



**THE FORTY-FIFTH MEETING OF THE
INFORMAL PACIFIC ATC CO-ORDINATING GROUP
(IPACG/45)**

(Tokyo, 11 & 12 December 2019)

Agenda Item 6: CNS Issues

**The analysis of PBCS implementation
(Presented by JCAB ATMC)**

SUMMARY

This paper provides an updated information about RCP240/RSP180 filing rate, countermeasure against the predicted deterioration of airspace efficiency and observed operational impact affected by PBCS implementation.

1. Introduction

1.1. In November 2016, Required Communication Performance (RCP) 240 and Required Surveillance Performance (RSP) 180 had been applicable as new requirement for reduced separation minima using ADS-C and CPDLC. After the 17-month delay, it was globally implemented on 29 March 2018.

1.2. At IPACG/44, JCAB reported the filing rate for RCP240/RSP180, a countermeasure for predicted deterioration of airspace efficiency and observed operational impact.

1.3. AT IPACG/44, JCAB reported that the RCP240/RSP180 filing rate in Fukuoka FIR oceanic airspace was approximately 55% as of July 2018.

1.4. JCAB added following restrictions to NOTAM of Track 2 and Track3 from 29th March 2018 as a countermeasure against the predicted deterioration of airspace efficiency.

Track 2: ONLY AVBL TO ACFT LDG KSFO/KSJC OR NORTH DUE TO FLOW MANAGEMENT

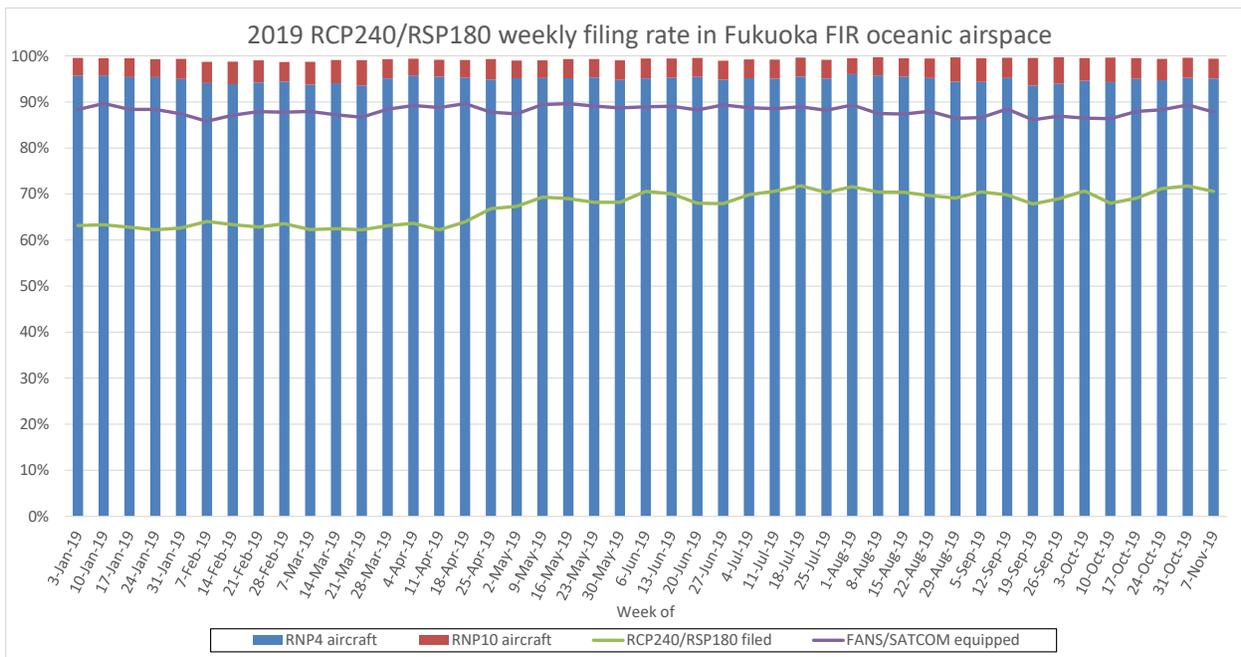
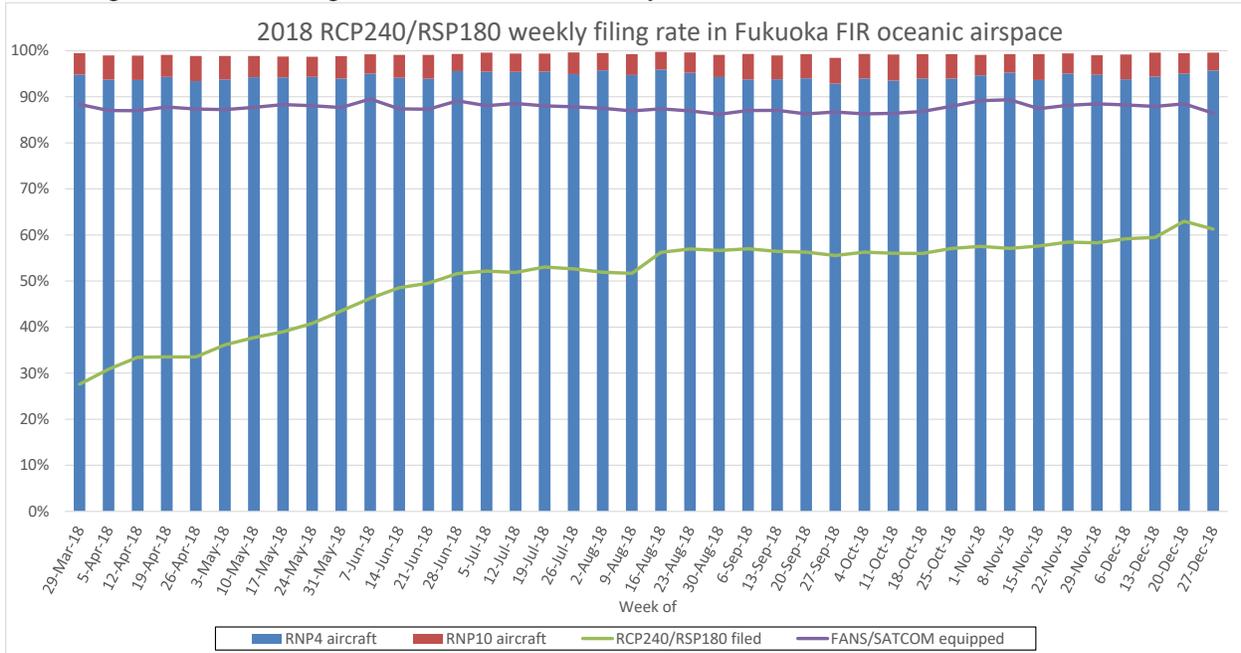
Track 3: ONLY AVBL TO ACFT LDG KLAX/KLAS OR SOUTH DUE TO FLOW MANAGEMENT

1.5. As of April 2018, the rate of clearance issue for the requested altitude had fallen by 15% compared to 2016 and 2017.

