International Civil Aviation Organization

The Sixth Meeting of the APANPIRG ATM Sub-Group (ATM/SG/6)

Hong Kong, China, 30 July – 03 August 2018

Agenda Item 4: ATM Systems (Modernisation, Seamless ATM, CNS, ATFM)

UPDATE ON PHILIPPINE CNS/ATM SYSTEMS

(Presented by the Philippines)

SUMMARY

This paper provides information on the new CNS/ATM in the Philippines since its turnover from the Project Contractor to the Department of Transportation/Civil Aviation Authority of the Philippines (DOTr/CAAP)

1. INTRODUCTION

1.1 The Philippine CNS-ATM System Modernization Project is a nation-wide upgrade to a highly automated and integrated CNS ATM system. It provides major improvement in communication, navigation and surveillance capabilities with improved level of redundancy which will allow CAAP to manage its increasing air traffic volume with higher efficiency and enhanced safety.

1.2 The Project was turned over by the Contractor to DOTr/CAAP in October 2017. In January 16, 2018, it was inaugurated by the President of the Philippines, together with other government officials, foreign visitors and aviation stakeholders.

1.3 Thereafter, the Director General of CAAP formed the CAAP Transition Team composed of ATM operational and CNS technical personnel. They were tasked to manage the transition process from the legacy systems of Manila and Mactan Enroute ACC Facilities, three (3) Radar Approach and three (3) Non-Radar Approach facilities namely Manila, Clark, Mactan and Kalibo, Bacolod, Davao respectively. Other support sub-systems such as Aeronautical Message Handling System (AMHS) and Aeronautical Information System (AIS) are also included.

1.4 In preparation for the transition ground works, collaboration with other neighboring ANSPs with identical ATM systems were considered such that Air Traffic Controllers from Ho Chi Minh ACC were invited to share their experiences in transition and select members of the CAAP transition team were sent to Singapore ACC to likewise learn from their transition strategies.

1.5 AMHS moved to the ATMC in February 2018 and AIS has transferred their operations by mid of July 2018. As planned, the ATM will be the last to transition.

2. DISCUSSION

ATM Transition Process

2.1 ATS-SMS moved to the ATM Center and started doing safety assessments and establishing safety requirement which are pre-requisites to transition of each ATM facility and its sub-systems.

2.2 Refresher Training for all controllers commenced in February 2018. Training continues to give orientation/briefing and perform simulation exercises for each sector to provide controllers a good head start for shadowing and ghosting.

2.3 Shadow Operations per sector of Manila ACC commenced in March 2018 for 4 weeks. It was followed by ghost operations for one and a half weeks. The same process is done for the rest of the sectors. There was a big challenge for Enroute ACC controllers in both shadow and ghost operations as they moved from the current six (6) sector to the eight (8) sector configuration of the new ATMS.

2.4 A survey to measure the competence, proficiency and confidence of the controllers to the new ATMS was also conducted from April to June 2018 and will continue until the cutover date.

Based on the result of the survey, on the average, more than 50% of the controllers expressed moderate proficiency, competence and confidence to the new ATMS. It is anticipated that the figures will continue to improve as the end to the transition process draws near.

No Go Items

2.5 Readiness of the controllers is not foreseen as a stumbling block to transition. There are other issues that could delay the process.

2.6 The controllers have identified constraints to the cutover. There were issues encountered during shadow and ghost operations with high severity level which if not fixed will compel the transition team to move the cutover date until such time that all issues are addressed. Some of the no go item are issues on four (4) VHF radios, one (1) radar, some software and hardware issues.

2.7 The Project Contractor together with the engineers of CAAP are currently resolving the problems reported.

2.8 With due consideration on the reported issues, remaining sectors to be shadowed and ghosted and compliance to the safety requirements of SMS, the completion of the transition process and cutover is estimated by 3rd quarter of 2018.

Way Forward

2.9 CAAP is eagerly looking forward to the migration of the ATM to the new ATM Center as its full implementation would support the realization of the following key ASBU Block elements,

1. AIDC to address RASMAG LHD reports for the Philippines,
2. ADS-C/CPDLC implementation to initiate PBN-based reduction in longitudinal separation in category R airspace
3. Surveillance –based longitudinal separation either in conventional ATS routes or PBN routes
4. PBCS in oceanic airspace

5. Other ATM initiatives that would support both the ASEAN ATM Master Plan and ASPAC Regional Seamless ATM Plan operations.

2.10 **Figures 1, 2** and **3** provide information on expected communications and surveillance coverage.

