



*International Civil Aviation Organization*

**The Fourth Meeting of the ICAO Asia/Pacific Seamless ATM Planning Group  
(APSAPG /4)**

Hong Kong, China, 03 - 07 June 2013

**Agenda Item 4: Asia/Pacific Seamless ATM status and Strategies**

**SURVEILLANCE COVERAGE IN HO CHI MINH FIR**

(Presented by Viet Nam)

**SUMMARY**

This paper presents information on the Surveillance coverage (current and planned) over the Ho Chi Minh FIR.

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:**

- GPI-2 Reduced vertical separation minima
- GPI-4 Alignment of upper airspace classifications
- GPI-5 RNAV and RNP (Performance-based navigation)
- GPI-6 Air traffic flow management
- GPI-18 Aeronautical information
- GPI-22 Communication infrastructure

**1. INTRODUCTION**

1.1 The paragraph 6.9 of the Draft Asia/Pacific Seamless ATM Plan stated “ The main areas of the Asia/Pacific region lacking ATS surveillance and communication coverage which need to be rectified due to traffic density, weather deviation and contingency responses are as follow: a) highest priority: South China Sea airspace between Viet Nam, Brunei Darussalam and the Philippines (Figure 3);”. Viet Nam supports the idea of the need to be rectified the surveillance and communication coverage in the above mention area due to the traffic density.

**2. DISCUSSION**

2.1 Surveillance coverage over the South China Sea airspace as mentioned in the Draft Plan V 0.9b (Figure 3: South China Sea ATS surveillance gaps)



Figure 1: South China Sea ATS surveillance gaps stated in Asia/Pacific Seamless ATM Draft Plan V 0.9b - (Figure 3/p.24)

2.2 Current surveillance coverage in Ho Chi Minh FIR:

2.2.1 Radar coverage: There are 4 Radar stations for supporting ATM in Ho Chi Minh FIR (Son Tra, Quy Nhon, Tan Son Nhat, Ca Mau) with the capability as follow:

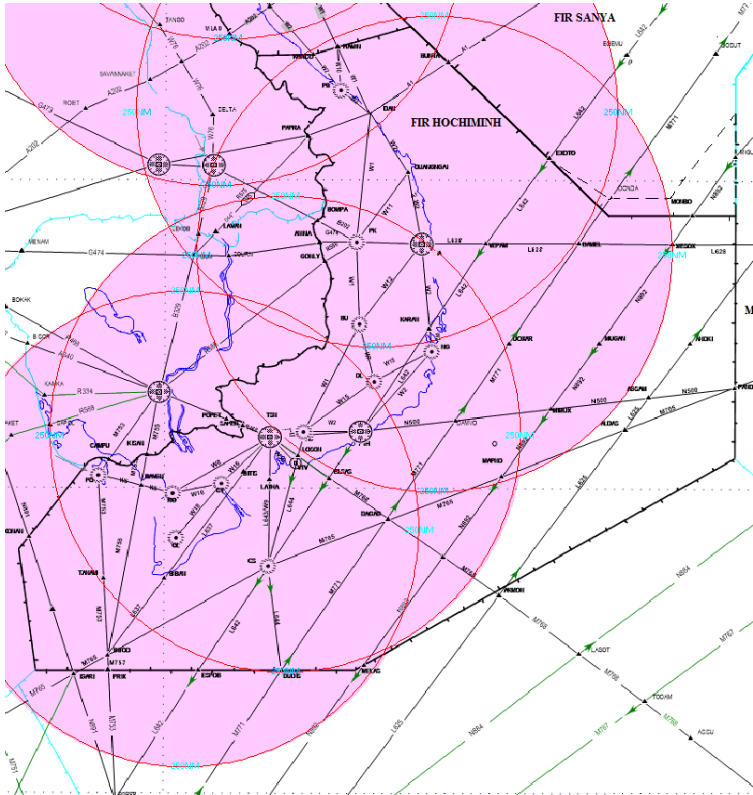


Figure 2: Current Ho Chi Minh FIR Secondary Surveillance Radar (SSR) coverage

2.2.2 ADS-C and CPDLC: Supplementing to SSR and VHF in Ho Chi Minh FIR, Viet Nam has been providing ADS/CPDLC services on the ATS routes (L625, L628, M765, M768, N500, and N892) since 2007.

### 2.3 Planned surveillance coverage in Ho Chi Minh FIR

To enhance the Surveillance/Communication capacity in Ho Chi Minh FIR, beside existing secondary surveillance radars (SSR) as depicted in Figure 2 above, Viet Nam Air Traffic Management (VATM) has invested three new ADS-B and VHF communication stations. The installation phase was completed in May, 2013 and now these stations are operating in the testing mode. Including the above mention stations, the Surveillance coverage in the Ho Chi Minh FIR will be as depicted in Figure 3:

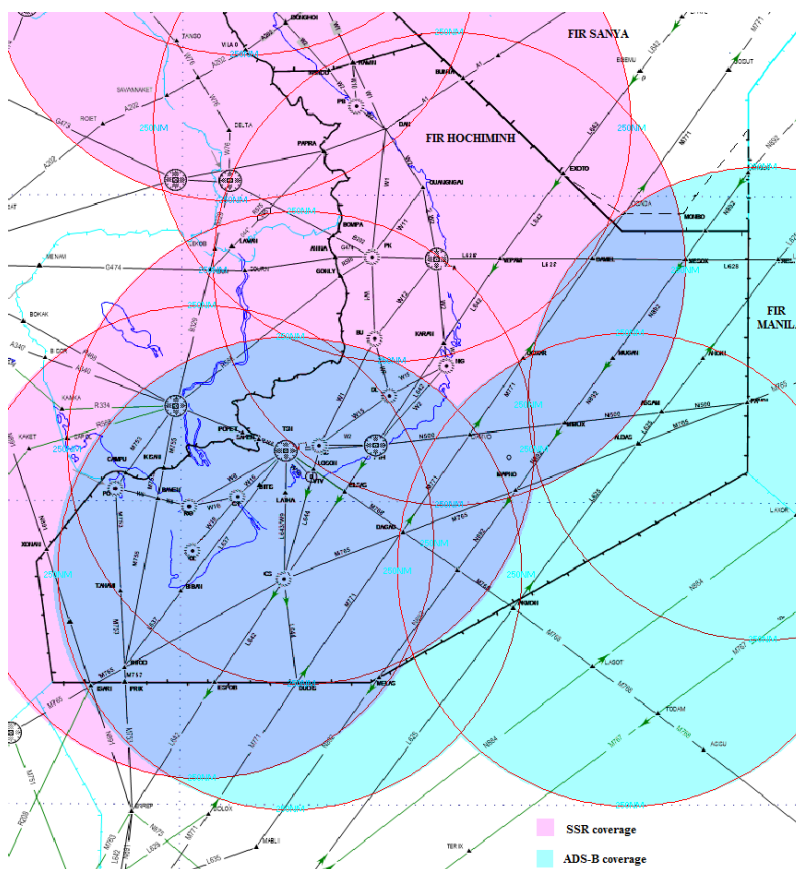


Figure 3: Planned Ho Chi Minh FIR Surveillance Coverage

With the planned surveillance capability (SSR and ADS-B), there will be no gaps in the airspace over South China Sea, and the ADS/CPDLC will be superseded by ADS-B/VHF communication services.

## 3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note and update the information contained in this paper to the seamless ATM plan draft; and
- b) Discuss any relevant matters as appropriate.