



*International Civil Aviation Organization*

**THIRTEENTH MEETING OF THE SOUTH EAST ASIA  
AND BAY OF BENGAL SUB-REGIONAL ADS-B  
IMPLEMENTATION WORKING GROUP  
(SEA/BOB ADS-B WG/13)**



Colombo, Sri Lanka, 14 – 16 November 2017

**Agenda Item 3: Review implementation and co-ordination activities and sub-regional implementation plans**

3.3) Updates by other States

**UPDATE ON ADS-B IMPLEMENTATION IN THE PHILIPPINES**

(Presented by Philippines)

**SUMMARY**

This paper presents an update on the ADS-B implementation in the Philippines and ADS-B readiness of Philippine registered commercial aircraft.

**1. Introduction**

1.1 The CNS/ATM Systems Development Project in the Philippines, which is already 99.9% completed as of 16 October 2017, included the installation of, among others, new surveillance systems with 10 Radars (5 en-route and 5 terminal), 1 ADS-B Ground Station and the integration of 3 existing radar systems (Clark, NAIA 1, and Tagaytay) comprising 80% in total surveillance coverage of the Philippine airspace. The oceanic portion will be covered by ADS-C.

1.2 The new systems completed the Overall Systems Test in June 2017 and ATC training is ongoing. The transition phase will start in January 2018.

1.3 This paper also presents information on the ADS-B readiness of Philippine registered commercial aircraft.

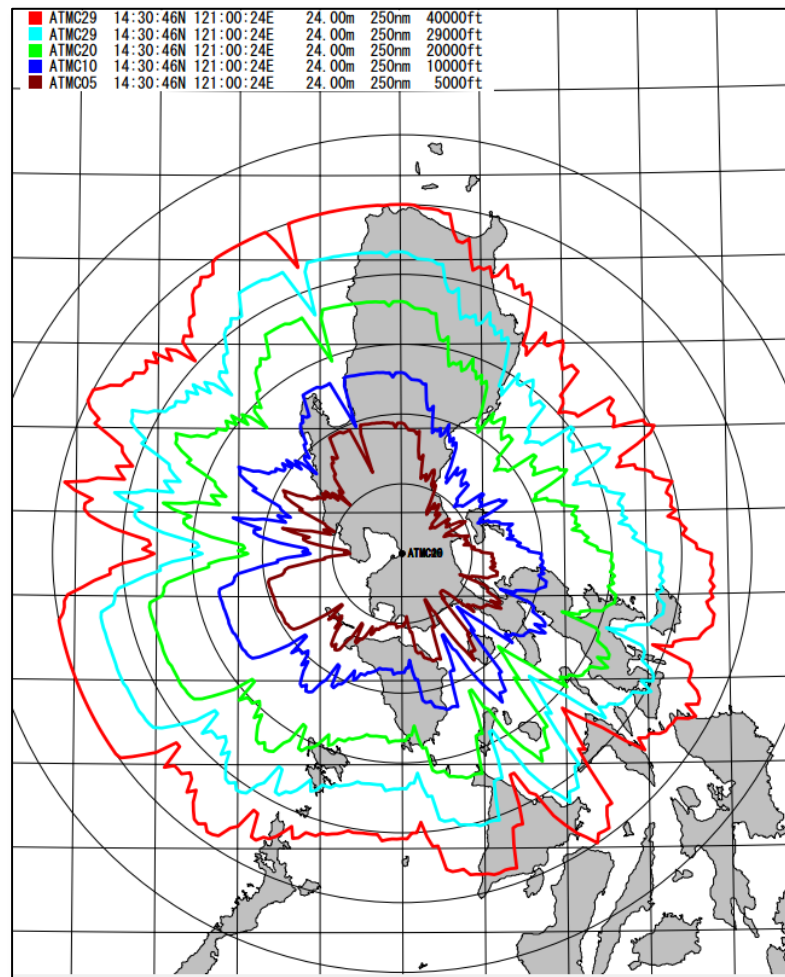
**2. Discussion**

**2.1 Update on ADS-B Implementation**

The Philippines completed the installation of 1 ADS-B Ground Station located at the Manila ATM Center. The ground station is DO260B compliant. The originally proposed 2017 Ground Stations (*Kalayaan, Zambales, and Pangasinan*) will be implemented in late 2018-2019 considering that the new CNS/ATM Systems are still in its transition phase. Additional 3 sites (*Jomalig Island, General Santos Airport, and Ilocos Norte*) are planned to be installed in the succeeding years. Relevant regulations pertaining to ADS-B requirement are already in discussion.

