airservices australia

Airport Collaborative Decision Making (A-CDM) Implementation in Australia

OVERVIEW

2026

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Purpose: An introductory pack providing an overview of the A-CDM Program in Australia.

Key Topics

1. Airport Collaborative Decision Making (A-CDM) in Australia

Airservices, airlines and airports working together to optimise airport operations & air traffic predictability.

- Airservices, in **partnership with our major airline and airport customers, have implemented** Airport Collaborative Decision Making (A-CDM) into Australia's four major airports – Brisbane, Perth, Sydney, and Melbourne.
- We completed a staged roll out of A-CDM starting in Brisbane then Perth before moving to the complexities of Sydney and then Melbourne.
- Each location had its own unique challenges
- A-CDM in Australia is enabled through the **A-CDM Aerobahn** suite of tools provided by Saab Sensis.

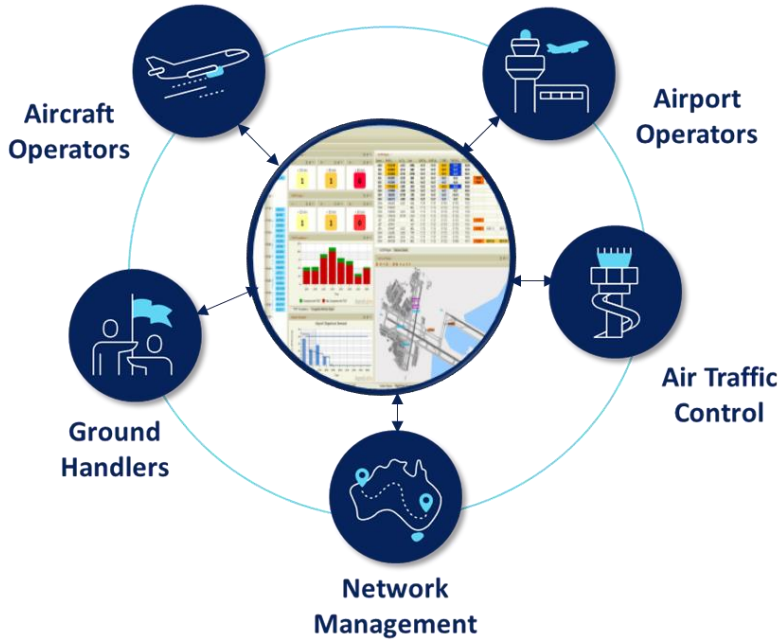
A-CDM PARTNERS

2. Why an ANSP driven integrated A-CDM

A-CDM is a joint industry initiative with airport, airline partners and Airservices to improve airport operations.

KEY OBJECTIVES

- To improve predictability
- To improve on-time performance
- To optimise use of resources
- To optimise the use of airport infrastructure
- To improve Air Traffic Flow Management (ATFM) compliance
- To reduce taxi-out times
- To reduce recovery time from adverse events
- To improve network management



"Airports, Aircraft Operators and Airservices Australia collaborating through real-time data sharing to optimise airport operations."

