

Report No 02147-7
Version B

**AREAS AROUND AUSTRALIAN AIRPORTS
WITH NOISE EXPOSURE SIMILAR TO "TRALEE"**

September 2009

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Prepared for
The Village Building Company

Prepared by
Wilkinson Murray Pty Limited
2nd Floor, 123 Willoughby Road, Crows Nest, NSW 2065 Australia
Tel: (02) 9437 4611 Fax: (02) 9437 4393 email: acoustics@wmpl.com.au

TABLE OF CONTENTS

	Page
1 INTRODUCTION	1
2 AIRPORTS CONSIDERED	1
2.1 Non-Curfewed Airports	1
2.1.1 Perth Airport	1
2.1.2 Melbourne Airport	1
2.1.3 Brisbane Airport	2
2.2 Curfewed Airports	2
2.2.1 Sydney Airport	2
2.2.2 Adelaide Airport	2

1 INTRODUCTION

This report describes areas around some major Australian airports at which aircraft noise exposure is in some ways comparable to that at the proposed “Tralee” development to the south of Canberra Airport. This area currently experiences intermittent noise exposure from aircraft departing Canberra Airport, with a long-term average of approximately 12 movements per day, and 7 jet movements per day. In addition, approximately 2 jet arrivals per day execute “RNP” arrival procedures that take them close to or over parts of the “Tralee” site. Between 11pm and 6am the site currently experiences approximately one departure every three nights.

The following section briefly describes relevant areas, and Appendix A contains maps indicating the general areas concerned.

It will be clear from the following section that there are areas with noise exposure similar to or greater than “Tralee”, around both non-curfewed and curfewed airports, where residential development has existed for some time without resulting in significant modification to airport operations.

2 AIRPORTS CONSIDERED

2.1 Non-Curfewed Airports

2.1.1 Perth Airport

In Perth, the best comparison would be with an area in east Greenmount, about 800m – 3000m from the centre-line of the cross runway (runway 06/24). The area is shown in Figure A-1. This area currently experiences noise from 20 departures per day (all aircraft types), compared with 12 for Tralee. Departures in Perth would not fly directly overhead, but the noise level would be similar to that in Tralee, at between 55 and 71dBA. In Perth the most-affected location would also experience noise from 46 arrivals per day at up to 63dBA, compared with 51 arrivals per day at a similar level in Canberra. However, in most of the area noise from arrivals would be negligible. Between 11pm and 6am the site experiences approximately 2 departures per night, compared with one every three nights at Tralee.

2.1.2 Melbourne Airport

Here the best current comparison with Tralee would be an area to the west of the Calder Highway, beneath one of the western departure tracks, in the area of Plumpton (Figure A-2). This is further from the airport than Tralee, but noise levels are comparable

because the departing aircraft include 747's. The number of departing aircraft using this track is difficult to determine, but from available track density plots and other information it is estimated at about 30 per day, compared with 12 for Tralee. Between 11pm and 6am the site experiences approximately 1.5 movements per night.

2.1.3 Brisbane Airport

Around Brisbane Airport, the area which most closely resembles Tralee in terms of noise exposure is around the suburbs of Virginia and Banyo (Figure A-3). This is further from the airport, in terms of track miles for departures, but the departures include long-range 747's. Results from a nearby noise monitoring terminal confirm that noise levels at the location shown would be similar to those at Tralee. However, in this case the number of operations would be significantly higher with an estimated average of 45 operations per day. Between 11pm and 6am the site experiences approximately 1.2 movements per night.

2.2 Curfewed Airports

2.2.1 Sydney Airport

At Sydney, the area with noise exposure closest to Tralee would be Darling Point / Point Piper, as shown in Figure A-4. This area experiences noise from departures only, from runway 34R, and on a reasonably sporadic basis. It is also about the same distance from the end of the relevant runway as Tralee, so the maximum noise level from a given aircraft type would be similar, within 1-2dBA. It also experiences very few 747 overflights, and the mix of jet aircraft types is quite similar. However, it experiences an average of about 35 jet aircraft departures per day, compared with 7 at Tralee. Due to the curfew at Sydney Airport, the site experiences virtually no movements between 11pm and 6am.

