



## SAIOSEACG 5

# PROGRESS ON THE TIAL IMPLEMENTATION OF REDUCED LONGITUDINAL SEPARATION ON ROUTES L642 AND M771

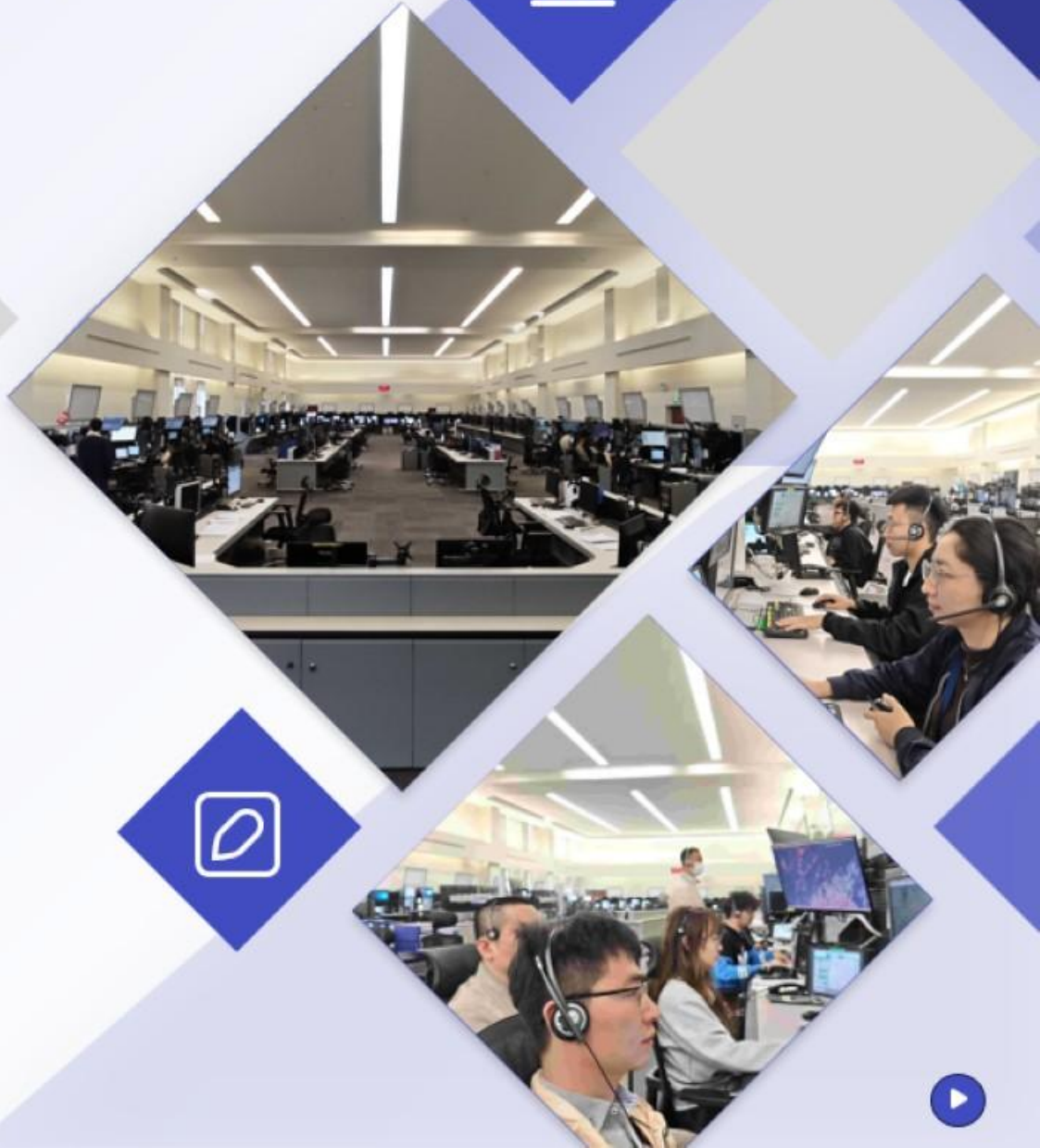
Bangkok, Thailand



Presented by CHINA



2026.01



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## Overview



# Overview

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The trial operation of routes L642 and M771 longitudinal spacing reduced from **50NM** to **20NM** began on **May 7, 2024**

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## Increase capacity

Enhances airspace utilization efficiency and increases flexibility in route selection



## Reduce delays

Delivers a more punctual and comfortable travel experience



## Economic efficiency

Reduces fuel consumption, and improves on-time performance



# Coordination Mechanisms

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**Hong Kong FIR, Sanya FIR, Ho Chi Minh FIR and Singapore FIR established an efficient coordination mechanism during the trial operation.**



## **Reduced-Separation Requests**

China proactively initiated and coordinated reduced longitudinal separation requests



