

Australian Organised Track Structure (AUSOTS)

Dispatch Guidelines

Foreword

This guidance material pertains to flight planning in the Australian Organised Track Structure/AUSOTS environment within the Melbourne/YMMM and Brisbane/YBBB FIRs.

The material contained in this document is for guidance only.

It is intended that this document will be made available to users from a number of web sites including

- IATA web-site (http://www1.iata.org/WHIP/Public/frmMain_Public.aspx?Wgld=19) and
- Airservices Australia web-site (<http://www.airservicesaustralia.com/customer/flextrack/default.asp>)

To assist the editing of this document and to ensure the currency and accuracy of future editions, comments, suggestions, updates and corrections should be sent to the editor at the following:

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Acronyms

AATMSP	Australian Air Traffic Management Strategic Plan
ACC	Area Control Center
ADS-B	Automatic Dependent Surveillance - Broadcast
AFTN	Aeronautical Fixed Telecommunication Network
AIP	Aeronautical Information Publication
ANSP	Air Navigation Service Provider
ATC	Air Traffic Control
ATM	Air Traffic Management
ATS	Air Traffic Services
ATSP	Air Traffic Service Provider
AUSOTS	Australian Organised Track System
DEP	Aerodrome of Departure
DEST	Aerodrome of Destination
Doc	Document
ETD	Estimated Time of Departure
FIR	Flight Information Region
FPL	Flight Plan
HF	High Frequency
ICAO	International Civil Aviation Organisation
ICD	(ICAO Asia Pacific Regional) Interface Control Document
NM	Nautical Mile
NOTAM	Notices to Airmen
OTS	Organised Track System
PACOTS	Pacific Organised Track System
RMK	Remark
RNP	Required Navigation Performance
RTS	Route section of Track Definition Message
STD	Scheduled Time of Departure
TCM	Track Coordination Message
TDM	Track Definition Message
UPT	User Preferred Trajectories
UTC	Universal Time Coordinated

Australian Organised Track Structure (AUSOTS)

Dispatch Guidelines

1 Introduction

1.1 The Australian Air Traffic Management Strategic Plan (AATMSP) refers to Flex Tracks as Stage 2 in the incremental process to implement User Preferred Trajectories (UPT). Flex Tracks provide cost saving opportunities for Airline Operators in regards to fuel burn and flight time, providing flights with the optimum route by taking into consideration user needs, military activity, significant weather, volcanic activity and other limitations.

1.2 In order to provide benefits to Airline Operators, Air Traffic Control and the environment with most efficient Routes, the 'Australian Organised Track Structure' (AUSOTS) will be established within the Melbourne and Brisbane FIRs.

1.3 AUSOTS will be available for all aircraft meeting the minimum requirement of RNP10 or RNP4. Any aircraft which loses its RNP capability enroute but is still able to navigate on the Flex tracks may continue to do so. Aircraft unable to continue navigating on the Flex Tracks must advise ATC accordingly and will be re-cleared by ATC via the fixed route structure.

1.4 AUSOTS Flex Tracks are defined as non-fixed ATS-Routes published in specific intervals by a Trackmaster based at Melbourne ACC (Area Control Center) via Intl. Class-1-NOTAMs and in an AFTN-Telex format.

1.5 Initially the introduction of AUSOTS will begin as a trial focused on flights between Brisbane, Sydney and Melbourne and the airports in the Singapore area of South East Asia in both directions but will include the extant Flex Tracks trial i.e.:

Arabian Gulf (Dubai) to...

- Sydney
- Melbourne

Perth to/from...

- Dubai
- Auckland

1.6 It is expected that Australian overflights to/from New Zealand will utilise the AUSOTS tracks when suitable. To support this Airservices Australia will provide operators with approved connecting route structures between the Flex Track entry/exit gates for Brisbane, Sydney and Melbourne and the Tasman Sea fixed Route structure.

1.7 Industry will be notified by NOTAM of intentions to introduce new areas/airports and the implementation strategy required.

1.8 Operators may request consideration be given to the inclusion of other city pair options to be added to AUSOTS. To be included in the AUSOTS, a city-pair must

demonstrate a measurable economic benefit to the operators, a fuel burn reduction benefit for the environment and be manageable within Air Traffic Control capability. Future areas already under consideration include flights to/from the Indian Sub Continent and flights between Bangkok/VTBD and Sydney/YSSY; others may follow.

2 Geographical Boundary

2.1 Flex Tracks may be established within the entire YBBB and YMMM FIRs between gateway fixes on external FIR boundaries and gate fixes that avoid busy domestic traffic on Australia's east and south coast (see appendix 3). The Flex Tracks may be used at all applicable flight levels within controlled airspace.

2.2 Outside Australian administered airspace Aircraft Operators shall flight plan as required by the specific Air Navigation Service Provider (ANSP).

3 Flex Track Evaluation Phase: Track Coordination Message/TCM

3.1 A Track Coordination Message (TCM), based on a calculated Minimum Fuel Track, will be issued by the Trackmaster at Melbourne ACC for review by selected Airline Operators, who will check and verify the Routing of the proposed Flex Tracks for weather phenomena (e.g. cyclones), possible volcanic activities and other influences on flight operations within and outside the Melbourne and Brisbane FIRs.

3.2 Based on the responses of the selected Airlines, the Track Definition Message/TDM will be issued and distributed (appendix 1 refers).

3.3 The Track Coordination Message/TCM shall not be used for flight planning.

4 Flex Track Publication: Track Definition Message/TDM

4.1 The Trackmaster will use a format similar to the PACOTS TDM format for the AUSOTS Flex Tracks. (see section 5) The AUSOTS TDM consists of:

- Message formatting info
- Track identifier (see section 6)
- Validity period (see para 4.2 & 4.3)
- Track description (see para 4.6/4.7)
- RTS section (see para 4.8)
- RMK section

4.2 For specific Flex Tracks where traffic numbers and diverse ETDs exist, the AUSOTS Track Definition Message/TDM may be generated twice per day - in all other cases the track will be generated once per day only.

4.3 While the validity periods are track specific the majority will conform to standard times in order to cope with major traffic flows. At implementation of the AUSOTS (see

AIP SUP Australia) the validity period for the portion of AUSOTS containing the Singapore area to Australia tracks will be **13:00 UTC - 22:00 UTC** (i.e. covering the Australian overnight period).

4.4 After a short period of review it is expected that AUSOTS will be extended to two consecutive periods of 13:00 UTC – 00:00 UTC and 00:00 UTC - 13:00 UTC – an Intl. Class-1-NOTAM advising the change will be published.

4.5 Irrespective of any concept of standard times, the official validity period will be the times as specified in the TDM.

4.6 Flex Tracks are described as follows:

a) for flights from Australia:

Start Gate Point	via Waypoints	End Gate Point
→ in accordance with the AIP Australia and as shown in the RTS field of the TDM.	→ see chapter 4.7	Boundary Waypoints to/from the Non-Australian FIRs

b) for flights to Australia:

Start Gate Point	via Waypoints	End Gate Point
Boundary Waypoints to/from the Non-Australian FIRs	→ see chapter 4.7	→ in accordance with the AIP Australia and as shown in the RTS field of the TDM.

4.7 AUSOTS Flex Tracks are described using a collection of Waypoints as follows:

- Published High Level Waypoints
- Published Floating/Buried Waypoints
- Latitude/Longitude Waypoints based on whole degrees

4.8 The ATS section of the TDM provides a description of the fixed ATS route required beyond the Flex Tracks. Airservices Australia will not specify the flight planning requirements outside Australian administered airspace. Therefore the TDM will only include in the RTS section either

- the fixed route details for departures from an Australian airport to join the Flex Tracks or
- for Australian airport arrivals the fixed route details from the end of the Flex Tracks to the destination.

4.9 The Trackmaster will integrate the AUSOTS with the Australian domestic Route structure.

4.10 The Trackmaster will use a format similar to the PACOTS TDM format for the AUSOTS Flex Tracks publication, which will be promulgated to Airline Operators both by AFTN and published as Intl. Class-1-NOTAMs at approximately 08:00 UTC (for the AUSOTS which will come into effect at 13:00 UTC) and in stage 2 at approximately 20:00 UTC for the AUSOTS which will come into effect at 00:00 UTC.

4.11 The daily Flex Tracks are published as follows:

- a) AFTN TDM Format
- b) Intl. Class-1-NOTAMs
- c) Airservices Australia web-site:

<http://www.airservicesaustralia.com/customer/flextrack/default.asp>

4.12 Even when the published Flex Track totally corresponds to permanent published ATS- Route(s), this Routing will be published as a Flex Track/TDM to avoid the risk of confusion of possible lost TDM messages.