2.2.2 Adelaide Airport

Figure A-5 shows an area in Adelaide, generally in and near the suburb of Glenside, with comparable noise exposure to Tralee, experiencing departures only with noise levels from individual events similar to those at Tralee. The number of operations per day using this track cannot be defined precisely from available data, but is estimated at about 25 per day compared with 12 for Tralee. Although Adelaide Airports is subject to a curfew, light aircraft can depart on this track between 11pm and 6am. The number of such movements is currently approximately 1 per night.

Note

All materials specified by Wilkinson Murray Pty Limited have been selected solely on the basis of acoustic performance. Any other properties of these materials, such as fire rating, chemical properties etc. should be checked with the suppliers or other specialised bodies for fitness for a given purpose.

Quality Assurance

Wilkinson Murray Pty Limited is committed to and has implemented AS/NZS ISO 9001: 1994 "Quality Systems - Model for quality assurance in design, development, production, installation and servicing". This management system has been externally certified and Certificate No. QEC 13457 has been issued.

AAAC

This firm is a member firm of the Association of Australian Acoustical Consultants and the work here reported has been carried out in accordance with the terms of that membership.

Version	Date	Prepared by	Checked by
A	18 December 2003	RB	NG
B	1 September 2009	RB (updated)	

APPENDIX A

FIGURES

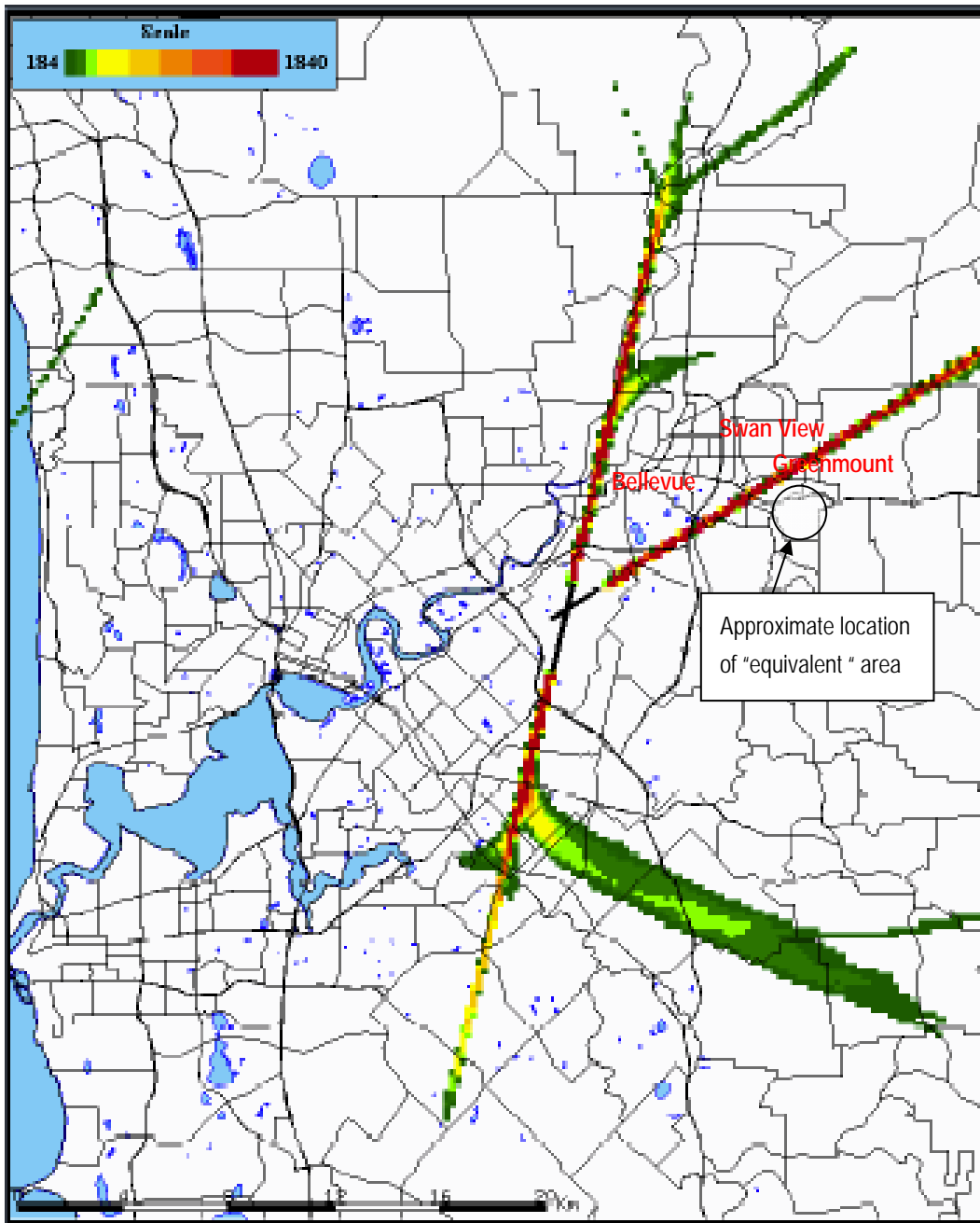


Figure A-1 Area in Perth Approximately "Equivalent" to Tralee (Diagram shows track density for jet operations)