## **Non-Standard Transfer Level Requests**

Sanya FIR coordinated acceptance of non-standard transfer levels among all ANSPs



## **Non-default Transfer Separation Requests**

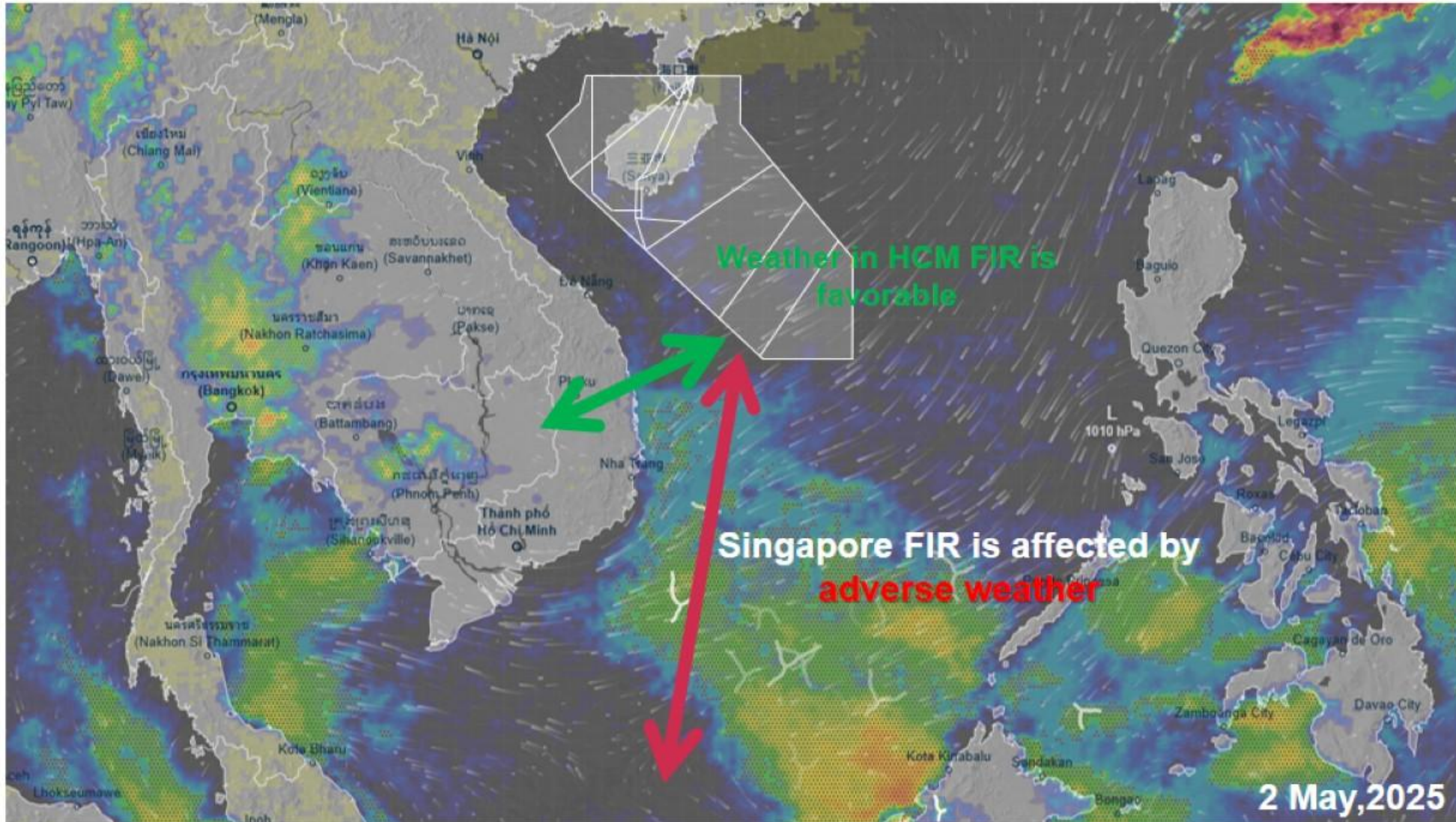
Even outside the designated trial periods, Sanya FIR actively coordinated non-default longitudinal separation approvals for individual flights



## **Special-Destination Exemptions**

Sanya FIR coordinated exemption approvals with relevant ANSPs to ensure smooth and uninterrupted operations

