



International Civil Aviation Organization

ICAO

Twelfth Meeting of the FANS Interoperability Team – Asia  
(FIT-Asia/12)

Video Teleconference, 25 – 28 July 2022

### Agenda Item 3: PBCS Developments and Implementation

#### JASMA ASSESSMENT OF NON-PBCS APPROVED AIRCRAFT

(Presented by Japan/JASMA)

##### SUMMARY

This paper presents the trend of the numbers and percentages for the Performance-Based Communications and Surveillance (PBCS)-filed flights and PBCS-approved flights which were flying in the Pacific Ocean airspace of Fukuoka Flight Information Region (FIR) as of June 2022.

## 1. INTRODUCTION

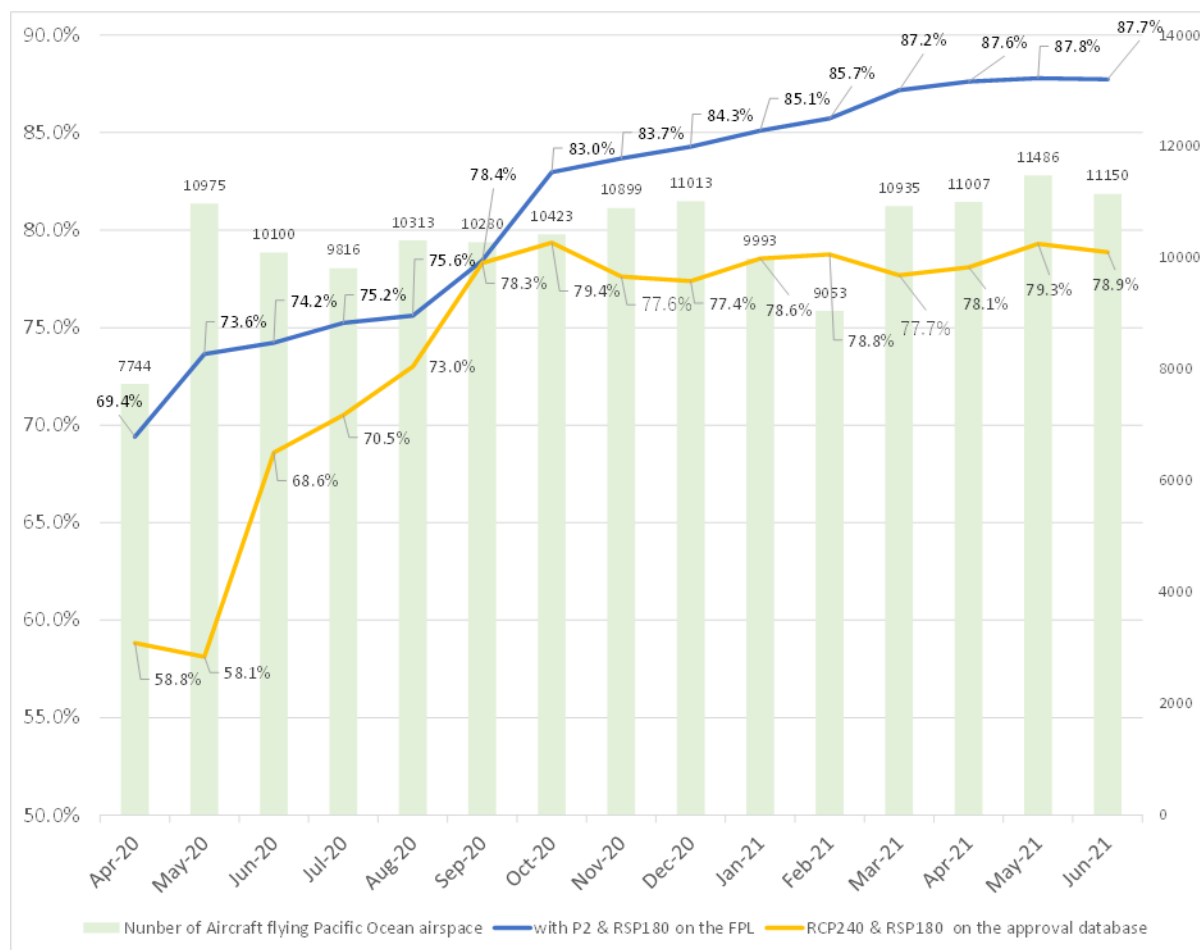
1.1 The Japan Airspace Safety Monitoring Agency (JASMA) provides the Regional Monitoring Agency (RMA) and the En-route Monitoring Agency (EMA) responsibilities for the Pacific Ocean airspace of Fukuoka Flight Information Region (FIR).

1.2 JASMA obtains authorizations regarding Required Communication Performance (RCP) 240 and Required Surveillance Performance (RSP) 180 of Japanese aircraft operators from the State Authority. Besides, JASMA has included information on the authorizations of RCP240 and RSP180 in the global RMA's latest approval databases uploaded to the Knowledge Services Network (KSN) website every month since September 2019.

## 2. DISCUSSION

2.1 JASMA compared flight plans of Pacific Ocean flights with the global RMA's latest approval databases which include Reduced Vertical Separation Minimum (RVSM) and Performance-Based Communications and Surveillance (PBCS) approval status uploaded to the KSN website every month.

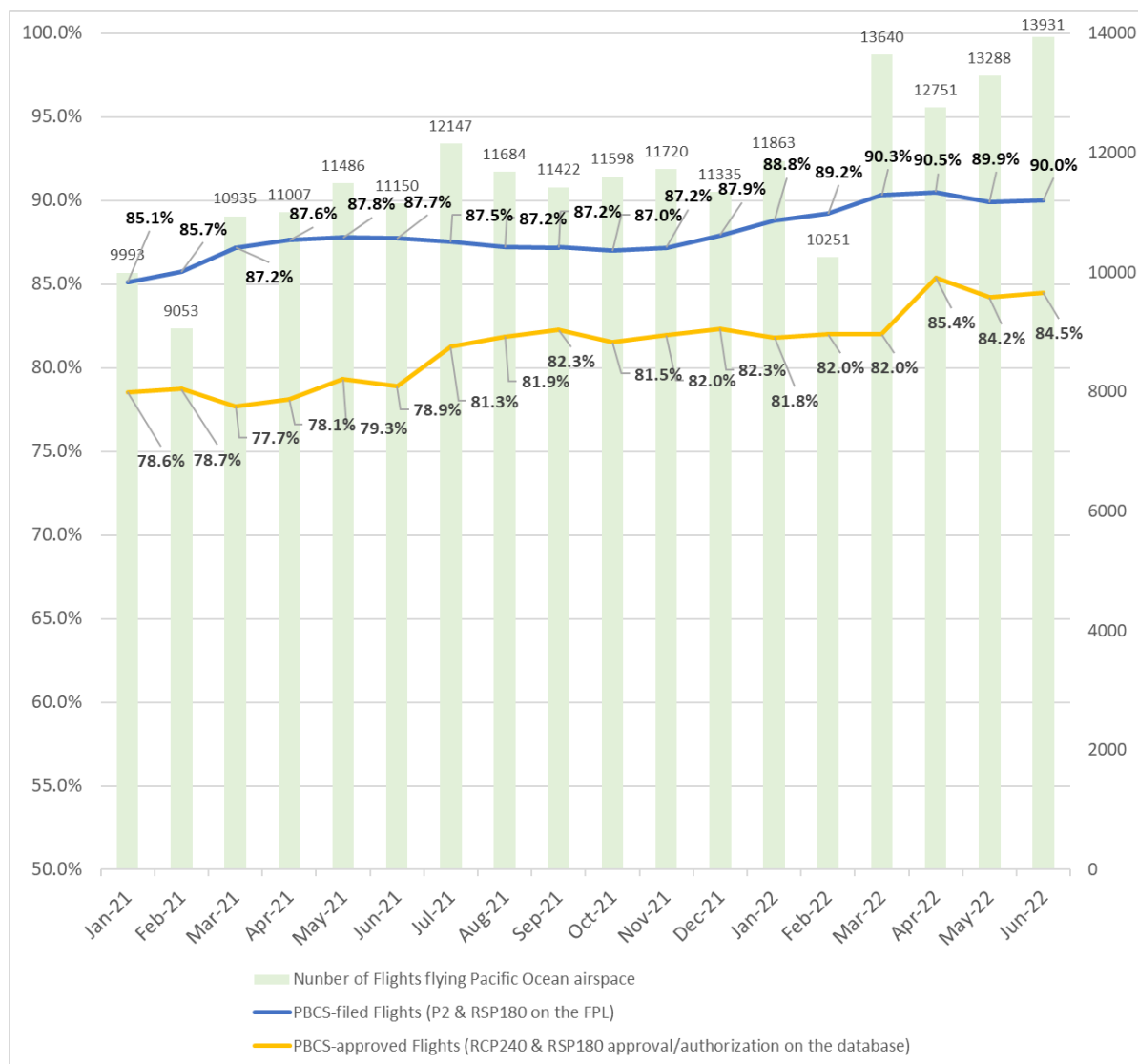
2.2 JASMA presented **Figure 1** as WP/31 at the Twenty-Sixth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/26) meeting in September 2021. **Figure 1** represented the number of all flights in the Pacific Ocean airspace of Fukuoka FIR, the percentage of flights with "P2" and "RSP180" in their flight plans (hereinafter called "PBCS-filed flights"), and the percentage of the flights which were confirmed as PBCS approved aircraft in the approval databases (hereinafter called "PBCS-approved flights") for the period from April 2020 to June 2021.