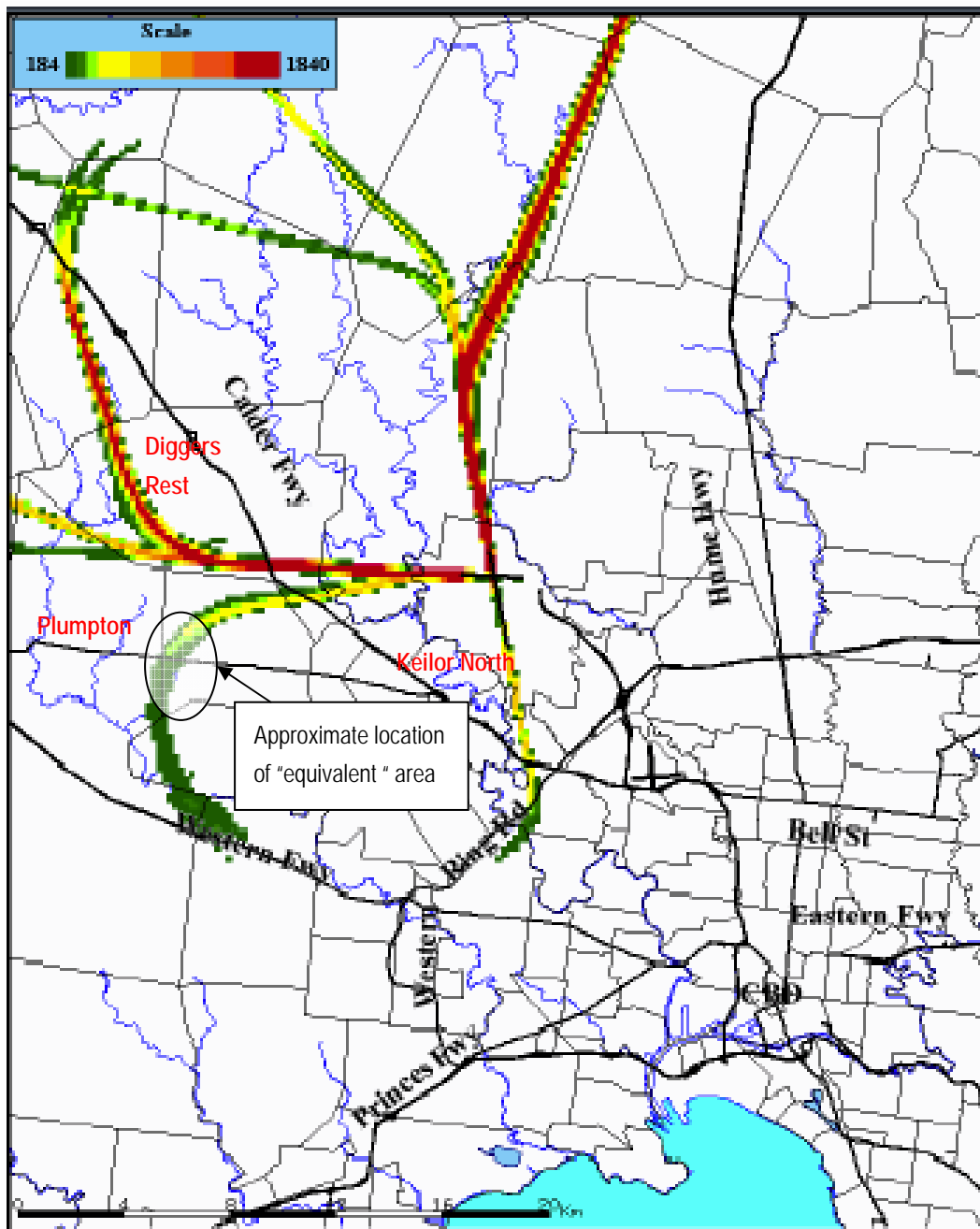


Figure A-2 Area in Melbourne Approximately "Equivalent" to Tralee (Diagram shows track density for jet departures)

