



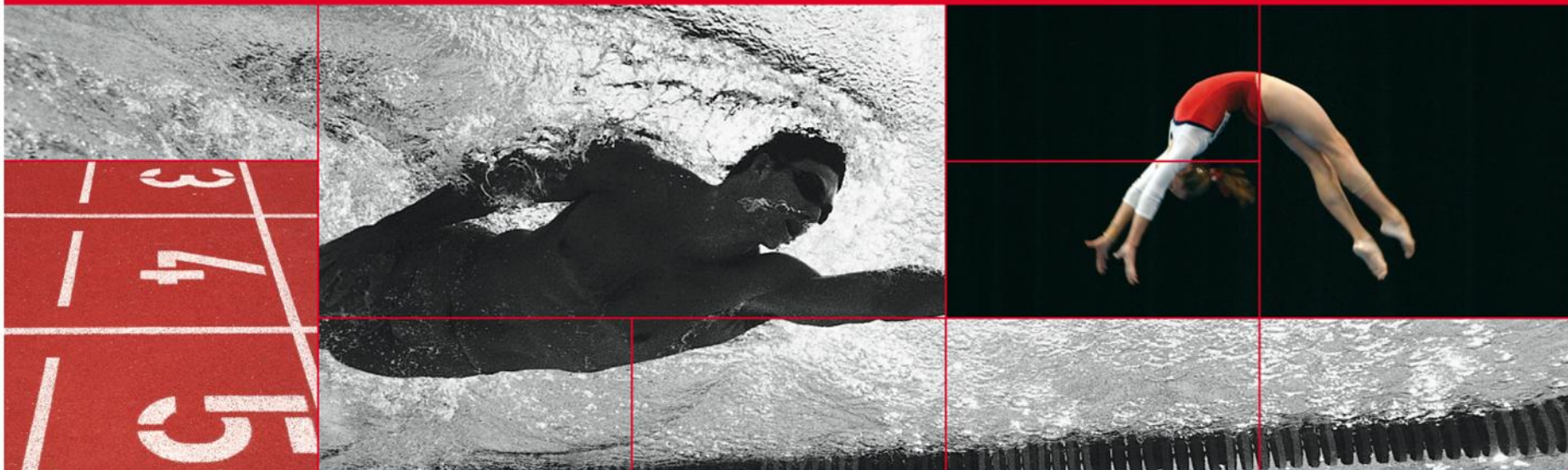
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Australian Government
Australian Sports Commission

Jared Tallent – 2001 - 2010

Brent VALLANCE
Australian Institute of Sport
Senior Athletics Coach – Race Walking



