



CONCEPT OF OPERATIONS FOR FLEX TRACKS

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1. INTRODUCTION

The Australian Air Traffic Management Strategic Plan (AATMSP) refers to Flex Tracks for International aircraft as Stage 2 of User Preferred Trajectories (UPT). Flex tracks provide cost saving opportunities for airlines and benefits to the environment through significant reduction in fuel burn.

2. HISTORY

Flex Tracks are currently used in the North Pacific and Atlantic Oceanic areas. They have in the past been used for USA-Australia flights and flights between Asia and South Africa. Flex Tracks provide a common flight track for operators between a nominated city pair, they enable benefits to be extracted by operators yet provide a foundation for air traffic control (ATC) to achieve separation by reducing the number of conflict points.

3. CONCEPT & DEFINITION

Flex Tracks allow airlines to obtain benefits from forecast wind conditions that cannot be obtained using the fixed route structure.

Flex Tracks: “A non-fixed ATS route calculated on a daily basis to provide the most efficient operational flight conditions between specific city pairs.” – MATS Chapter 10 – Page 10.

Flex tracks will be published daily for participating airlines enabling the display on TAAATS air situation display (ASD).

4. ASSUMPTIONS

It is recognised that without a suitable (ATC) Decision Support Tool (DST) the introduction of Flex Tracks will also be limited to areas or times where traffic densities and complexities can be safely managed utilizing current ATC system technology.

Traffic utilizing Flex Tracks must be controlled and restricted within the capability of ATC to provide separation under the current system.

As ATC DST are improved it is expected that the number of daily flex tracks will increase and eventually be replaced by User Preferred Routes UPRs.

5. METHODOLOGY

Airservices Australia will establish a Letter of Arrangement (LOA) with participating airlines, this will list the full detail of the Flex track – PRM/TDM process and detail any restrictions or requirements.

The flex track will be a track generated between two gatepoints derived from the forecast winds available for the period of validity. Traffic levels may require the use of parallel separated Flex Track structure.

Flex Track Commencement and Termination Points will be defined by Airservices Australia for each city pair.

The Flex Track will be specified in terms of significant points. The requirements for significant points are based on equipment carried by aircraft meeting RNP10 navigation capabilities and HF communications:

- Significant points will be published waypoint or be described as a combination of whole degrees latitude and longitude.
- Significant points to be planned approximately every 60 minutes
- Where a fixed route structure is selected for a segment of the flex track it must be described using all waypoints describing that segment of the fixed route.

Flex Track transitions may be defined to prescribe connections to the fixed route structure.

Airline(s) will produce the Preferred Route Message (PRM) which will be assessed by Airservices Australia, who will then publish a Track Definition Message (TDM), this TDM will be valid for a period of time. Participating airlines will choose and file a flightplan based on the TDM or fixed route structure according to their business requirements. The process is described in Figure 1 .

6. CREATION PROCESS