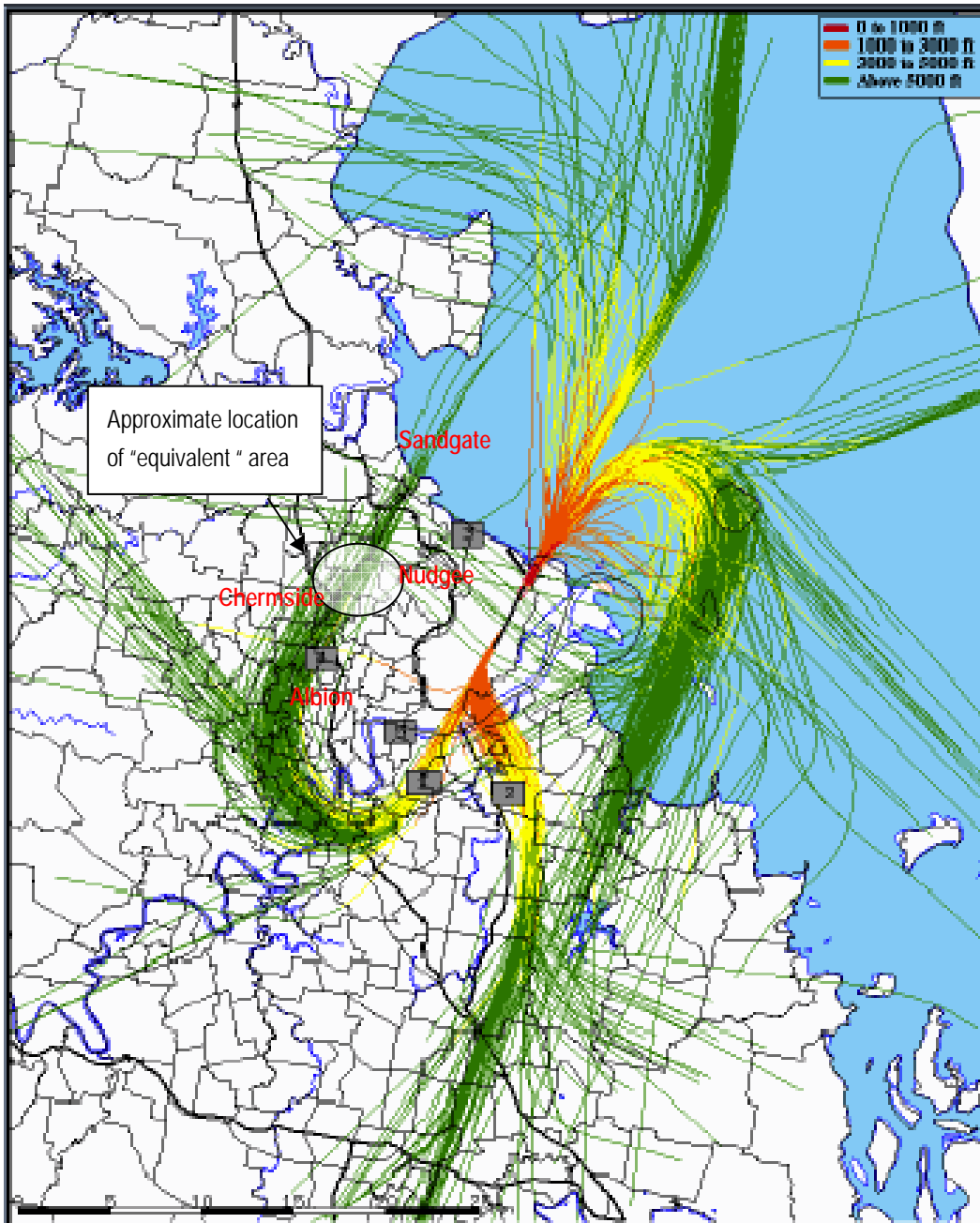


Figure A-3 Area in Brisbane Approximately "Equivalent" to Tralee (Diagram shows jet departure tracks)

