



**THE FORTY-EIGHTH MEETING OF THE
INFORMAL PACIFIC ATC CO-ORDINATING GROUP
(IPACG48)**

FAA Northwest Mountain Regional Office - Des Moines, Washington
September 25 - 28, 2023

Agenda Item 5: Air Traffic Management (ATM) Issues

New User Preferred Route (UPR) restrictions

(Presented by JCAB)

SUMMARY

This working paper proposes that new UPR restrictions should be specified as permanent relaxation from the current temporary relaxation of UPR restrictions in operator support due to the Coronavirus pandemic, to account for new restrictions in traffic recovery.

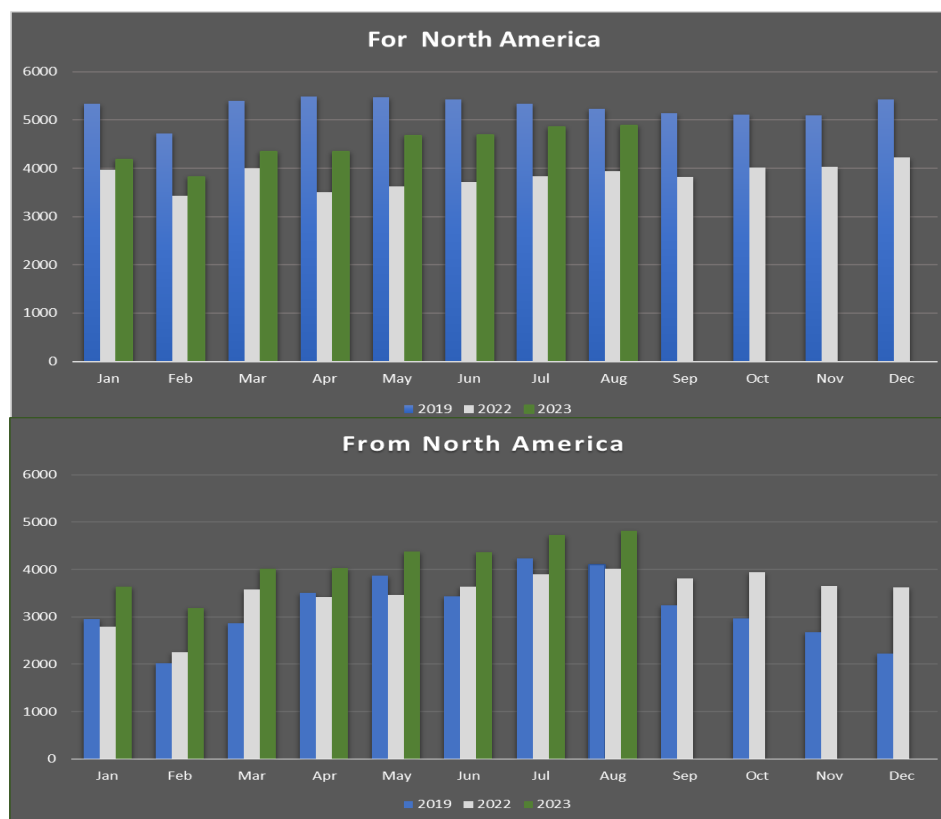
1. Introduction

- 1.1. The Anchorage Air Route Traffic Control Center (ARTCC), the Oakland ARTCC and Air Traffic Management Center (ATMC) have agreed and relaxed the UPR restrictions temporary from Feb 25, 2021.
- 1.2. There are no additions or changes to GATEs used and ATS routes to domestic airspace as currently described in the AIP due to the restricted airspaces.
- 1.3. Waypoint continue to TUNTO from North America to Southeast Asia (for PACOTS TRACK H, I and K) from 23N140E to 23N134E has been changed since August 24, 2021, and the UPR restrictions are further relaxed.
- 1.4. Time restriction to cross 160E for eastbound UPR has been changed from 0900UTC - 1230UTC to 1100UTC - 1230UTC since Feb 23, 2022, and the UPR restrictions are further and further relaxed.
- 1.5. There is no change in the conditions stated in the AIP for the UPR restrictions, and the relaxed restrictions are informed in the NOTAM, which is issued and updated every three months. There has been no specific problem, at present.
- 1.6. All eastbound PACOTS Tracks have UPR procedures except PACOTS Track 2. Eastbound aircraft crossing 160E between 1100 UTC and 1230 UTC from Asia/Southeast Asia to North America/Hawaii allow to plan the UPR that remains at least 50 NM North or South of PACOTS Track 2. Eastbound aircraft crossing 160E between 1230 UTC and 1100 UTC from Asia/Southeast Asia to North America/Hawaii allow to plan the UPR without route restrictions related to PACOTS Track 2.
- 1.7. All westbound PACOTS Tracks have UPR procedures except PACOTS Track C and J. Westbound aircraft crossing 160E between 0230 UTC and 0600 UTC from North America/Hawaii to Asia/Southeast Asia allow to plan the UPR that remains at least 50 NM North or South of PACOTS Track C. Westbound aircraft crossing 160E between 1500 UTC and 1800 UTC from North America to Asia/Southeast Asia allow to plan the UPR that remains at least 50 NM North or South of PACOTS Track J. Westbound aircraft crossing 160E between 0600 UTC to 1500 UTC or 1800 UTC to 0230 UTC

from North America/Hawaii to Asia/Southeast Asia allow to plan the UPR without route restrictions related to PACOTS Track C and J.

