



ArCham

Argentine **Chamber** of **Com**mmerce - **Australia**



Buenos Aires – Singapore via Perth

The best connection between South America and South-East Asia ever.

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About ArCham

The Argentine Chamber of Commerce in Australia is a young association created to develop stronger commercial links between Australia and Argentina.

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Executive Summary: Buenos Aires-Perth-Singapore air connectivity prefeasibility

In this report ArCham presents a basic pre-feasibility study of the air connection of Buenos Aires-Perth-Singapore.

This route connects three continents; Asia, Oceania and South America. Nowadays, the PER-SIN connection transports more than 1 million passengers (inbound and outbound). The PER-EZE connection through the South Pole takes approximately 15 hours and offers a unique alternative route for tourism and business between Singapore, Australia and Argentina.

- Buenos Aires – Perth will save 9 hours' flight and take 15 hours less.
- Buenos Aires Singapore will save 3 hours' flight and take 10 hours less than the best existing option.
- Perth is better connected than Auckland to some of the biggest airports in earth such us Jakarta, Singapore, Hong Kong, Bangkok, Guangzhou, etc.
- According to the BBC Report "Asia's travel boom", approximately 1 million people fly from Asia to Latin America each year.
- The north pole flights went from cero in the late 90's to 5,000 per year today.
- Boeing confirmed that the new airplanes can easily fly over Antarctica.
- Only few small changes are required in the Air Service Agreements in Argentina, Australia and Singapore.

1 Flying time saving

1.1 Perth vs Auckland hub

	Perth	Buenos Aires (via Perth)	Flight time Savings*	Buenos Aires (via Auckland)	Auckland
Auckland	-	-	-	12:46	-
Perth	-	15:00	3:56	18:56	6:10
Singapore	5:03	20:03	3:08	23:11	10:25
Kuala Lumpur	5:22	20:22	3:11	23:33	10:47
Jakarta	3:58	18:58	3:17	22:15	9:29
Bangkok	6:44	21:44	2:50	24:34	11:48
Guangzhou	7:40	22:40	1:32	24:11	11:25
Hong Kong	7:34	22:34	1:26	24:03	11:17

*Flying time saving only. Perth have a better frequency to SEA than Auckland therefore waiting time will also be substantially reduced. **As a reference, current waiting time in Auckland traveling from Perth to Buenos Aires is 14 hours.**

1.2 Perth vs Dubai hub

There are not direct flights from Buenos Aires to Dubai, but we present the possibility as an option to connect Buenos Aires with Singapore. Current flight stops in Rio de Janeiro and takes 18:30 instead of 16:40 as it is presented in the next table.

	Perth	Buenos Aires (via Perth)	Flight time Savings*	Buenos Aires (via Dubai)	Dubai
Dubai	-	-	-	16:40	-
Perth	-	15:00	12:50	27:50	11:10
Singapore	5:03	20:03	3:57	24:00	7:20
Kuala Lumpur	5:22	20:22	3:18	23:40	7:00
Jakarta	3:58	18:58	5:55	24:53	8:13
Bangkok	6:44	21:44	1:11	22:53	6:13
Guangzhou	7:40	22:40	1:22	24:02	7:22
Hong Kong	7:34	22:34	1:36	24:10	7:30

*Flying time saving only. Perth have a better frequency to SEA than Auckland therefore waiting time will also be substantially reduced. **As a reference, current waiting time in Auckland traveling from Perth to Buenos Aires is 14 hours.**

1.3 Perth airport connection frequencies

Perth is well connected to some of the biggest airports in earth. It is also expected that frequencies will go up after a connection to South America is set.

Passengers per year	40M	40M	35M	50M	40M	40M	40M
Direct flights to:	Jakarta	Singapore	Kuala Lumpur	Hong Kong	Guangzhou	Bangkok	Sydney
Perth (Flights per week)	4	54	23	6	4	7	94
Auckland (Flights per week)	0	10	7	15	10	5	91
Dubai (Flights per week)	21	35	21	35	14	63	21

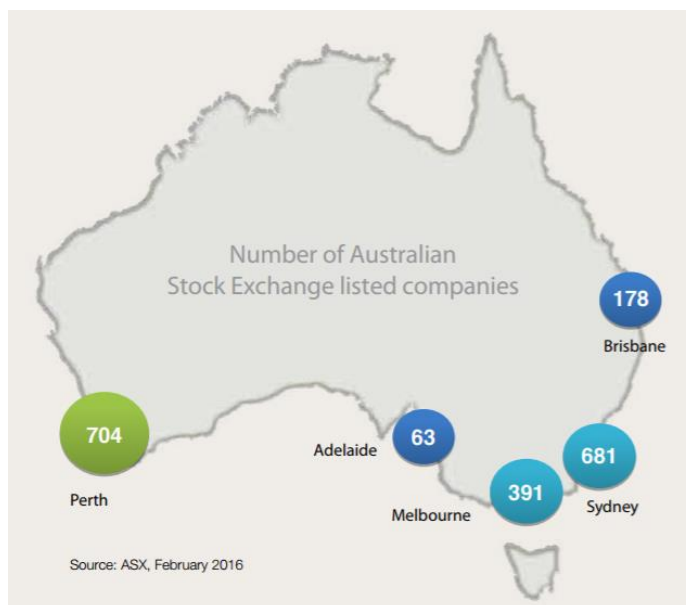
2 Why Perth?

Perth is the Capital of Western Australia¹.

- A\$171 billion investment in resources projects under construction or committed

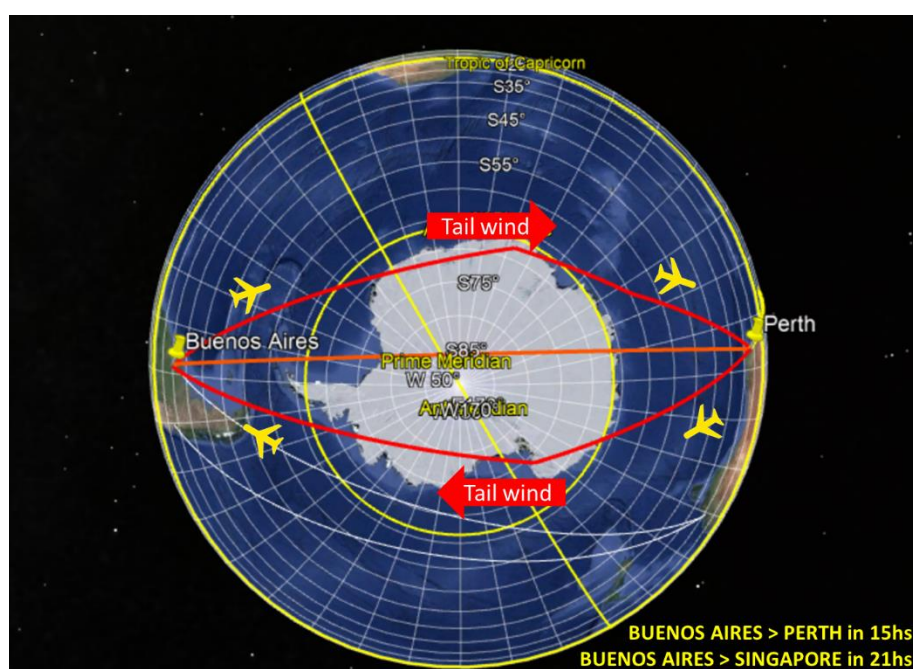
¹ http://www.jtsi.wa.gov.au/docs/default-source/default-document-library/invest_in_the_west-investment_environment_in_western_australia_brochure_0515

- 35 per cent of all ASX-listed companies are headquartered in Perth. 76 per cent of listed companies in Perth are from the materials and energy sectors
- Strategic location to the Asia Pacific and Indian Ocean growth markets with access to capital
- The shortest travel times from an Australian capital to most Asia-Pacific and Indian Ocean markets



3 Tail winds

Perth and Buenos Aires are located diametrically opposite with the south pole in the middle therefore flights will always travel east and use tail winds.



