

# Air Traffic Flow Management Business Rules

## C-GUIDE0737

Version 8

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## Change summary

Version	Date	Change description	NRFC
8	1 July 2019	Airservices template. Clean-up of context. Inclusion of outcomes of July 2018, September 2018 and February 2019 ATFM BR WG meetings.	40206

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# 1 Purpose

Managing air traffic flow during times of constrained operations is aided through the use of Air Traffic Flow Management (ATFM). The ATFM Business Rules serve as the basis for a multilateral agreement between CDM Participants that seeks to enable airspace optimisation, consistency, and fairness for all CDM participants.

The ATFM Business Rules should be read in conjunction with the ATFM User Manual available from <a href="http://www.airservicesaustralia.com/projects/collaborative-decision-making-cdm/cdm-documentation/">http://www.airservicesaustralia.com/projects/collaborative-decision-making-cdm/cdm-documentation/</a>

The purpose of this document is to detail:

- The responsibilities of each CDM Participant;
- Principles for the exchange of information;
- Information to be exchanged between CDM Participants; and
- Expected actions to be taken by CDM Participants.

Communication, documented processes and a Common Operating Practise (COP) enables stakeholders in ATFM to collaborate to achieve the best possible outcome. It is in the interest of all CDM Participants to provide feedback and comment on relevant issues affecting all aspects of the operational system.

# 2 Scope



## 2.1 Reference Documents

Document ID	Document Title
ICAO Annex 11	Air Traffic Services, Section 3.7.5 Air Traffic Flow Management
ICAO PANS_ATM Doc 4444	Procedures for Air Navigation services- Air Traffic Management Chapter 3, ATS System Capacity and Air Traffic Flow Management
ICAO Doc 9426	Air Traffic Services Planning Manual Part II, Section 1- "Airspace and traffic Management" Chapter 1 "Air Traffic Flow Management and Flow Control"
C-REF0131	National Operations Centre (NOC) Concept of Operations (CONOPS)
C-MAN0194	ATFM System Access Procedures
C-MAN0125	Air Traffic Flow Management User Guide

# **3** Administration

#### 3.1 Terms of Reference

The ATFM BR WG reports into the Network Management Coordination Group (NMCG) for formal approval of recommendations and solutions.

#### 3.1.1 Purpose

These Terms of Reference will be for the purpose of specifying the requirements and expectations of members of the Air Traffic Flow Management Business Rules Working Group (ATFM BR WG).

The role of the ATFM BR WG is to:

- Provide a conduit between major airlines stakeholders and Airservices to review and negotiate the existing ATFM Business Rules and their relevance to existing practices;
- Develop synergies and provide a suitable means to re-write the ATFM Business Rules document for shared understanding between all ATFM stakeholders.

#### 3.1.2 Composition

The ATFM BR WG will comprise a permanent representative from each of: Airservices, Qantas, QantasLink, Virgin, Jetstar, Tiger Air and Regional Express.

Additional members from airlines and/or input from Air Traffic Control may be added as required.

#### 3.1.3 Meetings

A minimum of four ATFM stakeholders is required for a meeting of the WG to be recognised as an authorised meeting. The ATFM BR WG should meet as determined by the group. Meetings may comprise of face-to face meetings or by Teleconference.

#### 3.2 Confidentiality of Data

The referenced documents below describe the confidentiality terms for the handling of ATFM data. Access to the ATFM System will only be granted to CDM Participants who are signatories to the following documents:

- ATFM System User Access Guide
- Terms and conditions for the sharing of CDM data, or
- Terms and conditions for the sharing of CDM data (Read Only Access)

Through signing the above documents, CDM Participants agree to the sharing of data in the CDM environment within the terms described in these documents.

### 3.3 Business Rule Identifiers and Terminology

The Business Rules outlined in this document are prefixed with numerical identifiers for ease of reference.

This document uses the following 'requirement level indicators' to classify the intent of each policy section:

- Will demonstrates intent of the subject to comply with the rule (whether the rule is stated as an affirmation or negation);
- May demonstrates an activity permitted by the subject;
- Shall demonstrates required functionality or practice (whether the rule is stated as an affirmation or negation);
- Should demonstrates preferred functionality or practice.

### 3.4 System Administration

The ATFM System is the interactive software interface used to coordinate and regulate the use of airspace at a GDP airport. The ATFM System regulates the demand by allocating a timeslot to every flight operating in and out of a GDP airport. The ATFM System provides an online platform that facilitates real-time interactions between CDM participants and the CDMF to match flights to the desired timeslot. Airservices Australia, through the NCC, shall be responsible for the management of the ATFM System.

### 3.5 Recourse for Disputes

The CDMF will be available to CDM Participants to clarify information and detail on any disputes between CDM Participants with regard to these Business Rules. The disputing CDM Participants will first attempt to resolve the situation between themselves prior to the CDMF becoming involved. Where consensus cannot be achieved, the CDMF shall be the arbiter based upon a workload and safety assessment.¬

The CDMF will provide an Advocacy Service for the management of disputes. The CDMF will endeavour to respond to Advocacy Service issues, within 7 days, to the CDM Members for review.

### 3.6 Document Amendment Process

All amendments to this document must be ratified and approved by the ATFM Business Rules Working Group. Airservices Australia, through the NCC, shall be responsible for administering and maintaining this document.

Airservices Network Operations Line Manager (CDM) shall be responsible for the formation of this group and ensure it is representative of ATFM users.

The change process shall be as follows:

- 1. ATFM Business Rules Working Group will meet at times agreed by members to review and discuss current practices and propose amendments.
- 2. NCC to disseminate the proposed amendment to all CDM participants on behalf of the ATFM Business Rules Working Group for a two week consultation period.
- 3. If the change is endorsed by all members of the ATFM Business Rules Working Group, it shall be circulated to all ATFM Users and the ATFM Business Rules updated by Network Operations Line Manager (CDM) (subject to Note below).
- 4. If the change is not endorsed by the ATFM Business Rules Working Group, a response shall be provided to the initiator of the change by the Network Operations Line Manager (CDM) with an explanation/ reason for rejection.

**Note:** Airservices Australia is ultimately responsible for management of the air traffic flow system and associated procedures. In exercising its powers and performing its functions under the Air Services Act 1995 (Cth), Airservices Australia must regard the safety of air navigation as the most important consideration and must make the decision designed to enhance air traffic safety and efficiency.

# 4 User/Airline

# 4.1 System

4.1	ATFM System will enable CDM Participants to submit changes for flights via one consistent method.
4.2	The ATFM System shall facilitate ISE for flights with CTOT of up to 40 minutes prior to current time between CDM Participants with interactive connectivity with the ATFM System.
4.3	When a CDM Participant with interactive connectivity with the ATFM System cancels a flight, the ATFM system may retain the programmed arrival Timeslot for the airspace user if the Slot Hold function is selected. The Timeslot will be retained for 30 minutes prior to IOBT.
4.4	The System will disseminate messages to CDM Participants whose flights have been moved through an ISE.

# 4.2 Operational

### 4.2.1 Pre-tactical

4.5	Flight Schedule information provided to the ATFM System must reflect the CDM participants' intended operating plan to the best knowledge and intent known at the time the schedule information was provided. Cancelled flights shall not be included in scheduled uploads.
4.6	Major CDM Participants and Itinerants will provide pre-tactical Flight Schedule Information, for all flights that will operate within Australian airspace, by 0800 UTC prior to day of operation and covering 24 hours (one day of schedule information).
4.7	Defence will provide pre-tactical Flight Schedule Information, as far as practicable, for all flights that will operate within Australian airspace, by 0800 UTC prior to the day of operation and covering 24 hours (one day of schedule information).
4.8	CDM participants who have agreements with a code-share airline to manage the flights of the code-share airline in the ATFM System shall advise the CDMF.

