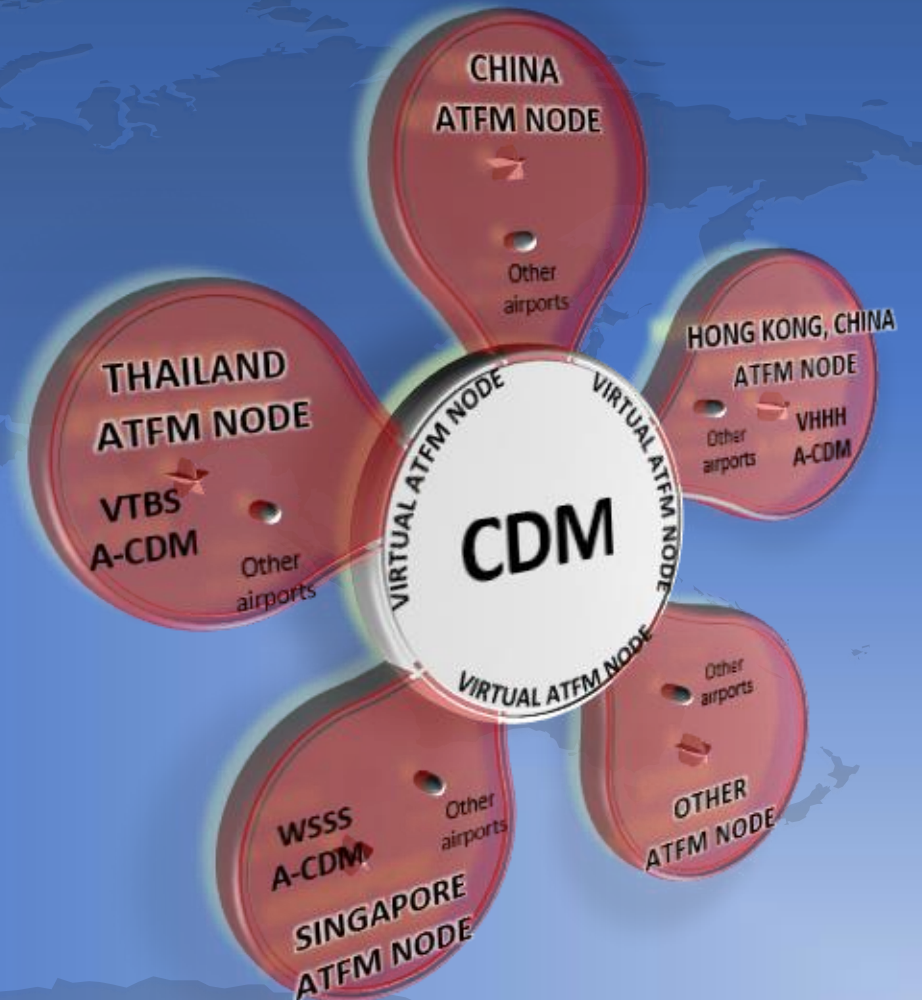
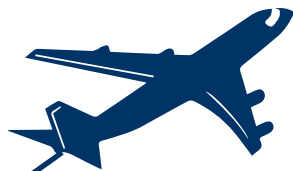


# APAC Cross-Border Multi-Nodal ATFM Collaboration (AMNAC) *Progress Update*

ATFM & A-CDM/SG/16  
6 - 10 April 2026



# Where We Are



**>2,000**

**Rounds of distributed  
ATFM measures**

**25**

**Project meetings**

**12**

**ANSPs participating in the project  
(+ CANSO & IATA Support)**

**10**

**Years since the start of  
the implementation  
(2015 – Today)**



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# Where We Are

Tiered Level	Capabilities & Participation
Level 3	<ul style="list-style-type: none"><li>▪ Able to generate, deliver, and receive CTOTs;</li><li>▪ Able to comply with CTOTs from all Level-3 ATFM Nodes</li></ul> <p><i>Participation by ANSPs of:</i></p> <ul style="list-style-type: none"><li>▪ Cambodia, China, Hong Kong China, Republic of Korea, Singapore, Thailand, Viet Nam</li></ul>
Level 2	<ul style="list-style-type: none"><li>▪ Able to comply with CTOTs from all Level-3 ATFM Nodes</li></ul> <p><i>Participation by ANSPs of:</i></p> <ul style="list-style-type: none"><li>▪ Indonesia, Malaysia, Myanmar, the Philippines</li></ul>
Level 1	<ul style="list-style-type: none"><li>▪ Observe and participate in the project progress</li></ul> <p><i>Participation by ANSPs of:</i></p> <p>Lao PDR</p>

**+ Participation from Japan as trial partner, and India as invited observers**



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# Our Recent Meetings



## AMNAC/24

10 – 13 November 2025  
Chongqing, China



## AMNAC/25

9 – 13 March 2026  
Bangkok, Thailand



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# Topics to be Covered

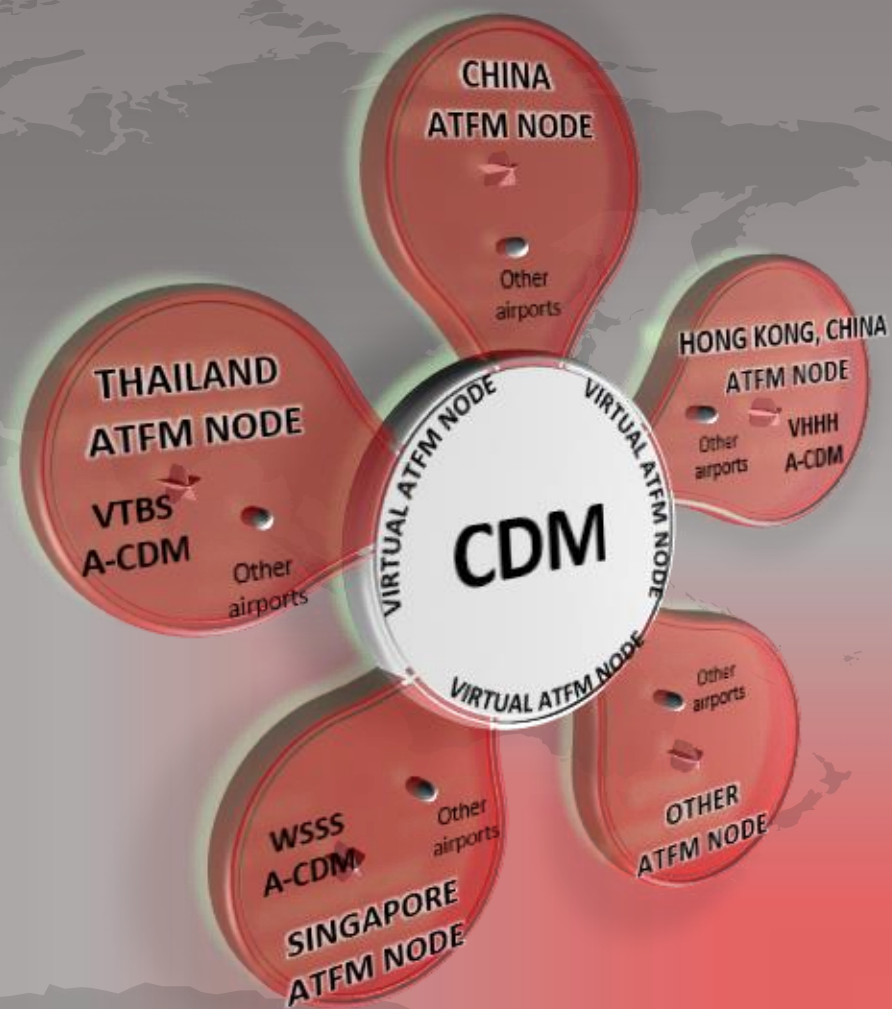
- ❖ Network Post-Operations Analysis: March 2025 – February 2026
- ❖ CTOT Compliance Performance Target
- ❖ Updates to AMNAC COP
- ❖ REGUL & REGCAUSE Nomenclature
- ❖ ADP Exchange Procedure
- ❖ ATFM-on-SWIM Trial Progress