4.13 The TDM NOTAM Publication contains AUSOTS “Groups” in order to combine different AUSOTS Tracks in one NOTAM (see chapter 5.4 for details); these are defined as follows:

Group Type	effective from	Validity	Sector
Group A	13:00 UTC	<ul style="list-style-type: none"> • Initial stage: 13:00 – 22:00 UTC • After review (see chapter 4.4): 13:00 – 00:00 UTC 	WSSS* – YBBN WSSS* – YSSY WSSS* – YMML YBBN – WSSS* YSSY – WSSS* YMML – WSSS*
Group B	00:00 UTC	<ul style="list-style-type: none"> • After review (see chapter 4.4): 00:00 – 13:00 UTC 	WSSS* – YBBN WSSS* – YSSY WSSS* – YMML YBBN – WSSS* YSSY – WSSS* YMML – WSSS*
Group C	13:00 UTC	13:00 – 13:00 UTC	OMDB – YPPH YPPH – OMDB VABB – YSSY YPPH – NZAA
Group D	00:00 UTC	00:00 – 00:00 UTC	OMDB – YSSY OMDB – YMML YSSY – VABB NZAA – YPPH

* - Singapore Area

5 Track Definition Message/TDM - Format

5.1 The Airservices Australia Trackmaster uses the Track Definition Message/TDM format in accordance with Table 4-3 of the ICAO Asia Pacific Regional Interface Control Document (ICD), which is used for the generation of the PACOTS on the Pacific Ocean.

5.2 Aircraft operators preferring to automatically receive the TDMs should contact the Trackmaster via Email on trackmaster@airservicesaustralia.com or via AFTN: YMMMZRZS

5.3 AFTN Telex Format (example):

Example
FF YBBBMONX 010728 YMMMZRZD (TDM TRK SY1A 05041707301 0504171300 0504172200 WLG WDH BOU VINAX TNK 17S130E 15S126E ONOXA RTS/YSSY SY H202 WLG RMK/0) NNNN
TDM Structure
(Message Priority) (Addressee) (Message sent time) (Initiator) TDM TRK (Flex Track Designator)* (Creation time and number) (Flex Track validity start time) (Flex Track validity end time) (Flex Track details) RTS/ (tracking details from departure point to commencement of Flex Tracks) (tracking details from end of Flex Track to destination)** RMK/ (Specific comments affecting the use of the Flex Track) NNNN

* Maximum of four alpha numeric characters

** Airservices Australia will not specify the flight planning requirements outside Australian administered airspace. Therefore the TDM will only include either the fixed route details for departures from an Australian airport to join the Flex Tracks or for Australian airport arrivals the fixed route details from the end of the Flex Tracks to the destination.

5.4 Intl. Class-1-NOTAM Format (example):

Example
<pre>G0746/05 NOTAMN Q)YMXX/QARCH/I/BO/E/000/999 A) YMMM/YBBB B) 0504171300 C) 0504172200 E) AUSOTS GROUP A FLEX TRACKS AUSTRALIA - SINGAPORE AREA - AUSTRALIA VALID 0504171300 TILL 050412200 UTC TRK YB1A ONOXA 15S125E 18S130E 20S134E VINAX TAVEV ROM RTS/ROM DAMIM OK GERBL AMB GLENN BN YBBN RMK/TRACK VALID UNTIL 01:30 ONLY AT WAYPOINT ROM TRK YS1A ATMAP PARAD 20S129E HONGI MITTS 28S145E 29S147E WLG RTS/WLG SCO BOREE YSSY TRK YM1A ATMAP CIN VIPOX SCHEE 28S135E CAPET UVUPU RTS/ UVUPU NYA CANTY ARBEY YMML RMK/NOT AVBL FOR ARRIVALS YPAD TRK BY1A TAM BAR MA 18S135E 16S130E 14S125E ONOXA RTS/YBBN IBUNA TAM TRK SY1A WLG WDH BOU VINAX TNK 17S130E 15S126E ONOXA RTS/YSSY KAT PKS TRK MY1A AD ARS AKDAV RUSAD ISMOR WENER ENPIT POTIP BRM ATMAP RTS/YMML NEVIS BOR DRINA AD RMK/AIP SUP H28/05 REFERS.</pre>
TDM Structure
<pre>(NOTAM Series, Number and Year) (NOTAM Qualifier line) (ICAO FIR Location Indicator for the affected airspace) (Period of validity - Start) (Period of validity - End) (NOTAM Text incl. AUSOTS Group, TDM TRK (Flex Track Designator)* and (Flex Track details) RTS/ (tracking details from departure point to commencement of Flex Tracks) (tracking details from end of Flex Track to destination)** RMK/ (Specific comments affecting the use of the Flex Track)</pre>

* Maximum of four alpha numeric characters

** Aircservices Australia will not specify the flight planning requirements outside Australian administered airspace. Therefore the TDM will only include either the fixed route details for departures from an Australian airport to join the Flex Tracks or for Australian airport arrivals the fixed route details from the end of the Flex Tracks to the destination.

6 Track Definition Message/TDM – Track Designator Format

6.1 Character 1 & 2 – Identifiers

Characters 1 & 2 represent the direction of the Flex Track, which is either a track between two specified airports or between an airport and an area/region

- Specific Airports
 - A Auckland
 - B Brisbane
 - C Christchurch
 - M Melbourne
 - P Perth
 - S Sydney

- Areas/Regions
 - X Arabian Gulf
 - Y Singapore Area of Southeast Asia
 - Z India

6.2 Character 3 - Track Number

Character 3 represents the track number for a specific track pairing. This number will generally be one (1) unless a second Flex Track is generated concurrently either to safeguard against congestion or to provide better access to other airports in the same area/region, e.g. two tracks may be generated between Sydney (S) and the Singapore Area (Y). Track 1 may capture the WIII, WSSS, WMKK traffic and Track 2 the WADD and VTBD traffic.

6.3 Character 4 - Validity Period

The validity periods for the Flex Tracks that make up the AUSOTS fall into two categories. Firstly, high density shorter range international routes with diverse scheduled departure times requiring the Flex Tracks to be generated twice daily with shorter validity periods. Secondly, the long range international routes with low traffic densities and limited departure times that require a once a day promulgated Flex Tracks with a long validity period.

From an ATM perspective it is imperative (particularly in an electronic environment) that the naming system safeguards against possible confusions caused by the introduction of TDMs replacing the previous TDM with the same name. The 4th character is predominantly for the ATSP use.

The fourth character will be either:

- For Flex Tracks generated twice per day
 - A (meaning tracks created from the 06:00 UTC wind updates)
 - P (meaning tracks created from the 18:00 UTC wind updates)

- For Flex Tracks generated once per day
 - A number from 1-7 (representing the day of the week that the Flex Track is created starting with Monday - 1, Tuesday – 2 etc.)

6.4 Track Designator Examples

The Trackmaster will publish Track Definition Messages/TDM with the appropriate designators as follows:

	<u>TRACK DESIGNATOR</u>
(1) Singapore to Brisbane	YB1
(2) Singapore to Sydney	YS1
(3) Singapore to Melbourne	YM1
(4) Brisbane to Singapore	BY1
(5) Sydney to Singapore	SY1
(6) Melbourne to Singapore	MY1

Future Flex Tracks may be designated as follows:

(7) Bangkok to Sydney	YS2
(8) Sydney to Bangkok	SY2
(9) Mumbai to Sydney	ZS1
(10) Sydney to Mumbai	SZ1
(11) Arabian Gulf to Perth	XP1
(12) Perth to Arabian Gulf	PX1
(13) Arabian Gulf to Sydney	XS1
(14) Arabian Gulf to Melbourne	XM1
(15) Sydney to Arabian Gulf	SX1
(16) Melbourne to Arabian Gulf	MX1
(17)

Further examples:

SY2P - ...represents a second Flex Track created between Sydney and the Singapore Area valid for the afternoon period. It would also suggest that it was a BKK oriented track. (SY1P would be the Track Identifier for YSSY and WSSS).

XB11 - ...represents a once a day Flex Track created between the Arabian Gulf and Brisbane, created on a Monday.

AP16 - ...represents a once a day Flex Track created between Auckland and Perth, created on a Saturday.

7 ATS-Flight Plan Example

In the following an example of the Track Definition Message/TDM in AFTN-Telex format and Intl. Class-1-NOTAM format together with the appropriate ATS-Flight Plan (FPL) (Sydney/YSSY – Singapore/WSSS) to be filed is shown:

(i) TDM: AFTN-Telex Format – Example

```
FF YBBBBMONX
010728 YMMMZRZD
(TDM TRK SY2P 05041707301
0504171300 0504172200
WLG WDH BOU VINAX TNK 17S130E 15S126E ONOXA
RTS/YSSY SY H202 WLG
RMK/0 )
NNNN
```