#### 4.2.2 Tactical

4.9	All Major CDM Participants are entitled to identify the need for the implementation of a GDP, which may affect all or some CDM Participants depending on location.
4.10	CDM Participants will operate scheduled and Pop-Up flights at the time indicated by their Flight Plan Information unless the flight is subject to a GDP.
4.11	All flights operating into an airport subject to a GDP are issued with a COBT. All domestic flights issued with a COBT shall operate in accordance with compliance parameters (AIP ENR $1.9 - 3.5$ ), regardless of the distance parameter of the GDP. Flights departing during the hours of the Perth GDP - D to an airport subject to a GDP are the only exception.
4.12	CDM Participants shall ensure that the absolute difference between the AOBT and COBT is within the compliance window for GDP-A (-5/+15mins) and GDP-D (-5/+10mins).
4.13	Where a flight will not meet the compliance window, CDM Participants shall swap Timeslots to ensure the flight operates within compliance parameters.

4.14	CDM Participants shall advise the NCC if unable to meet the requirements of compliance as soon as practicable
4.15	The COBT allocated by the PDM takes precedence over the COBT allocated by another GDP.
4.16	Level 1 revision requires compliance with the original COBT if it is within 30 minutes of the revision time, or else with the revised COBT.
4.17	Level 2 revision requires immediate compliance with the revised COBT for all flights that have not yet pushed back. Flights that have already pushed back and/or are taxiing are allowed to depart.
4.18	Level 3 revision requires immediate compliance with the revised COBT by all aircraft bound for a GDP airport. Flights that have commenced pushback and/or taxi are not permitted to depart until the GDP has been revised.
4.19	In the event of a 3 revision, flights that are taxiing may be held by the Tower to achieve CTOT.
4.20	CDM Participants are required to advise the CDMF of a variation to an IOBT/SIBT through an amendment to the ELOBT
4.21	All CDM Participants with interactive connectivity with the ATFM System may submit an ISE request.
4.22	On receipt of an ISE request, the ATFM system will automatically allocate a new time slot if a more optimal slot is available, within the specified ISE request window.
4.23	Flights shall not be placed into a slot that generates a CTOT within a curfew period unless exempt as per applicable legislation.
4.24	Where a flight has been delayed more than four hours, a pop-up flight may be created (mainly through a flight plan submission). The original flight will not be used for manipulation or as a place holder where the pop-up becomes the primary flight in the GDP.
4.25	Where a pop-up flight occurs as a result of incorrect data in the ATFM system, the flight will not be used for manipulation and will be removed from the program as soon as possible (this can be the result of an incorrect flight plan – flight number, routing etc.).
4.26	<ul> <li>Cancellations shall be actioned in the GDP by:</li> <li>cancelling the flight by using the 'slot hold' function (also known as time-slot); or</li> <li>cancelling the flight outright from the GDP.</li> </ul>
4.27	Cancellations may only be re-introduced to a GDP once confirmation of a GDP revision has been received from the NCC. IOBT and ELOBT must be after the GDP revision time and IOBT and ELOBT must match. An 'X' suffix must also be appended to the ACID to support the 'common operational picture'. Re-introduced cancelled flights shall only be used once to roll down the program after a GDP revision.
4.28	Following a GDP revision, all 're-introduced' cancellations must be removed from the GDP within 30 minutes.
4.29	<ul> <li>CDM participants are prohibited from amending an ELOBT in a congested program and/or prior to a revision:</li> <li>earlier than 15 of IOBT minutes; or</li> <li>later to gain an advantage</li> </ul>
4.30	CDM participants shall not deliberately add flights to the ATFM system that are not intended to be operated.
4.31	CDM participants shall not deliberately use flights as placeholders more than a maximum of 30 minutes unless the operator provides the NCC with information to support an extension to 60 minutes.

