIGMET (Annex 3, Chapter 3 & 7; ASIA/PAC	***Cambodia*** ***(AP-MET-11)***	Requirements for meteorological watch office (MWO) to be established at		MWO not established due to lack of trained personnel and	Establishment of MWO currently not feasible. SIGMET service is provided under bilateral agreement with China to meet requirements. A TC project proposal submitted to SSCA,	SSCA, Cambodia	TBD End 2011	A

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		**Deficiencies**			**Corrective action**			
Requirements	**States/ facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action ***
FASID Table MET 1B)		Phnom-Penh international airport have not been met.		technical facilities. No SIGMET service for Phnom Penh FIR	Cambodia Cambodia is in process of establishing its own MWO with target date end of 2011			
Provision of SIGMET information (Annex 3, Chapter 7; ASIA/PAC FASID Table MET 1B)	***Lao PDR*** ***(AP-MET-12)***	Requirements for issuance and dissemination of SIGMET have not been fully implemented.	2000	SIGMET frequently not available Reported by airlines	State's MET authority to take urgent actions to implement the SIGMET procedures. Lao PDR has established MWO in 2010 and started issuing SIGMET since March 2011. As a result of monitoring by RODB Bangkok LAO PDR was advised to correct noted formatting problem and to issue SIGMET on a regular basis to meet requirements. Lao PDR is expected to issue SIGMET regularly by the end of 2011. This deficiency can be considered for removal after correcting the above problems.	State's MET authorities	End 2011	A
MWO for Pyongyang FIR and SIGMET (Annex 3, Chapter 3 & 7; ASIA/PAC FASID Table MET 1B)	***DPR Korea*** ***(AP-MET-16)***	Requirements for meteorological watch office (MWO) to be established at Pyongyang international airport have not been met.	2008	MWO not established due to lack of trained personnel and lack of resources. No SIGMET service for Pyongyang FIR Reported by RO	MWO established in February 2009 as reported by State. . DPR. Korea is subsequently producing SIGMET on a regular basis and is routing SIGMET to RODB Tokyo. It is required for Sunan MWO to participate the APAC SIGMET test in November 2011. This deficiency can be removed if SIGMET is continued to be issued regularly for another six	General Administration of Civil Aviation (GACA) DPR Korea	Jan 2012	A

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		**Deficiencies**			**Corrective action**			
Requirements	**States/ facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action ***
				mission	months.			
Volcanic activity information to be provided to ATS units, MWOs, and VAAC (Annex 3, 3.6 and 4.8)	***Tonga*** ***(AP-MET-17)***	Information on volcanic activity not provided regularly to ATS units, MWOs, and VAAC	2008	Reported by TCB CAEMSA-SP technical expert	Agreement drafted for the dissemination of volcanic ash information from MLSNRKT to MTKT for distribution to ACCs, MWOs and VAACs (under consideration)	Ministry of Transport of the Kingdom of Tonga (MTKT) Ministry of Lands, Survey and Natural Resources of the Kingdom of Tonga (MLSNRKT)	2011	U
Briefing and flight documentation (Annex 3, Chapter 9, Appendix 2 & 8)	***Kiribati*** ***(AP-MET-18)*** ***Naurui*** ***(AP-MET-19)*** ***Solomon Islands*** ***(AP-MET-20)***	WAFS products not accessed and therefore not available for inclusion in flight briefings and documentation	2008	Reported by TCB CAEMSA-SP Technical Expert	WAFS Internet File Service (WIFS) allows for the retrieval of WAFS forecasts for flight briefings and documentation (versus more expensive satellite dish) – available for operations since May 2010 Will seek donor ship for installation and training on WIFS as part of CAEMSA-SP Phase II	MET Services, TCB, Donor, ISCS Provider State	2012	U
Provision of meteorological observations (Annex 3, 4.3.1, 4.5,	***Nauru*** ***(AP-MET-21)***	No METAR/SPECI observing programme in	2008	Reported by TCB CAEMSA-SP Technical Expert	Automatic observing station needed as well as maintenance programme Will seek donor for observing system and maintenance contract and/or training as part of	MET Service, TCB, Donor	2012	U

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE ASIA/PAC REGION								
Identification		**Deficiencies**			**Corrective action**			
Requirements	**States/ facilities**	**Description**	**Date first reported**	**Remarks**	**Description**	**Executing body**	**Target date for completion**	**Priority for action ***
4.6)		place (no calibrated and maintained equipment available)			CAEMSA-SP Phase II			

Narratives on specific deficiencies are provided:

AP-MET-10: The CNS/MET SG/ 15 meeting also noted that Myanmar notified the Regional Office (February 2010) of an action plan on obtaining SADIS FTP in 2010 that would provide the required WAFS information in flight briefings. Confirmation of WAFS information is received from users therefore this deficiency is removed from the list.

AP-MET-17: Included in the list of deficiencies with adoption of APANPIRG/20 Conclusion 20/75. Specifically, lack of volcano monitoring for the Kingdom of Tonga was identified. An agreement between the Ministry of Transport of the Kingdom of Tonga (MTKT) and the Ministry of Lands, Survey and Natural Resources of the Kingdom of Tonga (MLSNRKT) on the dissemination of volcanic ash information from MLSNRKT to MTKT for distribution to ACCs, MWOs and VAACs is under consideration.

AP-MET-18,19,20: Kiribati, Nauru and Solomon Islands were encouraged to obtain WAFS forecasts via WIFS, which would mitigate this deficiency. The cost of acquiring WIFS will be provided by the WAFC Washington Provider State and added in the proposal to obtain a sponsor to assist States in acquiring WAFS products.

AP-MET-21: Included in list of deficiencies with adoption of APANPIRG/20 Conclusion 20/75. Lack of meteorological observing station for Nauru was identified. Assistance is likely needed from a Donor to provide the necessary equipment and possible training for maintenance or a maintenance contract, which is expected to be discussed at the ICAO TCB CAEMSA-SP Phase II Donor Workshop in Vanuatu.