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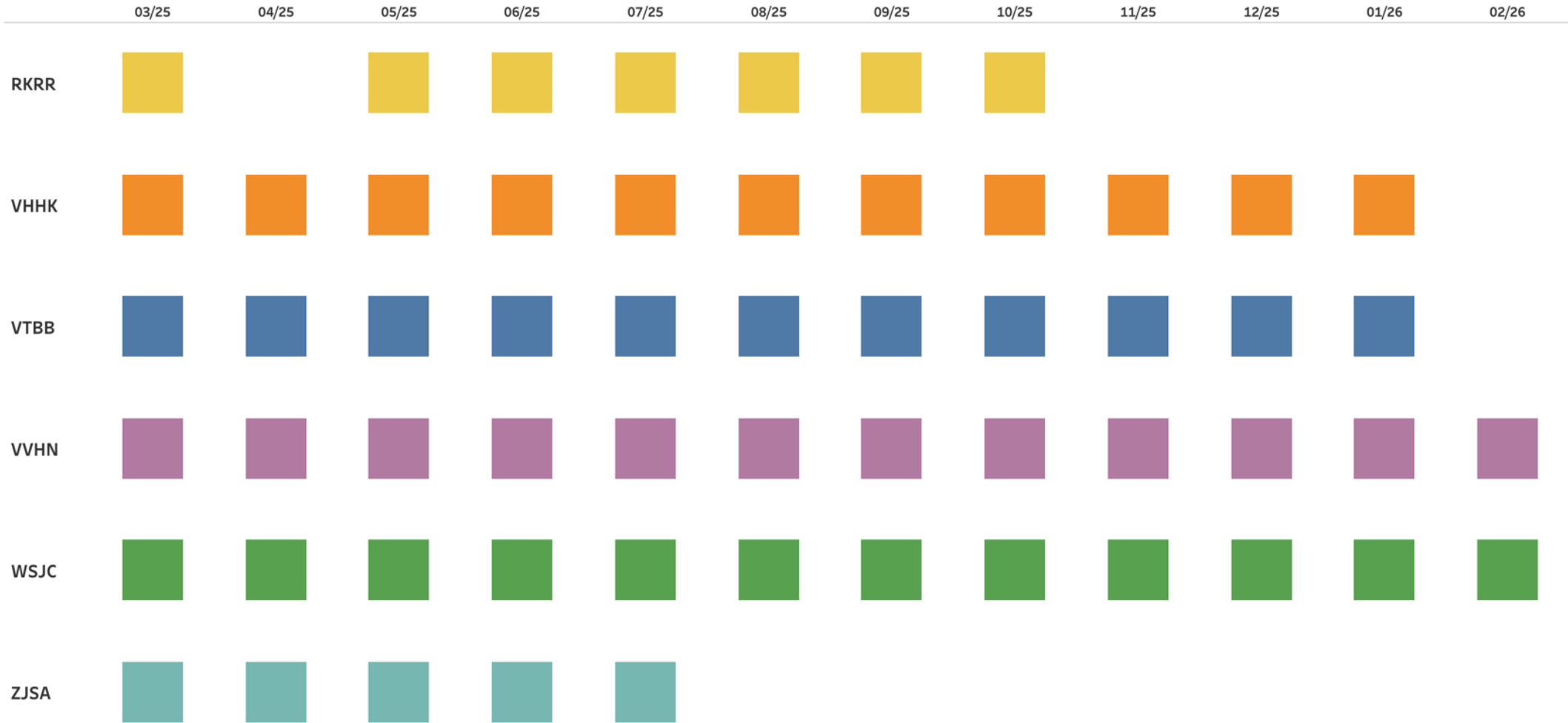
# *Network Post-Operations Analysis Mar 2025 – Feb 2026*



# Where Data Came From

Interactive Dashboard  
<https://bit.ly/amnac-poa>

This chart indicates the Nodes that have submitted the data for each month.



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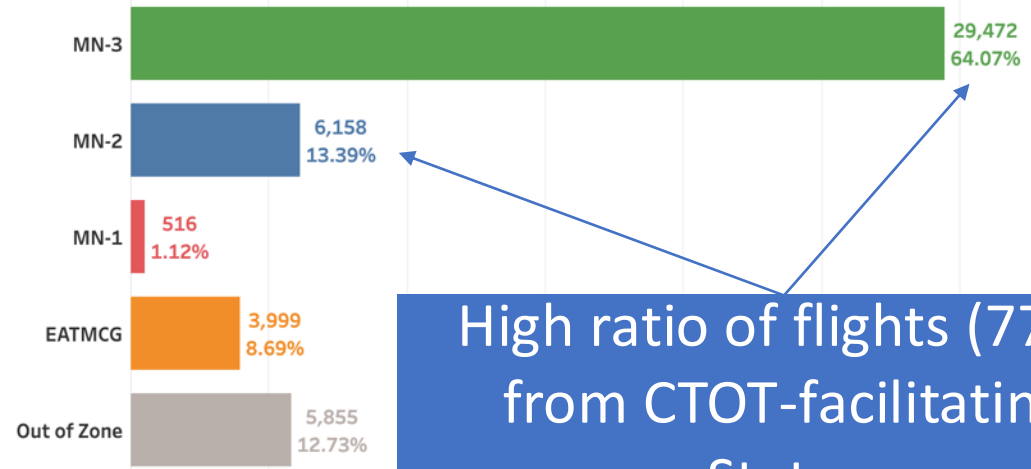


