

**Twenty-First Meeting of the Cross Polar Trans East Air Traffic Management Providers'  
Work Group (CPWG/21)**

(Montreal, Canada, 17-20 May 2016)

**Agenda Item 4: Pacific Project**

**ATM Response to IATA UPR Requests**

**(Action Item # PP10-01)**

(Presented by the Federal Aviation Administration)

**SUMMARY**

At the 10<sup>th</sup> meeting of the Pacific Project (PPT/10), held in October 2015, the International Air Transport Association (IATA) requested two changes to the User Preferred Routing (UPR) program in the North Pacific. This paper discusses the Air Traffic Management (ATM) response to IATA's requests.

**1 Introduction**

1.1. At PPT/10, IATA made two requests reference UPRs. Paraphrased, the first request was to ease the restrictions on westbound "high altitude" UPR aircraft joining NOPAC routes R220 and R580; the second was to permit operators to utilize Russian entry/exit points KOKES, LUMES and KUNAD, (and their associated ATS routes), for eastbound flight. Because the referenced high altitude UPR restrictions fall solely within U.S. FIRs, FAA has been able to reach and, effective February 10, 2016, implement a unilateral decision for the first request. Decision and solution to the second request required action by both FAA and State ATM Corporation of Russia. Consequently, a complete solution to the second request was not reached until April 28, 2016.

**2 Discussion – NOPAC UPR**

2.1. At the time of PPT/10, the restriction for westbound high altitude NOPAC UPRs required the aircraft be able to reach and maintain Flight Level (FL) 400 at or before crossing 170 degrees west longitude. In order to accommodate slower climbing aircraft, IATA proposed that the restriction be modified to either require aircraft be able FL380 by 170° west, or that the FL400 restriction be moved to 180° west.

2.2 Through collaborative labor/management decision making, Anchorage ARTCC determined that relaxing both the vertical and the lateral restriction components could be achieved. On February 10, 2016, Anchorage ARTCC revised its UPR Notice to Airmen (NOTAM) permitting aircraft to flight plan routes joining NOPAC route R220 at NIPPI and route R580 at OMOTO (both fixes being on the Anchorage / Fukuoka FIR boundary) with the restriction that such aircraft be capable of reaching FL380 by 180° west. After approximately 90 days of operation, no negative results have been encountered.

