



International Civil Aviation Organization

**The Twenty-Fifth Meeting of the Regional Airspace Safety Monitoring  
Advisory Group (RASMAG/25)**

Video Teleconference, 27-30 October 2020

**Agenda Item 3: Reports from Asia/Pacific RMAs and EMAs**

**MANILA FIR AIDC IMPLEMENTATION LHD MITIGATIONS UPDATE**

(Presented by the Philippines)

**SUMMARY**

This paper presents FORM A – LHD Analysis after the Air Traffic Services Inter-Facility Datalink Communication (AIDC) implementation and updated FORM B - LHD Preventive/Mitigation Measures in the Philippines.

**1. INTRODUCTION**

1.1 During the 24th Meeting of RASMAG last July 2019, the Philippines presented the updates on the actions taken and planned measures to minimize the occurrence of LHD using the completed FORM B – LHD Preventive/Mitigation Measures.

1.2 For the 25th Meeting of RASMAG, the Philippines will present updates on the actions taken and planned measures to minimize the occurrence of LHD using the completed FORM - A LHD Analysis and FORM B – LHD Preventive/Mitigation Measures.

1.3 The current upgraded ATM system of Manila ACC is capable of Air Traffic Services Inter-Facility Datalink Communications (AIDC). The **Table 1** provides the status of AIDC implementation in the Manila FIR.

**Table 1  
Status of AIDC Implementation in the Manila FIR**

<b>Date</b>	<b>Adjacent Center</b>	<b>Testing results</b>
23 May 2019	Hong Kong ACC	Implemented
01 November 2019	Singapore ACC	Implemented
05 December 2019	Taipei ACC	Implemented
10 October 2019	Ujung Pandang ACC	Operational Trial
TBD	Kota Kinabalu ACC	Awaiting readiness. They are upgrading their ATM system
TBD	Ho Chi Minh	On-going. Awaiting response to continue technical testing since they are using the old FPL format.
TBD	Kobe ACC	Initiated correspondence, awaiting response
TBD	ATMC	Initiated correspondence, awaiting response
TBD	Oakland ACC	Awaiting readiness, for datalink to migrate from AFTN to AMHS connection between Manila and Oakland ACCs.

**2. DISCUSSION**

2.1 The lists of actions taken and future plans of the Philippines, including feedback on effectiveness is contained in **Attachment A**, FORM A and **Attachment B** FORM B – LHD Preventive/Mitigation Measures in the Philippines.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a. note the information contained in this paper; and
- b. discuss any relevant matters as appropriate.

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## FORM A - LHD Analysis

Due to the continuing prevalence of LHDs, States are encouraged to conduct further investigation and provide in-depth analyses of LHDs, especially those induced by their responsible ATS units. The purpose is not to apportion blame on any organizations but to understand the underlying root causes in order to develop safety mitigations to prevent reoccurrence. In case of significant occurrences (such as long duration LHDs), States are encouraged to provide an analysis for each occurrence. For other occurrences, States can provide analysis of a group of similar occurrences. **Please, return the filled form to [maar@aerothai.co.th](mailto:maar@aerothai.co.th).**

**1. Organization:** CIVIL AVIATION AUTHORITY OF THE PHILIPPINES **2. Date of Analysis:** September 29, 2020

**3. If it is a single occurrence - Please provide occurrence date, call sign\*, and location:**

**4. If it is a group of occurrences – Please describe the nature of occurrences:**

**5. Details of the analysis: Please provide detailed description of the followings**

Description of Occurrence(s)	
No AIDC transfer due to negative flight plan No AIDC transfer due to error in flight plan format No transfer due to ATC failed to make a voice transfer	
Contributing Factors and Mitigations	
- <b>Contributing factors/causes:</b> Please describe <u>all</u> factors leading to such occurrence(s) - <b>Mitigations/controls/barriers:</b> Please describe any measure which could be used to <u>prevent/detect</u> LHD occurrence(s), or <u>reduce</u> their duration. Also, please describe existing barriers which could be improved.	
Human Factor Issues – ex. fatigue, workload, competency, teamwork, situational awareness	
Contributing factors/causes	Mitigations/controls/barriers
Airline operator/s failed to file a flight plan	<ul style="list-style-type: none"> <li>- Series of Stakeholders' meetings were made to inform the airline operators of the importance of filing a correct flight plan.</li> <li>- Coordination between the 2 Supervisors will be made to reconcile all data regarding the occurrence. Then Manila ACC Supervisor will submit a report to the Facility Safety Action Team for further investigation and after which an initial investigation report will be submitted to the Manila ACC Facility Chief. Manila ACC will make a final investigation and will be submitted to the ATMC manager and Air Traffic Service- Safety Management System. [Already implemented]</li> </ul>
Contributing factors/causes	Mitigations/controls/barriers
Airline operator/s filed an erroneous flight plan	<ul style="list-style-type: none"> <li>- Series of Stakeholders' meetings were made to inform the airline operators of the importance of filing a correct flight plan.</li> <li>- Trainings/seminars were made regarding correct Filling of flight plan.</li> <li>- Information dissemination was made regarding</li> </ul>

\*This information is used for reference by the MAAR only. Sensitive information will later be de-identified.