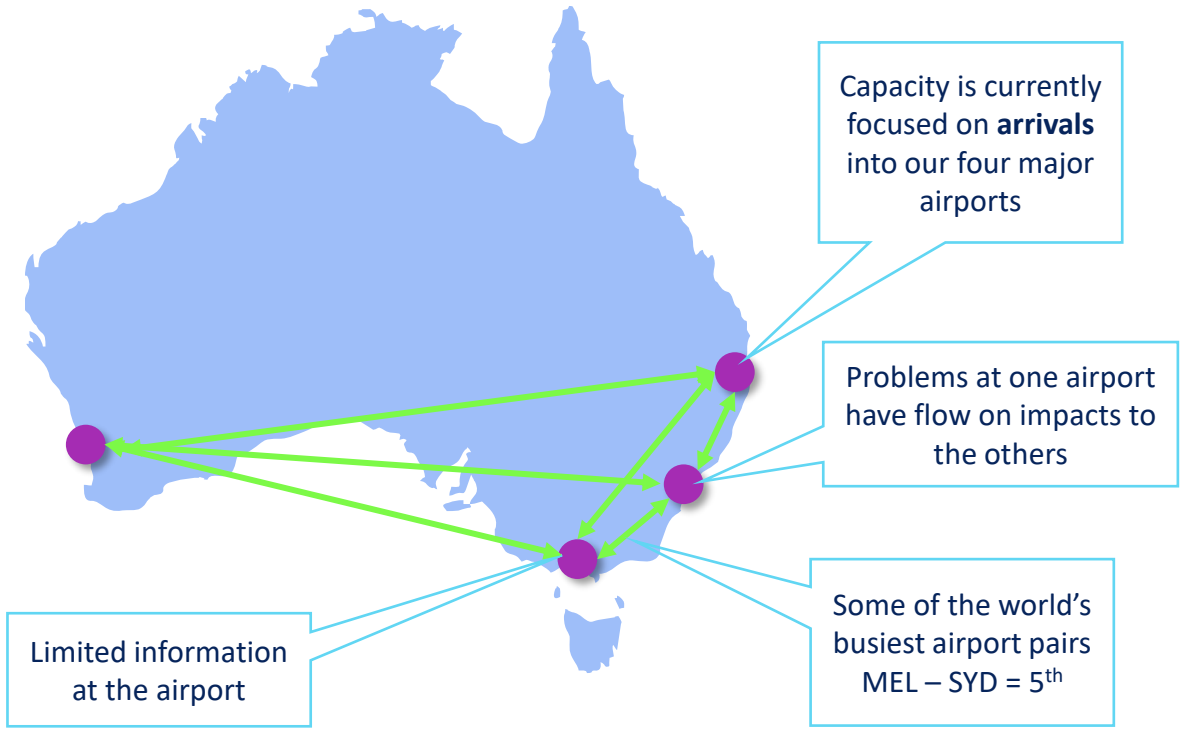
3. Benefits of an integrated A-CDM

A-CDM delivers significant benefits and outcomes for individual operators and the industry overall.

Situational Awareness	Operational Efficiency	Asset & Resource Utilisation	Customer Experience	Cost Savings	Environmental Benefits
					
Common, real-time situational awareness of local / network pain points	Optimising the push-back sequence to reduce taxi-out times, improved ATFM compliance and network management	Better utilisation and unlocking of latent airspace, runway and gate capacity	Improved on time performance, customer experience, predictability and recovery from adverse events	Cost savings by reduced inefficiencies and improved operational predictability	Lowered CO2 emissions through reduced taxi time and fuel burn

Network Benefits delivered by A-CDM

A-CDM optimises and unlocks runway and gate capacity and enables situational awareness across the network.



OUR UNIQUE NETWORK ENVIRONMENT

A-CDM becomes a new control lever to optimise whole of network performance by:

- Providing real time information at each major airport
- Reducing taxi delays through optimised departure sequencing
- Enabling more sophisticated departure management capability improving enroute flow
- Improving ATFM compliance as the departure sequence takes into account CTOTs
- Improving recovery from adverse events reducing the flow on impact at the other airports
- Providing strategic awareness of what's happening and what's coming across the whole network through the NOMC

A-CDM improving recovery

ADVERSE CONDITIONS – real time information & departure sequencing to improve recovery

- Leading into adverse conditions, the current CDM focus is on managing arrival demand through adjusting airport arrival acceptance rates and associated GDP revisions without considering the impact of departure demand.
- This impacts recovery with large departure delays occurring as arrival demand has been prioritised with flow on impact to arrival flows at the destination airport.
- The impact of an adverse event at one airport, may therefore ripple unpredictably throughout the network and lengthen the time it takes for all stakeholders to recover.
- With A-CDM, real-time operational information is shared between all airport stakeholders. Combined with pre-departure sequencing, A-CDM provides improved visibility of real-time arrival and departure demand throughout the network. It also enables CDM to include considerations of arrival and departure balancing, to ensure a smoother recovery from an adverse event, and mitigate the impact on the remainder of the network.