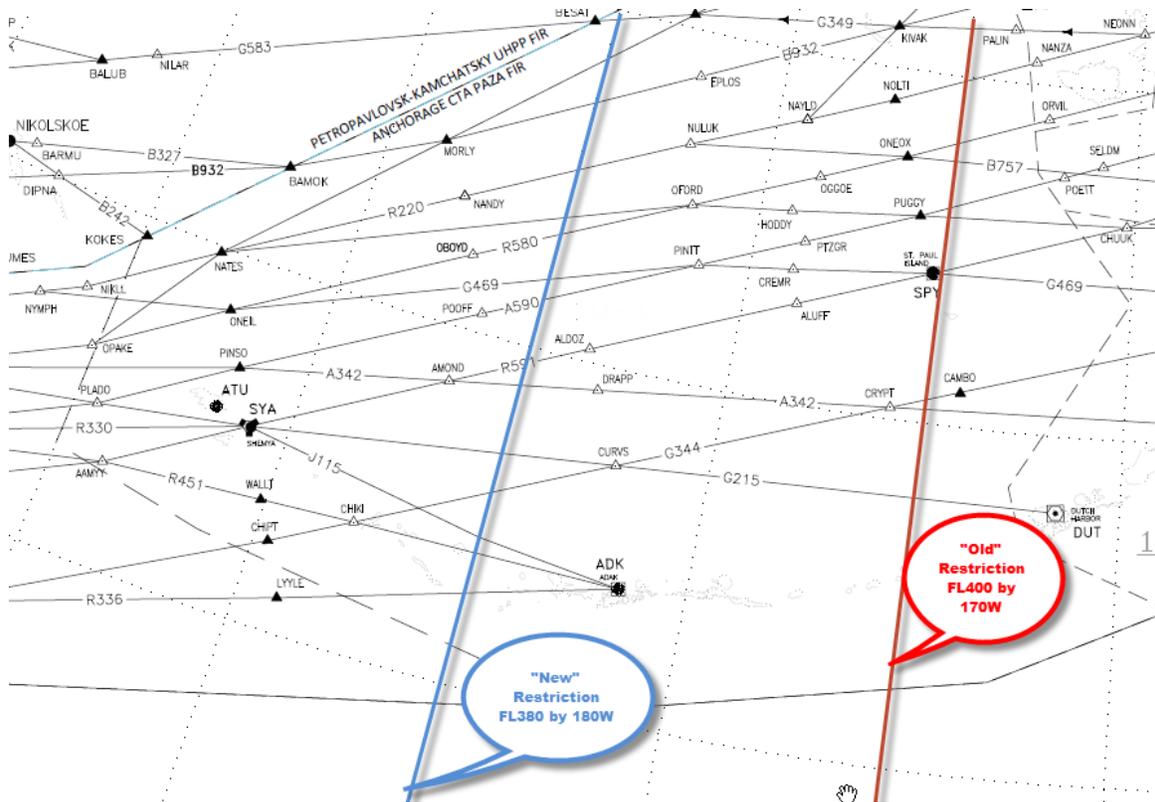


Fig. 1. High Altitude UPR Restriction

### 3 Discussion – Eastbound over KOKES, LUMES, and KUNAD

3.1 IATA’s request reference Russian entry/exit fixes KOKES, LUMES and KUNAD was directed to both State ATM and to FAA. At the time of PPT/10, all of the ATS routes leading to LUMES and KUNAD were established as one-way, westbound, routes in the Russian Federation Aeronautical Information Publication (AIP). Consequently, because of this AIP restriction, and even if Anchorage would permit it, there was no way for eastbound aircraft to reach LUMES or KUNAD. The Russian ATS route leading to KOKES, (B242), was identified as bi-directional, but was used by Anchorage ARTCC only for westbound flight. Since PPT/10, State ATM and FAA have taken independent, but complimentary, actions to facilitate eastbound flight over the three points.

3.2 In January 2016, Anchorage ARTCC convened a Safety Risk Management Panel (SRMP), in accordance with FAA’s Safety Management System (SMS), to investigate what potential hazards, risks and mitigations would be involved in altering NOPAC traffic flows by permitting eastbound flight over the three Russian fixes. The SMS investigation determined that the focus of concern was the geospatial relationship between the fixes and NOPAC route R220. (Route R220 is *the* major westbound routing for flights between North America and Asia.

