



# **Flow Rate**

## **A Made-in Asia-Pacific Solution**

**ATFM/SG/15**

**28 April – 02 May 2025**

**Presented by ATFM Delegation of China**

**ATFM China**

**Flight 307  
Delayed Again.**

**How Many Of You Have Boarded A Flight At 7:30 PM  
Only To Sit On The Tarmac Until 9:00 PM...**



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**Flight 307  
Delayed Again.**

**TYPHOON + VIP EVENTS**

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# Flow Rate

OCS GOALS

# Why Our Current Tools Are Failing Us?

**GDPs?**

**Only 4** Out of 10 firms share real-time data

70% of CTOTs failed due to data mismatches

**MIT?**

Last season, **62%** of multi-FIR MITs collapsed

When typhoon Doksuri hit, MIT collapsed in 2 hours. Controllers worked overtime for days

**CTOT?**

Deploying CTOT systems costs **\$1.8M** on average

Costs more than some ANSPs' annual budgets.

**‘So we’re stuck?’**

**NO!**

**We found a THIRD WAY.**



## Flow Rate - The 'Flexi-Tube' Solution

MIT

GDP

Flow Rate

### China's Trial – Sanya FIR

Set **6-8 flights/hour** during peak monsoon months.

**19%** fewer delays, controllers reported  
**40%** less stress

### Korea

Auto-adjusted Flow Rates using weather APIs.

Controller workload dropped **30%**  
during fog season.

### ONE's Hack

Used WeChat groups to coordinate Flow Rates with OTHERS.

**Saved 2,300 flight-hours**  
in Q1 2024

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**NO!**

**Won't flexibility mean chaos?**

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**91% compliance**

when we set clear min/max limits.

**Structure + Freedom  
=SUCCESS**

**THE KEY**

**Flow Rate isn't replacing GDP or MIT.**

**GDP**

**MIT**



## **THE KEY**

**Flow Rate isn't replacing GDP or MIT.**

**It's the missing link between them**

**GDP**

**Flow Rate**

**MIT**

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## Why This Works?

**10,000-meal-a-day kitchen**

**SET THE RULES**

**Max 60 flights/hour**

**Recipe Makers**

**vs.**

**Chefs**

**SAFELY**

**Focus on separation**

**Planners**

**Controllers**

**In Sanya's trial**

**cut delays by 19%**

**Got break**

**CLEAR ROLES**



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But small teams can't handle this?

**NO!**

Their 5-person team ran Flow Rate using

Tencent Docs and walkie-talkies.





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# Why Your FIR Needs This Tomorrow?

### Flow Rate's Triple Win

#### Accessibility/Simplicity

- No tech barriers
- No complex data modeling.

#### Efficiency/ Scalability

- Freed up 300 controller-hours/month for training.
- Adapts to any FIR's capacity

#### Regional Harmony

- Common language for cross-border coordination

2024 ASEAN Summit



20% fewer delays

Flow Rate across three FIRs.

What if big hubs dominate?

'Fair Match' System

**Won't this create inconsistency?**

**How do we standardize Flow Rate across 40+ ANSPs?**

Won't this create inconsistency?

How do we standardize Flow Rate across 40+ ANSPs?

**Flexibility  $\neq$  Chaos**



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## 3 Steps to Try This Tomorrow

**CORE STEPS STAY THE SAME**

**Pick Your Pain Point**

Start with 1 key route.

Auto-adjust rates using existing Tech.

**Set Your 'Flex Zone'**

6 flights/hour



4-6 flights/hour



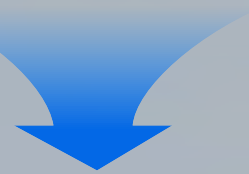
**Share the Burden**

Controllers see traffic lights

Green (Go) | Amber (Adjust) | Red (Stop)

**What if my neighbor FIR doesn't play along?**

# What if my neighbor FIR doesn't play along?

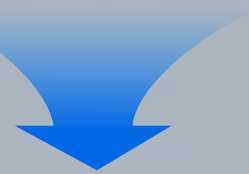


They calculated Flow Rates for the other routes – for free.

**Delays dropped 17% on both sides.**



**What if my neighbor FIR doesn't play along?**



**Offer to calculate their Flow Rates for shared routes.**

**Win-win.**

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**Let's Build Together**

2024

2025

2026

2027

2028

**Phase 1 (2025)**

**Agree on 3 core  
Flow Rate parameters**

**Phase 2 (2026)**

**Regional  
training hubs**

**Phase 3 (2027)**

**Include Flow Rate  
in the ATFM Framework  
Achieve the goal of "OCS"**

**'Start small, scale smart.'**

**A low-cost step today prevents a crisis tomorrow.**

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## From Paper Maps to Real-time Navigation

**18**

Months Of Trials

**392**

Controller Surveys

**17,000+**

Saved Flight Hours

**Our shared opportunity, Our region's toolkit**

### THE RECIPE

Agree on hourly 'speed limits'

Update our regional playbook





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Let's turn lessons into action.

Who's ready to join the **Flow Rate** journey?





# Thank you.

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