**Figure 1:** Percentage of PBCS-filed flights versus PBCS-approved flights in 2020 - 2021

2.3 With regard to **Figure 1** and its detailed analysis presented by JASMA at the RAMSAG/26 meeting, the International Civil Aviation Organization (ICAO) Asia Pacific (APAC) Regional Office requested Japan/JASMA to consider presenting a working paper at the next meeting of FIT-Asia.

2.4 In response to ICAO APAC’s request, JASMA provides and presents **Figure 2** which shows the number of all flights in the Pacific Ocean airspace of Fukuoka FIR, the percent of PBCS-filed aircraft, and the percent of PBCS-approved aircraft for the period from January 2021 to June 2022.



**Figure 2:** Percentage of PBCS-filed flights versus PBCS-approved flights in 2021 - 2022

2.5 The percentage of PBCS-filed flights increased gradually from 85 to 88 percent in 2021, then reached 90 percent in the first half of 2022. On the other hand, the percentage of PBCS-approved flights had maintained by 5 to 9 percent lower than the percentage of PBCS-filed flights.

2.6 It means there were approximately 30 flights per day and 900 flights per month were flying in the Pacific Ocean airspace of Fukuoka FIR in June 2022 that filled "P2" and "RSP180" in their flight plans but were not confirmed their PBCS approval/authorization in the approval database. Detailed information of those flights including identified aircraft operators would be provided and presented at the upcoming RASMAG/27 meeting.

2.7 Incidentally, the Federal Aviation Administration (FAA) and the Japan Civil Aviation Bureau (JCAB) have a plan to implement 23NM lateral separation minima and new ATS routes, which are required RNP4 and PBCS for aircraft flying in the North Pacific Ocean airspace.

2.8 Besides, FAA and JCAB have been discussing that the altitude stratum between FL340 and FL400 of existing RNAV10 routes, R220 and R580 would be the exclusive use of RNP4 and PBCS approved aircraft. **Figure 3** and **Figure 4** show the future ATS routes based on 23NM lateral separation

minima in the North Pacific Ocean airspace that is called “The North Pacific (NOPAC) redesign project”.