Effective Still Air Distance (ESAD)

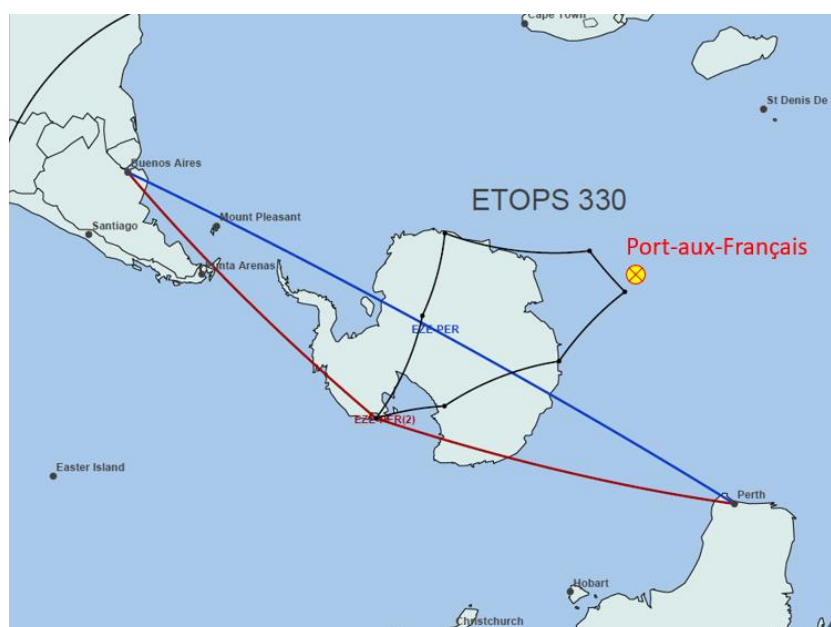
Routes in red are 200NM longer than the orange “shortest” route but because of the tail route ESAD is even lower making the flights shorter in time. Next table shows the Effective Still Air Distance estimations.²

From	To	Route	Ground (Km)	ESAD (Km)	Altitude (mts)	Speed (km/h)	Estimated Flying Time
EZE	PER	Orange	12,556	12,778	11,277	903	14h 9m
PER	EZE	Orange	12,556	12,945	11,277	903	14h 20m
EZE	PER	Red	12,926	12,760	11,277	903	14h 8m
PER	EZE	Red	12,926	12,760	11,277	903	14h 8m

4 Extended Diversion Time Operations (EDTO)

This is one of the most remote routes in the world due to the lack of available alternate aerodromes, comparable with the existing routes when traveling from Perth to Buenos Aires. However, when travelling from Buenos Aires to Perth going east there is an area where 2 engine airplanes cannot operate under ETOPS330.

As an opportunity to investigate further we found that Port-aux-Français had a project to set up an aerodrome that didn’t progress due to lack of budget.



² Information provided by Boeing for a 787-9.

5 People logistics

Current traffic and forecasted growth present the option Buenos Aires – Perth – Singapore as a high potential option:

- There are 47,000 passengers travelling from Argentina to Southeast Asia, the volume increased 35% in 2016.³
- 227,000 passengers travelled from South America to Southeast Asia in 2016 with a grow of 15% from 2015.⁴
- The movement of passengers between Singapore and Perth in 2015 was 1,061,213 (536,990 outbound & 524,223 inbound). Seat utilisation of aircrafts was at approximately 80%.
- According to .ID (the population experts in Perth), the Census 2016 identified 9,965 Perth inhabitants who speak Spanish at home and 6,640 who speak Portuguese⁵. This means that in Perth alone, there is an approximate market of 15,000 people who would use this direct flight.
- A significant customer segment to target would be Latin American exchange students. In 2016, there were 29,440 Brazilians in Australia on a student visa⁶.
- Western Australia is the state with the highest rate of movement in Australia, with short-term resident departures being 532 movements per 1,000 people⁷.
- The population of South America exceed 400 million⁸. Having a direct flight between Buenos Aires and Perth represents the opportunity to open the South American travellers market to Western Australia.
- In 2015, 61,540 Latin American visitors arrived to Singapore. The average annual growth of these tourists between 2006-2015 has been 9.8%⁹.
- Singapore is conveniently located between three of the most populous countries in the world: China, India and Indonesia (combined population of 3 billion¹⁰). It is also close to a range of popular tourist destinations in the region such as Thailand, Vietnam and the

³ IATA

⁴ IATA

⁵ .Id the populations experts – Census of Population and Housing 2016

⁶ End of Year Summary of International Student Enrolment Data – Australia – 2016 – Department of Education and Training

⁷ 3401.0 - Overseas Arrivals and Departures, Australia, Dec 2016 -

<http://www.abs.gov.au/ausstats/abs@.nsf/products/961B6B53B87C130ACA2574030010BD05>

⁸ World Population Prospects – United Nations

⁹ Annual Report on Tourism Statistics 2015 – Singapore Tourism Board

¹⁰ World Population Prospects – United Nations

Philippines, which would make it a good strategic hub in the region for future travellers from South America¹¹.