4. So how did we go?

Successful deployment but with some teething issues…

2 Perth Airport:
- Reduced timeframe for go live presented challenges for some airline partners due to system integration
- Low Visibility Operations on day 2 of operations tested the system and our ability to use it effectively which highlighted some knowledge gaps for some smaller operators and some pressure points in the network

1 Brisbane Airport:
- Implementation delays experienced due to TC Alfred
- Following go-live some integration issues between INTAS Tower system and A-CDM needed resolution
- Airlines required additional support to integrate into day of operations

4 Melbourne Airport:
- Delayed go live as a result of the Sydney rollout issues
- Bay conflict alert was not working correctly and needed software upgrade to rectify
- Tolerance for surveillance correlation for movement needed adjustment for performance

3 Sydney Airport:
- Uses a standalone system instead of an integrates tower system
- Shortened timeframe for delivery compromised testing and training
- System stability and lag on the interface tablet took significant time to resolve
- Complexity of operators and airport configuration was challenging
- Procedures were paused following go live for approx. 1 month while interface and system issues were resolved

So how did we go?

What overall issues are we managing and resolving

Top 5 focus areas

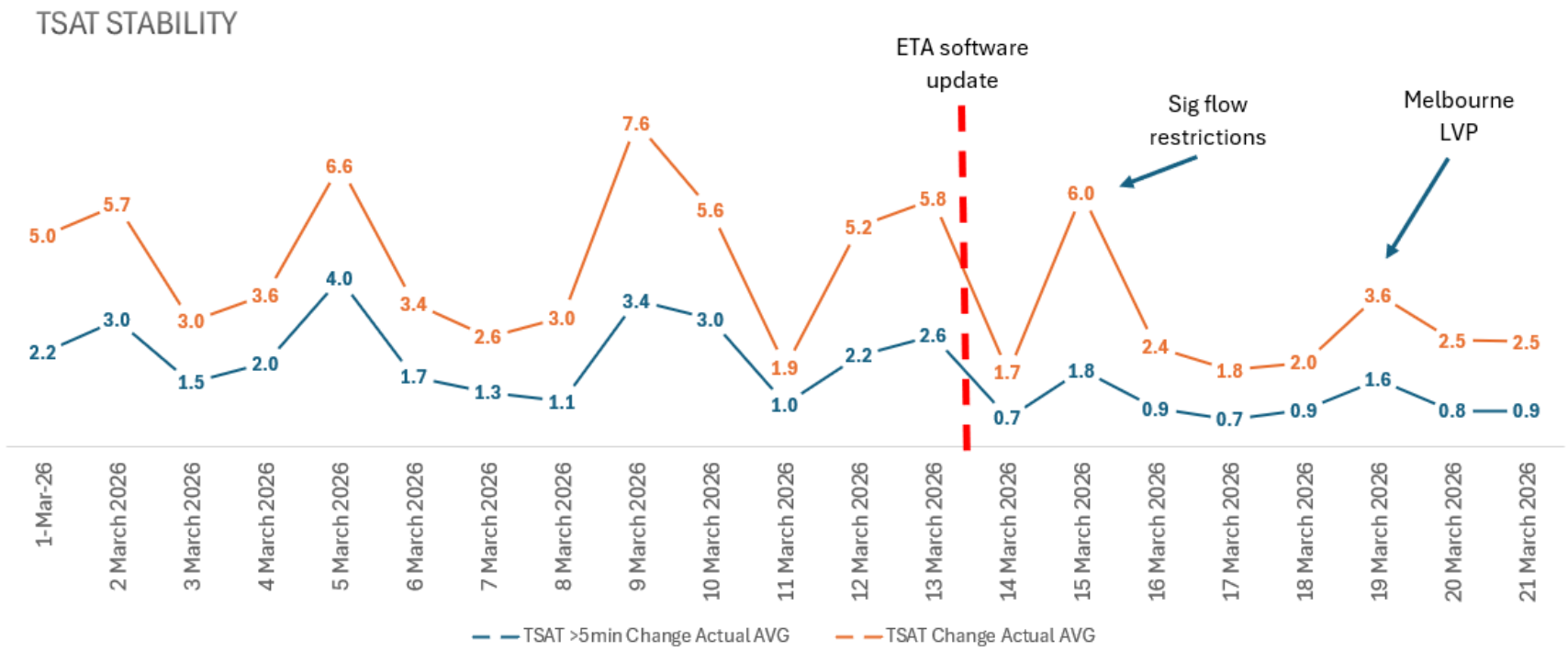
1. **TSAT stability:** TSAT stability, particularly in Sydney has been an ongoing and, at times, significant instability
2. **Surveillance Jitter**: A-CDM relies on inputs including ASMGCS & ADSB. Coverage issues are impacting approx. 30% of 1 partners fleet movement at Sydney
3. **Software updates**: initially missing governance on software upgrades while we worked to improve the system rapidly
4. **Data quality:** The system that supports our integrated data pool has been subject to data drops and erroneous data being populated into the PDS
5. **Data priority:** Within the SAAB gateway Eurocat, Maestro and Harmony ETAs were treated with the same priority leading the TSAT instability