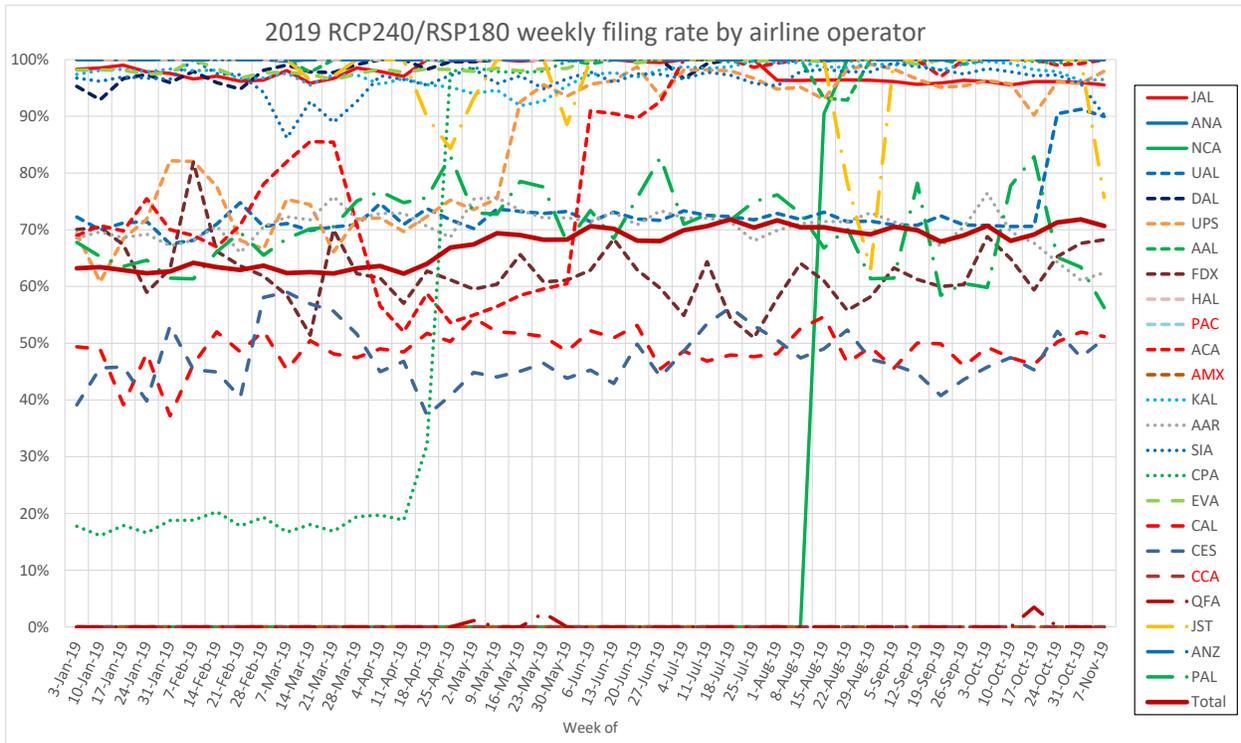
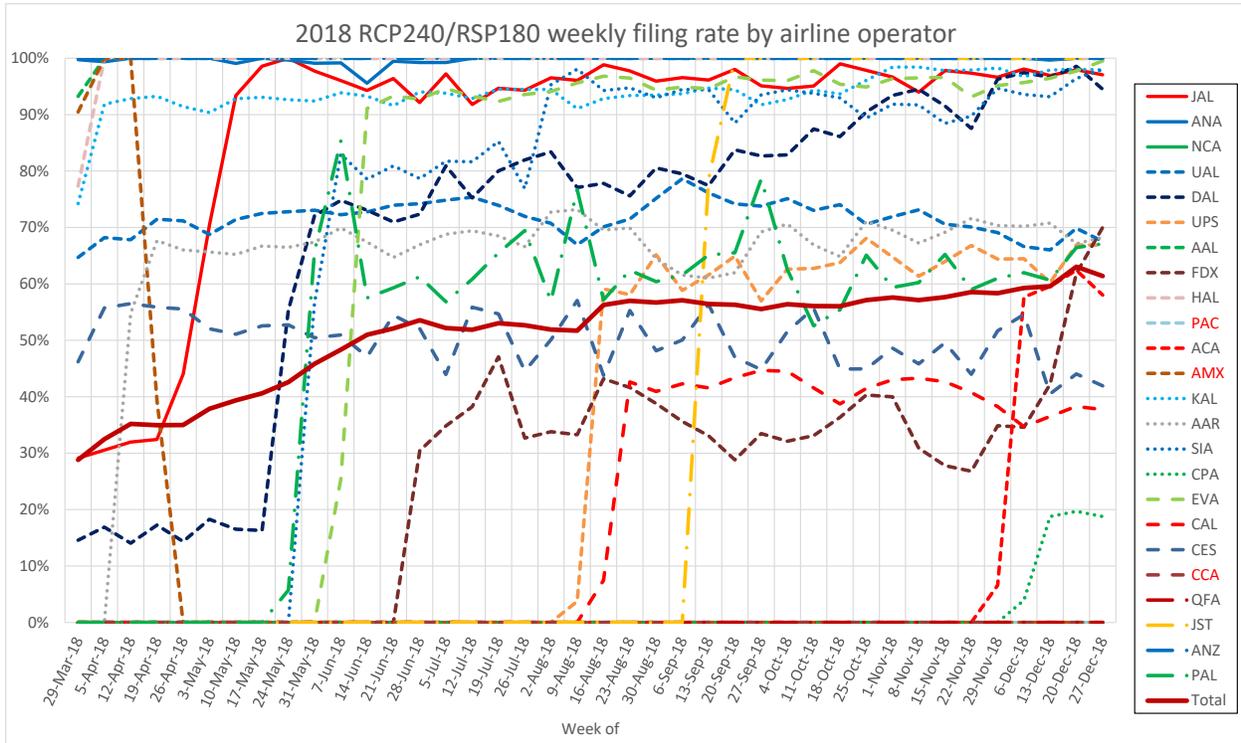
2. Discussion