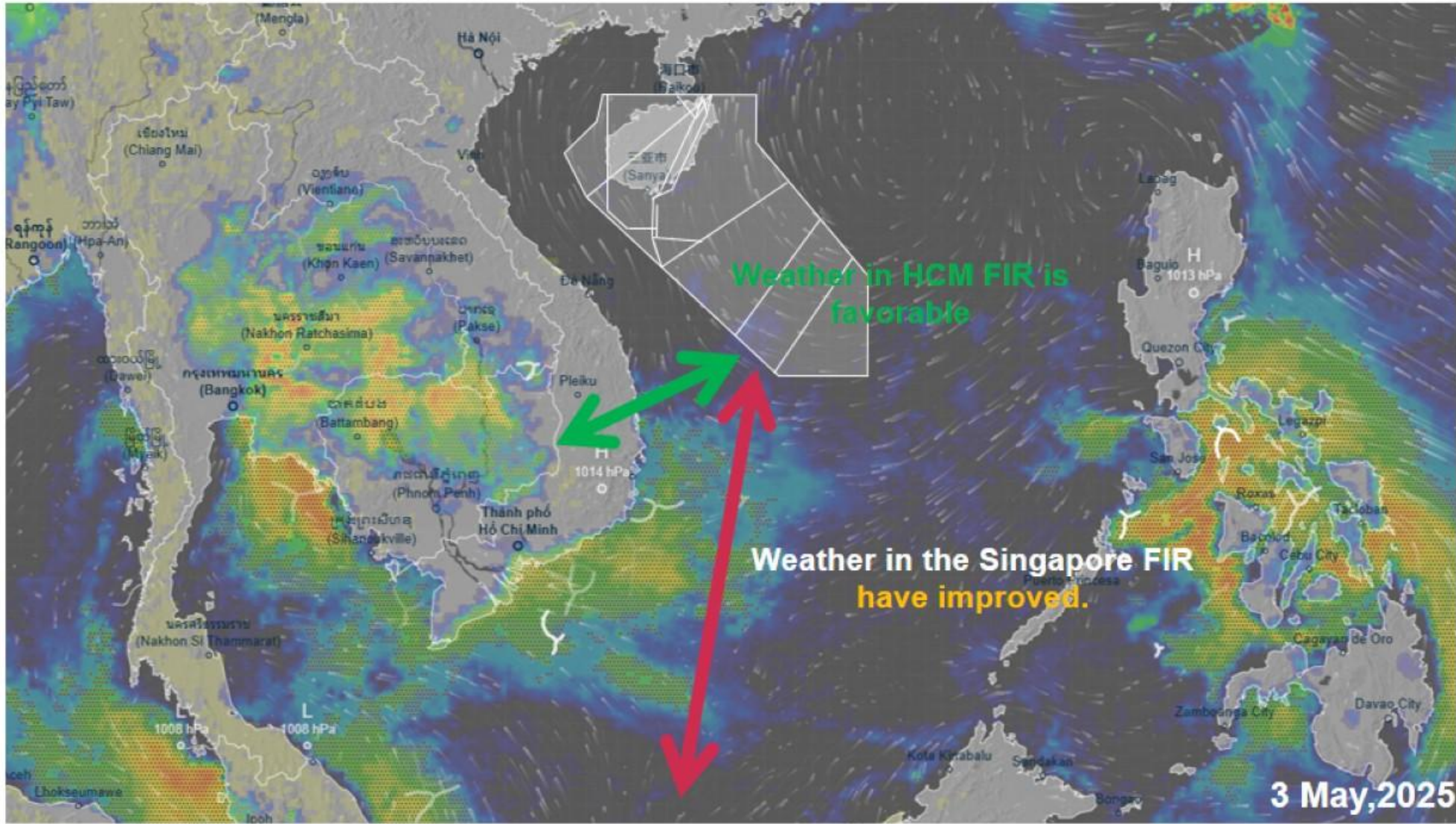
# Reduced Separation under Adverse Weather