2.2 Although under the CNS/ATM project, ADS-C coverage will already complement surveillance coverage to 100% of the Philippine airspace, the Philippines is also considering Space-Based ADS-B technologies wherein preliminary discussions were already being undertaken with the provider.

2.3 Figure 1 illustrates the surveillance coverage of the Manila ATM Center ADS-B:



2.4 The Philippines and Singapore signed an ADS-B collaboration agreement in October 2015 providing ADS-B data and VHF radio facilities at Bataraza Philippines for Singapore. This covers parts of the surveillance and DCPC gaps on the ATS routes N884 and M767.

2.5 Figure 2 illustrates the surveillance coverage of Bataraza ADS-B Ground Station.

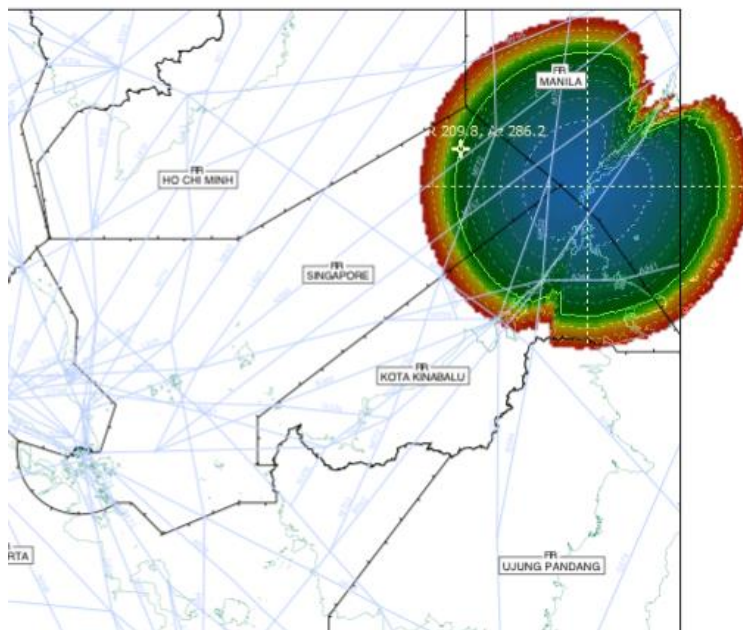


Figure 2. Bataraza ADS-B Coverage (source: CAAS)

2.6 ADS-B Readiness of Philippine Registered Aircraft

Based on data, 88% of registered aircraft from the 3 major airlines in the Philippines are already ADS-B equipped. With regards to general aviation aircraft equipage, no data yet was gathered, but it can be assumed that most of these small aircrafts are not yet equipped.

51% are DO260 compliant, 35% are DO260A, 2% are DO260B, and 12% are not equipped with ADS-B.

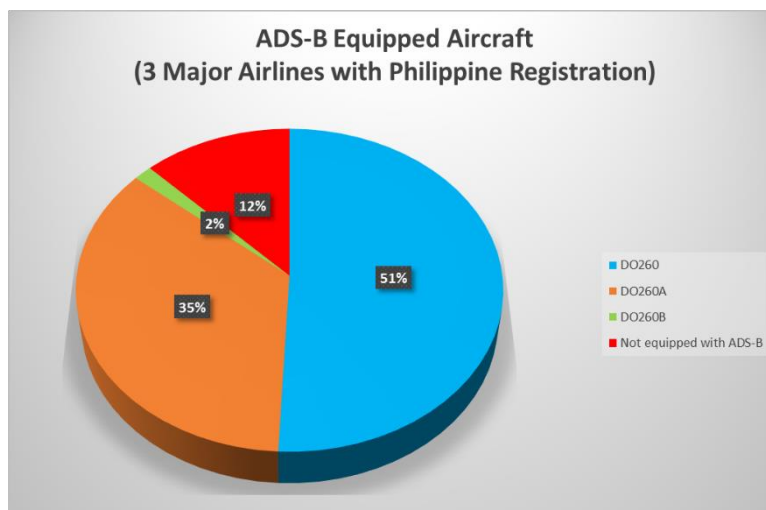


Figure 3. ADS-B Equipped Aircraft with Philippine Registration

**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 matter as appropriate

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