2.1. RCP240/RSP180 filing rate

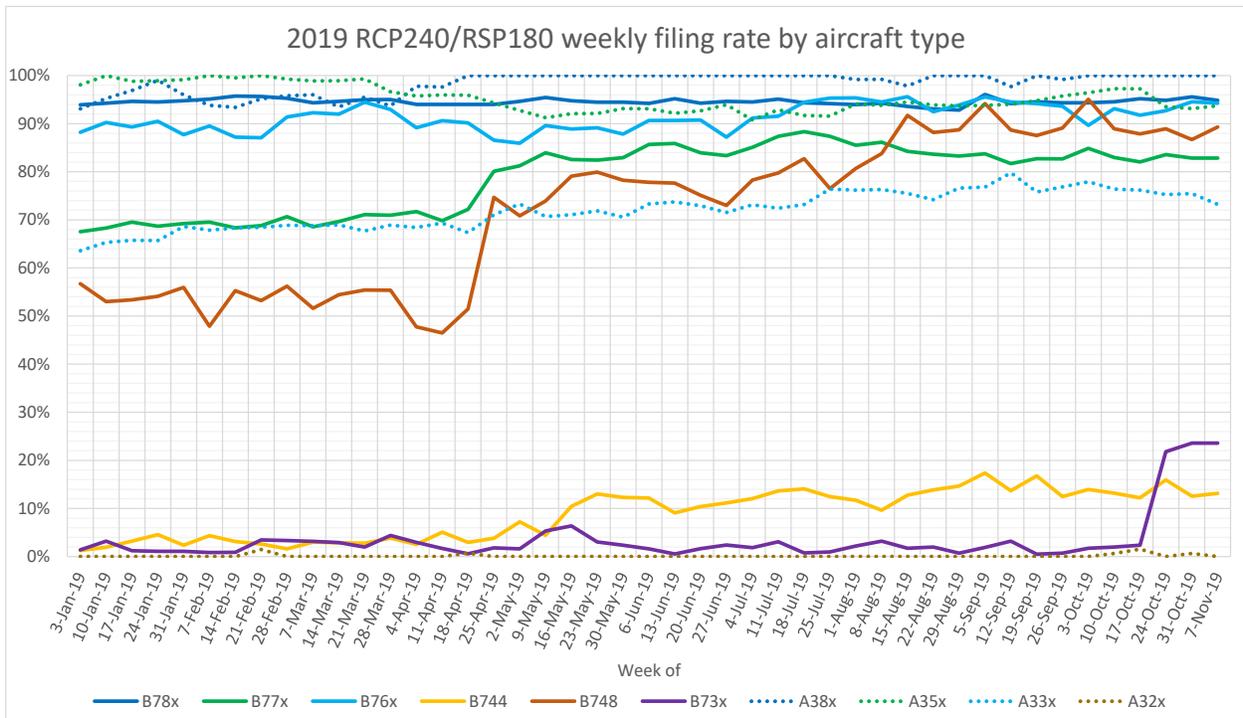
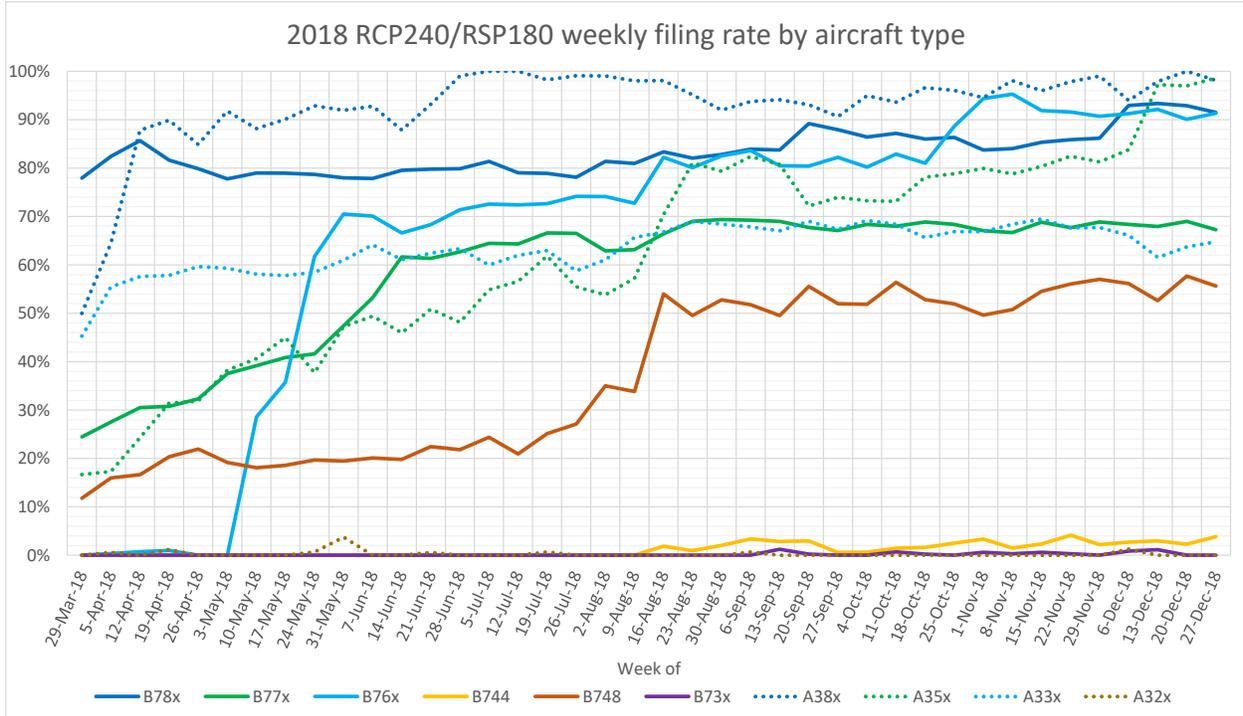
2.1.1. The graphs below show a weekly average of RCP240/RSP180 filing rate in the whole Fukuoka FIR oceanic airspace. At the beginning of November 2019, the filing rate is approximately 70%. The filing rate has not changed since the middle of May 2019.