 **LSWDCP**  
Same-level transfers restricted to **50 NM**

 **LSWDCP**  
Same-level transfers restricted to **30 NM**

# Reduced Separation under Adverse Weather



## LSWDCP

Same-level transfers restricted to **50 NM**



## LSWDCP

Same-level transfers restricted to **20 NM**

# /02

## Progress



# Trial Performance

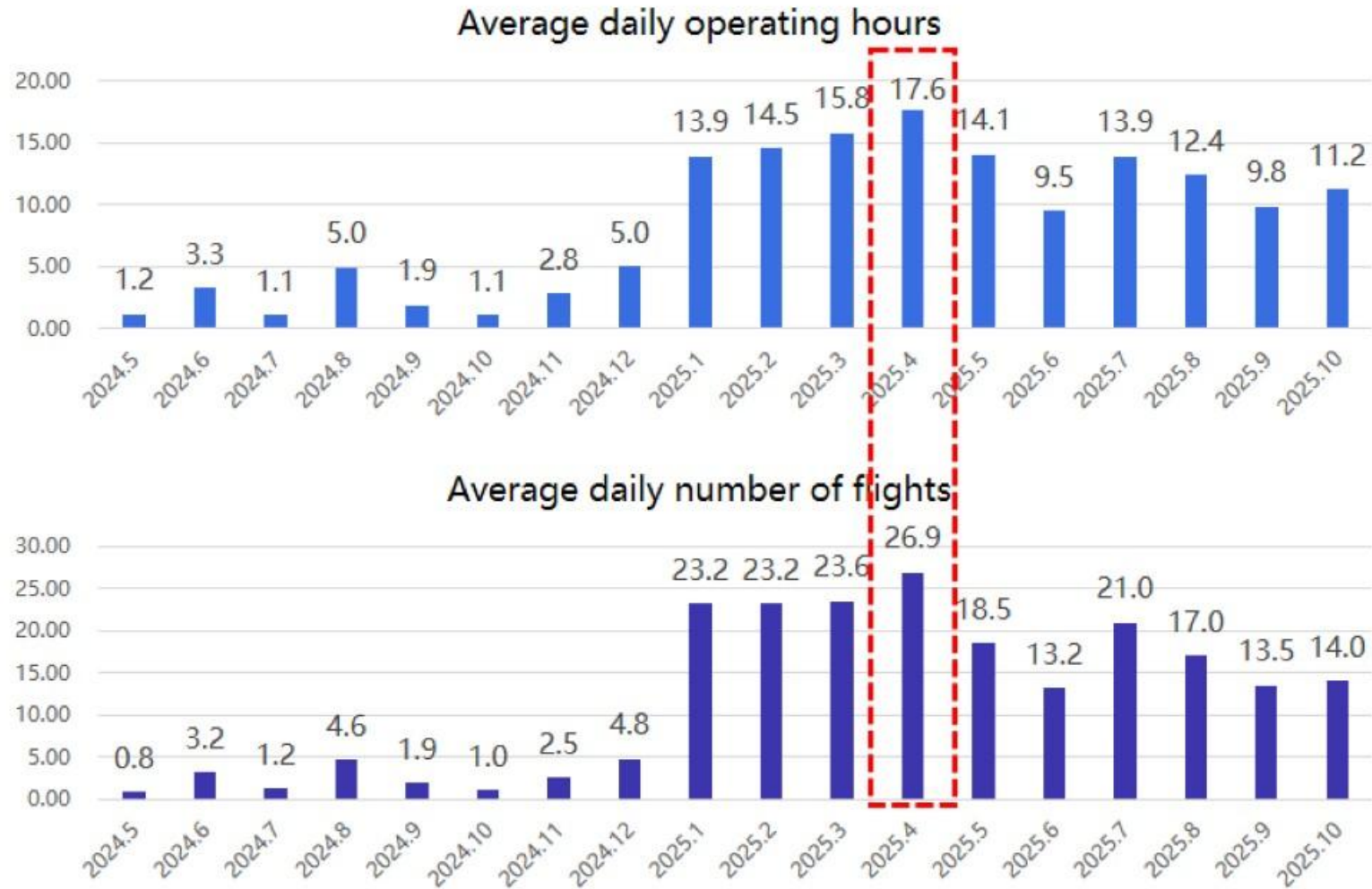
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## Significant impact on enhancing airspace utilization efficiency

Reduced separation lowers flight-level occupancy, enabling more flights to obtain optimal altitudes or avoid ground delays—resulting in a much larger pool of indirectly benefited flights

# Trial Performance



Especially in April 2025, trial runs are being conducted **every day** for **over 15 hours**, with an average operating time of **17.63** hours.

# Milestone Review

## A series of milestones

- marked deeper cooperation and breakthrough progress throughout the trial

**11 May 2024**

- First effective trial day (**5 hours, 6 flights**), initiating substantive cross-FIR collaboration