	<p>the new flight plan format.</p> <ul style="list-style-type: none"> <li>- Coordination between the 2 Supervisors will be made to reconcile all data regarding the occurrence. Then Manila ACC Supervisor will submit a report to the Facility Safety Action Team for further investigation and after which an initial investigation report will be submitted to the Manila ACC Facility Chief. Manila ACC will make a final investigation and will be submitted to the ATMC manager and Air Traffic Service- Safety Management System. [Already implemented]</li> </ul>
<p>Error not detected due to human limitations</p>	<ul style="list-style-type: none"> <li>- The controllers who are involved in the related incidents have to participate in a discussion with the Facility chief and Lead Safety Officer of the Facility Action Team of Manila ACC on what factors contribute to those incidents. They are then asked to make a written report on what should/could have been done to prevent those incidents. [Already implemented]</li> <li>- A memo was also issued to remind all controllers of the procedures. The issue was also discussed with controllers during facility meetings. [Already implemented]</li> </ul>
<p><b>Systems/Equipment – ex. equipment failures, unserviceability, usability, reliability, poor design</b></p>	
<p><b>Contributing factors/causes</b></p>	<p><b>Mitigations/controls/barriers</b></p>
<p>There were times the system failed to alert the ATC that there was no AIDC transfer. In the system AIDC transfer was successful but Adjacent ACC will call to inform that no AIDC and no voice transfer was received from Manila.</p>	<ul style="list-style-type: none"> <li>- The new ATM system will provide visual cues for controllers to see whether an AIDC transfer was successful or not. If the ATC see that AIDC transfer fails, ATC will transfer that aircraft through voice. [Already implemented].</li> <li>- Coordination between the 2 Supervisors will be made to reconcile all data regarding the occurrence. Then Manila ACC Supervisor will submit a report to the Facility Safety Action Team for further investigation and after which an initial investigation report will be submitted to the Manila ACC Facility Chief. Manila ACC will make a final investigation and will be submitted to the ATMC manager and Air Traffic Service- Safety Management System. [Already implemented]</li> <li>- Service providers are already aware of the problem and continuous investigations and patches to correct the errors are being made.</li> </ul>

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## FORM B - LHD Preventive/Mitigation Measures

Due to the continuing prevalence of LHDs, States are urged to provide a list of measures planned or taken to minimise LHDs (including detection of LHD occurrences and actions taken to reduce LHD duration). Please list all actions planned or taken by your organization, including comments on their effectiveness and **return the completed form to [maar@aerothai.co.th](mailto:maar@aerothai.co.th)**.

1. **Organization:** CIVIL AVIATION AUTHORITY of the PHILIPPINES

2. **Date of analysis:** September 29, 2020

3. **Hotspot/Area (example: eastern boundary of FIR A):**

4. **Please provide detailed description of the followings:**

No.	Preventive/mitigation measures planned/taken	Target/actual effective date	Progresses/difficulties	Comments on effectiveness of mitigations
1	AIDC implementation to the remaining Adjacent ACC	TBD	> Though some Adjacent Centers are not yet ready, continuous coordination are still being made regarding AIDC possible testing and or operational trial.	The following issues are to be addressed: >Error not detected during readback/hearback. >Language barrier >Large Height Deviation will be further minimized.
2	Manila ACC is still planning to further increase the number of sectors to 9	1Q2020	>Northwest sector (one of the busiest) will be split into 2 sectors. - Northwest 1 will handle the VHF portion of South China Sea from MEVIN to NOMAN.  - Northwest 2 will handle the CPDLC portion of the South China Sea from SABNO to PANDI.	>High controller workload issue will be addressed. >Errors due to multitasking will be prevented. >Communication difficulties thru HF reported by pilots will be addressed by the Northwest 2 sector. >Large Height Deviation will be further minimized.

			> Safety assessment already in place, equipment and procedures are established.	
3	ADS-B expansion project will extend ADSB coverage.	November 15, 2019	>1 ADS-B ground station installed at Philippines ATMC for situational awareness	>Mitigation for areas do not have surveillance. >Controllers' situational awareness will significantly improve.
		TBD	>1 ADS-B ground station is installed at Bataraza Palawan for data sharing with Singapore to be integrated to the Philippine ATMC.	
		TBD	>6 ADS-B ground station to be installed at Laoag, Jomalig, Puerto Princessa, General Santos, Majic and Tagaytay.	
4	ADS-C/CPDLC are integrated in the controller's workstations and it will cover the whole FIR which is beyond radar VHF coverage. ADS-C/CPDLC capability of the new ATM System	January 28, 2019	Implemented in Oceanic airspace	-Poor Air-ground communication was addressed. -Problem regarding pilot unable to contact Manila HF was addressed (for CPDLC equipped aircraft only). -Manila ATC can verify the estimate time over the boundary of an aircraft even if it is beyond the radio coverage area of Manila ACC.
		August 15, 2019	Implemented on A583 between SABNO and AKOTA	
		2Q2021	South China Sea	

5. Is there anything the RMA/RASMAG/ICAO can assist with related to LHDs?: