

**Twenty Seventh Meeting of the  
Informal South Pacific ATS Co-ordinating Group  
(ISPACG/27)**

**Auckland, New Zealand  
27 February – 01 March 2013**

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**Agenda Item 6 – Other Business**

**Collaborative Decision Making Program  
ATFM Stage 1 - Update**

**Presented by Airservices Australia**

**SUMMARY**

This Information Paper provides an update of recent activities and progress of the Collaborative Decision Making (CDM) Program in Australia, specifically with respect to Air Traffic Flow Management (ATFM) implementation activities.

**1. INTRODUCTION**

- 1.1 The Australian Collaborative Decision Making (CDM) Program is a joint Airservices / aviation industry initiative aimed at improving air traffic management through increased information exchange among the various parties in the aviation community.
- 1.2 The three capabilities that will be established or improved as part of the CDM 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.

- 1.3 Customer benefits include:
- financial savings through reduced fuel burn resulting from transferring airborne delay to ground delay;
  - reduction in airline contribution to environmental emissions through reduced fuel burn resulting from transferring airborne delay to ground delay.
- 1.4 Operational benefits include:
- improved ability to predict demand/capacity imbalances;
  - improved ability to take action to adjust capacity to meet demand;
  - improved ability to predict and manage ATC workload;
  - access to predicted demand/capacity information for all stakeholders;
  - common information for decisions to be made in a collaborative manner.
- 1.5 To date, CDM activities in Australia have been centred on the first of these three capabilities, ATFM. This Information Paper reports on recent activities in implementing ATFM at key locations within Australia.

## 2. DISCUSSION

- 2.1 ATFM using Metron Traffic Flow (Harmony for ANSPs) was implemented in Sydney and Perth in March 2012, and replaced the out-dated Central Traffic Management System (CTMS). Metron Traffic Flow is an automated, user interactive system.
- 2.2 ATFM was subsequently implemented at Brisbane in December 2012, the first Australian Airport to employ the new system that has not previously used an automated ATFM system.
- 2.3 Airborne delays are reduced through the implementation of a Ground Delay Program (GDP):
- Airline schedule information and weather forecast information are input into the ATFM program a day before the “day of operation”;
  - A pre-tactical landing sequence is established from which a GDP is determined. Operators are advised of Calculated Off-Blocks Time (COBT) at the departure aerodrome for each flight in the GDP;
  - On the day of operation, COBT compliance of -5 minutes to +15 minutes is allowed for in the program;
  - At towered airports, compliance is achieved by withholding ATC until COBT -5 minutes (i.e. until within COBT compliance parameters);
  - De-prioritisation of late non-compliant flights was introduced in December 2012;
  - The final landing sequence is tactically achieved using Maestro interfaced within Eurocat.

- 2.4 Metron Traffic Flow accepts real-time updates to schedule data, including:
- Flight plan submission;
  - Changes to scheduled departure times on the day of operation;
  - ATC live data.
- 2.5 Aircraft operators (and other affected stakeholders) are able to view the GDP information for affected flights via web based access to the Metron Traffic Flow tool. Operators can interact with the GDP via the tool with updated information on the day of operations. The benefits realized by the implementation of the ATFM program are reliant on maximizing participation by operators and compliance with the GDP.
- 2.6 Early results of the GDP:
- In Sydney, airlines have reported a reduction in airborne holding and sector times during peak periods on key city pairs. Flights on the Brisbane to Sydney route are experiencing a **sector time reduction of around one and a half minutes** and the Melbourne to Sydney route is showing a **reduction of five minutes**.
  - The **average airborne holding** times during the morning peak period has **reduced from around 5.5 minutes down to just 3.75 minutes**. This reduction in the morning peak alone generates an estimated annual cost saving of around \$6.6m for operators arriving into Sydney.
  - Traffic Advisory Fuel notifications in Sydney and Perth
  - Although results for Brisbane (GDP implemented in late December) have not yet been made available, it is expected that the published Traffic Advisory Fuel notifications will be able to be reduced based on the extent of the airborne delay reduction.
- 2.6 ATFM is expected to be implemented in Melbourne in Q2 or Q3 2013.

### 3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
- a) Note the information contained in this paper on the ongoing activities in Australia to work with industry to maximize efficiencies and reduce emissions in the airways system.
  - b) Note the successes already achieved in the first stage of the CDM program in Australia.