**25 Dec 2024**

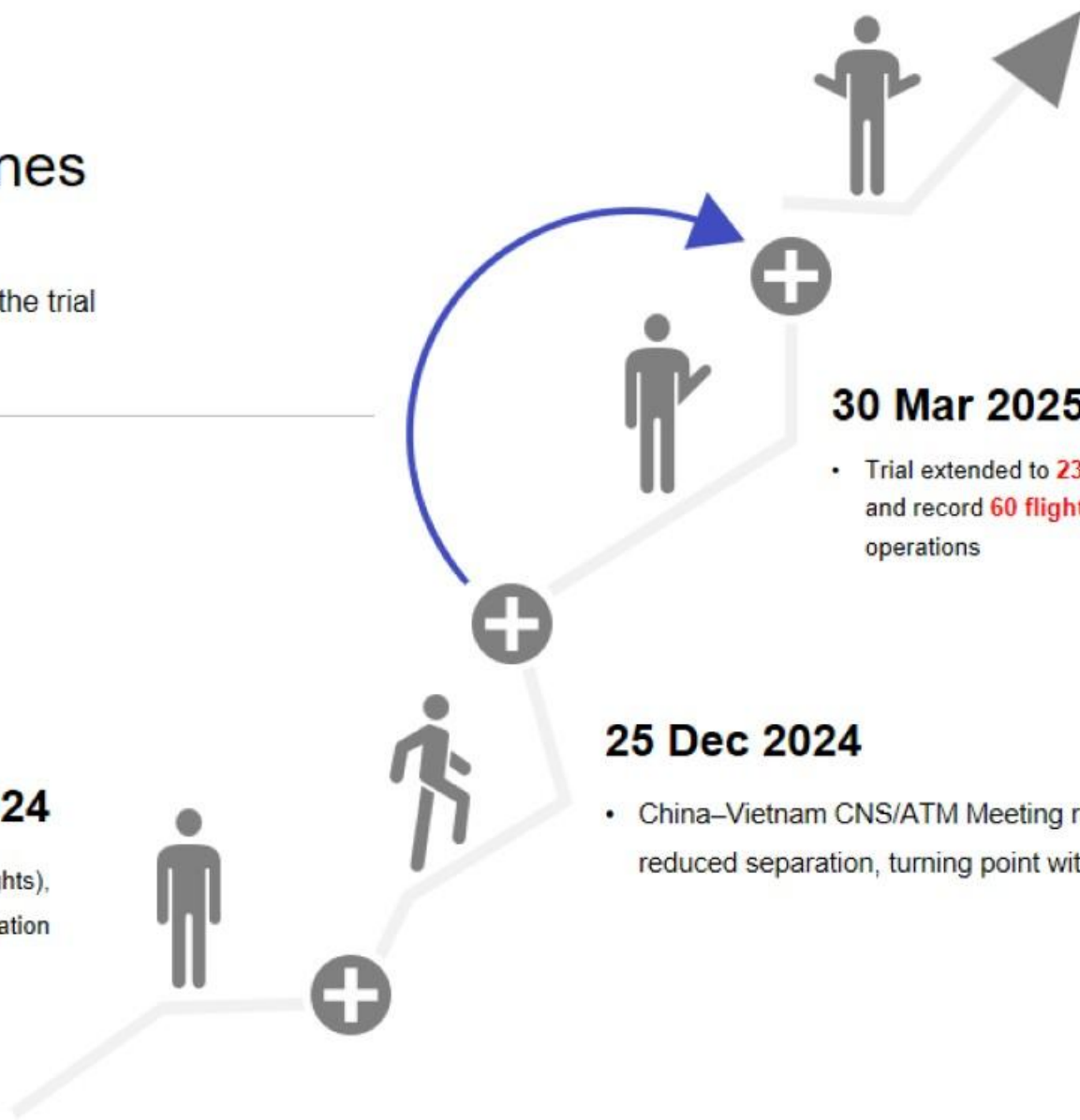
- China–Vietnam CNS/ATM Meeting reached consensus to expand use of reduced separation, turning point with strong post-meeting performance growth

**30 Mar 2025**

- Trial extended to **2300 UTC** for the first time; **22.4 hour operation** and record **60 flights**, signaling near-normalization of 20 NM operations

**2–3 May 2025**

- First application of **50NM → 30 NM → 20 NM** reduced separation during LSWDCP, opening a new cooperation model for complex conditions



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## Challenges



# Most concise

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## Facing Key Challenges Requiring Joint Action



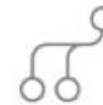
### Lack of Shared Situational Awareness

The level of understanding of key information (airspace status, traffic conditions, and weather trends) varies significantly



### Execution Discrepancies

Marked differences in how ATCOs and teams apply standards during complex scenarios (e.g., 50NM-40NM-30NM-20NM in weather deviations).



### Catch-Up Spacing Procedures

For flights at Mach 0.77 vs. Mach 0.78—only a 0.01 difference—the required same-level transfer spacing must increase from 20 NM to 11 minutes (over 80 NM), more than a fourfold expansion.

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## Recommendations



# LOA Revision

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## NEW LOA

Related ANSPs are advised to initiate the LOA revision process as soon as possible

### Normalization of 20 NM Operations

- Establish 20 NM longitudinal separation as the baseline operating standard for routes L642 and M771.