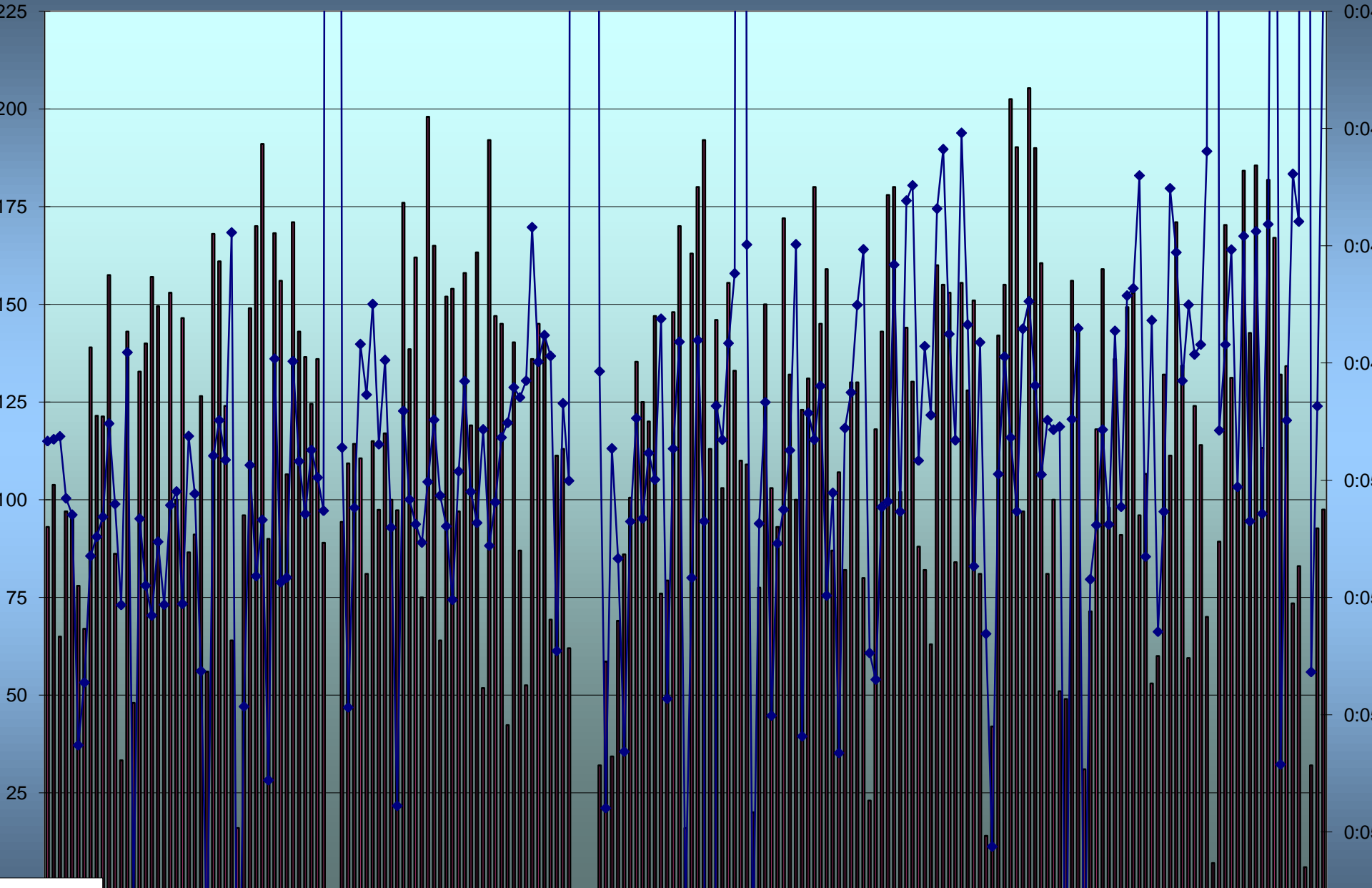
Beijing Results



20km walk – 1:19:42 Bronze

50km walk – 3:39:27 Silver (PB)

Jared Tallent Oct 2004 to Oct 2008 Season - Actual Training - Volume Vs Intensity



Total Volume (km)

Name:		Jared Tallent			Date	30-Jun-08			
Phase :		Microcycle :			109				
	Weekday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Totals
Walking	Continuous Walks	25	14.23	40	14.3	4	40		137.53
	Time :	1:53:38.0	1:10:00.0	3:21:13.0	1:17:59.0	0:24:00.0	2:58:32.0		11:05:22.0
	Speed / km	0:04:32.7	0:04:55.2	0:05:01.8	0:05:27.2	0:06:00.0	0:04:27.8		0:04:50.3
	Hill Session								0
	Time :								0:00:00.0
Speed / km									
Walking	Speed Session	18							18
	Time	1:10:58.0							1:10:58.0
	Speed/km	0:03:56.6							0:03:56.6
		Total Race Walking Volume (Km & Time)							155.53 12:16:20.0 0:04:44.1
Running	Running	10	10	10			30		
	Time	0:43:38.0	0:42:16.0	0:51:06.0			2:17:00.0		
	Speed / km	0:04:21.8	0:04:13.6	0:05:06.6			0:04:34.0		
Total Volume (km)									185.53
X- Training	Bike								0:00:00.0
	Stepper								0:00:00.0
	Swim								0:00:00.0
	Weights								0:00:00.0
	Circuit								0:00:00.0
	Stretching Class	0:30:00		0:30:00			0:30:00		1:30:00.0
Total Time X-Training									1:30:00.0
Maintenance	Physio	0:30:00.0	0:30:00.0	0:30:00.0	0:30:00.0			2:00:00.0	
	Acupuncture								0:00:00.0
	Massage	0:45:00.0							0:45:00.0
	Spa/plunge/sauna	0:30:00.0	0:30:00.0	0:30:00.0					1:30:00.0
	AIS Doctor								0:00:00.0
	Psychology								0:00:00.0
	Nutrition								0:00:00.0
Total Time Maintenance									4:15:00.0
Total Time :								20:18:20.0	

Tue - Heat Tent

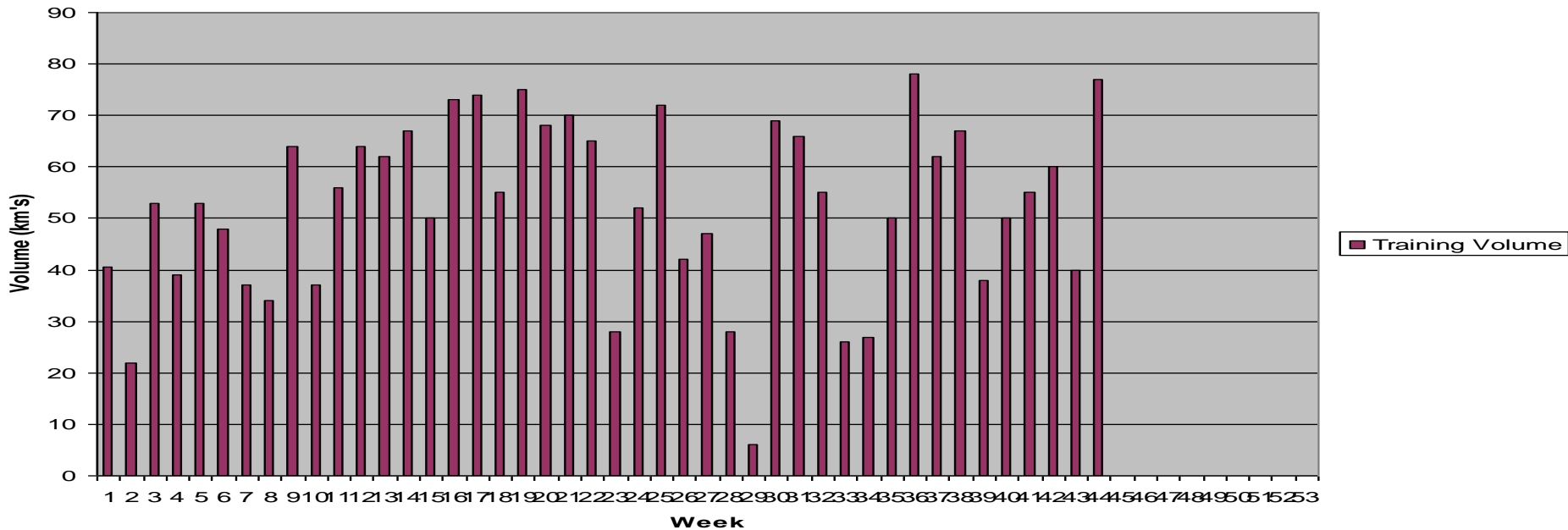
25km Lake Ginn + 5km lap
1:31:58 + 21:40