(ii) TDM: Intl. Class-1-NOTAM Format – Example

```
G0746/05 NOTAMN
Q)YMXX/QARCH/I/BO/E/000/999
A) YMMM/YBBB
B) 0504171300 C) 0504172200
E) AUSOTS GROUP A FLEX TRACKS
  AUSTRALIA - SINGAPORE AREA - AUSTRALIA
  VALID 0504171300 TILL 050412200 UTC
  TRK YB1A
    ONOXA 15S125E 18S130E 20S134E VINAX TAVEV ROM
    RTS/ROM DAMIM OK GERBL AMB GLENN BN YBBN
    RMK/TRACK VALID UNTIL 01:30 ONLY AT WAYPOINT ROM
  TRK YS1A
    ATMAP PARAD 20S129E HONGI MITTS 28S145E 2930S14730E WLG
    RTS/WLG SCO BOREE YSSY
  TRK YM1A
    ATMAP CIN VIPOX SCHEE 28S135E CAPET UVUPU
    RTS/ UVUPU NYA CANTY ARBEY YMML
    RMK/NOT AVBL FOR ARRIVALS YPAD
  TRK BY1A
    TAM BAR MA 18S135E 16S130E 14S125E ONOXA
    RTS/YBBN IBUNA TAM
  TRK SY1A
    WLG WDH BOU VINAX TNK 17S130E 15S126E ONOXA
    RTS/YSSY SY H202 WLG
  TRK MY1A
    AD ARS AKDAV RUSAD ISMOR WENER ENPIT POTIP BRM ATMAP
    RTS/YMML NEVIS BOR DRINA AD
  RMK/AIP SUP H28/05 REFERS.
```

(iii) ATS-Flight Plan (FPL) – Example

```
(FPL-XXX904-IS
-B773/H-SGIJRWYZ/SD
-YSSY1400
-N0489F340 DCT SY H202 WLG DCT WDH DCT BOU DCT VINAX
DCT TNK DCT 17S130E 15S126E DCT ONOXA G326 GUNAM/M083F360
G326 NYOMA/N0482F380 G326 BLI/M083F380 A576 TI TAN4A
-WSS0715 WMKK
-EET/YBBB0012 WIIZ0427 NYOMA0455 WSJC0642 REG/A6XXX
SEL/AJKS RALT/YBAS WADD RMK/TCAS 7.0 NAV/RNP4 AUSEP DAT/SV)
```

- Tracking details from departure point to commencement of Flex Tracks
- AUSOTS Flex Track details

8 Lateral Spacing of Tracks

8.1 Common direction tracks may be coincidental. However, when there is no requirement for the use of common waypoints, they will be laterally spaced as described below.

8.2 Opposite direction tracks, unless converging or diverging, will be laterally spaced by the appropriate horizontal separation standard, e.g. 50 NM Oceanic or 30 NM domestic reducing as applicable with the introduction of ADS-B or within radar coverage.

9 Flight Planning

9.1 The AUSOTS concept has been implemented as a trial at the request of airlines to improve operational efficiency. It is expected that all operators other than those affected by operational limitations will plan to utilise the AUSOTS when generated and applicable.

9.2 All Waypoints on a track as published in the TDM (AFTN Telex, Intl. Class-1-NOTAM) are to be included in item 15 of the ICAO ATS-Flight Plan. Flex Track Designators and ATS-Route Designators (within the Flex Track area) shall not be used in the filed Flight Plan; neither in the ATS-Route Description (item 15), nor in the RMKS-field (item 18).

9.3 AUSOTS Flex Tracks may be used at all applicable flight levels within controlled airspace.

9.4 Aircraft operating on the AUSOTS must have reached the published end gate Waypoint prior to termination of the Flex Track validity times.

9.5 Aircraft that cannot complete the Flex Track portion of the flight during the published validity period must flight plan via the fixed ATS-Route structure. - However, when a flight is unexpectedly delayed and this delay would cause the aircraft to still be on the Flex Track, but outside the validity period, approval may be granted at the discretion of the Melbourne ACC Operations Manager to proceed as planned. If approval is not granted, the flight is required to re-plan via the fixed ATS-Route structure or the relevant published Flex Tracks.

9.6 Airline Operators may flight plan, using the AUSOTS, even when not intending to land at the Flex Tracks designated destinations. However, they may not diverge from the Flex Tracks prior to the exit gate unless approval is specified in the RMKS section of the TDM (e.g. RMK/AIRCRAFT FOR YPAD TO EXIT AT WHA).

9.7 Aircraft departing from a different Australian airport than described in the TDM, may use the published Flex Track from the Entry- to the Exit Gate without prior coordination.

