

**Twenty Fifth Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/25)**

Honolulu, Hawaii, USA, 24-25 March 2011

Agenda Item 2: Updates from Air Traffic Service Providers

Implementation of the Flight Plan Conflict Function in TAAATS

Presented by Airservices Australia

SUMMARY

This Information paper provides an update on the implementation of the TAAATS conflict detection tool.

1. INTRODUCTION

1.1 The original version of TAAATS included a flight plan conflict probe, but limitations in its specifications meant that this functionality was never used operationally. A project to deliver a new Flight Plan Conflict Function (FPCF) has been underway for a number of years, and is finally approaching delivery.

1.2 The need for complete accuracy and reliability in any conflict detection tool has led to significant time being spent in the development, testing of this functionality. Safety assessments, human factors analysis, development of procedures and training courses, and document amendments have also added considerably to the project time line.

2. DISCUSSION

2.1 The version of TAAATS software that is currently loaded on the operational platform includes FPCF capability. At present this functionality is disabled at ATC workstations, but can be enabled at non-operational consoles to permit additional testing to be conducted.

2.2 The flight plan conflict tool is expected to commence operational use during Q3 2011 after completion of training by the first group of controllers; this training consisting of 6 – 8 days in the simulator and classroom. Because it is not possible to train all oceanic controllers simultaneously, the implementation plan consists of 2 controllers being trained at a time.

2.3 When an FPCF-endorsed controller is on duty, FPCF will be enabled at their workstation. The functionality will then be disabled when a non-FPCF-endorsed controller is on duty.

2.4 The initial implementation of FPCF will be in the UAS(E) airspace – that is the Oceanic airspace east of Australia.

2.5 One of the issues that was identified when considering this type of gradual implementation was the possible difficulty in “hand-overs” from an FPCF controller to a non-FPCF controller. It is expected that over time, controllers relying on conflict detection tools will become less “situationally aware” than their non-FPCF colleagues. However it was eventually decided that in the relatively short period for all controllers to be trained that this should not be an issue.

2.7 Capabilities of the FPCF

2.7.1 Much of the functionality associated with FPCF is off-line defined. This allows relatively simple customization of new separation standards, new flight plan annotations etc. From the controllers’ perspective, an overview of the Flight Plan Conflict Function is described below:

- The navigation capabilities of an aircraft are determined by identifying specific text strings contained in Field 10 and Field 18 of the ATS flight plan and from these applying the appropriate separation standard;
- Available separation standards are off-line defined within a “conflict region”. Different separation standards can be defined for different conflict regions;
- On receipt of coordination, aircraft are conflict probed against other aircraft (active probe). The active probe also detects potential conflicts following a change to an aircraft’s profile (e.g. change of level, re-route etc);
- Any detected conflicts are listed in a conflict window, from which individual conflicts can be displayed graphically on the controllers’ situation display;
- Permits the “trial” probing of various combination of parameters, including Cleared flight level (including block levels), speed, Reroutes, estimates and weather deviations.

2.7.2 This version of the FPCF:

- Does not support ADS-C longitudinal distance standards (e.g. 30NM, 50NM). These separation standards are still able to be used by ATC, by manually “solving” the conflict identified by the conflict tool;
- Cannot probe an offset (weather deviations are OK);
- Does not integrate with AIDC messaging. The details contained in a received CDN must be manually probed;
- Provides notification to the controller of a future conflict, including the time at which the conflict starts. However it does not provide an actual solution to the conflict.

2.7.3 The need for any of the above capabilities, or other functionality will be considered after operational implementation

2.8 Various graphics associated with the TAAATS FPCF are depicted below.



Figure 1. The sector conflict window



Figure 2. The trial probe window

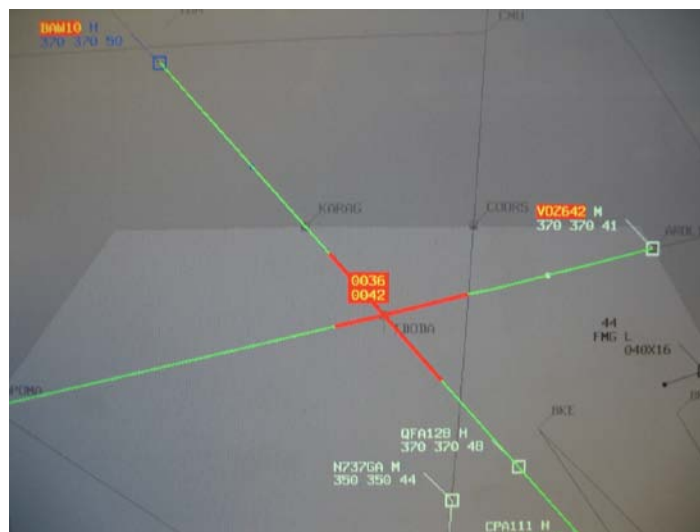


Figure 3. Sample display of conflict

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the pending implementation of the flight plan conflict function by Airservices Australia.