



ICAO

International Civil Aviation Organization

Fifteenth Meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/15)

Bangkok, Thailand, 28 April – 02 May 2025

Agenda Item 4: Review of Current ATFM Operations and Problem Areas

NARAHG UPDATES

(Presented by China, Japan, Republic of Korea)

SUMMARY

This paper presents the progress of NARAHG in recent years. Including NARAHG/10 meeting and the CTO-Based ATFM trial plan.

1. INTRODUCTION

1.1 The 10th NARAHG meeting was successfully held from **26 to 28 June 2024** in **Qingdao, China**, with participation from **54 representatives** from China, Japan, the Republic of Korea (ROK), the International Air Transport Association (IATA), and Airline operators.

2. DISCUSSION

Key Outcomes

ATFM Data Exchange & Post-Operational Analysis (POA)

2.1 States agreed to share ATFM status and outcomes to enhance cross-border efficiency. A joint spreadsheet will be developed for standardized data reporting.

2.2 ROK emphasized challenges in summer weather disruptions and proposed closer coordination on ATFM measures.

Typhoon Detour Procedure (TDP) Optimization (Attachment A)

2.3 Members endorsed joint optimization of TDP to mitigate impacts on regular flights. China's trial demonstrated reduced delays through pre-tactical coordination.

2.4 ROK proposed expanding detour route options, while Japan shared operational experiences.

CTO-Based ATFM Trials

2.5 China and Japan agreed to form an expert group for trials on Calculated Time Over (CTO) to address delays at Shanghai Pudong Airport (ZSPD). ROK will confirm participation after internal review.

2.6 Consider hybrid CTO/CTOT model to increase flexibility and alignment with regional standards.

CRV-Based Data Integration

2.7 Japan and China highlighted progress in data exchange between Fukuoka and Shanghai FIRs, proposing expansion to ROK. Challenges include aligning information-sharing scope.

2.8 **CRACP II** system (featuring ADP, CDN, and TDP modules) was introduced, with ROK noting delays in system updates.

Regional Framework Harmonization

2.9 Discussions focused on aligning NARAHG CONOPS with the APAC Regional Framework. Members agreed to submit joint recommendations to ATFM/SG after CTO-based trial conducted.

2.10 NARAHG states preparing CTO trial operation for China and Japan flights and CTOT trial operation for China-ROK and ROK-Japan flights. Introduce common KPIs and standardized terminology as part of the regional harmonization effort.

Next Steps

2.11 Finalized CTO/CTOT implementation plans by Q3 2024. China and ROK will implement CTO-based ATFM trial from June 2025.

2.12 Develop a Common Operating Procedure (COP) for cross-border ATFM. When formulating the COP, ensure alignment with ICAO Doc 9971 guidelines.

2.13 The 11th NARAHG meeting will be held in Japan in Q4 2025.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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Typhoon Detour Procedure (TDP) operation notice

v1.1(Effective: 23 July 2024)



Northeast Asia Regional ATFM Harmonization Group

July, 2024

The background of TDP

Northeast Asia has a high density of flights, and the traffic flow of the airways continues to be high all year round. Therefore, large-scale and large-volume detour flights often lead to large-scale delays of regular flights. To solve this problem, NARAHG (Northeast Asia Regional ATFM Harmonization Group) try to jointly conduct the operational test of TDP (Typhoon Detour Procedure). The major purpose of TDP is to manage every single detour flight, so that to minimize the impact on regular flights.

The TDP operation concept

NARAHG designed cross-border coordination mechanism to accurately identify and manage the TDP flights both in pre-tactical and tactical phase for both eastbound and westbound at SADLI and AGAVO. The main purpose of TDP is to ensure appropriate ATFM measures based on proactive Demand prediction. Since the en-routes used during Typhoon Detour are different from the normal Flight Plan, the list of Overflight Permission Flights will be used to predict the demand in advance, before submitting the FPL on the day of the flight.

The TDP operation procedure

1. [Pre-tactical] Applies to flights departing from Southeast Asia, detouring to China, arriving in Republic of Korea (ROK) or Japan.

1.1 When Aircraft Operators(A/Os) apply for Overflight permission for detour on CAAC's Web site, China limits the number of aircraft that can detour per hour, taking into account airspace capacity.

1.2 A/Os apply for permission (~~2-3 days~~ **as early as 2 days in advance** before the flight, on a "First-come, First-served" basis).

1.3 There would be no ATFM measures on the day of the flight with Overflight permission.

2. [Tactical] Applies to flights departing from ROK or Japan, detouring to China, and arriving in Southeast Asia

2.1 When A/Os apply for Overflight permission for detour on CAAC's Web site, there is no limitation for the number of aircraft that can detour per hour.

2.2 China provides flight lists of Overflight permission and issues Fix Flow Rates per hour at SADLI and AGAVO (1-2days in advance)

2.3 ROK creates a Flexible Split Table to reflect the different peak time zones between ROK and Japan. And ROK distributes the Fix Flow Rates Restrictions according to the ratio of Korea-Japan traffic volume on the flight lists (the day before)

Question & Answer

1. Regarding Overflight permission at CAAC

1-1. Where can I request TDP overflight permission?

Please visit this website supported by CAAC. <https://pre-flight.cn/>

CAAC will announce the starting time of TDP flights request for each typhoon few days before in the Wechat group of CAAC.

1.2 How to flexible modify the ETO at the restriction waypoint?

The website support the delay arrangement in case of the slot resource is full. The system display can not accept new time is because airliners didn't change the STA on the website after they modify the AGAVO/SADLI fix time. This is a basic error correction procedure, the purpose of which is to remind airlines to fill in the STA according to actual situation.

For example:

[KAL861 / AGAVO 1000 / RKSI 1030]

But the slot at AGAVO is out of use, A/Os can change the AGAVO time to 1200.

[KAL861 / AGAVO 1200 / RKSI **1030**]

Then you will find that the STA early than AGAVO. If they modify the STA to 1230, this slot can be issued to them for detouring.

[KAL861 / AGAVO / 1200 / RKSI **1230**]

After you change the STA according to your new ETO, system will check and issuing overflight slot in case of this time period is empty.

1.3 How to release the slot of TDP flight if A/Os don't want to detour?

A/Os can directly cancel in the CAAC website if the permission didn't issued. If the TDP overfly permission already issued, A/Os should send the cancel request to CAAC website.

CAAC will release the slot at once, then other A/Os can request this slot.

2. How to request for help?

2-1. Please contact CAAC for website request issues. All the A/Os can join the Wechat group and send the message for any question and request.

2-2. Tactical CTOT for TDP flights departing from ROK or Japan will be issued by Daegu ATCC(ROK) or Fukuoka ATMC(Japan).

2-3. Pre-tactical TDP plan is normally generated by Shanghai ATCC ATFMD, and the NARAHG cross-border meeting will be held to finalize. So each ATFM unit will has the detail plan for each typhoon. Conventional communication channels can ensure that you receive the latest updates on TDP: