International Civil Aviation Organization

THE SEVENTH MEETING OF PERFORMANCE BASED NAVIGATION IMPLEMENTATION COORDINATION GROUP (PBNICG/7)

Video Conference, 21 – 23 October 2020

Agenda Item 3: Implementation status of the Regional Transition Plan for RNP APCH Chart Identification from RNAV to RNP

RNP APCH CHART IDENTIFICATION FROM RNAV TO RNP IN REPUBLIC OF KOREA

(Presented by Republic of Korea)

SUMMARY

This paper presents ROK's RNP APCH chart identification from RNAV to RNP in accordance with Asia/Pacific regional transition plan. The meeting is invited to take note of the information in this paper.

1. INTRODUCTION

1.1 The ICAO Circular 353, published on 1st January 2018, intended to provide guidance on the transition from area navigation (RNAV) *global navigation satellite system* (GNSS) RWY XX approach naming to RNP RWY XX, in accordance with *Amendment 6 to the Procedures for Air Navigation Services – Aircraft Operations* (Doc 8168, PANS-OPS), Volume Ⅱ – Construction of Visual and Instrument Flight Procedures.

1.2 In particular, this circular provides the framework for developing a regional transition plan by the ICAO regional offices, and provides guidance to the States on how to develop a transition plan. Subsequently, the Twenty-Ninth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/29) held in Bangkok, Thailand, from 3 to 5 September 2018, made the following conclusion.

> ***Conclusion APANPIRG/29/7: Transition Planning for RNP APCH CHART Identification from RNAV to RNP***
> *Recognizing ICAO Circular 353, Transition Planning for Change to Instrument Flight Procedure Approach Chart Identification from RNAV to RNP will be finalized to provide guidance on the development of global, regional and State transition plans, and ICAO Regional Office is requested to develop a draft transition within twelve months of the final publication of the Corridor, that;*
> *a) States begin internal coordination on the State transition plan and provide the number of RNP APCH procedures published and planned, and the time required to transition from RNAV (GNSS)/RNAV (RNP) to RNP chart identification;*
> *b) ICAO Regional Office drafts a regional transition plan on RNP APCH chart identification in coordination with relevant regional contributory bodes of APANPIRG, sub-regional ATM coordination groups and regional stakeholders; and*

c) ICAO Regional Office conducts a meeting or workshop to discuss the regional transition plan, after a regional transition plan template has been provided by the ICAO PBN Programme Office.

1.3 Accordingly, States were requested to take note of Conclusion APANPIRG/29/7 to take action as appropriate. In addition, States were requested to provide or update States' transition plan for RNP chart identification. Its purpose was to minimize the exposure to the mixed operational environment RNAV and RNP chart identification, and to reduce confusion between them by air traffic controllers and pilots. The Republic of Korea (ROK) was committed to the expectation of the regional transition of RNP APCH chart identification that it should be progressed in orderly manner based on Asia/Pacific Regional Transition Plan.

1.4 The Sixth Meeting of the Performance-Based Navigation Implementation Coordination Group (PBNICG/6, Bali, Indonesia, 24 to 26 April 2019) had finalized a regional plan for transition of Required Navigation Performance (RNP) approach chart identification from Area Navigation (RNAV) to RNP. In response to the Conclusion APANPIRG/29/7 and PBNICG/6, the ROK presented the national transition plan and the volume of change for RNP chart identification.

2. ROK'S TRANSITION PLAN AND IMPLEMENTATION

2.1 The ROK presented that due date for RNP chart identification would be 15 August 2019 and the volume of change would amount to 32 charts, of which number was believed to be addressable by a single slot. Consequentially, the regional transition plan reflected ROK's transition plan at PBNICG/6.