### Flexible Separation Coordination

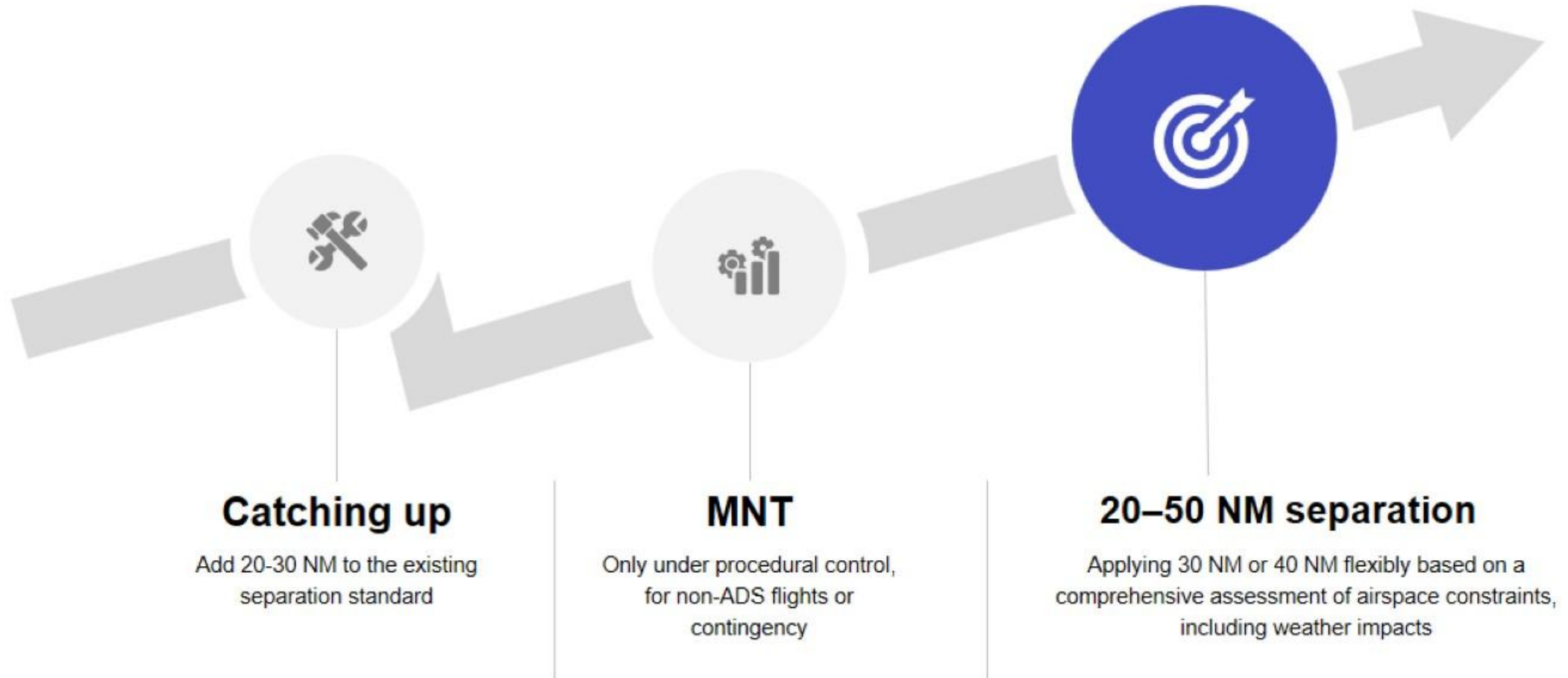
- Apply 30 NM, 40 NM, or 50 NM separation flexibly under airspace-constrained conditions.

### Flexible Level Coordination

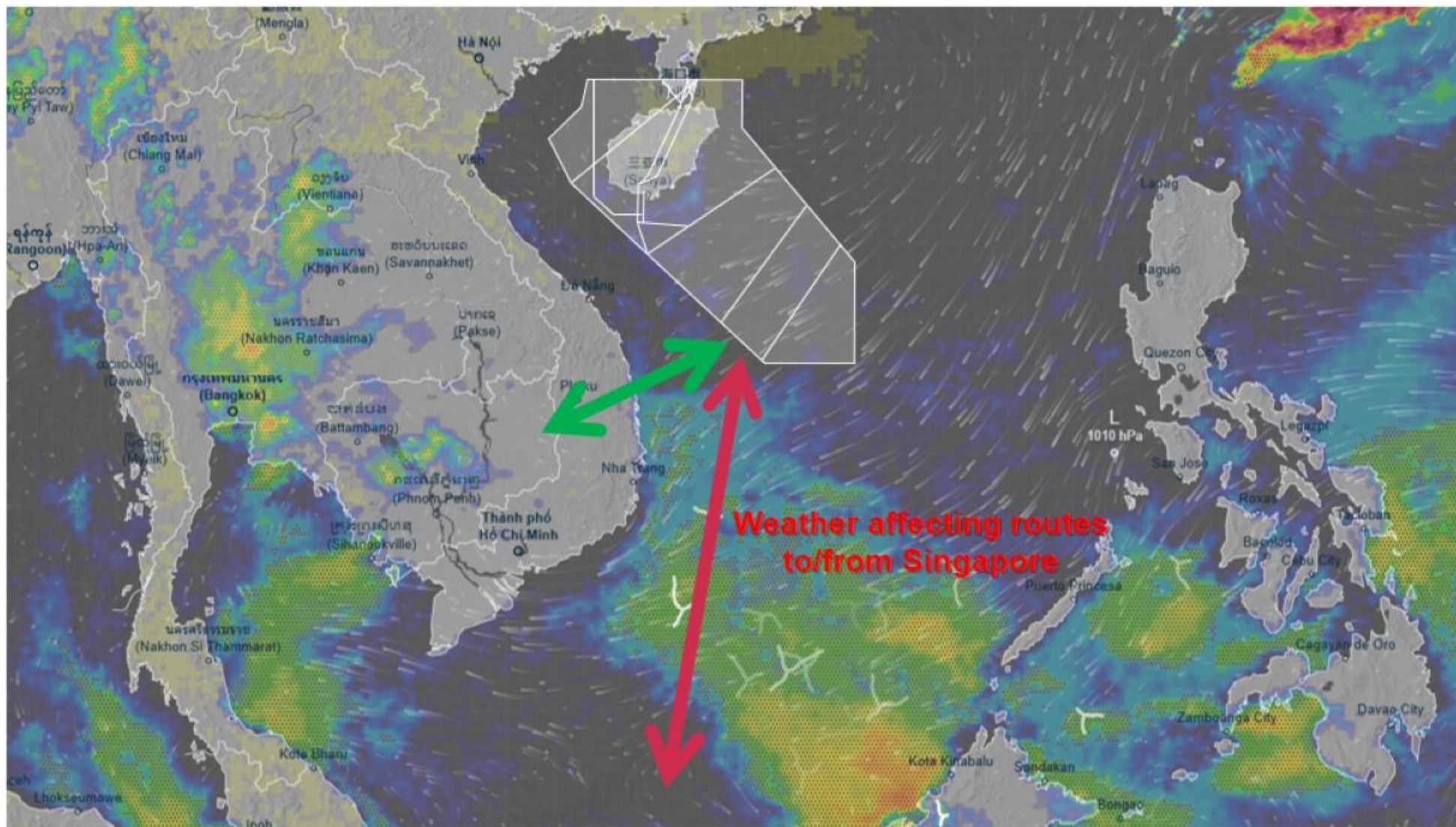
- Apply LSWDCP conditionally and by route during weather-impacted operations