1.8. With regard to relax the UPR restrictions for supporting operators due to the Coronavirus pandemic, the Oakland ARTCC and ATMC have been considering making some of the relaxed restrictions permanent or setting new standards, rather than returning to the conventional UPR restrictions when traffic volume is recovered.

1.9. North America-Asia traffic volume was about 50% of what it was before the Coronavirus pandemic through 2021. Traffic volume has gradually begun to recover and is up to 93% as of August 2023 compared to pre-pandemic.



Flights from North America have increased to 117% compared to 2019

Table 1: Annual comparison of monthly traffic volume for/from North America

1.10. Hawaii-Asia traffic volume recovery rate is not high.

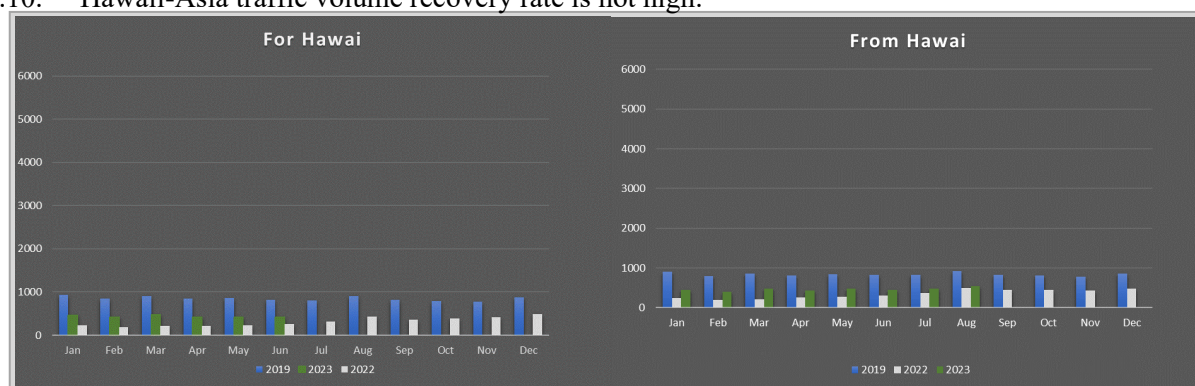


Table2: Annual comparison of monthly traffic volume for/from Hawaii

1.11. The Oakland ARTCC and ATMC have been considering the UPR restriction after the Coronavirus pandemic.

2. Discussion

2.1. Demand for UPR is increasing to reduce CO₂ emissions. There are also strong requests from operators. The Oakland ARTCC and ATMC discussed the possible extent to which the current relaxation could be reflected in the new standards.

2.2. Compared to 2019, the PBCS/RNP4 approval rate for aircraft flying within the Fukuoka FIR has further increased. The rate for aircraft flying North America-Asia has increased to about 97%.

2.3. Table 4 shows the hourly number of aircraft for North America passing 160E in May 2023. Most of the aircraft flying in this direction are PBCS/RNP4 approved aircraft, so the reduced longitudinal separation to 30NM can be applied. The busiest traffic hours are from 1000 UTC to 1100 UTC. And the traffic volume from 1100UTC is increasing in the main altitude stratum (FL330-FL370) used by eastbound aircraft. Therefore, we believe that efficient operations can be achieved by restricting and rectifying the UPR to aircraft passing 160E after 1100 UTC, similar to the current relaxed restrictions.