9.8 Aircraft Operators may plan and/or request step climbs within the Flex Tracks.

9.9 Flex Tracks are available for flight planning for all aircraft meeting the minimum requirement of RNP-10 or RNP-4.

9.10 For Routings to/from Brisbane, Sydney and Melbourne, specific Routes are to be filed in accordance with the Australian AIP. The suggested routing will also be shown in the RTS field of the TDM.

9.11 The applicable TDM-Message (either the NOTAM or the TDM AFTN-Telex) affecting the flight must be included in the Crew Briefing documents.

9.12 If due to operational limitations such as ETOPS, aircraft are unable to comply with the OTS, the Melbourne Centre Operations Manager (see contacts) must be notified.

9.13 It is not possible to flight plan to join or leave an AUSOTS Flex Track unless published in the individual Track Definition Message (TDM) or after prior coordination with Melbourne ACC.

10 ATC-Procedures

10.1 Aircraft Position reports shall be made in accordance with ICAO Doc 7030 procedures. Within the Flex Track airspace, position reports are to be made using geographical coordinates (Latitude/Longitude) or named waypoints as specified in the AUSOTS Track Definition Message/TDM.

10.2 The Flex Track Identifier is not to be used by ATC or aircraft operating crew, with all clearances adhering to standard route/fix descriptions.

11 ATC Separation Standards

11.1 ATC will utilise existing separation standards as on the fixed ATS-Route structure.

11.2 ATC will apply the current priority structure with the addition that in case of conflicts between aircraft on fixed and Flex Tracks, ATC will apply priority favouring the aircraft on the Flex Track.

12 Contingency Procedures

12.1 Any aircraft which loses its RNP capability enroute, but is still able to navigate on the Flex Track AUSOTS, may continue on the Flex Track.

12.2 If for any reason, the Flex Track cannot be published at the scheduled time, a NOTAM shall be published that advises aircraft operators to use the fixed ATS-Route structure only.

13 System Review

13.1 Review of ATC fixed requirements and Airline Operators agreed parameters will be addressed as follows:

- Stakeholder significant safety issues – immediately reviewed by Trackmaster/Airservices Australia Operations Manager.
- Changes to Airline Operators agreed parameters – quarterly either via Stakeholder meetings called by the Trackmaster or direct E-Mail to the Trackmaster, who will initiate discussion with all Stakeholders.
- Broadening of capability – subsequent to the post implementation review of the initial trial.

13.2 Airline operators are requested to report intended changes to the Scheduled Time of Departure (STD) and/or new schedules in advance to the Trackmaster at Melbourne ACC.

14 Summary

The implementation of the Australian Organised Track Structure/AUSOTS will ultimately provide airlines with better traffic flows and significantly contribute to airline fuel savings. It will also minimise aircraft emissions on the environment through reduced fuel burn. The daily published AUSOTS Tracks allow airlines to obtain benefits from forecast wind conditions that cannot be obtained using the current fixed route structure.

AUSOTS Flex Tracks are expected to be implemented in accordance to the Australian AIC H3/05 and the AIP SUP H9/05 during the second quarter of 2005 within the entire Melbourne and the Brisbane FIRs; initial activation will be announced by NOTAM.

The introduction of AUSOTS will begin as a trial focused on flights between Brisbane/YBBN, Sydney/YSSY and Melbourne/YMML and the airports in the Singapore area of South East Asia in both directions (e.g. Singapore/WSSS, Bali/WADD etc.) but will include the extant Flex Tracks trial for the Arabian Gulf to/from Perth and to Melbourne and Sydney as well as between Auckland and Perth. – However, the AUSOTS Flex Tracks may be used for overflying traffic, not landing in the Singapore area as well, with the requirement to enter/exit at the published TDM Entry-/Exit-Waypoints and operating to/from Sydney, Brisbane and Melbourne.

AUSOTS will be available for all aircraft meeting the minimum requirement of RNP10 or RNP4.

It is expected that all operators other than those affected by operational limitations (e.g. ETOPS) will plan to utilise the AUSOTS when generated and applicable; if unable to comply with the AUSOTS, the Melbourne Center Operations Manager must be notified in advance.

Aircraft operating on the AUSOTS must have reached the published end gate Waypoint prior to termination of the Flex Track validity times, which is defined in the Track Definition Message/TDM.

Even when the published Flex Track totally corresponds to permanent published ATS-Route(s), this Routing will be published as a Flex Track/TDM to avoid the risk of confusion of possible lost TDM messages.