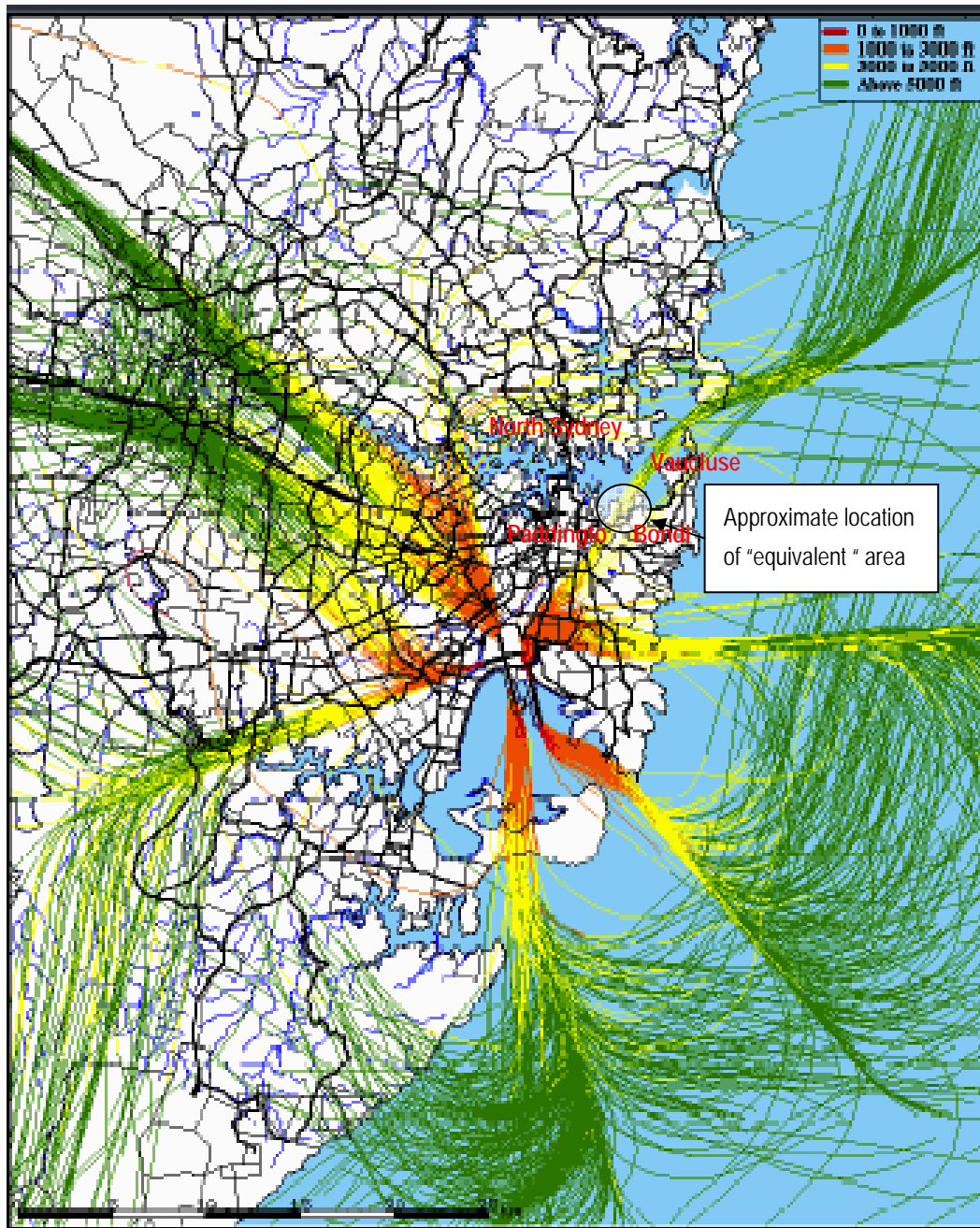


Figure A-4 Area in Sydney Approximately "Equivalent" to Tralee (Diagram shows jet departure tracks)