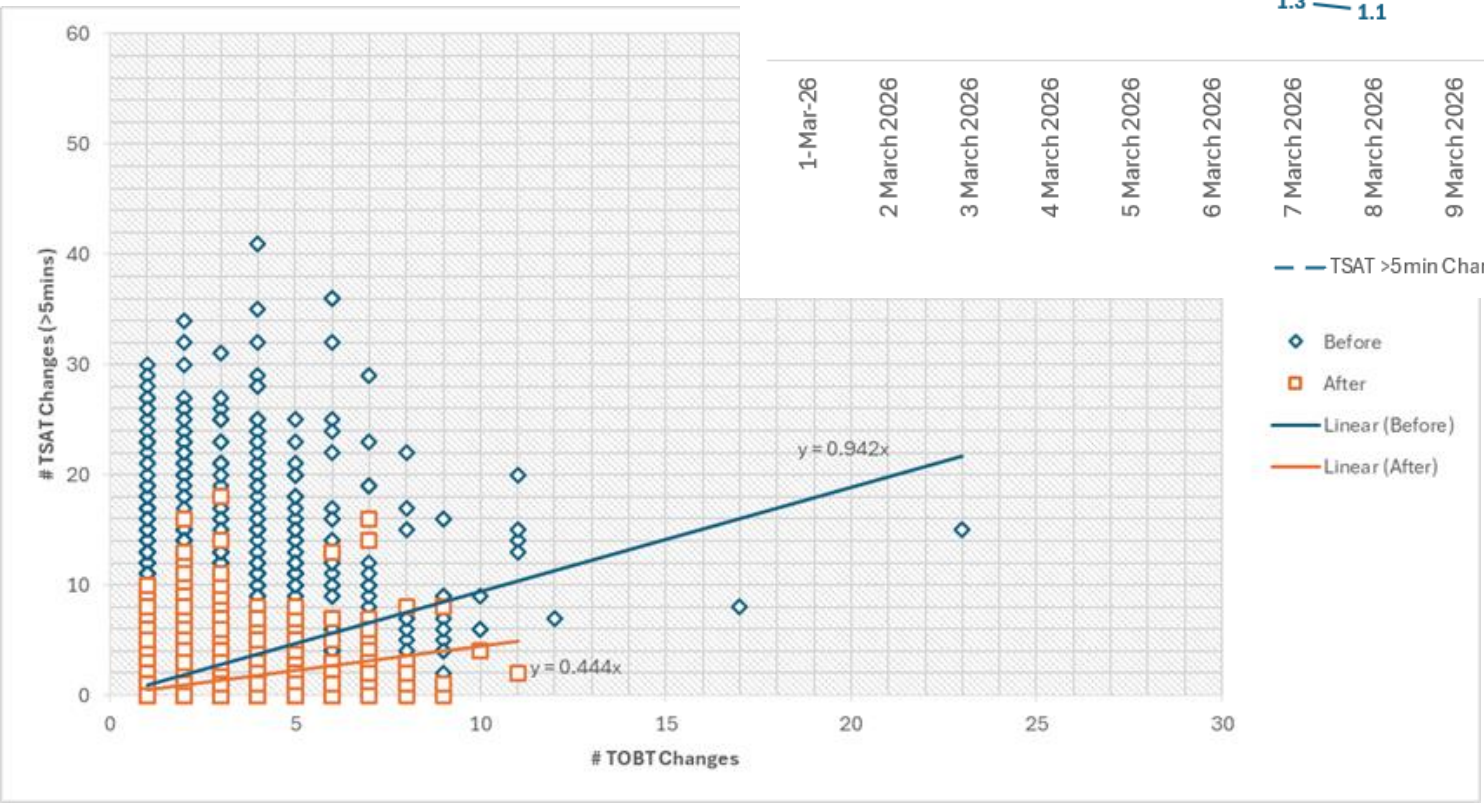
5. A-CDM Performance

TSAT Stability

TSAT Stability has been a key focus with a multistep action plan in place.

Since last update +35% more stable.

