



International Civil Aviation Organization

**FOURTEENTH MEETING OF THE
COMMUNICATIONS/NAVIGATION/SURVEILLANCE
AND METEOROLOGY SUB-GROUP OF
APANPIRG (CNS/MET SG/14)**



Jakarta, Indonesia, 19 – 22 July 2010

Agenda Item 17: Review of deficiencies in the CNS and MET fields:

1) status of CNS deficiencies (APANPIRG Deficiency List)

STATUS OF CNS DEFICIENCIES

(Presented by the Secretariat)

SUMMARY

This paper presents information on the progress in resolving the deficiencies in the CNS fields, as identified by APANPIRG, for review by the Meeting. This paper also brings out the issues which have been brought out by the user agencies in the recent past.

This paper relates to

Strategic Objectives:

- A. Safety – Enhance global civil aviation safety
- D. Efficiency – Enhance the efficiency of aviation operations

Global Plan Initiatives:

All GPIs

1. Introduction

1.1 Assisting States in resolving the safety related deficiencies is one of the most important tasks of the PIRGs. The APANPIRG maintains an up-to-date List of Deficiencies in all the air navigation fields. In order to assist the work of APANPIRG, the CNS/MET Sub-group regularly reviews the status of deficiencies in the CNS fields and provides the necessary updates and guidance to the States.

1.2 The list of deficiencies in the CNS fields is provided in the **Attachment** for review by the Meeting.

2. Discussion

2.1 The status of the deficiencies in the CNS fields was reviewed by APANPIRG/20 Meeting held in Bangkok in September 2009. The Secretariat has updated the list based on the information received from States and other sources.

2.2 Deficiencies in the CNS field have been addressed as follows:

2.3 **The current situation of air-ground communications in Yangon FIR**
(First reported in 1998 and later in July 2010)

2.3.1 The extended-range VHF coverage in the northern part of Yangon FIR utilizes 3 RCAG stations located at Lashio, Mandalay and Sittwe operating on 126.750 MHz. To improve the signal quality, a procedure for selection of RCAG stations has been developed based on the statistics and samples. For the Southern part of Yangon FIR, Yangon ACC utilizes local VHF station in Yangon airport and another two RCAG stations located at Myeik and Pathein operating on 128.750 MHz.

2.3.2 It was reported that interruption of power supply at one or two remote stations is still an issue of concern. Myanmar has a plan to upgrade the solar power supply system at these two remote RCAG stations.

2.3.3 In 2009, IATA provided monitoring reports on the air/ground communications status in Yangon FIR. These reports indicated that some improvement of VHF communication had been achieved. Preliminary review of the report revealed that some 70 percent reports from pilots indicated they had normal air ground communication. Based on the statistics collected by Myanmar, loss of communication with aircraft in Yangon FIR is very low and rare. However, communication difficulties were still experienced by some pilots flying over the FIR

2.3.4 A report was received on 1 July 2010 indicating poor to no communication in the Yangon FIR on VHF 126.750 MHz and HF at 18:00 UTC at FL360. Signal strength was only 1 to 2. No COMS lasting up to 15 minutes.

2.3.5 Myanmar requested IATA and the operators to provide timely feedback for communication problems experienced. It was expected that the report or feedback for investigation should include the following minimum information. The operators are also required to be aware of the characteristics of the communication infrastructure and their condition.

- Time of occurrence and position of occurrence added in the report template;
- ATS Route no. and the closest waypoint when problem experienced;
- Flight level which is important to analyze the coverage of RCAG; and
- The report is required to be forwarded to DCA Myanmar as soon as possible preferably within 1 to 2 days of the occurrence.

2.4 **ATIS function at (Kathmandu and) Dhaka airports**
(First reported in May 2007)

2.4.1 The ATIS function has been implemented at TIA, Kathmandu and official notification has been received in early 2009. The deficiency had been deleted from the list of deficiencies in CNS field accordingly.

2.4.2 The ATIS function has been implemented at Dhaka Airport and official notification has been received from Bangladesh on 17 September 2009. The deficiency has been deleted from the list of deficiencies in CNS field accordingly.

2.5 Manila-Hong Kong AFTN circuit and Manila – Hong Kong ATS Direct Speech Circuit (First reported in 2007).

2.5.1 The circuit was resumed operational on 4 May 2008. An official notification from Air transportation Office on the Restoration was received on 13 May 2008. However, again in May 2009 there was a 719 minutes of circuit outage when cable was upgraded between CAAP and Philcom on 1 May 2009.

2.5.2 Since February 2010, the circuit stays quite stable. In the last 13 months, there were only three interruptions due to equipment maintenance/problems at Phicom in March, June and August 2009. The circuit serviceability performance has shown that it has achieved satisfactory status i.e. more than 97% except for August, September 2009 which were 85% and 96.4% respectively. CAAP has been invited to notify the Regional Office for removal of the deficiency from the list.

2.6 HF communication problem in Mumbai FIR
(First report in September 2006)

2.6.1 Concerns on High Frequency (HF) air-ground communications at Mumbai FIR were expressed at Sixteenth Meeting of ATM/AIS/SAR Sub-group and subsequently in the Seventeenth Meeting of APANPIRG in 2006. The concerns were on the quality of communication particularly, the noisy reception conditions and channel congestions. Follow-up actions were taken by the Airport Authority of India (AAI) to improve HF communications over Mumbai FIR.