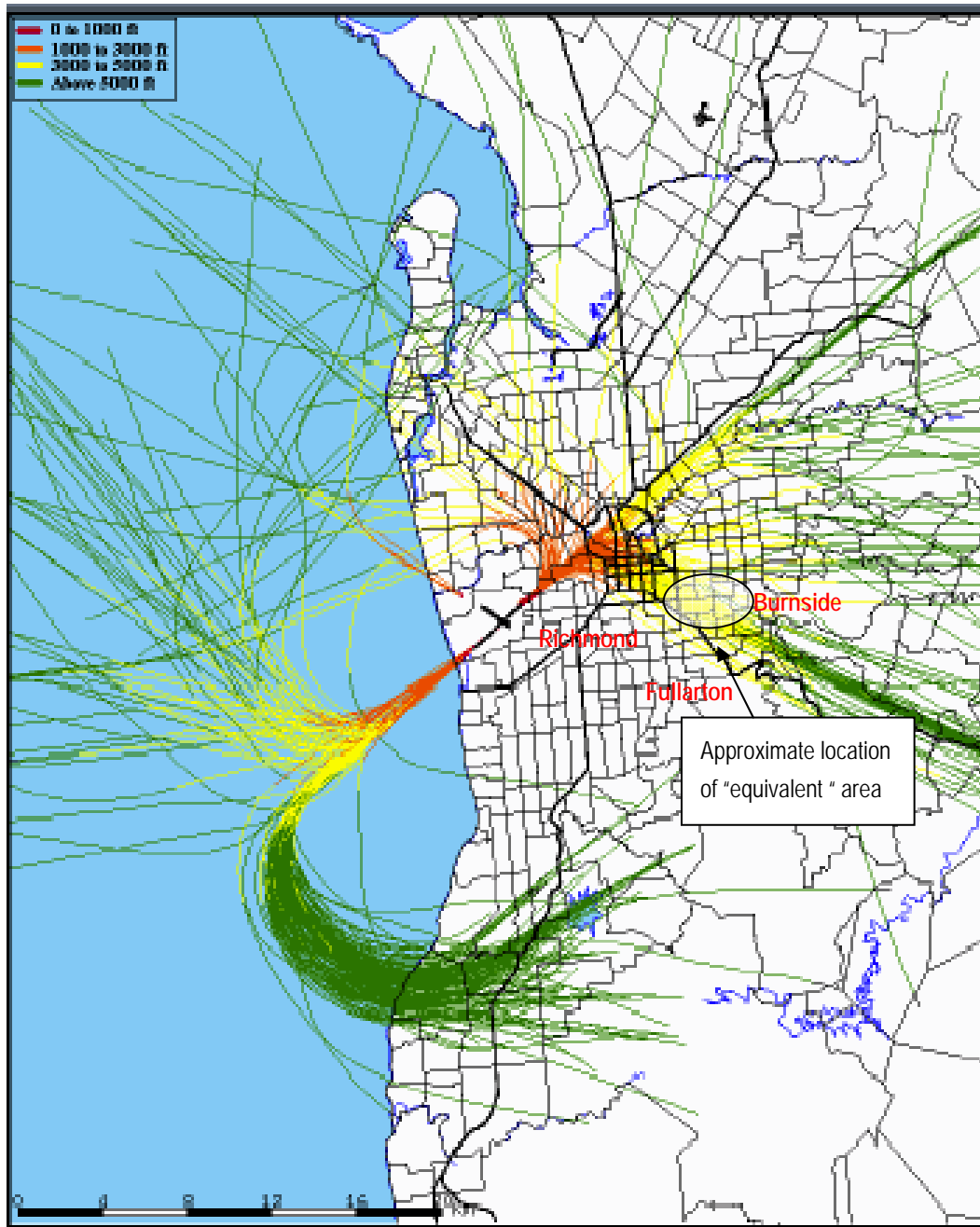


Figure A-5 Area in Adelaide Approximately "Equivalent" to Tralee (Diagram shows jet departure tracks)