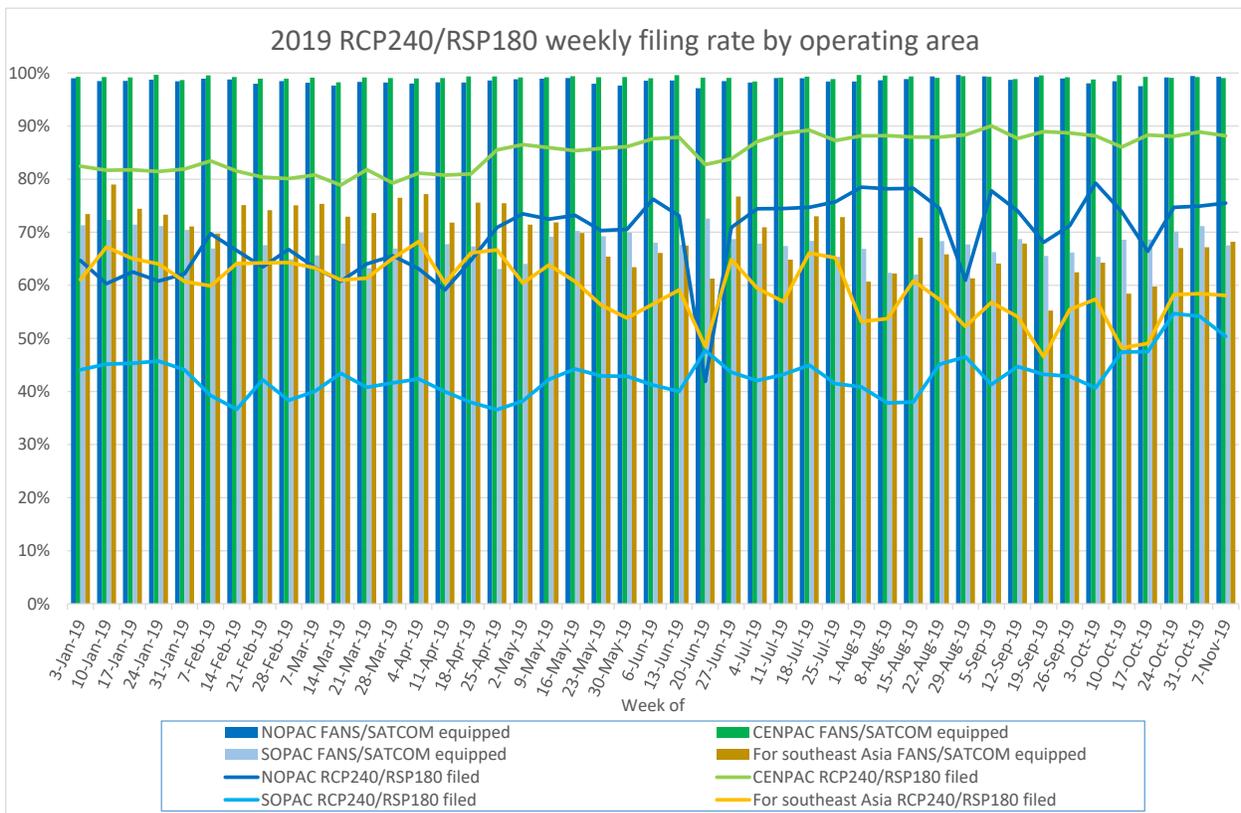
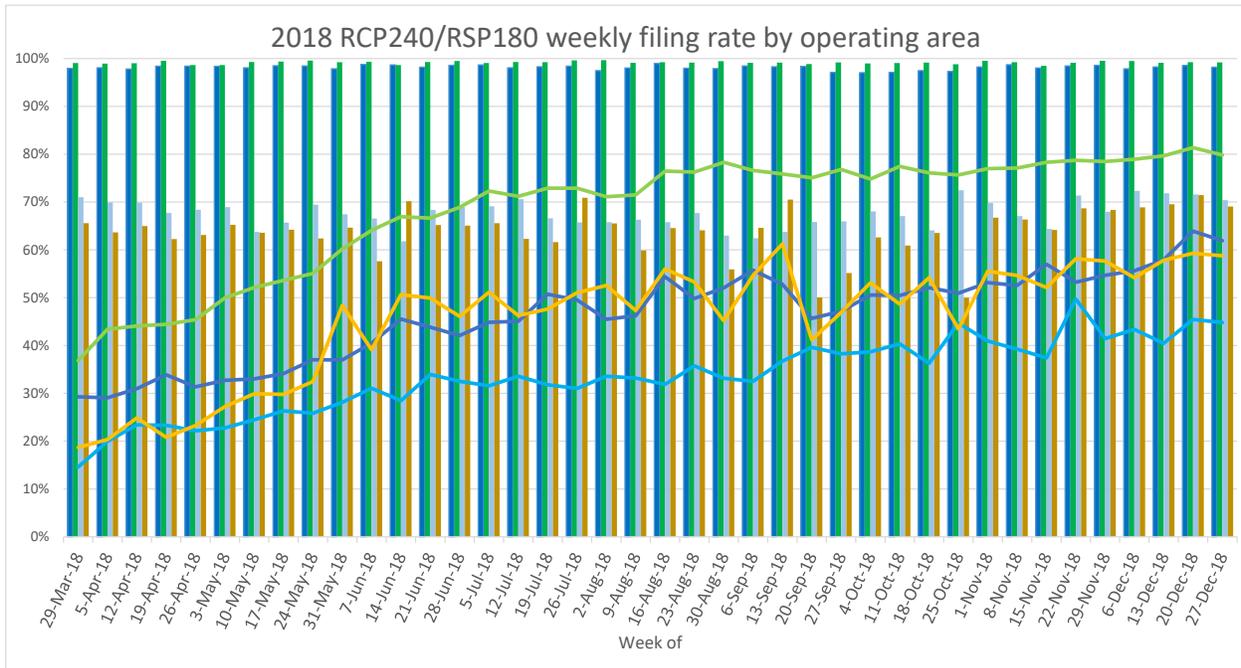
2.1.2. The graphs below show weekly average of RCP240/RSP180 filing rate by each airline operator. The operators not filing RCP240/RSP180 are indicated in red letters in legend.

