



**Combined Third Meeting of Arabian Sea Indian Ocean ATS Coordination Group ASIOACG/7 and
Indian Ocean Strategic Partnership to Reduce Emissions (INSPIRE/3) –
Mumbai, India, 11 – 14th December 2012**

Agenda Item 6: Review of UPR Trials and follow-up actions

AUSOTS flex track evolution

(Presented by Airservices Australia)

SUMMARY

This paper provides an update on the request to extend the Middle East AUSOTS and in the context of the successful UPR geographic zone trials, and outlines potential options for the evolution of the Middle East AUSOTS.

1. INTRODUCTION

- 1.1 In 2003 Flex Tracks commenced from Dubai to Sydney. This progressed to flights in both directions between the Middle East and Brisbane and in time included Sydney and Melbourne. In 2005, the Australian Organised Track Structure (AUSOTS) commenced producing daily Flex Tracks in both directions between South East Asia and Brisbane, Sydney and Melbourne. Since then additional Flex Tracks and UPRs have been created and in some cases Flex Tracks have transitioned into UPRs.
- 1.2 A number of the flex tracks are proposed by airline partners, refined to meet various enroute constraints and published by Airservices Australia (Airservices) for use by all airlines operating on the particular city pair.
- 1.3 In November 2011 at the ASIAOCG/6 meeting IATA presented a working paper proposing the extension of the Middle East AUSOTS tracks to the Indian side of the Male and Colombo FIRs. (refer WP10 - AUSOTS expansion to Male and Colombo FIRs). This topic was revisited at the ASIAOCG and INSPIRE working group in May 2012.
- 1.4 In June 2012 the ASIOACG Chair formally wrote to Airservices requesting Airservices to develop procedures and trials for the extension of AUSOTS to the Indian side of the Male and Colombo FIRs. A week later Airservices confirmed they were willing to generate and publish the amended tracks.
- 1.5 In parallel to the work on extending the Middle East AUSOTS the ASIOACG and INSPIRE members were working on the trials to establish the UPR geographic zone.

- 1.6 In October 2012 following a successful trial as part of the work to establish the UPR geographic zone airlines were provided with the option of planning a UPR across the Oceanic portion of the YMMM FIR then joining a flex track upon entering the Australian continental area.
- 1.7 The program of work to establish the Arabian Sea and Indian Ocean UPR geographic zone has progressed at a more rapid rate than expected. Consequently some activities in the ASIOACG and INSPIRE work programs may have become obsolete.

2. DISCUSSION

2.1 UPR geographic zone

- 2.1.1 It is Airservices view that the UPRs trialed during 2012 as part of the work toward implementing the Arabian Sea and Indian Ocean UPR geographic zone should be transitioned to normal operations in the first half of 2013.

2.2 Middle East AUSOTS extension

- 2.2.1 In the context of an established oceanic UPR zone the plan for the evolution of the Middle East AUSOTS should be revisited.
- 2.2.2 It is proposed that the ASIOACG and INSPIRE groups reconsider the need for an AUSOTS extension

2.3 Middle East flex tracks and Australian continental routing options

- 2.3.1 Airservices committed to the introduction of continental UPRs some time ago. Due to a range of circumstances including technical difficulties with the introduction of automated conflict detection and the rapid growth in air traffic the introduction of continental UPRs remains elusive.
- 2.3.2 Recognising the environmental and economic imperative to constantly strive to improve the routing flexibility available to airline customers, Airservices proposes that a variety of options related to the evolution of AUSOTS be explored.
- 2.3.3 The options in this paper are presented to stimulate discussion and each would need to undergo safety review, and the more complex options are likely to require simulation and or operational trial, prior to implementation.

2.3.4 UPR to Continental flex

- 2.3.4.1 Since October 2012 operators are able to UPR to intercept the Middle East flex tracks prior to entering Australian continental airspace.
- 2.3.4.2 There may be an overall benefit in reducing the application of the Middle East flex tracks to the Australian continental portion of flight. i.e. the flex track would only apply across continental Australia.
- 2.3.4.3 Although it would certainly require technical and safety evaluation there may be the potential to publish the continental flex after departure and upload the flex tracks via CPDLC to those operators who request them.
- 2.3.4.4 The development of a continental only Middle East flex track, and options for mid-flight routing changes are likely to have a notable human resource impact on Air Traffic Services that would need to be evaluated prior to any final decision to proceed.

2.3.5 Second flex tracks

- 2.3.5.1 The volume of traffic on the Middle East flex tracks continues to increase. A notable increase is expected with the introduction of QANTAS A380 flights in 2013.

- 2.3.5.2 Frequently Middle East flights are prevented from achieving their optimum flight levels due to conflicting traffic on the same city pair.
- 2.3.5.3 Furthermore the AUSOTS tracks are created using one airlines preferred aircraft type. Due to ETOPS and other operational concerns these tracks may not be optimal for other operators on the same city pair.
- 2.3.5.4 As part of the INSPIRE demonstration flights in 2011 Airservices allowed a second Dubai-Sydney flex track. This was found to have negligible operational impact on Air Traffic Services.
- 2.3.5.5 Airline partners are invited to consider the benefits of a second flex track between one or more Middle East city pairs.
- 2.3.5.6 The second flex track could be:
 - a) a track which parallels the first track, thereby allowing improved access to preferred flight levels,
 - b) a track which follows an alternative path to accommodate the varying needs of operators, or
 - c) a track which is published at a later time to accommodate the range of scheduled departure times.
- 2.3.5.7 In consideration of these options it should be noted that to assure safety and avoid unintended environmental and economic impact the pair of tracks would need to be deconflicted by Airservices.

2.4 Summary

- 2.4.1 A range of options for the evolution of the Middle East flex tracks have been outlined. Airservices requires the considered feedback from the Airline partners recognising that no single option is likely to achieve all the objectives of all partners. Any of the options outlined above would need to under go safety review and the more complex options are likely to require simulation and or operational trial prior to implementation.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) Reconsider the need for the Middle East AUSOTS tracks to be extended to the Indian side of the Male and Colombo FIRs,
 - b) Discuss the benefits of reducing the application of the Middle East flex tracks to the Australian continental portion of flight, and
 - c) Consider the options for second flex tracks and provide Airservices with considered feedback.