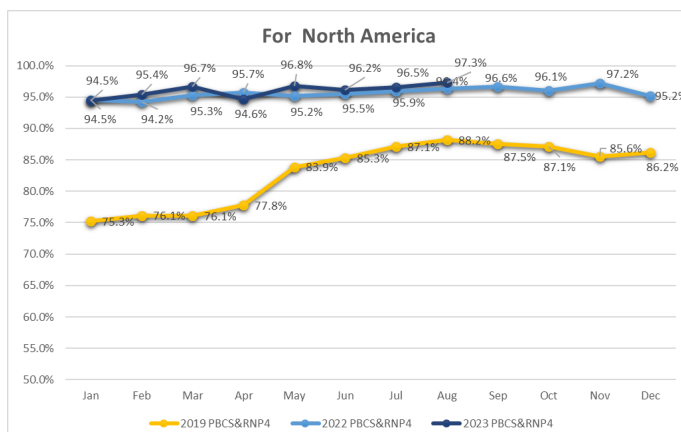


Table 3: Annual comparison of monthly rate of PBCS/RNP4 for North America

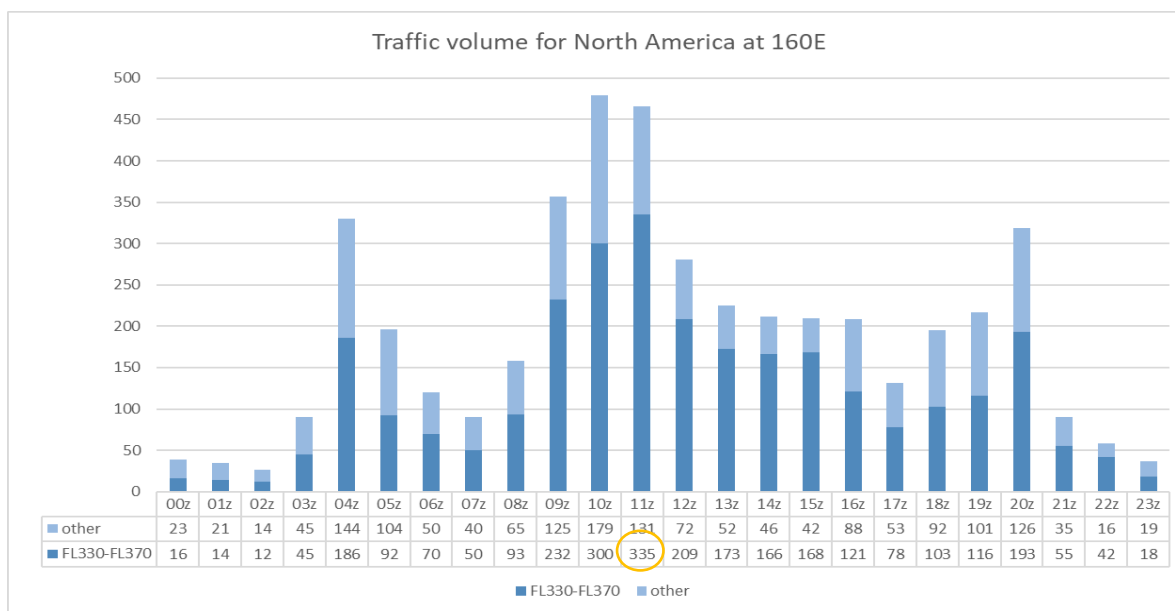


Table 4: Traffic volume for North America at 160E by time (May 2023).

2.4. We believe that the currently relaxed UPR restrictions can be continued to operate in the future with the same content, and ATMC has agreed with the Oakland ARTCC to make them permanent UPR restrictions. We would like to discuss the timing of formalizing them.

2.5. In the future, the high-altitude UPRs (eastbound: FL390 or higher, westbound: FL380 or higher), which are in trial operation, should be merged. Table 5 shows the number of eastbound and westbound

aircraft by hour in May 2023. More and more aircraft are flying at high altitudes, and we would like to consider the need for certain rectification.

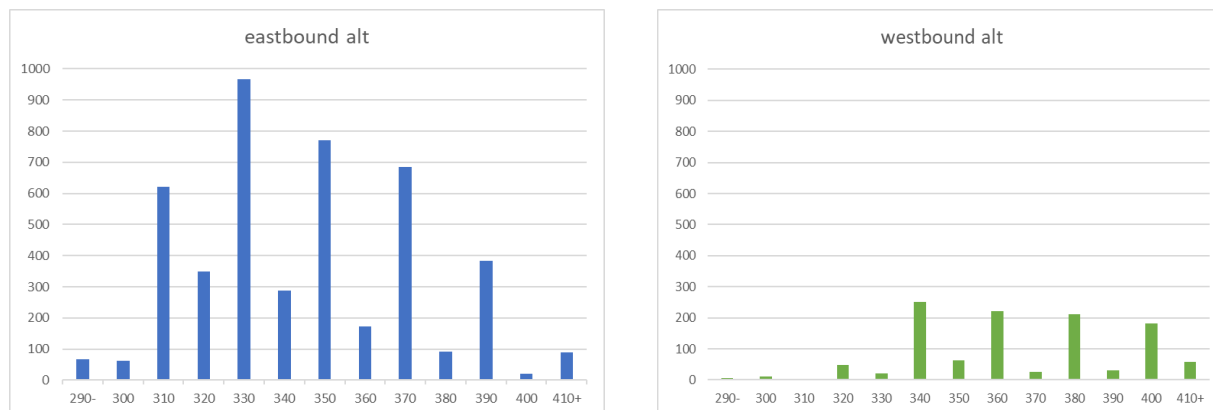


Table 5: Traffic volume of each altitude for/from North America by time (May 2023).

Action by the meeting

3.1 This meeting is requested to consider above.