- Between March 2016-February 2017, 15 million passengers used Singapore Changi Airport to connect between flights from other countries¹².
- In 2015, 207,900 visitors from countries in Asia and Oceania arrived in Argentina¹³.
- Between 2014 and 2015, the departures from Argentina towards countries in Asia and Oceania grew by 17.2% (from 116,992 in 2014 to 136,574 in 2015)¹⁴.
- According to the BBC Report “Asia’s travel boom”, approximately 1 million people fly from Asia to Latin America each year¹⁵.
- According to Airbus company forecasts, the annual growth rate in passenger traffic between South America and Asia and Oceania will exceed the worldwide 2015-2034 rate by approximately 50%¹⁶.

Market	Annual grow
Worldwide	4.6%
Asia Advanced – South America	5.8%
Asia Emerging – South America	7.6%
Australia/NZ – South America	6.4%

- According to CAPA (Centre for Aviation) Report “Asia to Latin America - Lots of distance, lots of options, but little direct service”¹⁷, it is necessary to find strategic hubs to connect Asia and Latin America.
- According to OAG (Aviation Worldwide Limited) forecasts, scheduled flights to/from and within South America will grow 20% between 2017 and 2019¹⁸
- IMF forecasts that Argentina will have a steady GDP growth in the next 5 years.¹⁹

2017	2018	2019	2020	2021
2.8%	2.9%	2.8%	2.8%	2.9

¹¹ Report “ASIA’s HUBS – Dynamics of Connectivity” – OAG Aviation Worldwide Limited

¹² Report “ASIA’s HUBS – Dynamics of Connectivity” – OAG Aviation Worldwide Limited

¹³ Report of International Tourism – Undersecretary of Tourism Development – Ministry of Tourism of Argentina

¹⁴ Report of International Tourism – Undersecretary of Tourism Development – Ministry of Tourism of Argentina

¹⁵ <http://www.bbc.com/news/world-asia-24481410>

¹⁶ Global Market Forecast – Flying by Numbers 2015 2034 - Airbus

¹⁷ <https://centreforaviation.com/insights/analysis/asia-to-latin-america---lots-of-distance-lots-of-options-but-little-direct-service-187130>

¹⁸ Report “Brazil starts to rally, as recovery beckons for aviation market” – OAG Aviation Worldwide Limited

¹⁹ IMF World Economic Outlook. April 2016

- In Ezeiza International Airport in Argentina (EZE), carrier added 12% more seats in July 2016 than in the previous year.²⁰

6 Cargo logistics

- According to the Civil Aviation Authority of Singapore air cargo from Singapore to Australia is already 190 metric tons per year while arrivals from Argentina are 280 metric tons per year.

7 Technical

- According to Boeing, 5 different models of their airplanes can be equipped to travel across the South Pole.²¹

8 Legal

8.1 What needs to change in the service Agreements?

8.1.1 Australia with Argentina

- Include the Indian ocean cities in the Air Services Agreement with Argentina. It shouldn't be limited to the pacific. **For example, as it is today Qantas cannot fly Perth – Buenos Aires.**
- Include further points in South East Asia for the Argentine nominated Airlines including but not limited to Kuala Lumpur, Singapore, Jakarta and Guangzhou. In the same way that South America and Europe are allowed for the airline nominated by Australia.

8.1.2 Australia with Singapore and Malaysia

- Include Buenos Aires as a point beyond in the air service agreement with Malaysia and Singapore to create competition.

Highlights

8.1.3 Argentina have an asymmetric air services agreement with Australia²².

- The Australian nominated airline can land in Buenos Aires and continue to South America or Europe.
- Perth is not included because it is in the pacific, it is not clear why it is limited to the points in the Pacific.