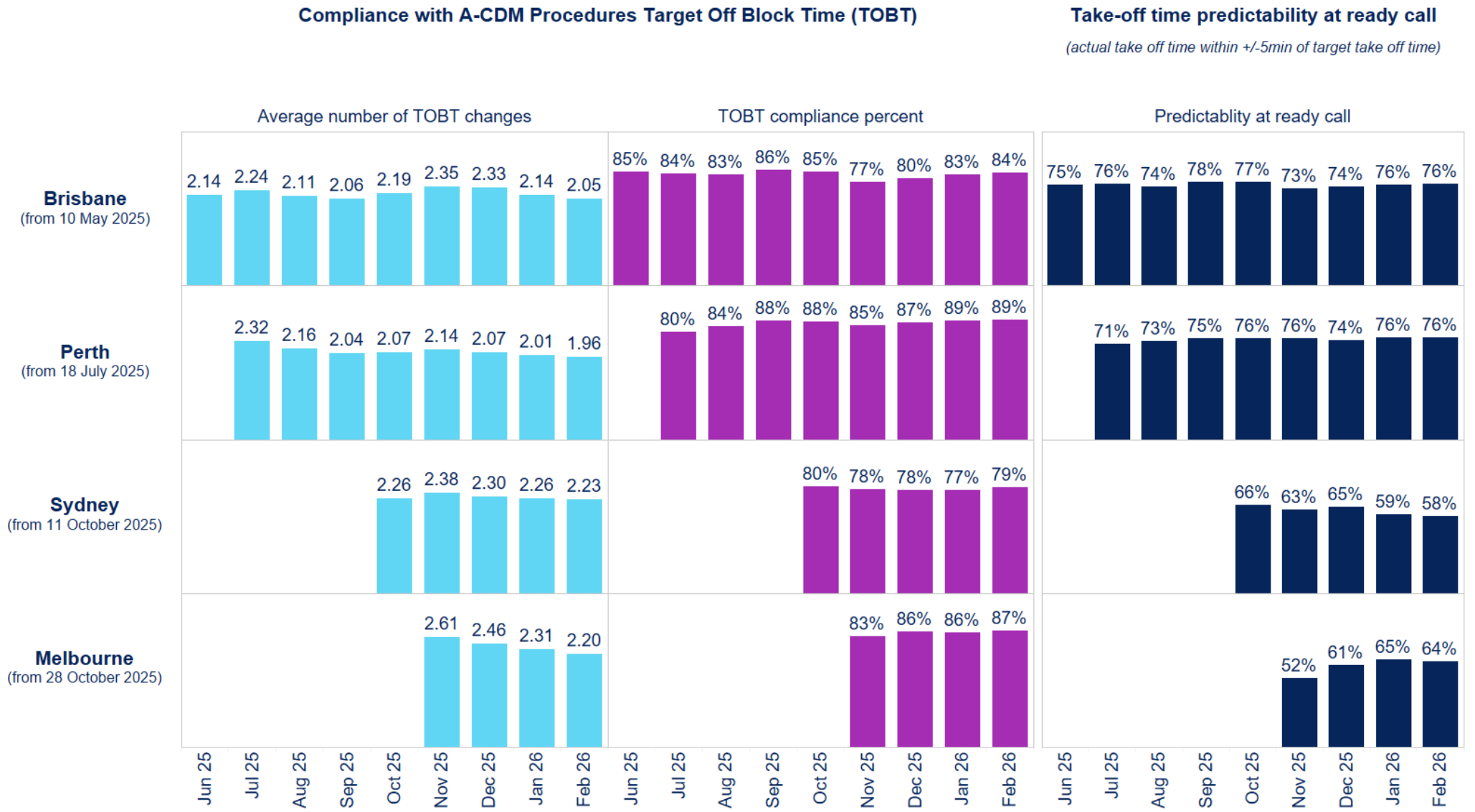




Graph shows TSATs are now twice as likely to change due to a TOBT change since the change, i.e. operator TOBT behaviour is becoming a more prominent driver of TSAT stability as we tackle the other issues

A-CDM Performance

TOBT



Building data and measuring performance

Proposed KPIs

We are working with partners to develop reports and KPI's to help drive improved performance of the system and the overall network for all participants.

Examples include:

Report Name	Performance Driver	Performance Indicator	Performance Measurement	Milestone Measurement	Report Frequency	Status
TOBT quality	To improve TOBT reliability	• No. of TOBT changes • TOBT compliance	• ARDT – TOBT > or = 5 mins • Average # of TOBTs per flight • No. of flights with lost TOBT • No. of flights call within TOBT window • No. of flight call early prior to TOBT • No. of flights call late	Milestone 9 (TOBT) – 30 mins	Daily (transition) / monthly (BAU)	Implemented
Departure predictability	To improve departure punctuality and improve on time performance	• Off Block accuracy (lag) • Reduced departure delays	• AOBT – SOBT > or = 15 mins (%) • ATOT – TTOT > or = 5 mins (%)	Milestone 12 Milestone X	Daily (transition) / monthly (BAU)	Implemented
Reaction times (aircraft operators / ground handlers / ATC)	To track pushback reaction times (readiness to depart)	• Reaction time once flight crews have called 'ready' (lag)	• ASAT – TSAT > or = 5 mins (%) • AOBT – ASAT > or = 5 mins (%)	Milestone 14 Milestone 16	Daily (transition) / monthly (BAU)	Internally monitored (publication subject to data quality resolution)
Taxi time delay	To reduce taxi out delay time (mins) To reduce emissions from engines on the ground To measure the performance of the A-CDM system (accuracy of Variable Taxi Time)	• Average taxi out time (mins) across a 12-month period • Taxi-out time against benefit baseline (lead) • Taxi-out time accuracy (lag) • Predicted taxi-out time / actual taxi out time • Unimpeded taxi out time	• Taxi-out delay (mins) compared to benefit baseline (mins / fuel) • Average (ATOT – AOBT) compared to benefit baseline (mins) • Taxi out time delay (mins) converted to fuel consumption on a flight by flight basis based on engine fuel burn model	M16 (ATOT)	Daily (transition) / monthly / quarterly / yearly	Post A-CDM taxi-times monitored.