# Overall Network Impact

Interactive Dashboard  
<https://bit.ly/amnac-poa>

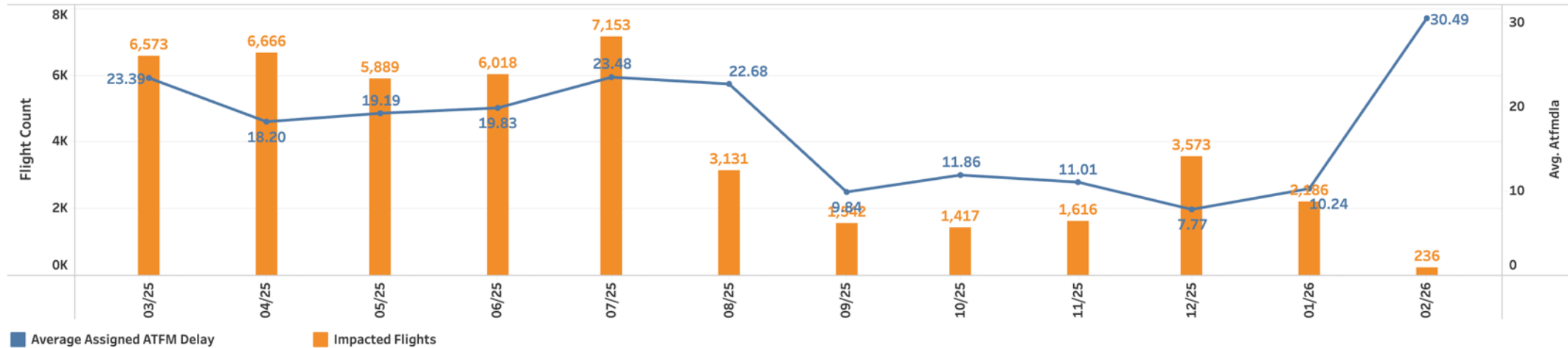
	ZJSA	VHHK	VTBB	WSJC	VVHN	RKRR
Impacted Flights	24,386	10,009	8,510	1,965	616	514
# of ATFM Days	152	117	314	50	96	23
Total Assigned ATFM Delay	565,269	157,370	70,619	24,418	21,179	14,573
Average Assigned ATFM Delay	23.18	15.72	8.30	12.43	34.38	28.35

Flight Count by ADEP Levels (Initiating ATFMU: All)



High ratio of flights (77%) from CTOT-facilitating States

Flight Count & Average ATFM Delay (Initiating ATFMU: All)



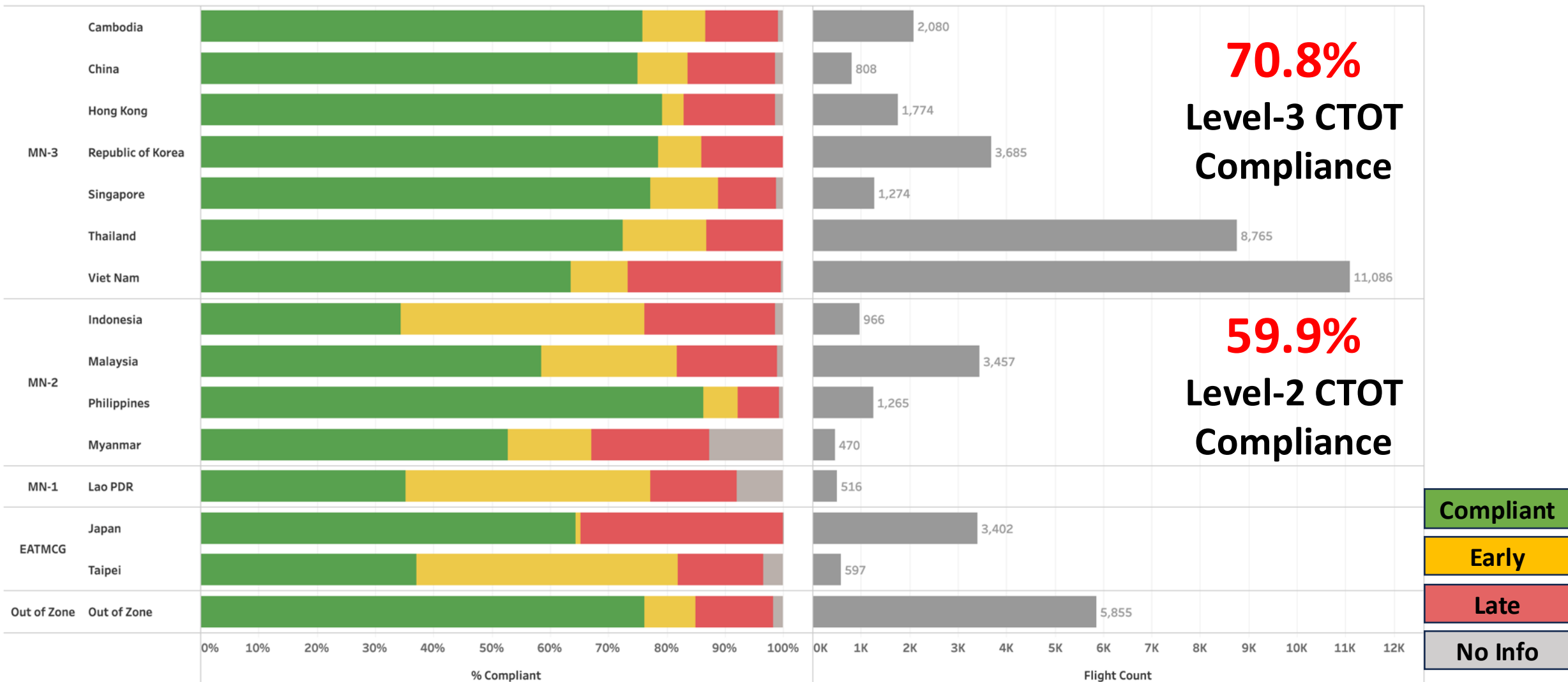
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# Compliance Assessment

Interactive Dashboard  
<https://bit.ly/amnac-poa>

Compliance by ATFM Node (with Total Flights)