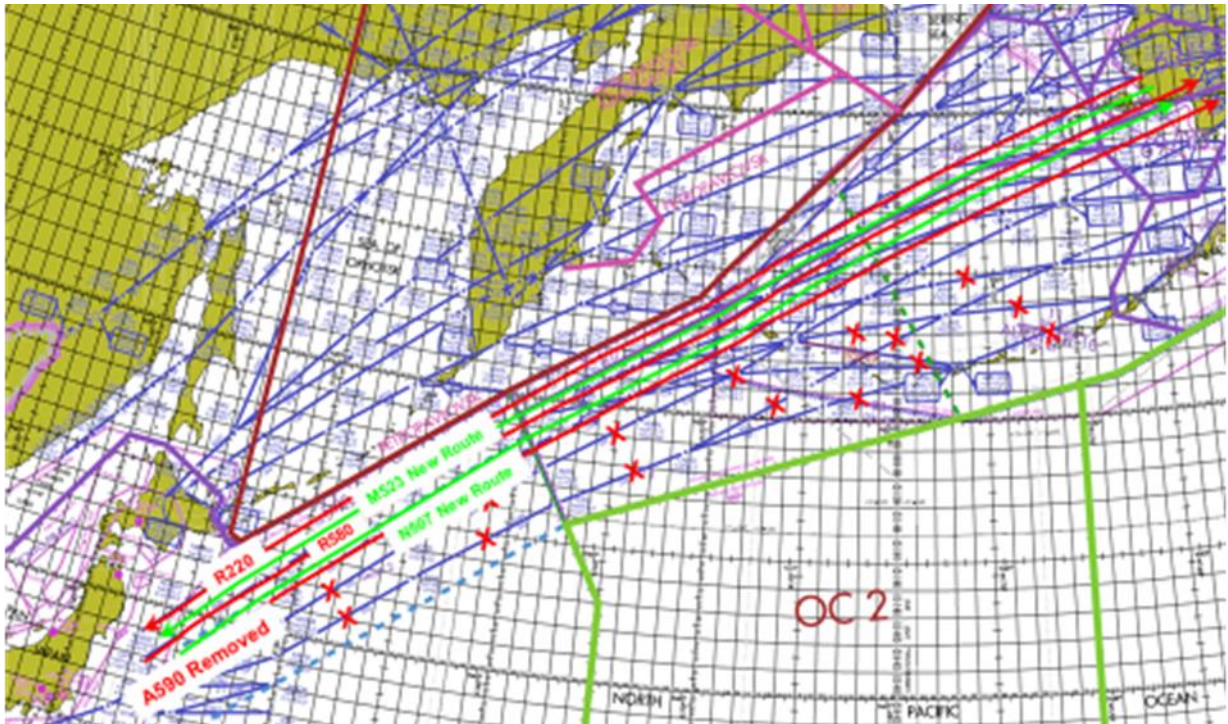


Figure 3: Future ATS routes on the completion phase of NOPAC redesign

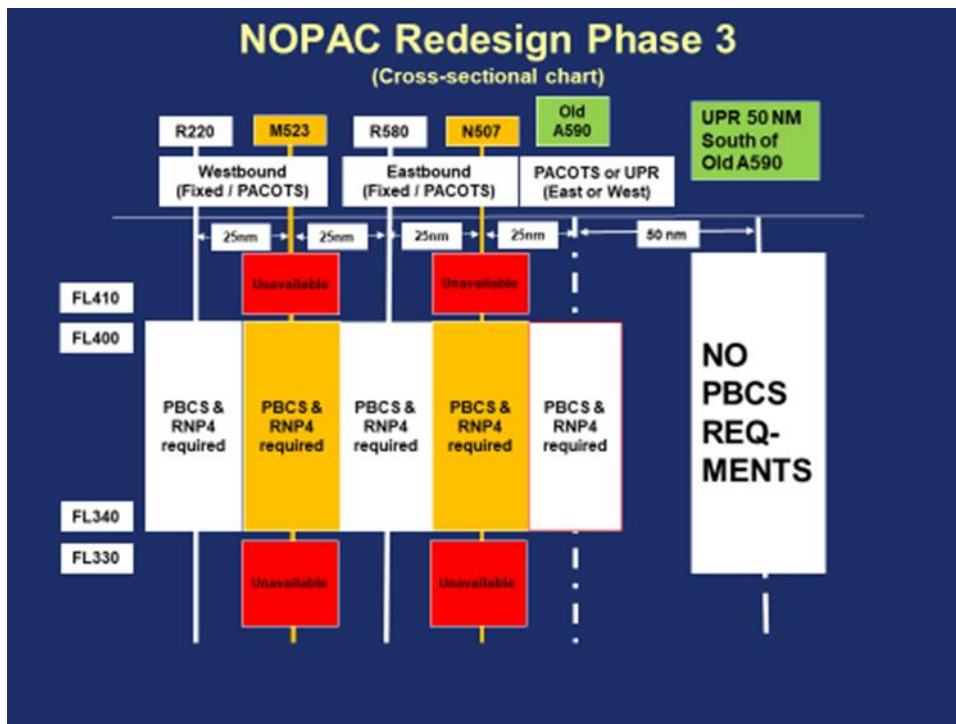


Figure 4: Cross-sectional chart of future ATS routes in NOPAC

2.9 If aircraft were identified as non-PBCS-approved flights by JASMA, JASMA would provide the information on non-PBCS-approved aircraft to the Air Traffic Control Division of JCAB headquarters.

2.10 Thus, even if the aircraft operators filled "P2" and "RSP180" in their flight plan, the aircraft identified as non-PBCS-approved aircraft by JASMA might not be approved to fly on the new ATS routes or in the altitude stratum of R220 and R580, which would be approved only for RNP4 and PBCS aircraft after implementing the new ATS routes and the exclusive use of altitude stratum. However, the implementation date is not determined as of July 2022.

2.11 FAA and JCAB would provide the latest information for the NOPAC redesign project at the relevant meetings hosted by the ICAO APAC Regional Office (e.g. ATM/SG meeting). Please kindly note that JCAB and JASMA encourage aircraft operators flying in the Pacific Ocean airspace to obtain PBCS approval/authorization and share the approval/authorization status with the designated RMAs.

**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.

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