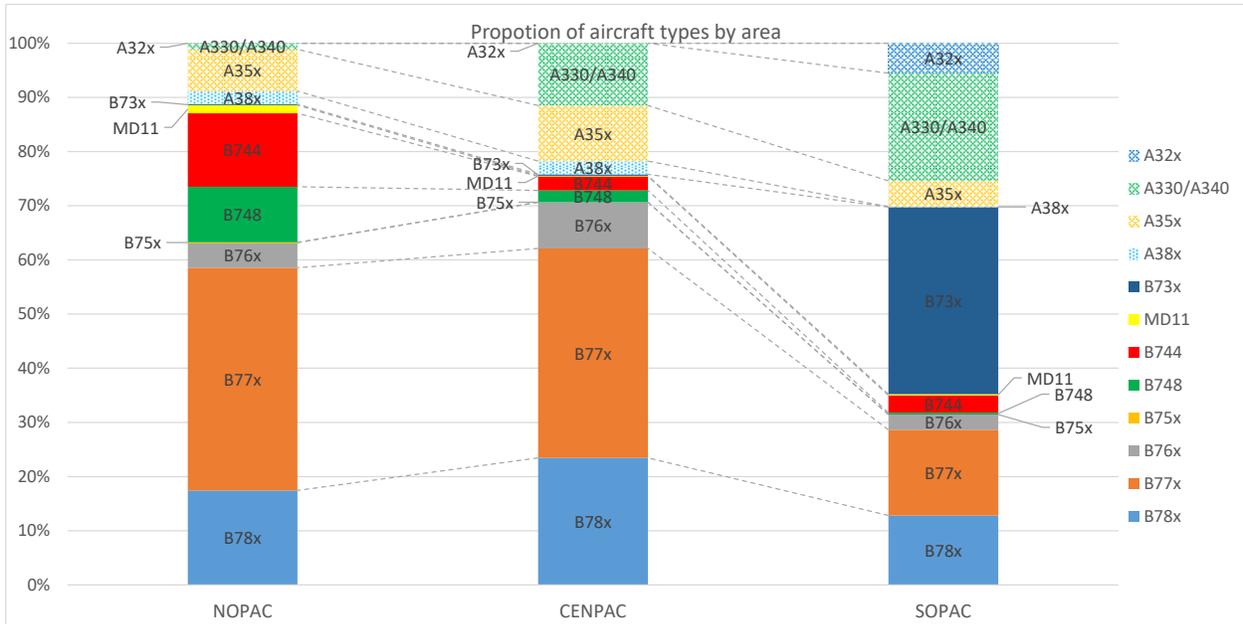


2.1.3. The graphs below show weekly average of RCP240/RSP180 filing rate by aircraft type. The filing rate of B747-400 is gradually increasing as its avionics is retrofitted.