²⁰ Report "Reboot South America: Tops hub primed for opportunities in 2017" - OAG Aviation Worldwide Limited

²¹ Email Craig Auestad, Opportunity Development, Boeing Commercial Airplanes

²² <http://www.info.dfat.gov.au/Info/Treaties/treaties.nsf/AllDocIDs/FAE3A83285B3712ACA256AF6001862A8>

ARGENTINA - AUSTRALIA ROUTE SCHEDULE

SECTION I

Routes for the designated airline of the Argentine Republic

Argentina via Auckland to one point in Australia.

SECTION II

Routes for the designated airline of Australia

Australia via points in the Pacific to one point in Argentina and beyond to:

- (a) two points in South America; and
- (b) one point in Europe (including the European Economic Community).

8.1.4 However, Brazil and Chile have a much better deal.^{23 24}

ROUTE SCHEDULE

The designated airlines of each Party shall be entitled to perform international air services between points on the following routes:

Route for the designated airlines of Brazil:

Points in Brazil	Intermediate Points	Points in Australia	Beyond Points
Any	Any	Any	Any

Route for the designated airlines of Australia:

Points in Australia	Intermediate Points	Points in Brazil	Beyond Points
Any	Any	Any	Any

Chile – Australia Route Schedule

Section I

Routes for the airline or airlines of Chile in both directions:

Chile via intermediate points in French Polynesia and New Zealand, to three points in Australia and beyond to three points in South East Asia and two additional points of choice.

Section II

Routes for the airline or airlines of Australia in both directions:

Australia via intermediate points in New Zealand and French Polynesia to three points in Chile and beyond to three points in South America and two additional point of choice.

8.1.5 An airline nominated by Singapore cannot fly to Buenos Aires from Perth. It is necessary to add Buenos Aires in the Agreement.²⁵

Column 1	Column 2	Column 3	Column 4
Points of departure (any one or more of the following):	Intermediate points (any one or more of the following if desired):	Points in the territory of the Commonwealth of Australia (any one or more of the following):	Points beyond (if desired):
Singapore	Points in Indonesia	Darwin Perth Melbourne Sydney	Auckland

²³ <http://www.info.dfat.gov.au/Info/Treaties/treaties.nsf/AllDocIDs/9DE3AF0D100E059ECA25751D0002B371>

²⁴ <http://www.info.dfat.gov.au/Info/Treaties/treaties.nsf/AllDocIDs/F783DE16263A95DACA256AFF000568D3>

²⁵ <http://www.info.dfat.gov.au/Info/Treaties/treaties.nsf/AllDocIDs/D4A7BB3E7468E6E2CA256AFD001A8109>

8.1.6 An airline nominated by Malaysia cannot fly to Buenos Aires from Perth. It is necessary to add Buenos Aires in the Agreement.²⁶

Routes to be operated in both directions by the designated airline of Malaysia:

Column 1	Column 2	Column 3	Column 4
Points of departure	Intermediate points (any one or more of the following if desired)	Points in the territory of the Commonwealth of Australia (any one or more of the following)	Points beyond
Points in Malaysia	Singapore Points in Indonesia	Darwin Perth Melbourne Sydney	Auckland

8.1.7 An airline nominated by China can fly to Buenos Aires from Perth.

Section II

The route of the agreed services performed by the airlines designated by the Government of the People's Republic of China shall be as follows in either direction:

Points in China: Any

Intermediate Points: Any

Points in Australia: Any

Points Beyond: Any

8.1.8 An airline nominated by Indonesia can fly to Buenos Aires from Perth.²⁷

Route for the designated airlines of the Republic of Indonesia:

<u>Points in Indonesia</u>	<u>Intermediate Points</u>	<u>Points in Australia</u>	<u>Beyond Points</u>
Any	Any	Any	Any

²⁶ <http://www.info.dfat.gov.au/Info/Treaties/treaties.nsf/AllDocIDs/B46C04CF9C46F3C0CA256AF70006280C>

²⁷ <http://www.info.dfat.gov.au/Info/Treaties/treaties.nsf/AllDocIDs/1FA092D6CB1BA0A8CA257B0B00195FCD>



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