



ICAO

International Civil Aviation Organization

**Thirty-Third Meeting of the Asia/Pacific Air Navigation  
Planning and Implementation Regional Group  
(APANPIRG/33)**

*Bali, Indonesia, Hybrid Meeting, 22 to 24 November 2022*

**Agenda Item 3: Performance Framework for Regional Air Navigation Planning and  
Implementation**

**3.2: ATM**

**USER-PREFERRED ROUTE (UPR) IMPLEMENTATION IN INDONESIA**

(Presented by Indonesia)

**SUMMARY**

In the time of the COVID-19 pandemic when the traffic level experienced a significant downturn, Indonesia has been implementing User Preferred Route (UPR) trial operation. UPR considered new procedures that had not been implemented in Indonesia. By taking the advantage of low traffic conditions and having a strong collaboration with all stakeholders, DCGA, AirNav, and IATA, the procedure has successfully commenced its trial implementation phase. The implementation of the procedure was planned for some phases to allow stakeholders to adapt to the new requirements.

*Strategic Objectives:*

*A: **Safety** – Enhance global civil aviation safety*

*B: **Air Navigation Capacity and Efficiency** — Increase the capacity and improve the efficiency of the global aviation system*

*E: **Environmental Protection** — Minimize the adverse environmental effects of civil aviation activities.*

**1. INTRODUCTION**

1.1 During mid-2020, when the COVID-19 pandemic crisis occurred, the traffic level experienced a significant downturn. Domestic, international, and overflying traffic plummeted to 90% of the normal volume (see Figure 1). All areas of business were adapting to the situation, Indonesia started implementing Business Continuity Plan (BCP) to ensure the quality of safety and service provision to the customers remain high. These initiatives include enhancing some procedures by taking the advantage of low-traffic conditions, such as User Preferred Route (UPR) trial operation.

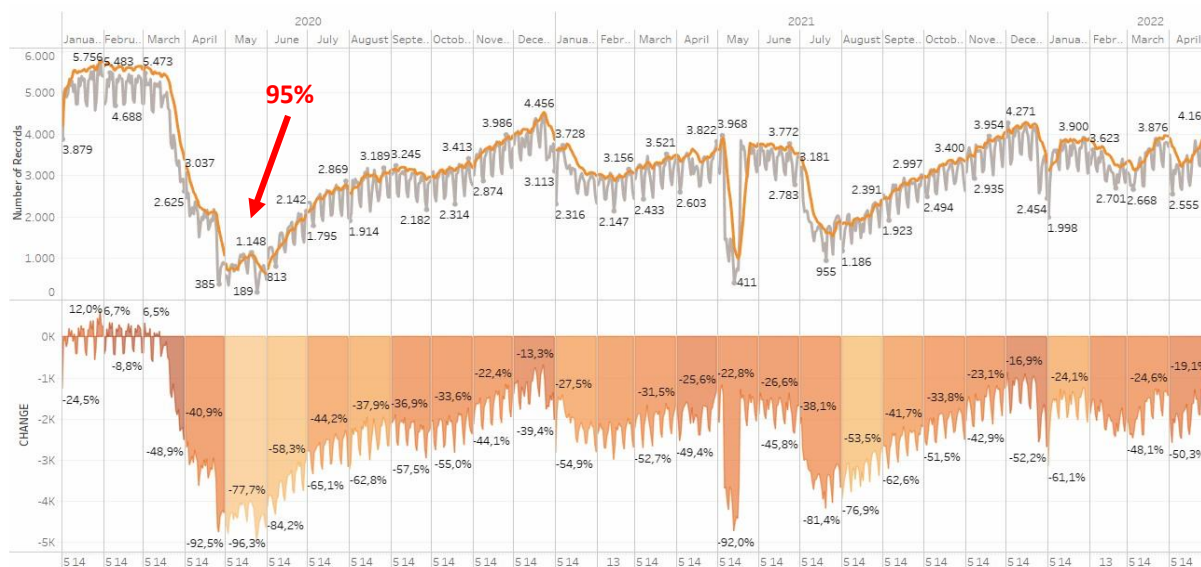


Figure 1: The significant downturn in traffic during the COVID-19 pandemic.

1.2 As discussed with IATA, UPR will benefit airlines and may act as a stimulus for traffic growth in the region where many aviation industries were hit by the COVID-19 pandemic situation as most of the policies during the pandemic period were disadvantageous.

1.3 Since the UPR concept was considered a new procedure, the implementation was planned to be gradual. Evaluation of the trial and re-assessment of hazard and risk were conducted along the way of trial implementation.

## 2. DISCUSSION

2.1 UPR is based on the FREE ROUTE concept where Airspace Users may freely plan a route between a defined entry point and a defined exit point with the possibility to route via intermediate waypoints without referring to the ATS route network. UPR allows the airlines to plan their flight through the most efficient route taking into consideration wind speed and direction, turbulence, temperature, aircraft type and performance.