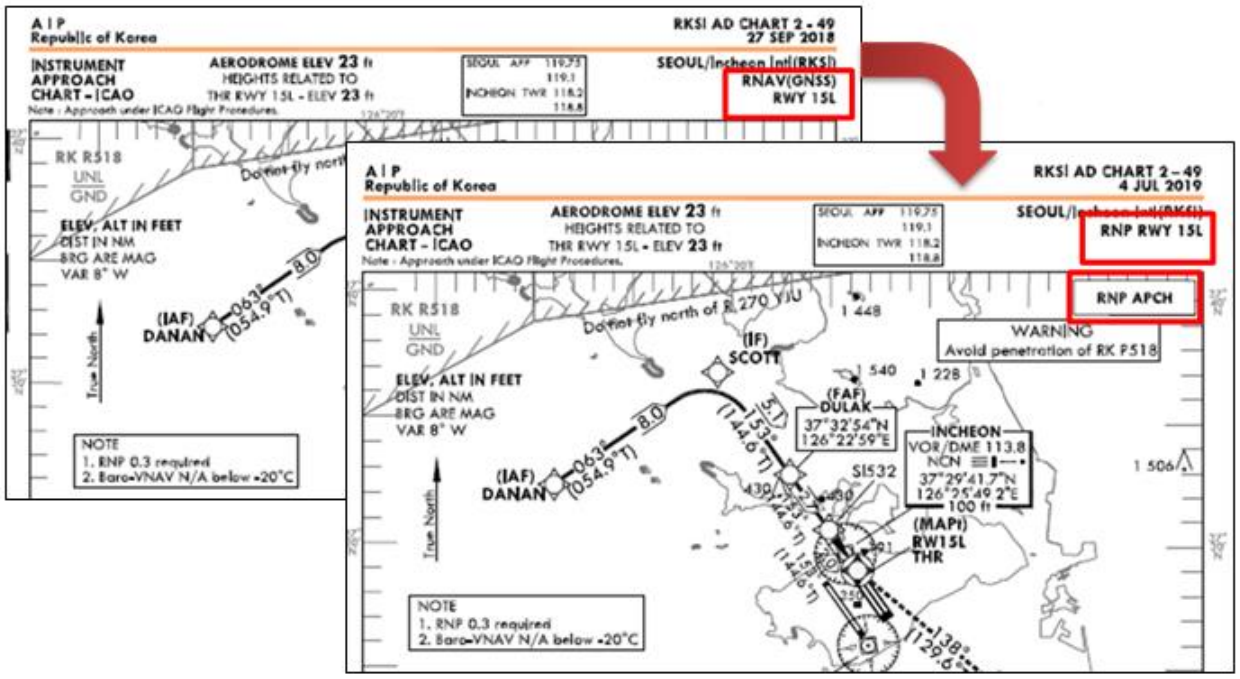
2.2 To ensure proper implementation of the transition plan of its own, the ROK developed State strategy in coordination with all stakeholders. Its effort involved establishing a task force team for a smooth RNP chart identification and consulting continuously with relevant bodies, including, but not limited to, regulatory authorities, air navigation service providers (ANSP), aircraft operators, military service provider, charting house, instrument procedure design organizations, and training organizations.

2.3 This led the aircraft operators to plan trainings for pilots and dispatchers concerning FMS updates and any associated contents, and the ANSPs to conduct trainings deemed necessary for air traffic controllers and to use the published chart identification (RNP RWY XX) when issuing clearance.

2.4 It has been noted that it is especially important for pilots to be vigilant in distinguishing between the existing and new chart identification conversion and understand the difference between RNP APCH and RNP AR APCH chart naming. They also need to clear correlation between what they can read on approach chart identification and what they will hear from ATC. In other words, RNP chart identification published in AIP and Radio-telephony phraseology must be same.

3. THE RESULT OF RNP CHART IDENTIFICATION

3.1 The ROK has completed converting naming of 32 charts from RNAV (GNSS) RWY XX to RNP RWY XX as of 15 August 2019, as shown by the following example:



3.2 States were encouraged to introduce PBN approach for all instrument runway ends, either as the primary approach or as a back-up approach. The PBN approach (RNP APCH) has been introduced as a back-up for the ROK, as ILS is mostly in place for its runway ends. There have not been specific issues identified since the completion of RNP chart identification. In the early stage, there were some carriers which have not updated their FMS (Flight Management System) yet. However, such delay was anticipated when consulting with aircraft operators and even if FMS was not updated, pilots have agreed to consider chart naming changed and use phraseology. Therefore, there have not been associated communication challenges between pilots and air traffic controllers.

3.3 The ROK has established a close collaborative relationship with all relevant stakeholders through a task force team and has been prepared to respond to any possible issues in a prompt manner.

4. CONCLUSIONS

4.1 A relatively small volume of chart change has enabled a rather fast completion of work by the ROK in line with ICAO's regional transition plan. However, it should be of note that RNP chart identification was concerned with several stakeholders, thus their requirements had to be taken into account. The process was facilitated greatly by ICAO guidance that provides clear and specified considerations. Its regional transition plan served as another enabler that made systematic changes possible, leading to minimizing confusion of stakeholders. ICAO's abiding endeavour towards States' smooth RNP chart identification is much appreciated in this regard.

4.2 The ROK is convinced that the transition will contribute to the improvement of aviation safety, in that there will be no more confusion to occur between pilots and air traffic controllers. However, it is worth noting that some States have voiced the need for contingency plan in the event that the transition plan could not be achieved. Such concern is hoped to be addressed to States' satisfaction through ICAO's timely review on the need.

5. ACTION REQUIRED BY THE MEETING

5.1 The meeting is invited to:

a) take note of the information in this paper.

— END —