# Flexible Separation Coordination

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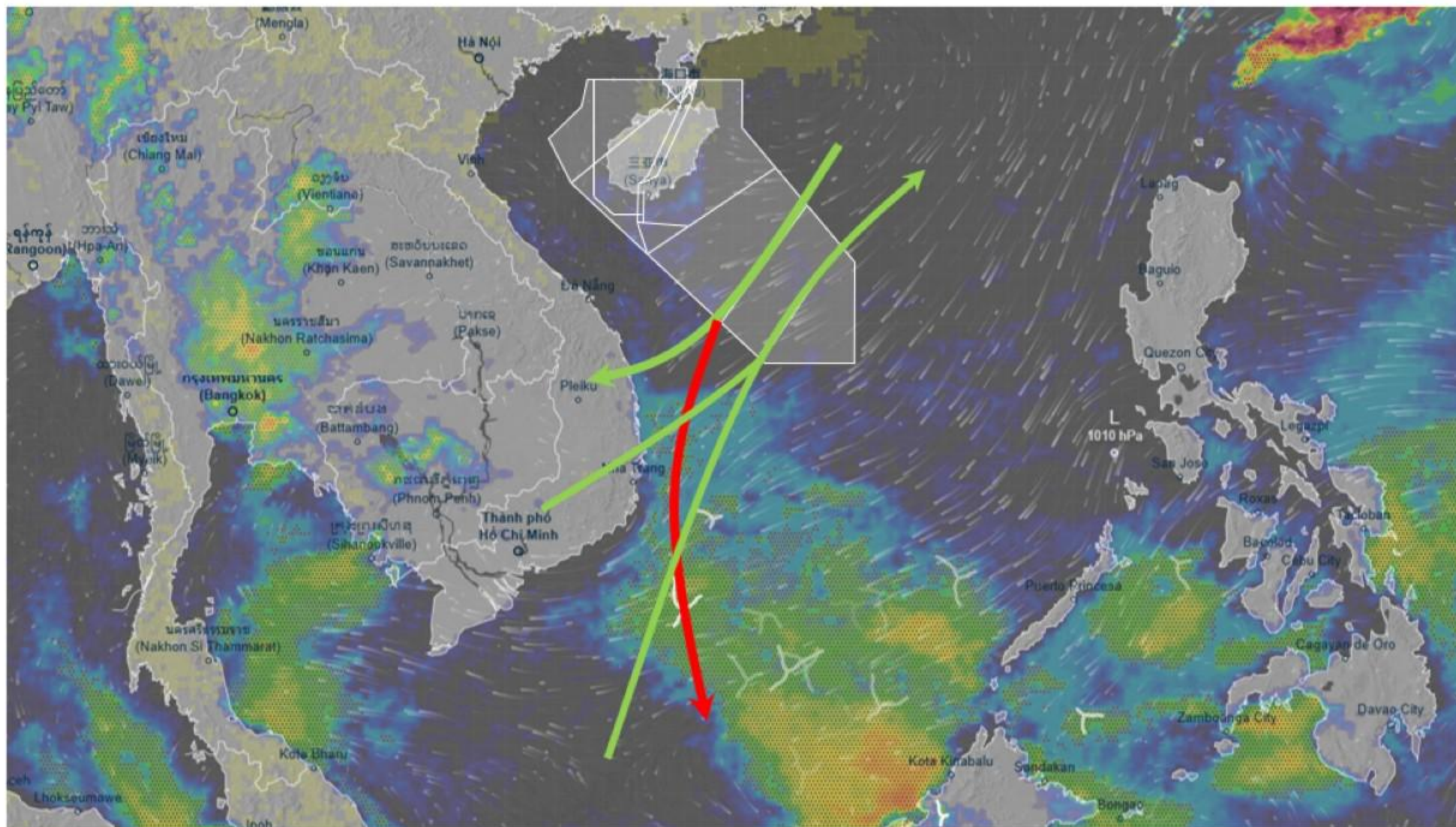
# Flexible Level Coordination (WX in HCM & Singapore FIR )