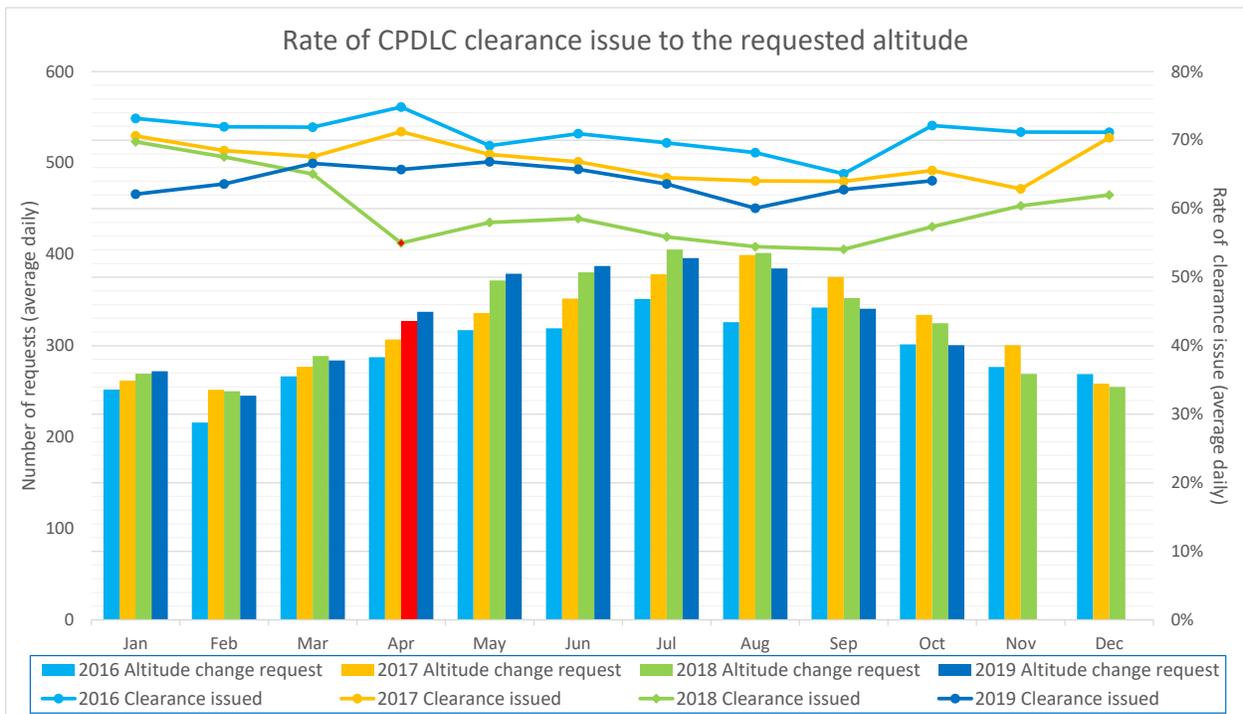
2.1.4. The graphs below show weekly average of RCP240/RSP180 filing rate by operating area. The RCP240/RSP180 filing rate in NOPAC is low in comparison with data link equipage rate. One of the reasons of this is that a proportion of B747-400 is larger than other areas.





2.2. Observed operational impact

2.2.1. The graph below shows the number of altitude change request by CPDLC and the rate of clearance issue to the requested altitude. In April 2018 (just after PBCS operation started), the rate of clearance issue had fallen by 15% compared to 2016 and 2017. The rate of clearance issue had been recovering slowly and it has almost recovered to its former level in March 2019.



2.3. Countermeasure against predicted deterioration of airspace efficiency

2.3.1. As mentioned in paragraph 2.2.1, the rate of clearance issue has almost recovered to its former level in March 2019. Therefore, the restrictions for Track 2 and Track 3 was discontinued on 23 May 2019. The rate of CPDLC clearance is not affected by the removal of the restrictions.

3. Conclusion

3.1 The meeting is invited to note the information provided.