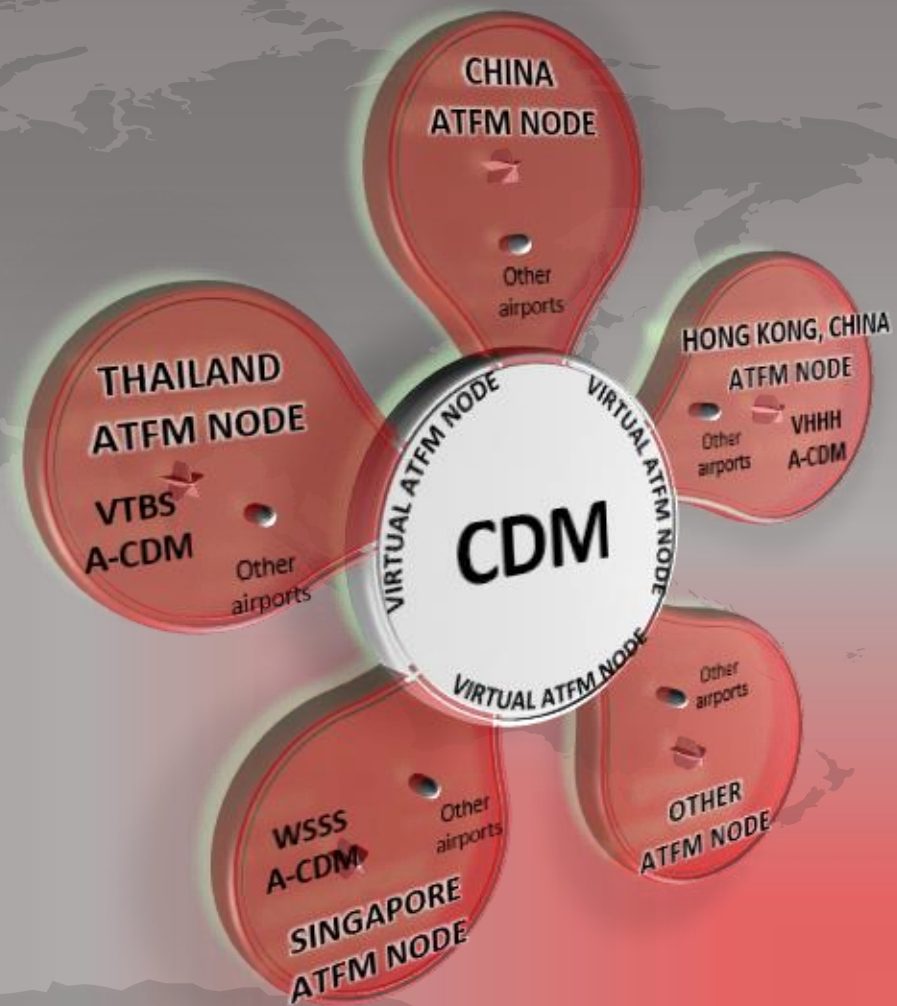


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# *Initial CTOT Compliance Performance Target*



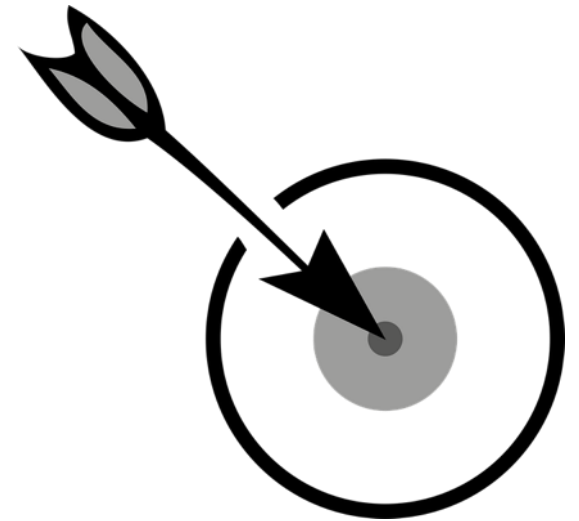
# Target CTOT Compliance Performance

*Considering...*

- European Network Target: **80%**
  - *Source: Commission Regulation (EU) No 255/2010, Article 11 (1)*
- FAA Target: **70%** ( $\pm 5$  mins window)
  - *Source: FAA Order JO 7110.65BB & 2022 Focus Five Efficiency Initiative*

**AMNAC has agreed on...**

**Target CTOT Compliance  
Performance: 80%**



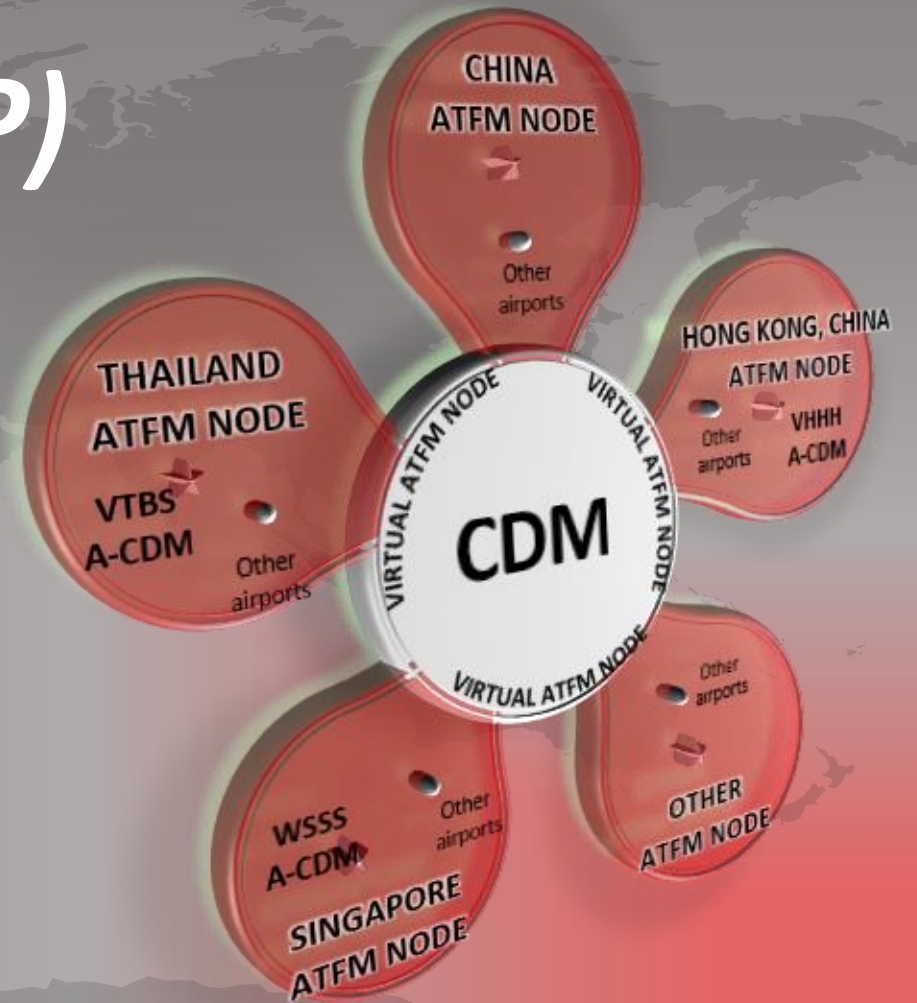
**...as a starting point for performance monitoring**



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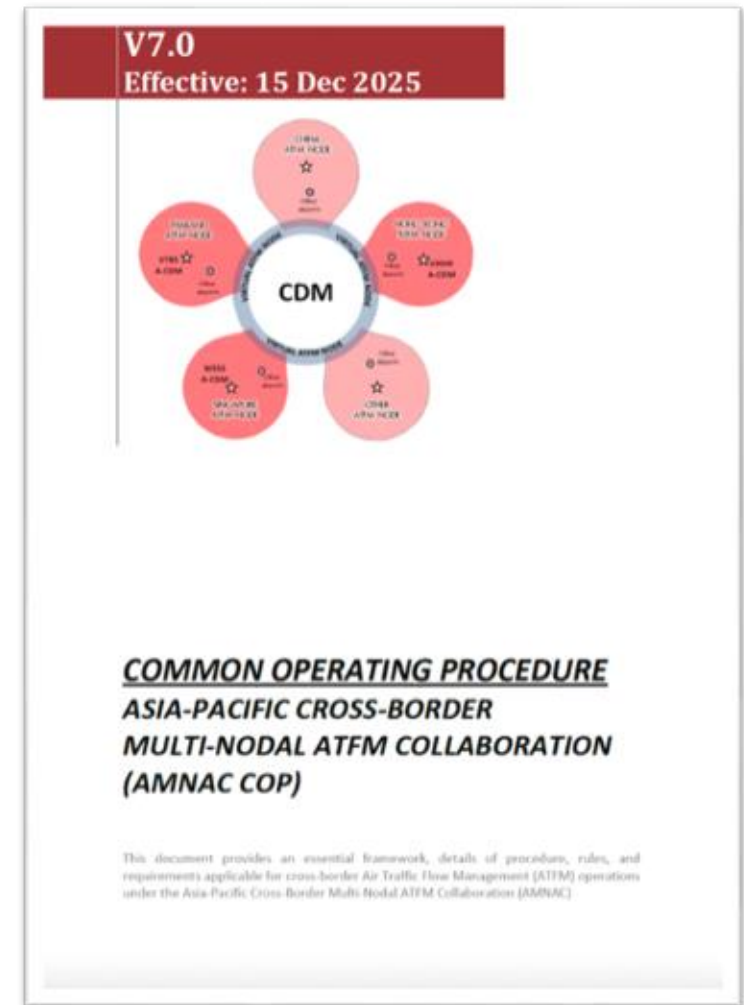
# Updates to Common Operating Procedure (COP)



# Common Operating Procedure (COP)

## Updates in “v7.0”

- Updated AMNAC contextual information
- Improved management of contact information & STT parameter (see “SID”)
- Added harmonized REGUL & REGCAUSE nomenclature for AFTN/AMHS-based ATFM messages



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# Supplementary Information Document (SID)

## Contact Information

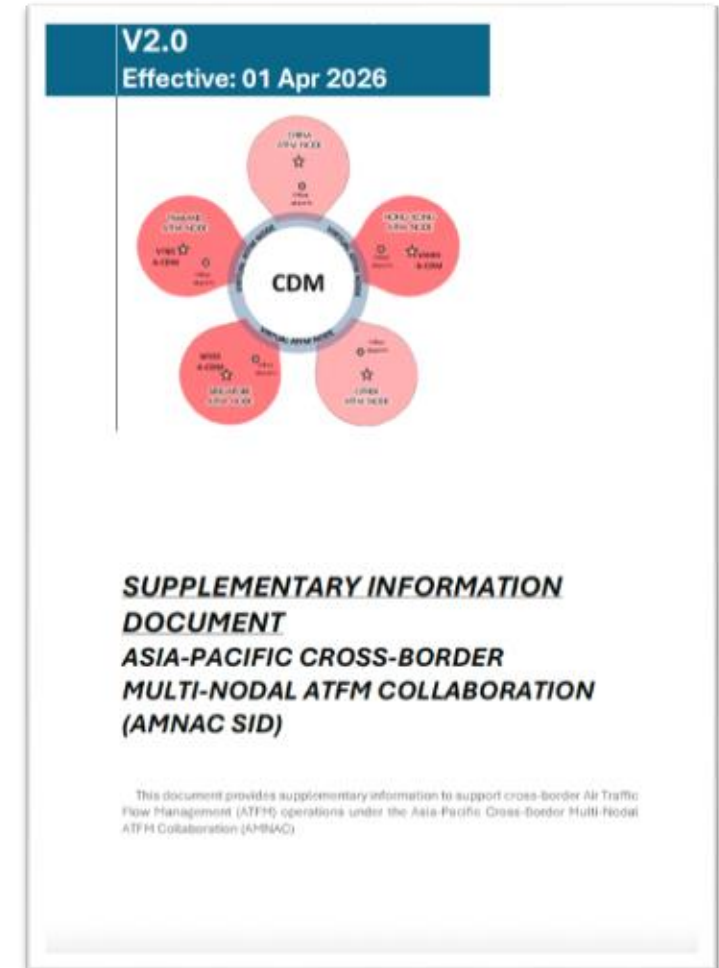
- Project POCs
- H24 Operations

## Standard Taxi-out Time (STT)

- STT provided per aerodrome
- Default STT: 20 mins

## Document Maintenance

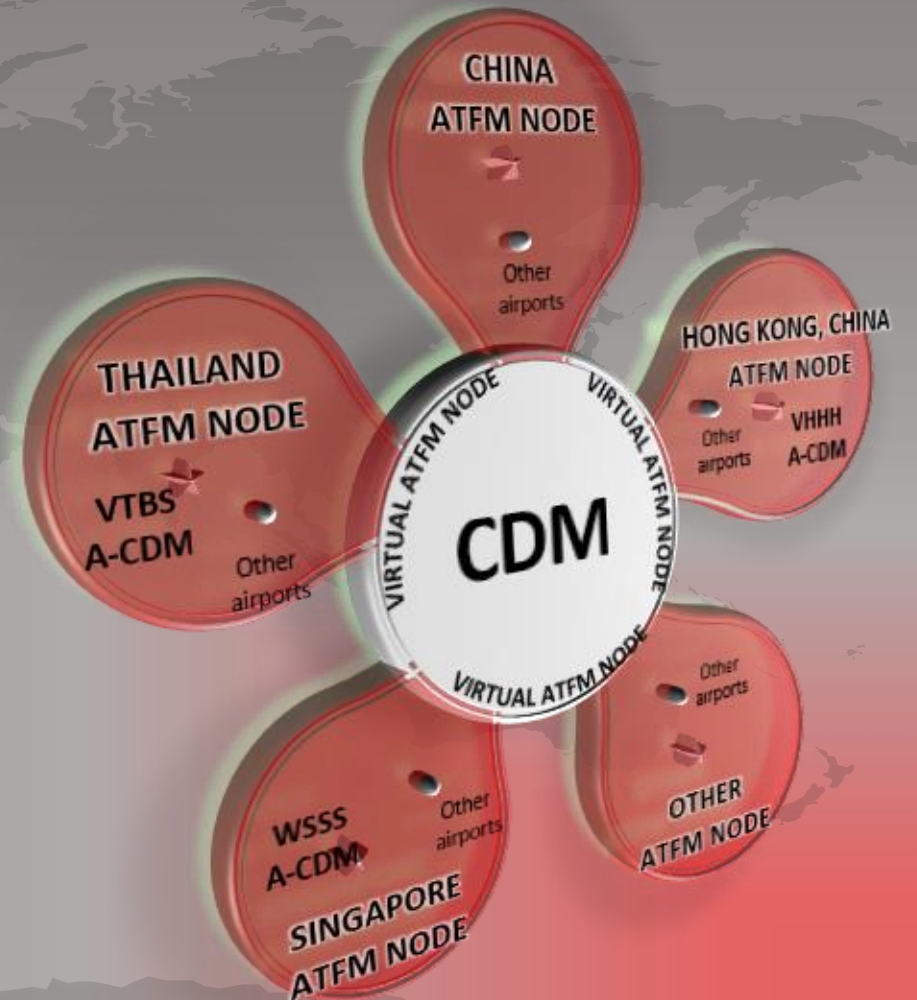
- Hosted on AMNAC MS Teams Community
- Maintained by CAAS (Singapore)