15 Contacts

15.1 Questions regarding published AUSOTS Flex Tracks should be directed to the Melbourne Center Operations Manager at the Melbourne ACC on +61 3 9235 7420 (phone) or using the following AFTN-address: YMMMZRZS.

15.2 Requests for obtaining the TDM in AFTN-format should be forwarded to the AFTN-address YMMMZRZS.

15.3 Aircraft operators preferring to automatically receive the TDMs should contact the Trackmaster in Melbourne ACC via Email on trackmaster@airservicesaustralia.com

15.4 Further information may be obtained from:

- a) Greg McDonald
Project Manager
User Preferred Routes & Trajectories Project
Airservices Australia
Tel: +61 3 9339 2516
E-Mail: greg.mcdonald@airservicesaustralia.com

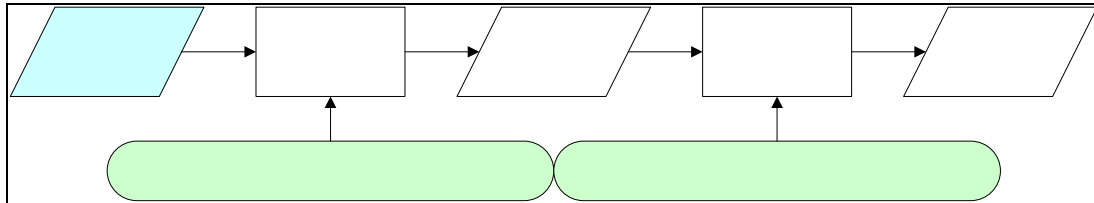
- b) Garth Cooper
Operations Design Manager
User Preferred Routes & Trajectories Project
Airservices Australia
Tel: +61 7 3866 3439
E-Mail: garth.cooper@airservicesaustralia.com

16 Documents

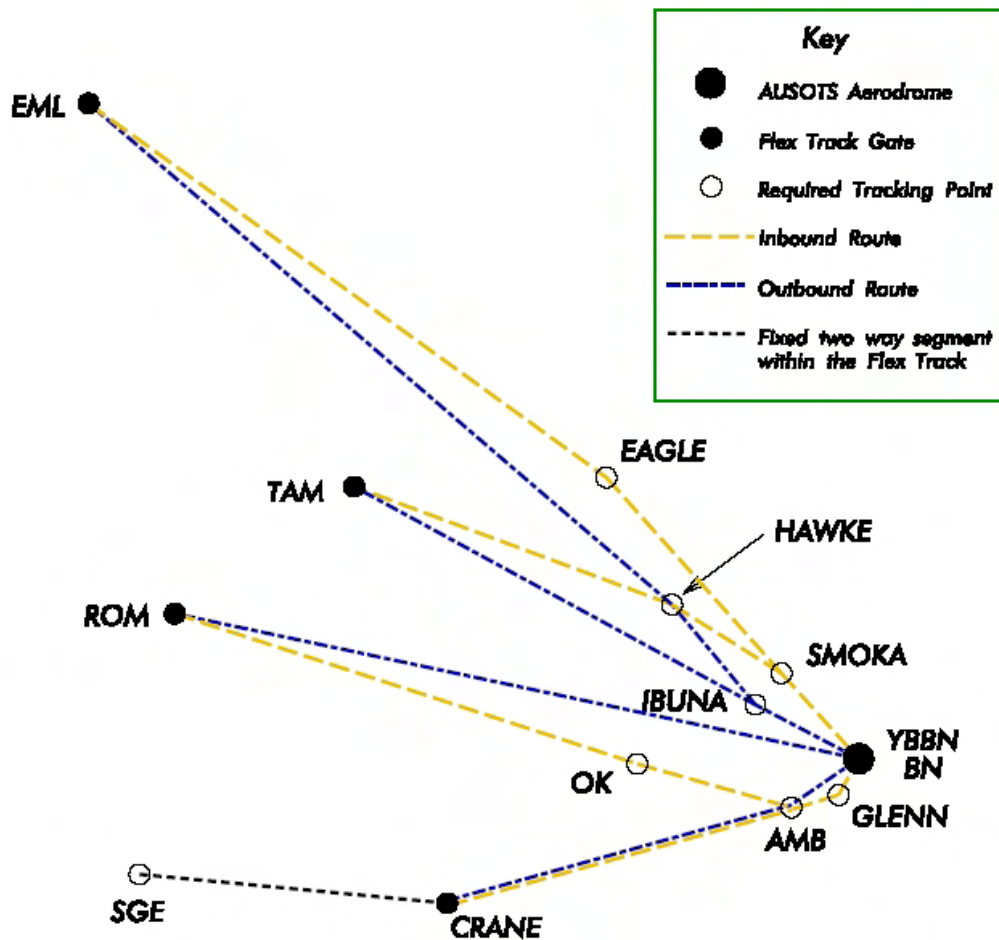
- Australia, AIC H3/05: Australian Organised Track Structure (AUSOTS) Trial
- Australia, AIP SUP H28/05: Australian Organised Track Structure (AUSOTS) Guidelines
- World Wide Web: <http://www.airservicesaustralia.com/customer/flextrack/default.asp>
 - What is a Flex Track?
 - Flex Track Concept of Operations
 - Flex Track Concept of Operations OTS
 - AUSOTS
 - Operational Concept for AUSOTS
 - Example AUSOTS
 - What is DOTS+
 - Flex Track Process
 - Benefits Achievable
 - Contacts/Feedback
 - Customer News Flashes
- The future vision for Australia's Air Traffic Management System – World Wide Web: <http://astra.aero/index.aspx>