2.2 AirNav Indonesia with assistance from DGCA Indonesia composed the concept of operation, UPR proposal procedures, and ATC procedures and carried out a safety assessment to implement UPR trial operation over Indonesia airspace.

2.3 To familiarize the UPR concept, and took into account the ATC working environment change due to COVID-19, UPR procedures were composed gradually of simple to complex to ensure ATCOs acceptance and to maintain the level of safety.

2.4 Familiarization and training were conducted through online arrangement, nationally, and in-person in Jakarta and Makassar, with support from the ATC association by producing some UPR videos and flyers for ATCOs.

2.5 UPR trial implementations were strategically phased to allow ATCOs to adapt to a more complex operation as well as to allow airspace users optimally utilize UPR procedures and rules.

2.5.1. The initial phase began on June 2020 with UPR Trial Operation published by NOTAM:

PARAMETER	PROCEDURES
Users	International overflying only
Level	F350 - F600
Entry and Exit	Published Waypoint only
Intermediary point	Published Waypoint (include nav aids & ATS route)
Proposal submission procedures	<ul style="list-style-type: none"> <li>▪ Not earlier than 12 hours but not later than 6 hours before EOBT;</li> <li>▪ Responded by AirNav within 3 hours after submission</li> </ul>
Usage	Qatar Airways (QTR) 2 flight

2.5.2. The evaluation of initial phase was held on 08<sup>th</sup> September 2020 by involving IATA. It was found that the flight that used UPR was only from one airline. The discussion reached the result that the airline's condition during the pandemic and also the entry and exit points that did not meet the airline's preference due to weather or wind conditions were the points that needed to be considered for the next UPR trial. Besides that, the proposal submission procedures for FPL that was not earlier than 12 hours but not later than 6 hours before EOBT, needed to be shortened.

2.5.3. As the results of evaluation, its serve as basis of the second phase of the UPR Trial Operation began on May 2021 and was published by NOTAM. The entry and exit points were still via published waypoints. The trial began to put on the intermediary points via designated points. Furthermore, the proposal submission procedures have already been shortened:

PARAMETER	PROCEDURES
Users	International overflying only
Level	F350 - F600
Entry and Exit	Published Waypoint only
Intermediary point	<ul style="list-style-type: none"> <li>▪ Published Waypoint (include nav aid &amp; ATS route)</li> <li>▪ Designated point (latitude/longitude)</li> </ul>
Proposal submission procedures	<ul style="list-style-type: none"> <li>▪ At least 3 hours before EOBT;</li> <li>▪ Responded by AirNav within 2 hours after submission</li> </ul>

2.5.4. Further evaluation was carried out and its showed a significant number of traffic that used UPR. Furthermore, the entry and exit points using designated point with latitude and longitude was still the preference needed by the airlines.

2.5.5. To continue the trial to fulfill the users' needs, the third phase of the UPR Trial Operation began on May 2022 and was published by AIP Supplement:

PARAMETER	PROCEDURES
Users	International flight
Level	F310 - F600
Entry and Exit	<ul style="list-style-type: none"> <li>▪ Published Waypoint</li> <li>▪ Designated point (latitude/longitude)</li> </ul>
Intermediary point	<ul style="list-style-type: none"> <li>▪ Published Waypoint (include nav aid &amp; ATS route)</li> <li>▪ Designated point (latitude/longitude)</li> </ul>
Proposal submission procedures	<ul style="list-style-type: none"> <li>▪ At least 3 hours before EOBT;</li> <li>▪ Responded by AirNav within 2 hours after submission</li> </ul>
Usage	Eva Air (EVA) regularly: more than 60 flights Hongkong Express

2.6 Indonesia received positive feedback from IATA and airlines with the optimization of the UPR utilization, and also some inputs from internal operations to enhance UPR procedures. Furthermore, the evaluation for the 3<sup>rd</sup> phase on 11<sup>th</sup> November 2022 showed that UPR's benefit on environmental protection has given the world 94,5 Tons of carbon emission reduction in 2022.

2.7 The 4<sup>th</sup> phase trial implementation UPR will be published by AIP Supplement on 15<sup>th</sup> December 2022 with new flight planning requirements that eliminate the time restrictions for the aircraft operator to submit the UPR proposal.

2.8 The whole gradual process of UPR trial operation since 2020, has brought Indonesia's self-confidence to fully implement UPR. Furthermore, a plan and discussion have been initiated to establish the implementation of UPR by quarter 3<sup>rd</sup>, 2023, subsequently after evaluation to the 4<sup>th</sup> phase would be conducted.

2.9 The future work would be on how Indonesia can manage the traffic after the pandemic COVID-19 which will increase the number of domestic flights that could interfere with the flights with the UPR procedures.

### **3. ACTION BY THE MEETING**

3.1 The Meeting is invited to:

- a) Note the information contained in this paper;
- b) Provide inputs to Indonesia to optimize UPR implementation;
- c) Initiate discussion in implementing UPR in the region (cross border); and
- d) Discuss any relevant matters as appropriate.

— END —