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# *Adoption of REGUL & REGCAUSE Nomenclature*



# From the AFTN/AMHS-Based ICD...

ADEXP Field Name	Message & Example	SAM	SRM	SLC
TITLE	-TITLE SAM	M	M	M
ADDR	-BEGIN ADDR -FAC LLEVZPZX -FAC LFFFZQZX -END ADDR	O	O	O
ARCID	-ARCID AMC101	M	M	M
IFPLID	-IFPLID AA12345678	O	O	O
ADEP	-ADEP EGLL	M	M	M
ADES	-ADES LMML	M	M	M
EOBD	-EOBD 160224	M	M	M
EOBT	-EOBT 0950	M	M	M
IOBD	-IOBD 160224	O	O	O
IOBT	-IOBT 0950	O	O	O
CTOT	-CTOT 1030	M		
NEWCTOT	-NEWCTOT		M	
REGUL	-REGUL RMZ24M	O	O	O
TAXITIME	-TAXITIME 0020	M	M	M
REGCAUSE	-REGCAUSE CE 81	M	M	
REASON	-REASON	O	O	O
RVR	-RVR	O	O	O
COMMENT	-COMMENT	O	O	O

Table 4: Flight data attributes associated with ADEXP message fields

## REGUL = “Regulation ID”

“...indicates the name of the ATFM Measure affecting the flight. Several REGUL fields may be present, the first one being the ATFM Measures field that controls the flight.”

## REGCAUSE = “Delay Cause”

“...provide more specific nomenclature for delay causes and [...] assist the post-flight analysis.”



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# Harmonized Nomenclatures



**-REGUL AAAACCCCCDDMMMVV**

- AAAA:** 4-char constraint airport or FIR
- CCCCC:** Max 5-char constrained location
- DDMMM:** Date and Month of ATFM measure
- VV:** 2 digits for version of the ATFM measure



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# Harmonized Nomenclatures

## Annex D: REGUL and REGCAUSE Nomenclature for AFTN/AMHS-Based ATFM Messages

### Context

This is an excerpt from the proposed amendment to the *Asia/Pacific Regional AFTN/AMHS-Based Interface Control Document (ICD) for ATFM version 2.0* which was presented to the 15<sup>th</sup> Meeting of the ICAO Asia/Pacific ATFM Steering Group (ATFM/SG/15) in April/May 2025. The proposal was to add the nomenclatures on the use of REGUL and REGCAUSE fields in the AFTN/AMHS-Based ATFM Messages to harmonize the indication of designation and reason for ATFM measures in support of enhanced post-operations analysis. The ATFM/SG/15 meeting agreed with the proposal and the proposed amendment is currently being processed for endorsement by the ICAO Asia/Pacific CNS Subgroup (CNS/SG). The nomenclatures are included here for use by the AMNAC members in the interim until the revised ICD is published.

### REGUL Field

The —REGUL field indicates the designation of the ATFM measure, including the specific location of the constraint, affecting the flight. Several —REGUL fields may be present, with the first one being the ATFM measure that controls the flight. The syntax required is:

“—REGUL” regulid

where regulid = AAAACCCCCDDMMMVV

AAAA : 4 characters to represent constrained area, i.e. airport or FIR

Example

- Airport, e.g. VTBS
- FIR, e.g. VTBB

CCCCC : Maximum 5 characters to represent specific constrained location

Example

- Sector, e.g. 3N
- Waypoint, e.g. BERSA

Note: This CCCCC field can be omitted if it is not applicable.

DDMM : 5 characters to represent date and month when the ATFM measure is effective

Example

- 27MAR

VV : 2 digits to represent version of the designation of the ATFM measure

Example

- 03

## -REGCAUSE XY AB

**X:** 1-char ATFM measure cause code  
(C, I, R, S, ...)

**Y:** 1-char ATFM measure location  
(D, E, A)

**AB:** 2-digit IATA delay code  
(81, 82, 83, ...)



# Progress of ICD Update at ICAO APAC

## ATM/SG/13 Note

5.25 The Meeting noted the *Draft Conclusion ATFM/SG/15-2* regarding adoption of AFTN/AMHS based Interface Control Document (ICD) Version 2.0 for collaborative ATFM. The Meeting was informed that ICAO Secretariat would submit the draft conclusion to Aeronautical Communication Services Implementation Coordination Group (ACSICG) in 2026, for consideration and subsequent approval by CNS SG.

## ATFM/SG/15 Draft Conclusion

<b>Draft Conclusion ATFM/SG/15-2: Adoption of AFTN/AMHS-based Interface Control Document (ICD) to the Asia/Pacific Regional Framework for Collaborative ATFM</b>	
<p><b>What:</b> That, the revised AFTN/AMHS-based Interface Control Document at Appendix D to the Meeting Report be uploaded to the Asia/Pacific Regional Office website, to replace the existing version, for use by Asia/Pacific States/Administrations in implementing cross-border ATFM communications in accordance with the provision of the Regional Framework for Collaborative ATFM.</p>	<p><b>Expected impact:</b></p> <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
<p><b>Why:</b> To enhance ATFM post-operations analysis and to improve regional interoperability by broadening the technical applicability of the ICD to conform with system requirements of all Asia/Pacific States/Administrations</p>	<p><b>Follow-up:</b> <input type="checkbox"/> Required from States</p>
<p><b>When:</b> 29-Aug-25</p>	<p><b>Status:</b> Draft to be adopted by Subgroup</p>
<p><b>Who:</b> <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: CNS SG/29</p>	

➤ Delayed adoption of harmonized nomenclature into AFTN/AMHS-Based ICD into **2026**

