

Collaborative Decision Making

Overview

Collaborative Decision Making (CDM) will improve air traffic management by sharing information and data between airport operators, aircraft operators, ground handlers and air traffic control.

It allows all users, including airport operators, aircraft operators, ground handlers and air traffic control, to be aware of constraints, issues and needs of other users and service providers.

The overall effect of CDM is a more knowledgeable and participative aviation community that improves services and reduces costs for all users and providers.

CDM can apply to all time frames of decisions, from long-range planning of schedules to the tactical decisions of ground delay programs.

Each user can participate to a level that suits their operations and information requirements. However, in order to maximise the benefits, it is important that all affected users participate in the information sharing.

CDM in Australia

Airservices values the principles of CDM and these principles are currently applied in many of the industry's existing planning and operational activities including airspace and route planning and current demand and capacity management activities.

To improve on the current application of CDM, Airservices is embarking on a program to introduce new CDM-enabling capabilities that will improve ATM network management and realise efficiencies for all network stakeholders.

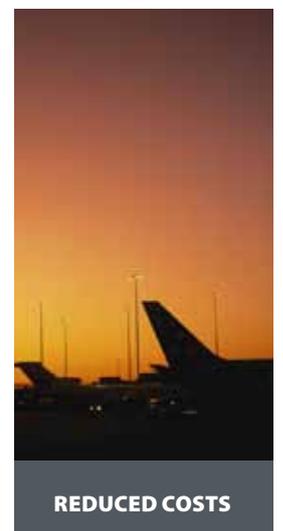
The three capabilities that will be established or improved as part of this program are:

Air Traffic Flow Management (ATFM): Introduction of new software tools and supporting procedures to better identify demand and capacity imbalances, both at airports and in airspace volumes. Where imbalances are identified, the system will enable the establishment of traffic management initiatives to reduce airborne delays.

Airport Collaborative Decision Making (A-CDM): Improving data sharing between airport stakeholders to provide a common operational picture that enables refinement of the turn-around process for aircraft. This, in turn, provides for more efficient use of airport infrastructure and resources.

Integrated Arrival and Departure Management (A/DMAN): Providing the capability to dynamically balance airport arrival and departure demand to ensure more efficient use of airports and airspace that will result in further reduction in airborne delays.

Benefits of CDM



The benefits

ICAO describes the benefits of CDM as:

- All airspace will be available as a usable resource, resulting in improved access, increased opportunity for user-preferred trajectories and, through community cooperation, increased capacity.
- Improved surface management of the aerodrome will provide predictable departure and gate-arrival times, thereby improving overall air traffic management (ATM) system predictability and subsequent capacity.
- Improved information exchange and cooperation within the ATM community will maximise system capacity.
- Improved information concerning demand and system capabilities will prevent system overloads, ensuring manageable workloads.
- The provision of accredited, quality-assured and timely information will allow an informed decision-making process.
- The ATM community will contribute to the protection of the environment by taking into consideration the consequences of airspace activities.

Further information

For further information on Collaborative Decision Making including the scope and timing of future implementation activities and what it means for your business, visit www.airservicesaustralia.com/projectsservices/projects/cdm

How CDM works

An example of the benefits of CDM is the sharing of aircraft arrival estimates.

For airport operations, this will allow better management of gates and timely provision of airport support services.

For aircraft operators, this will help with network predictability and enable operators to better manage their schedules based on real-time information.

CDM Stakeholders