2.6.2 However, negative contact on the route B459 has been reported by an operator in 2009. The matter has been taken up and the State has been requested to investigate into the matter and take up urgent rectification to mitigate the problem. . In one report filed on 9 April 2010, Captain of the South African Airways reported ‘No HF comms were established with Mumbai on BOM-JNB. All published frequencies tried including the frequencies given over VHF.’ In a separate report received from the operator’s representative, it has been reported that ‘HF Communication channels over crowded. The same frequencies are in use by multiple control stations. Superfluous information is requested and passed – this causes channel congestion. When contact is made, communication quality is good’. India has informed that efforts are being made to improve the services further. The meeting is expected to review current status of the HF communication in Mumbai FIR and determined whether it should be included in the list of Deficiencies in the CNS field.

2.7 Navigation Aids Performance deficiencies in Philippines
(First report in September 2009)

2.7.1 Disruption of Air Traffic Services in Manila FIR was reported on 13 September 2009 for about two hours. It was reported that the Standby Power source failed to takeover the load when the main power failed. It has been reported that action for the new CNS/ATM project is in procurement stage and is expected to be operational by 2013. Interim project of replacement of the 14 year old ATM System in Manila has also been taken up.

2.7.2 Subsequently on 19 June 2010, failure of DVOR at Manila was reported at 05:30 leading to non availability of instrument approach procedures at the Ninoy Aquino International Airport (NAIA). The facility was restored on 23 June at around 3:00 am (local time). Both the ILSs provided to serve the instrument runway were unserviceable. It has earlier been reported that the ILSs and DVOR provided at the NAIA are quite old and have become unreliable. Moreover, difficulty is being faced in getting spares for the equipment. The ILS 24 and ILS 06 became unserviceable on 26 September 2009 and 27 October 2009 respectively. The Administration has been urged to take necessary remedial action at the earliest. This is considered as deficiency in CNS field subject to remedial action by the CAAP.

2.8 Poor ground/ground communication between Afghanistan and Pakistan

2.8.1 Because lack of reliable communication infrastructure between Afghanistan and Pakistan, the poor performance of Aeronautical Fix Service including data communication between Kabul and Karachi and ATS voice communication between Lahore and Kabul has become an issue of concern. Karachi – Kabul AFTN circuit became intermittent since 29 June 2010 due to unstable performance of VSAT system. Currently e-mail and AFTN messages are 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 concerned have been urged to work out a remedial solution and improve the service.

3. Action required by the Meeting

3.1 The meeting is invited to:

- a) review the deficiencies listed in the Attachment;
- b) update the list based on recent actions taken by States, if any;
- c) identify additional deficiencies, if any; and
- d) recommend actions for resolving the remaining deficiencies.

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
Provision of ATIS as specified in FASID Table CNS 2 (Doc 9673)	Bangladesh	To broadcast current, routine terminal information to arriving and departing aircraft to ease congestion on the Tower and Approach channels affecting safety of aircraft operation.	May 2007	Provide aerodrome Terminal Information broadcast system to ease congestion on VHF and to reduce controllers work load Notification from Bangladesh received on 17 Sep. 2009	The ATIS equipment installed has been out of service due to maintenance problem and is beyond repair. It is required to provide a new equipment. New ATIS equipment had already been installed and put into trial operation on 14 May 2008. Effort is required to resolve the technical problem and provide ATIS for operational use within shortest possible time. Further updates on the Status are required. The ATIS equipment has been installed and operational since August 2008	Civil Aviation Authority of Bangladesh	September 2009 Official notification of the normal operation of the ATIS and request for removal this deficiency from the deficiency list is expected from Bangladesh Corrective Action Plan Implemented, Deficiencies is removed	A
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 poor communication problems reported.	1998 Early 2008 <u>July 2010</u>	Improvements in the quality of link to RCAG stations and power supply system at some remote stations are required.	Action should be taken to provide reliable links between the RCAG stations and Yangon ACC. 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. New HF transmitters were used to provide service to aircraft flying beyond	DCA Myanmar	Revised target date is end of 2009 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

CNS/MET SG/14-WP/58
Attachment

Identification		Deficiencies			Corrective Action			
Requirement	States/facilities	Description	Date first reported	Remarks	Description	Executing body	Target date for completion	Priority for action
					VHF coverage in a small portion of Yangon FIR			
Requirement for provision of ATIS as specified in FASID Table CNS2 (Doc. 9673 Vol.II)	Nepal	To broadcast current, routine terminal information to arriving and departing aircraft to ease congestion on the Tower and Approach channels affecting safety of aircraft operation.	April 2005	Provide aerodrome Terminal Information broadcast system to ease congestion on VHF and to reduce controllers work load	ATIS equipment provided in 2001 remained unusable due to technical problem which is still under investigation and rectification. On 14 March 2008, Nepal informed that ATIS TIA revived since 5 November 2007 on reduced range condition. It was under maintenance for normal operation. Nepal advised on 21 August 2008 that ATIS is functioning normal.	Civil Aviation Authority of Nepal	September 2008	A

CNS/MET SG/14-WP/58
Attachment

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	<p>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.</p> <p>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</p>	<p>February 2007</p> <p>June 2009</p>	<p>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.</p>	<p>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.</p> <p>Remedial actions for improvement of the circuit performance were discussed among ICAO Secretariat, Hong Kong CAD and the CAAP Philippines.</p> <p>ICAO mission was carried out and action plan was developed.</p>	Civil Aviation Authority of the Philippines (CAAP)	<p>By the end of September 2009</p> <p>The circuit was resumed fully normal operational in February 2010. Latest monthly performance report indicates its serviceability meets the operational requirements.</p> <p>The CAAP is invited to notify Regional Office to remove the deficiency from the list.</p>	U