## LSWDCP

1. Same-level transfers restricted to **50 NM**
2. Available flight levels are reduced **by half**

# Flexible Level Coordination (WX in HCM & Singapore FIR )



## L642 to Vietnam

Use **Normal levels**.  
Transfer separation is applied flexibly based on **HCM FIR requirements**



## L642 to Singapore

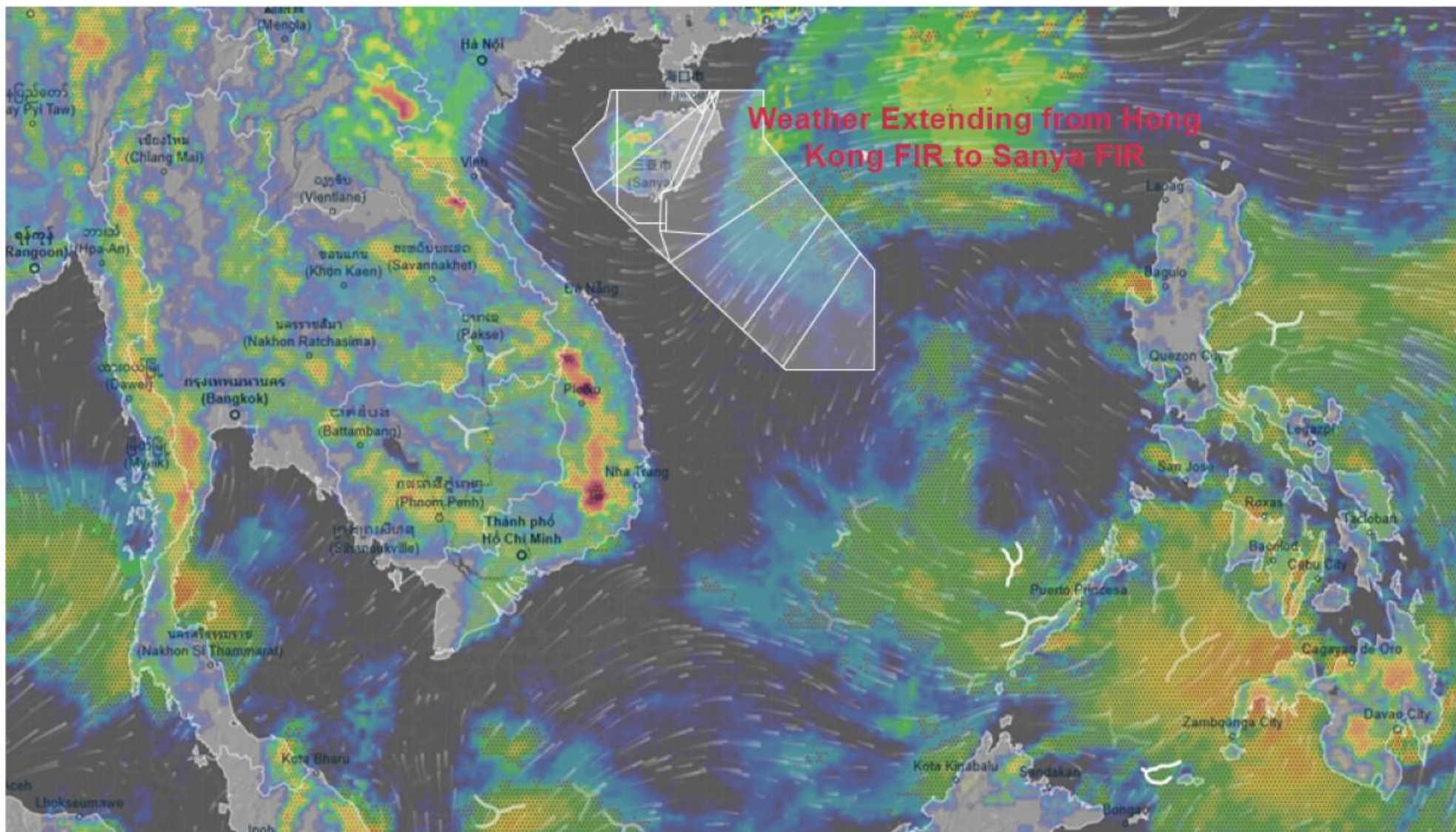
Use **LSWDCP levels**.  
Transfer separation is applied flexibly based on **HCM FIR requirements**



## M771

Use **Normal levels**.  
Through Sanya and Hong Kong sectors, with **No distance limitations**

# Flexible Level Coordination (WX in Sanya & Hongkong FIR )



## LSWDCP

1. Same-level transfers restricted to **50 NM**
2. Available flight levels are reduced **by half**



# Summary

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## Milestone Achievement

L642/M771 reduced-separation operations represent a landmark accomplishment in Asia-Pacific ATC collaboration



- 20 NM Proven Safe and Effective
- Significant Capacity Improvements
- Reduced Delays and Improved OTP
- Fuel Savings and Environmental Benefits
- Foundation for Sustainable Regional Growth

# Thanks

Presented by CHINA