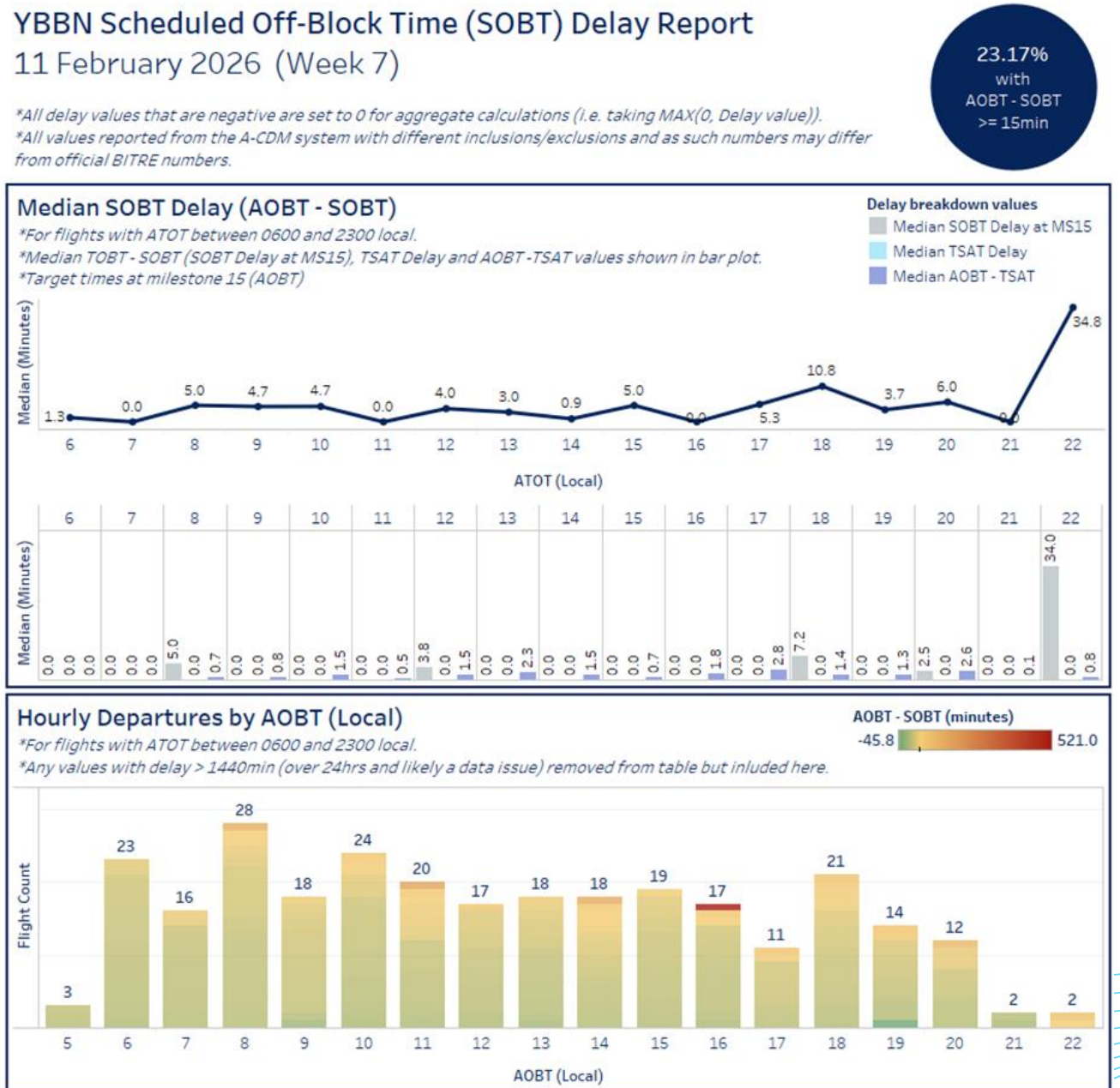
Building data and measuring performance

SOBT report

- SOBT delay (AOBT-SOBT)
- Breakdown of SOBT delay.
  - TOBT – SOBT (TOBT at MS15 which is AOBT)
  - TSAT – TOBT (TSAT delay)
  - AOBT – TSAT

The daily report will include the top 30 flights with the largest SOBT delay for the day.

Provides a view of flights moving outside of their approved IATA slot window which drives demand profile changes and delays.



Thank you

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