Twenty-Second Meeting of the Cross Polar Trans East Air Traffic Management Providers' Work Group (CPWG/22)

(Paris, France 25-27 October 2016)

Agenda Item 5: Status on Action Items

High Altitude UPR Trials Across the Pacific

(Action Item # CP18-04P)

(Presented by IATA/United Airlines)

SUMMARY

This paper presents presents a summary of United Airlines participation in the use of high altitude User Preferred Routings (UPRs) in Anchorage, Oakland, and Fukuoka Flight Information Regions (FIRs).

1. Introduction

1.1. User Preferred Routings (UPRs) authorize operators to join or diverge from the North Pacific (NOPAC) airways or track route structures within the guidelines published by the respective FIR's. For those operators with aircraft performance capability to conduct flight higher than normal flight levels, additional flexibility is permitted to optimize route or deviate from basic UPR requirements to achieve company objectives. The provisions and requirements are frequently presented and discussed at industry meetings such as the Informal Pacific Air Traffic Control (ATC) Coordinating Group (IPACG) and and OWG to encourage operators to participate in their high altitude UPR trials.

A. Oakland ARTCC has engaged in a leading role of facilitating the high altitude UPR efforts across the pacific. Their guidelines are published in their website. The trial presumably has an indefinite lifespan.

B. Anchorage ARTCC's high altitude UPR initiatives started back in 2014. The trial guidelines are published in the international Notice to Airman (NOTAM) identified as PAZA A0075/16.

C. Fukuoka ATMC's operational trial of high altitude UPR between North America and Asia for westbound traffic began effective March, 2016. The requirements are published in Japan AIC 009/16.

2. Discussion

2.1. United Airlines has been an active participant of the high altitude UPR within Oakland/Anchorage FIRs with a growing fleet of 30 B787s since June, 2014. As of July 2016, a total of 784 flights took advantage of the west bound high altitude UPR via NIPPI and OMOTO. United Airlines is pleased to announce both cumulative and annual estimated fuel/average flight time reductions as shown below.

Average flight time reduction	2-3 minutes
Fuel reduction per flight	300LBS (136KG)
Cumulative fuel reduction since 2014 (106,684 KG)	784 flights X 300LBS = 235,200LBS
Estimate annual fuel reduction (49,940 KG)	367 flights X 300LBS = 110,100LBS

2.2. United Airlines also began participating in Fukuoka ATMC's operational trial of high altitude UPR between North America and Asia for westbound traffic effective June, 2016 with B787s. There are limited samples of flight plans to compile an extensive data, but fuel reduction of 300-400 LBS (136-180KG) and flight time reduction of 2-3 minutes are typically seen per flight. However, this result may be partially due to a comparison of route optimization based on 06Z wind data against TRK E and/or F route generation based on 00Z winds data. Once Oakland ARTCC is able to generate westbound PACOTS based on 06Z winds later this year, an accurate comparison may be generated.

2.3. Recommendations for the future:

A. To allow more participation in Fukuoka's high altitude UPR trial, additional flexibility may be desired. United Airlines recommends FL380 at 180E and additional access to domestic Japanese airspace possibly via KALNA and EMRON.

B. Progressive expansion of high altitude UPR trial to eastbound traffic departing Asia transitioning through Fukuoka FIR.

C. Review of eastbound PACOTS/UPR procedures including the valid time especially for city pairs considered outside of scope as the optimized routing may often conflict with PACOTS.

2.4 IATA/United Airlines would like to express great appreciation to FAA and JCAB for their support for UPR in general. IATA/United Airlines actively look forward to the staged implementation and expansion of UPR initiatives across the pacific working in a collaborative manner as means of achieving the objectives of the Pacific Project.

3. Conclusion

3.1 The meeting is invited to note the information provided.