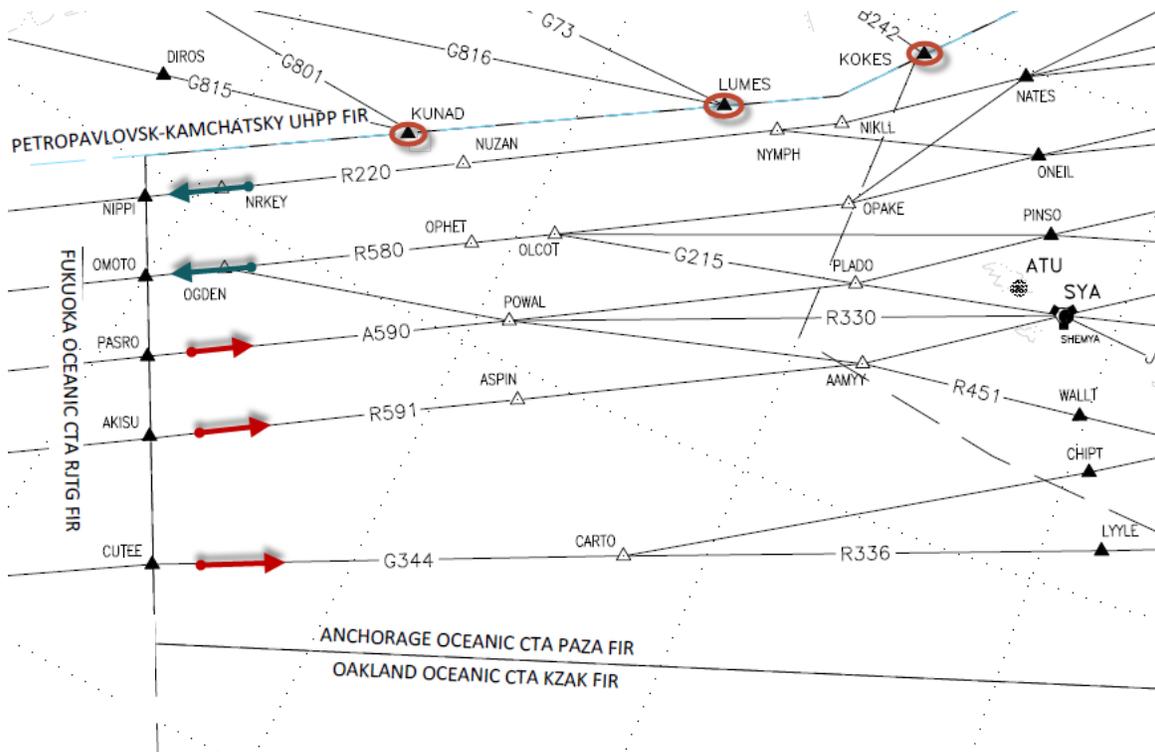


Fig. 2. KUNAD, LUMES, KOKES and Route R220

The SRMP determined that while implementation of eastbound traffic over the three fixes would complicate the NOPAC, mitigations could be achieved by controlling when, and at what altitude, aircraft entered via the Russian fixes. With this determination, on February 10, 2016, the following actions were completed: first, the Anchorage ARTCC and Petropavlovsk-Kamchatsky (PK) ACC Letter of Agreement was updated so as to permit eastbound traffic to flow over KOKES between the hours of 0500 and 2300 UTC, daily, and at altitudes either at, or below, Flight Level (FL) 310 or at, or above, FL390; second, Anchorage updated its published UPR guidance for operators identifying that, in addition to the time and altitude restrictions, eastbound KOKES traffic must route KOKES direct ONEIL and then via UPR remaining south of NOPAC route R580.

3.3 Effective on April 28, 2016, State ATM issued an amendment to the Russian AIP changing the directional use status of the LUMES and KUNAD ATS routes to bi-directional. Predicated on this amendment, and the re-delegation of a portion of airspace between Petropavlosk-Kamchatsky and Magadan ACCs, the Anchorage and PK, and Anchorage and Magadan, Letters of Agreement were updated allowing for eastbound traffic over LUMES and KUNAD with the same time of day and altitude restrictions as established for KOKES. Also on April 28<sup>th</sup>, Anchorage re-issued its UPR guidance informing operators of the newly available traffic flow and identifying that LUMES traffic must route LUMES direct PINSO then via UPR remaining on or south of A590, and KUNAD traffic must route KUNAD direct PLADO and thence via UPR to remain on or south of A590.

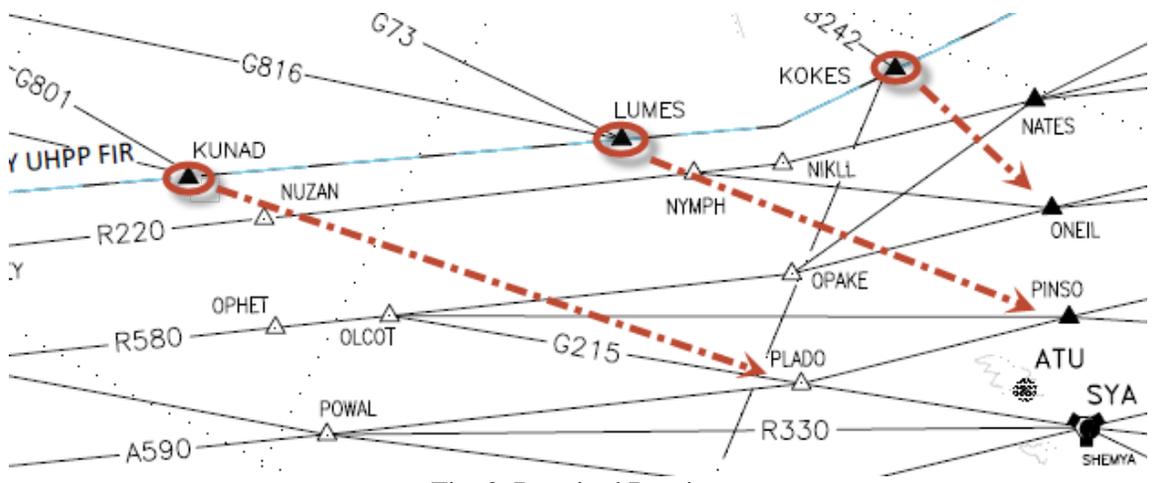


Fig. 3. Required Routing

**4 Recommendation**

4.1 The Meeting is invited to note the information provided in this paper.