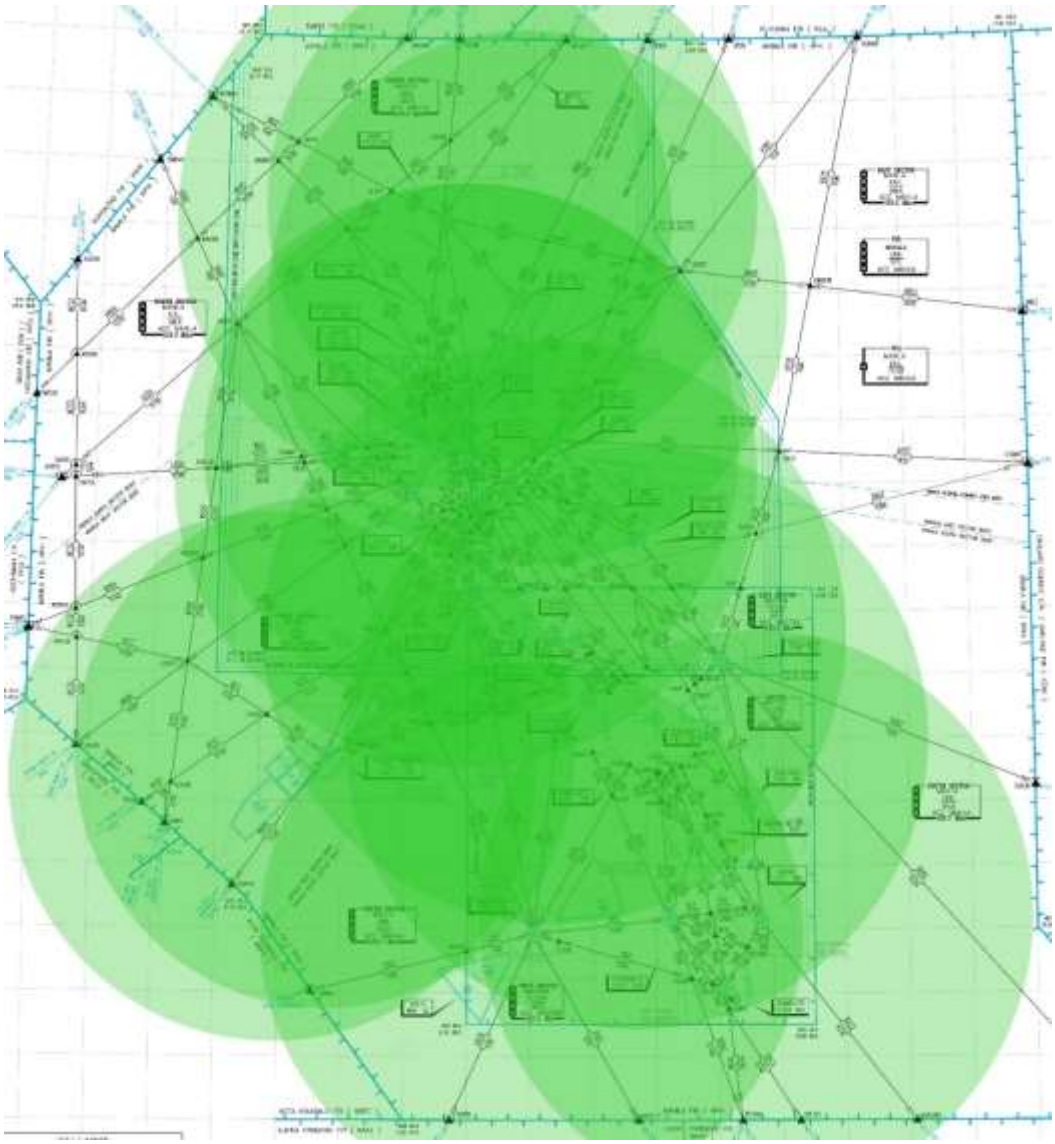

Figure 1: Communications Coverage

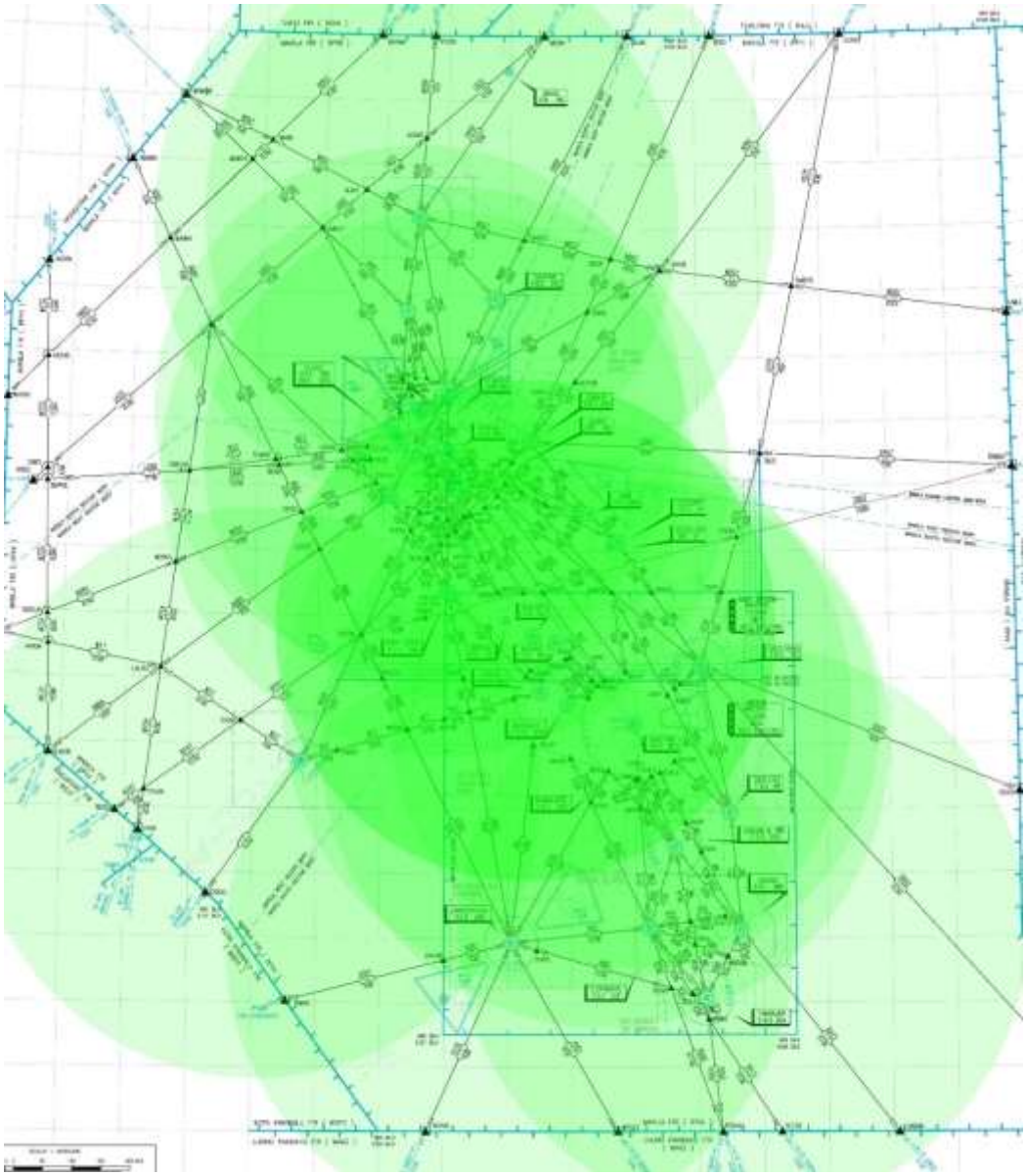

Figure 2: Surveillance Coverage

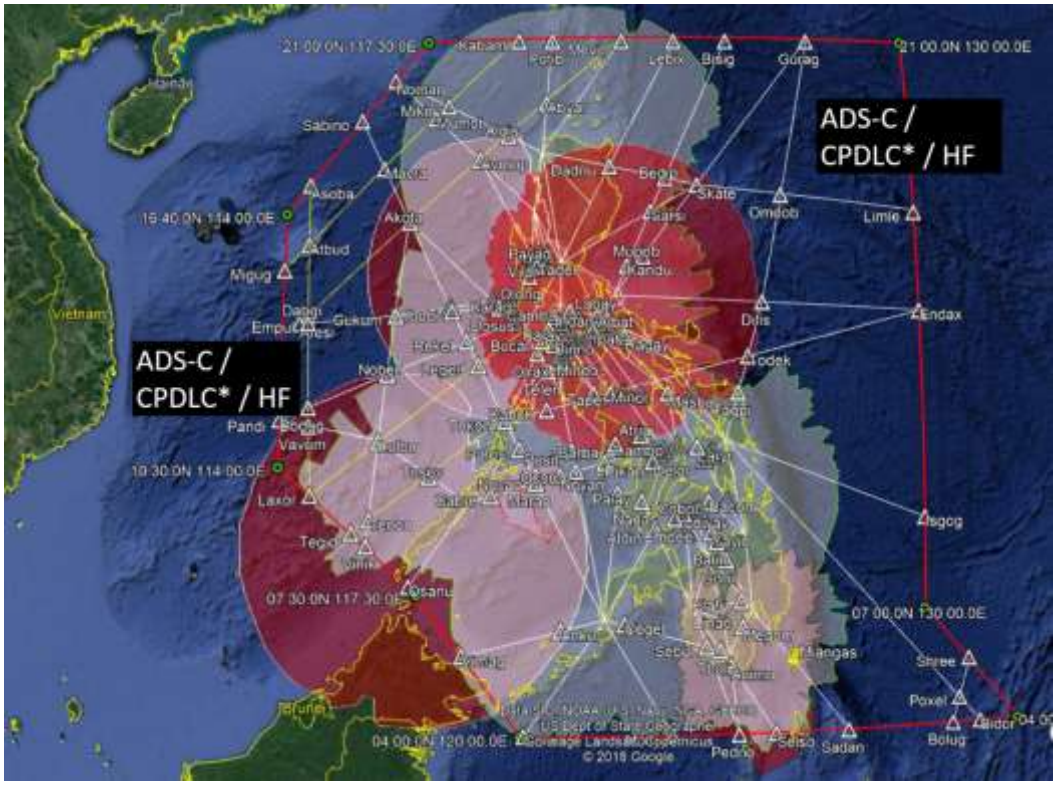

Figure 3: Surveillance Coverage, and ADS-C Airspace

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper.

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