4.32	Subject to the conditions stated in the documents referred to in Section 1.1.1, CDM Participants may use information received from the ATFM System to update flight information displays.
4.33	Major CDM Participants will provide the previous day's actual gate arrival times and gate departure times for all flights operating into/out of GDP airports managed by the Major CDM Participant.
4.34	CDM Participants must not manipulate non-active long haul flights unless they remain in slots generating a COBT that is within -5 /+5 minutes of their IOBT.
4.35	Exempt Pop up flights or other non-programmable flights (such as Pol-Air, Hospital i.e. RFDS and Air Ambulance flights), not including international flights, with COBT greater than 30 minutes from IOBT should be moved to the end of the GDP by the NCC, or can be requested be to move to a slot within 30 minutes of its IOBT.
4.36	Flights approved for tactical release as result of an increase in capacity shall be moved to the end of the GDP to vacate the slot. An 'T' suffix must also be appended to the ACID to support the 'common operational picture'. Tactical releases shall only be used once to roll down the program.
4,37	CDM Participants that wish to depart earlier than 10 minutes prior to IOBT must update ELOBT accordingly to support the 'common operational picture'.

# 5 ANSP/CDM Facilitator

Airservices Australia, as the Air Navigation Services Provider, has the responsibility as the CDM Facilitator and provider of Air Traffic Flow Management within Australian airspace. These functions preside within the Network Coordination Centre as a centralised unit working as a focal point of information exchange between ATS units and airlines/operators. This allows real time dissemination of network critical data enabling effective CDM for all users, thereby enhancing ATFM and network performance.

Within the NCC are the AFTN Communications Centre and the Briefing and NOTAM Offices, this allows the sharing of information as required with stakeholders. Additionally the NCC maintains communications with ATC units across Australia. This enables the NCC, as the CDMF, to provide real time network data contributing to the development and maintenance of the Common Operational Picture. The CDMF will provide network status updates as received regarding airspace, flow management and airport issues to the users and stakeholders of ATFM, and host telephone conferences during times of network disruption. As part of the CDM process, the CDMF will also conduct GDP revisions, coordinate non-compliant flights with the relevant ATC units, consider methods of increasing capacity prior to determining that demand should be managed, and manage any tactical releases.

### 5.1 System/Process

5.1	The CDMF will publish MET CDM Matrix on the NCC Portal for reference for CDM Participants
5.2	ATC may de-prioritise non-compliant flights where it is practical and safe to do so in accordance with AIP ENR 1.4 – 10. Regulation of Flight – Assessment of Priorities.
5.3	The CDMF will calculate programmed times with a priority based on the original Pre- tactical Flight Schedule Information provided
5.4	Except where previous agreement with all Major CDM Participants has been obtained, the CDMF shall not implement a GDP where demand does not exceed capacity unless requested by Major CDM Participants.
5.5	The CDMF will send out messages to CDM Participants including rate and reason when a revision to a GDP (including advising ATC for immediate compliance revisions) is required

## 5.2 Operational

5.6	The CDMF will use actual gate departure times and gate arrival times provided by Major CDM Participants for the purposes of post-operational reporting
5.7	The CDMF will utilise MET CDM Matrix data to establish GDP run and revision rates after consultation with the relevant ATC Shift Manager
5.8	The CDMF shall hold the responsibility and authority for implementing a GDP.
5.9	The CDMF shall ensure that the ATFM System shall measure, monitor and report Compliance as a measure of ATOT - CTOT.
5.10	Where a flight is deemed non-compliant using the compliance measure of ATOT-CTOT, the CDMF shall:

	<ul> <li>verify in the first instance COBT compliance with the operator prior to deprioritisation;</li> <li>verify with another ATC source in the event of a compliance discrepancy</li> </ul>
5.11	The CDMF will ensure that ATC has access to real-time aircraft Compliance information using the measure of ATOT-CTOT
5.12	ATC will prohibit early non-compliance with COBT for departing flights from an ATC controlled airport to a GDP controlled airport unless as approved under extenuating circumstances or as a tactical release. The CDMF must consider each request to operate non-compliant and record the decision on the NCC Portal.
5.13	The CDMF shall manage pop-up flights from non-CDM participants and request assistance with pop-up flights from CDM participants as required. Where a pop-up flight's information has been received before the GDP has been put into place, it will be programmed in the same manner as a scheduled flight.
5.14	The CDMF will ensure that all reference data is current and validated.
5.15	When tactical releases are available, the CDMF shall, when appropriate, give a 15 minute window to accept expressions of interest.

# 6 System and Reporting

The ATFM System provides the vehicle for producing statistical reports. These reports are required for; provision of SLOT compliance reports as required by legislation, provision of reports for ATC flow analysis and provision of reports which support internal business analysis. A CDM participant may nominate a proxy to manage their flights in the ATFM system.

A key deliverable for the ATFM System is that it meets the requirements of continuous improvement. Tracking Key Performance Areas (KPA) will enable CDM Participants to monitor the performance of the system and identify areas for improvement.

Appendix A describes Performance Area targets and should be read in conjunction with this section.

### 6.1 **Performance**

6.1	The ATFM system will cancel reserved Timeslots on cancellation of a GDP.
6.2	CDM Participants will advise the CDMF of any errors detected or any required changes in reference data.
6.3	The CDMF will endeavour to limit the amount of delay and programmed time fluctuation applied to each flight in order to meet performance and predictability targets.
6.4	The CDMF will utilise Flight Plan Information to determine the demand at airports and in airspace volumes for flights which have submitted Flight Plan Information.
6.5	The CDMF may review the impact of weather forecast products with major CDM Participants before initiating a GDP.
6.6	The CDMF will ensure that all de-identified reference and performance data is made available to CDM Participants
6.7	On a regular basis, the CDMF will measure and report on performance areas (refer Section 5 Appendix A).
6.8	Major CDM Participants shall be responsible for regularly reviewing Performance areas and developing optimisation strategies.
6.9	The CDMF shall provide a report detailing the accuracy of the ATFM System at determining anticipated airborne delay
6.10	The CDMF shall provide a report detailing the difference between pre-tactical scheduled operating times and actual operating times for all scheduled operations.

### 6.2 Reporting

6.11	ACA shall provide SLOT allocation data to Airservices Australia daily. The data will contain all SLOTs which have been allocated for that day of operation and changes made to those slots. This is the data for "after" the day of operation and should not be confused with the "before" feed which is required to supplement the schedule feed from the airlines. This will be provided within two working days after the day of Operation.
6.12	Airservices Australia will, insofar as the information is available, correlate actual movement information with SLOT information and produce a compliance report for ACA and Airservices Australia not more than 7 working days after the day of operation.
6.13	Sydney Airport Corporation Limited shall provide Airservices Australia with a daily report regarding the AIBT/AOBT at the Sydney International terminal.

6.14	Sydney Airport Corporation Limited will provide AOBT/AIBT times for aircraft using the DET (Terminal2) not more than 2 working days after the day of operation until the airlines are able to establish their own data link.
6.15	The CDMF shall ensure that the ATFM System will generate ad hoc reports to evaluate overall flow patterns and demand against the capacity of the airport as required.
6.16	The CDMF will provide, in accordance with DOIRD requirements, an OTP report to all CDM participants

# 7 Definitions

Within this document, the following definitions apply:

Term	Definition
AAR	Airport Acceptance Rate
ACA	Airport Coordination Australia
A-CDM	Airport-CDM is the concept which aims to improve operational efficiency at airports by reducing delays, improving the predictability of events during the progress of a flight and optimising the utilisation of resources.