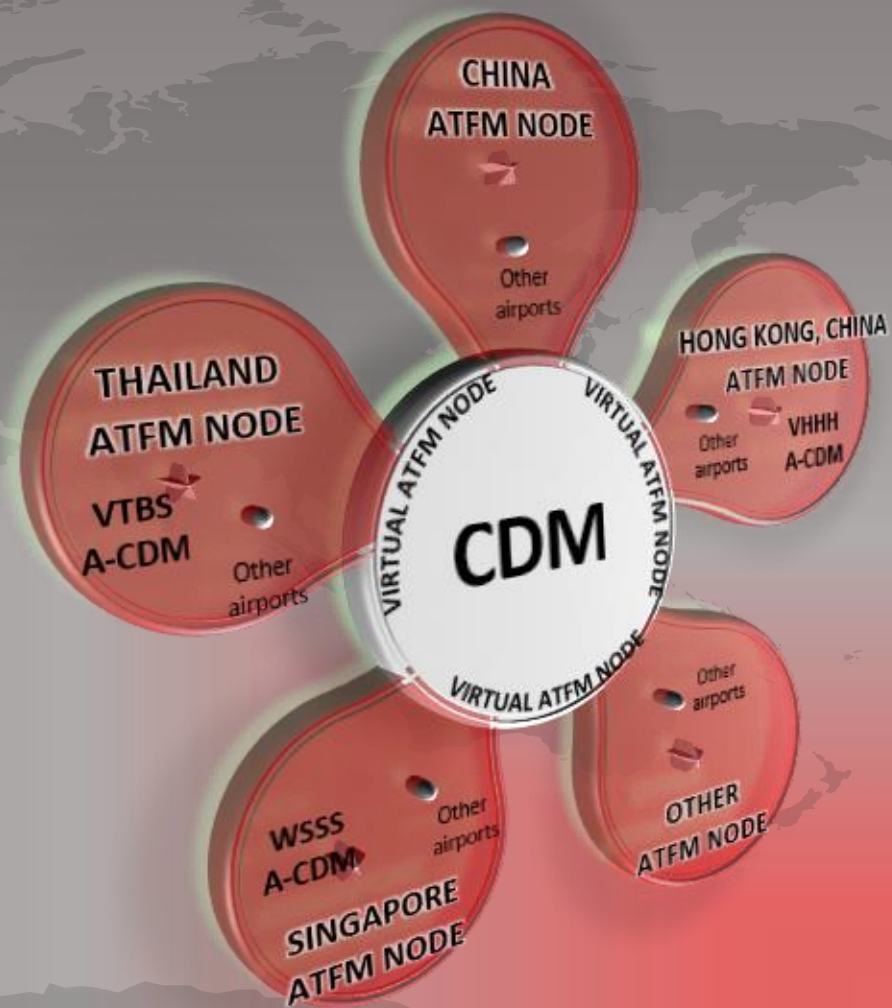
**Include in COP v7.0 first**  
 **Wait for APAC ICD update**



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# *Adoption of ADP Exchange Procedure*



# Revised ADP Template

- Harmonized use of data fields
- Added clarity on field definition
- Current distribution procedure retained
- Support further development of XML-based model for SWIM-based “digital” ADP exchange
- **Ref: AMNAC COP v7.0, Annex B**

➤ **To propose revision to APAC ADP Exchange Procedure**



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## Annex B: ATFM Daily Plan (ADP) Template

E-MAIL SUBJECT & FILE NAME: ADP\_VTBB\_20241015\_1

ORIGINATOR	ICAO 4 LETTER CODE [E.G. VTBB]
DATE / TIME OF ISSUANCE	DD MMM YYYY / HHMM UTC [E.G. 14 OCT 2024 / 0800 UTC]
VERSION	1

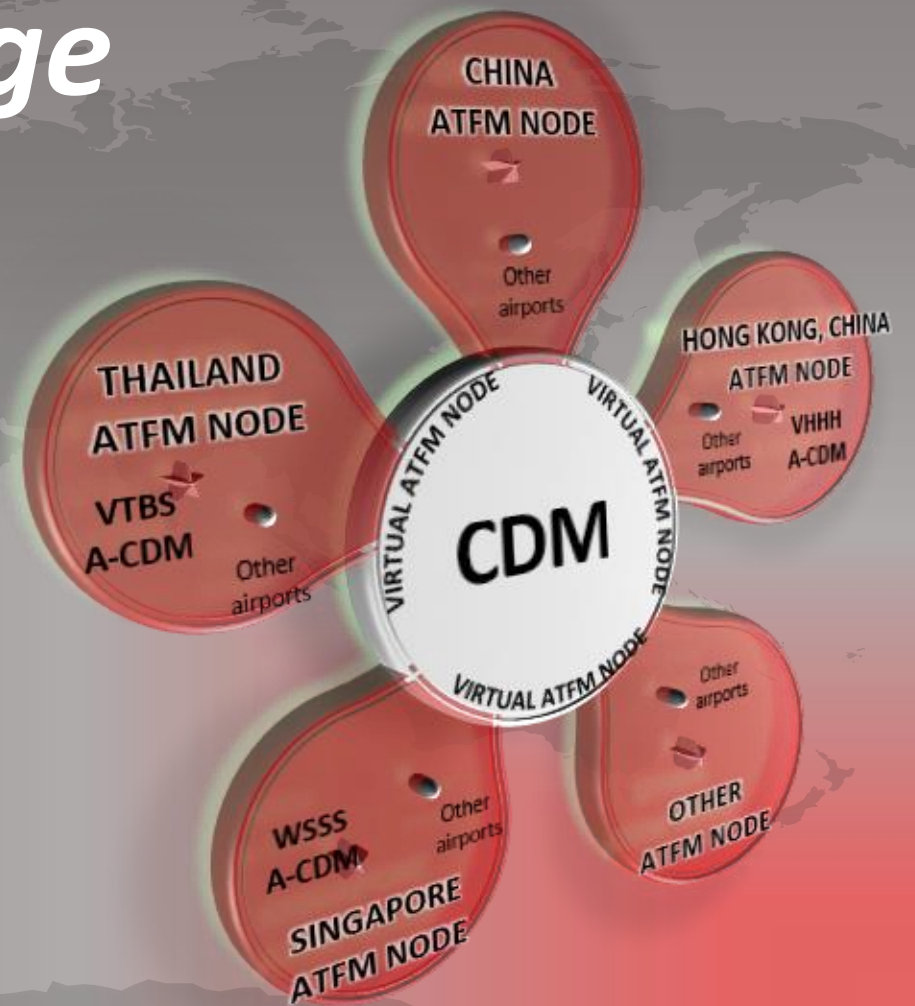
CONSTRAINTS AND IMPACT				
LOCATION	APPLICABLE PERIOD (UTC)		DESCRIPTION	CAPACITY IMPACT
	START	END		
AD or FIR ICAO 4 LETTER CODE	DD MMM YYYY HHMM	DD MMM YYYY HHMM	[FREE TEXT]	[FREE TEXT]
VTBS	14 OCT 2024 2300	15 OCT 2024 1100	TFC CONGESTION	AAR = 32
VTBB SECTOR 1S	15 OCT 2024 0200	15 OCT 2024 1100	TFC CONGESTION	(Nil)

ATFM MEASURE			
LOCATION	APPLICABLE PERIOD (UTC)		DESCRIPTION
	START	END	
AD or FIR ICAO 4 LETTER CODE	DD MMM YYYY HHMM	DD MMM YYYY HHMM	[FREE TEXT]
VTBS	14 OCT 2024 2300	15 OCT 2024 1100	GDP FOR FLT DEST VTBS
VTBB SECTOR 1S	15 OCT 2024 0200	15 OCT 2024 1100	GDP FOR FLT INTO 1S DEST VTBD, VTBS, VTBU DURING CONGESTION (FLOW RATE: MINIT = 4)

