International Civil Aviation Organization

Ninth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/9)

Video Teleconference, 01 – 03 June 2021

Agenda Item 2: Review of the Current and Planned CNS/ATM Capabilities and Identifying Associated Reduced Horizontal Separation

HIGH FREQUENCY (HF) RADIO COMMUNICATIONS IN MANILA FIR

(Presented by the Philippines)

SUMMARY

This paper presents information updates regarding the HF radio communications in Manila FIR after the successful transition of Manila ACC to Philippine ATMC in 2018.

1. INTRODUCTION

1.1 The HF radio communications in Manila FIR is managed by the Manila Radio as part of the Aeronautical Mobile Service in the Southeast Asia (SEA-2) and in the Central West Pacific (CWP-1/2) areas which are in the west and east of Manila FIR respectively.

1.2 Before the transition of Manila ACC in the ATMC, the HF radio communication is crucial for acquiring position reports of aircraft in the oceanic airspace of Manila FIR where VHF coverage is insufficient due to range limitation.

1.3 As part of improving the air traffic service, upgrades to HF radio communication system was also included in the Philippine ATMC project.

2. DISCUSSION

Manila Radio Operations in Philippine ATMC

2.1 After the final phase transition to Philippine ATMC was completed in Q3 2019, the installation of new HF radio transceivers was immediately started.

2.2 In October 2019, the Manila Radio operations was moved to the ATMC building to test the new HF transceiver units. The operations of new HF radios in the ATMC was initially problematic due to poor reception. This can be attributed to the use of aging HF antenna pending the installation of a new one which was scheduled to start sometime in early 2020.

2.3 In September 2020, the new antenna was finally installed and connected to the new HF radios in ATMC. Since then, engineers have performed numerous adjustments/fine-tuning activities to the new antenna to improve reception until Q1 2021.

2.4 Aircraft operators that are primarily using HF radio in the oceanic airspace of Manila FIR are encouraged to report directly any incident of persistent reception problems to the Civil Aviation Authority of the Philippines for appropriate action.

2.5 Since the transition to ATMC, Manila ACC has significantly reduced its dependence on HF radio operators for position reports of aircraft in the oceanic airspace due to the increased radar and VHF radio coverage. Furthermore, the provision of ADS-C/CPDLC service in Manila FIR (northern CWP airspace in Q1 2019, the entire CWP airspace in Q1 2020, the whole SEA airspace in Q1 2021) and the steady increase in the number of aircraft utilizing ADS-C/CPDLC has almost made the HF radio communication a backup source of receiving position reports. Despite of this fact, the CAAP is still committed in improving the HF radio communication service in Manila FIR.

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.

…….