17 Appendix

Appendix 1 to AUSOTS Dispatch Guidelines - TDM Creation Process



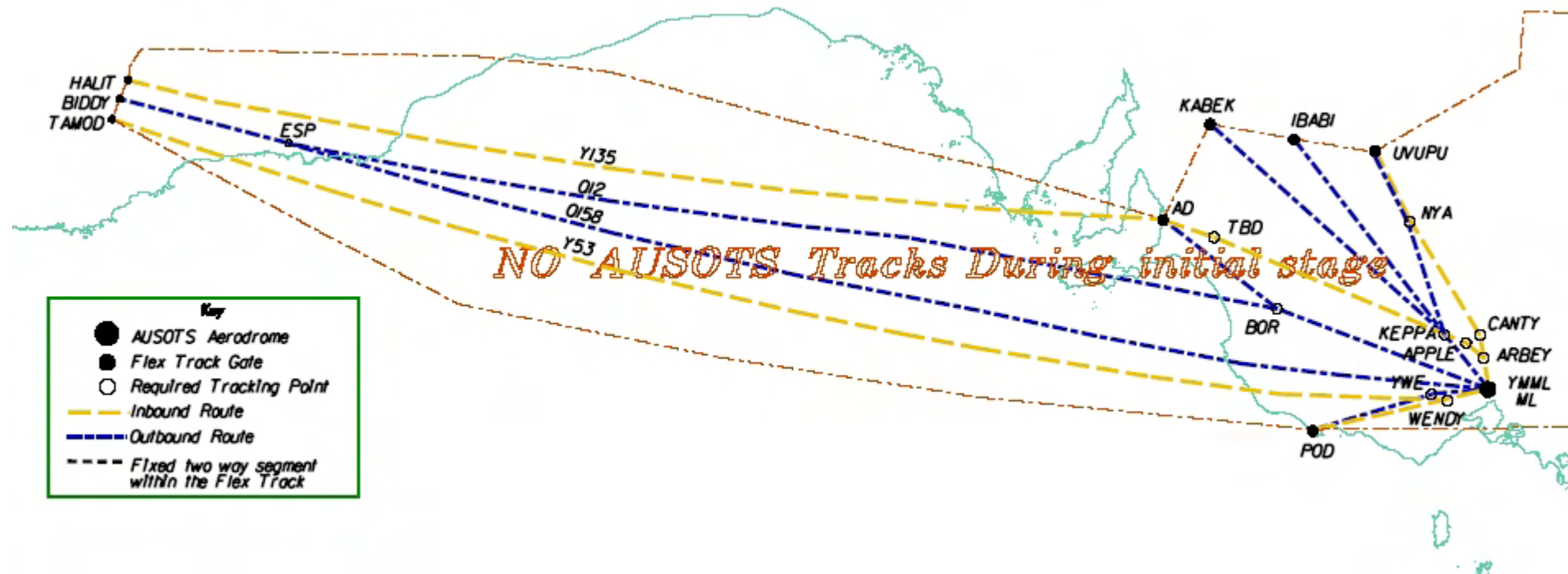
Appendix 2A to AUSOTS Dispatch Guidelines – AUSOTS-Brisbane Arrival and Departure Trap Waypoints



Tr
Pre

1 Hour

Appendix 2C to AUSOTS Dispatch Guidelines – AUSOTS- Melbourne Arrival and Departure Trap Waypoints and “NON AUSOTS (Flex Track)-Airspace”



Appendix 3 – AUSOTS AIRSPACE