OTHER INFORMATION
Bangkok ATFMU Contact Information E-Mail: <a href="mailto:atfmu@bobcat.aero">atfmu@bobcat.aero</a> Phone: +66 2287 8024 / +66 2287 8025 CTOT View Page: <a href="https://atfm.aerOTHai.aero">https://atfm.aerOTHai.aero</a>



# *Progress Update on the Trial of ATFM Info Exchange via SWIM*



# ATFM Info Exchange via SWIM

- **APAC Regional FIXM v4.3 Extension**, previously approved by SWIM TF/10 (May 2025) and adopted by CNS SG/29 (Jun 2025), was **endorsed by APANPIRG/36 in November 2025**. It is now **published on ICAO APAC e-Documents website** and submitted to FIXM Change Control Board for review.
- The exchange of cross-border ATFM FIXM messages via SWIM shall focus on three primary data types
  - **Calculated Take-Off Time (CTOT),**
  - **Calculated Time Over (CTO), and**
  - **Target Take-Off Time (TTOT)**
- These data will be exchanged via SWIM, using the agreed message templates containing the identified mandatory and optional data fields.

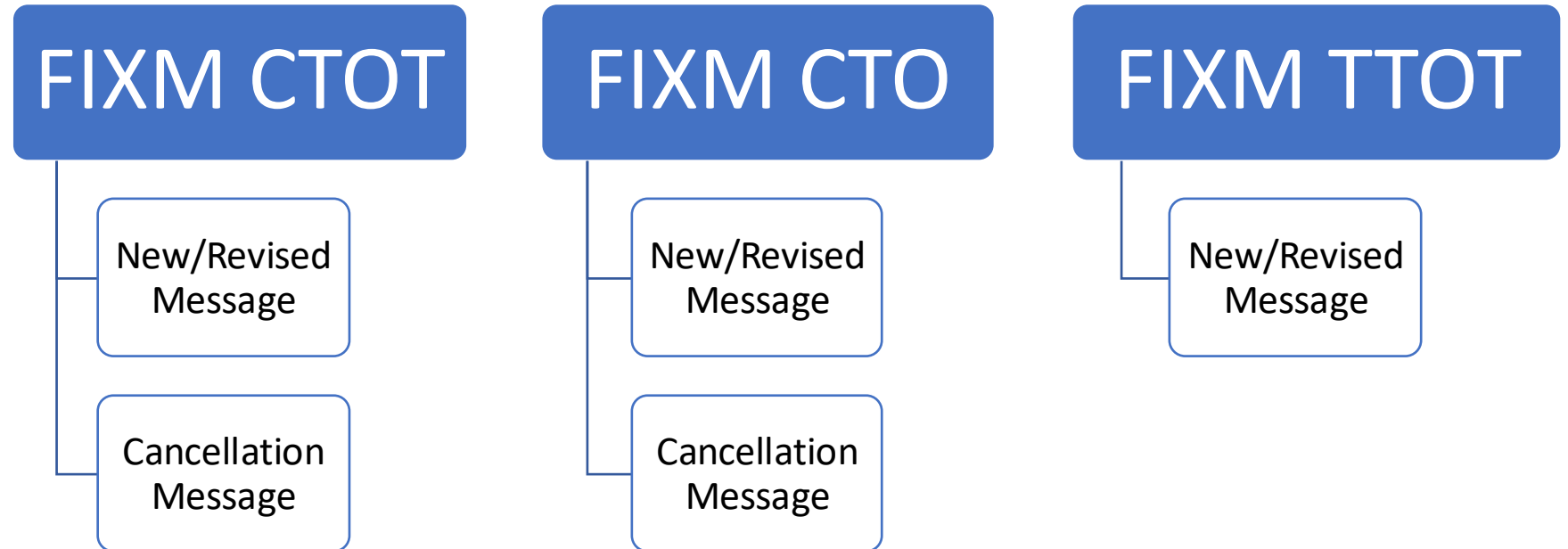


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# ATFM FIXM v4.3 Message Templates

- Agreed message headers for the 5 ATFM FIXM messages are
  - “FIXM\_CTOT\_ALLOCATION”,
  - “FIXM\_CTOT\_CANCELLATION”,
  - “FIXM\_CTO\_ALLOCATION”,
  - “FIXM\_CTO\_CANCELLATION”, and
  - “FIXM\_TTOT\_ALLOCATION”



# ATFM FIXM Message Types

Data Field	Core/Ext	FIXM CTOT Allocation	FIXM CTOT Cancellation	FIXM CTO Allocation	FIXM CTO Cancellation	FIXM TTOT Allocation
Message Header	AMQP	ATFM_CTOT_ALLOCATION	ATFM_CTOT_CANCELLATION	ATFM_CTO_ALLOCATION	ATFM_CTO_CANCELLATION	ACDM_TTOT_ALLOCATION
GUFI	Core	Optional (FIXM/ eFPL)	Optional (FIXM/ eFPL)	Optional (FIXM/ eFPL)	Optional (FIXM/ eFPL)	Optional (FIXM/ eFPL)
ACID	Core	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
ADEP	Core	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
ADES	Core	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
EOBD	Core	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
EOBT	Core	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory
CTOT	Core	Mandatory				
CTO	Core			Mandatory		
Flight Level	Core			Optional		
TaxiTime	Ext	Mandatory		Optional		
REGCAUSE	Ext	Mandatory		Mandatory		
REGUL	Ext	Optional		Optional		
REASON	Ext	Optional		Optional		
COMMENT	Ext	Optional		Optional		
TIBT	Ext					Optional
TOBT	Ext					Optional
TSAT	Ext					Optional
TTOT	Ext					Mandatory



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# ATFM Info Exchange Trial Schedule

## (COMPLETED) Determine of mandatory fields

- Discussion with various ANSPs to agree on data to be exchanged, data fields types (mandatory, optional), message types, mapping of data, etc.

## (COMPLETED) Develop FIXM v4.3 message templates

- Creation of message templates and sample messages for offline verification and validation

## (NOT STARTED) Develop non-ops message test

- Develop messages and conduct online message exchange test via SWIM
- Target 8 May 2026

## (NOT STARTED) Non-ops system test

- Implement the changes into ATFM System (non-ops environment) to trial with other ANSPs (ATFM-to-ATFM system test)
- Target week of 7 Sept 2026, backup on week of 16 Nov 2026



# Action by the Meeting

- a. Note the information contained in this paper
- b. Discuss CTOT compliance performance target and its potential as a region-wide target**
- c. Consider the adoption of harmonized REGUL and REGCAUSE nomenclatures, pending the adoption of revised ICD**
- d. Note the progress of the trial of ATFM information exchange via SWIM**
- e. Discuss any relevant matters as appropriate



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*Thank You!*