Kaleen 4/07/2008 6x3km		
Distance	Split	Recovery
3	0:12:10.00	0:03:00.00
6	0:11:53.00	0:03:00.00
9	0:11:45.00	0:03:00.00
12	0:11:44.00	0:03:00.00
15	0:11:45.00	0:03:00.00
18	0:11:41.00	
Total Time		1:10:58.00
Total session time/walking time		
Average speed/km		0:03:56.6

Early Training - 2001

- Ballarat (Regional City)
 - Swimming
 - Athletics (Race Walking)
 - Triathlon

Jared Tallent - Training Volumes 2001



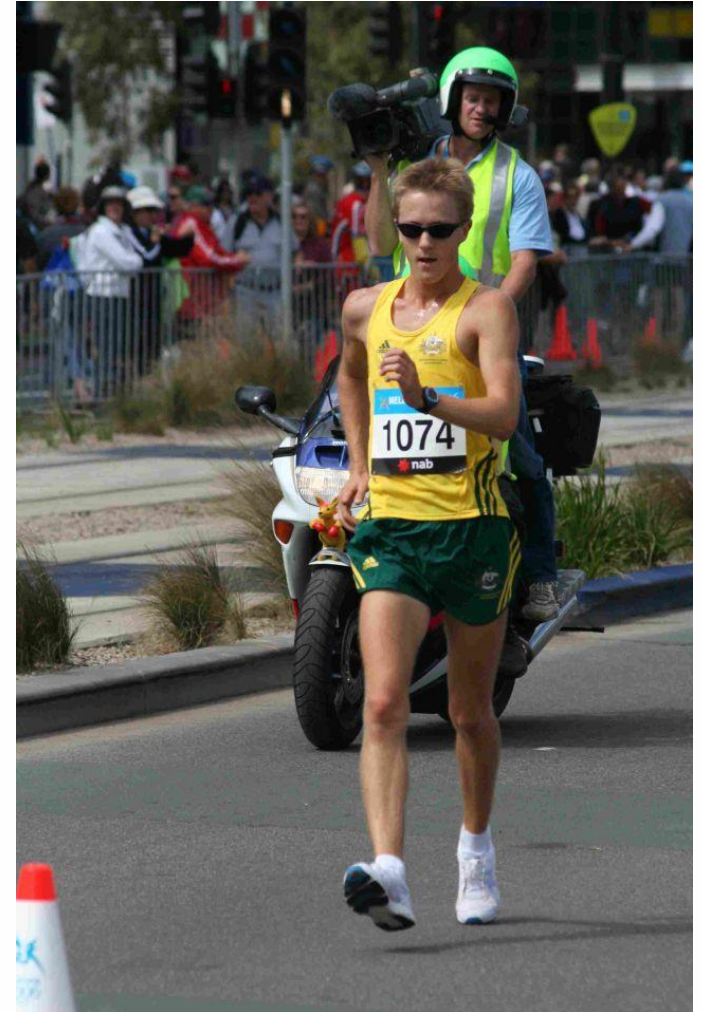
2003/2004 Season



- AIS Entry Nov 03
- 20km PB 1:31:23
- AIS Target
 - WWC Cup
 - 1:28:00.0
 - PB 1:27:02
- At WWC
 - 75th 1:30:01
- Rutter AIS Entry
- Deakes 3rd Athens

International Experience

- 01 World Youth Champs (POL)
- 02 World Junior Champs (JAM)
- 04 World Walking Cup (GER)
- **05 IAAF Walking Challenge (CHN)**
- 05 World Championships (FIN)
- 06 Commonwealth Games (AUS)
- **06 IAAF Walking Challenge (CHN)**
- 06 World Walking Cup (ESP)
- 06 Development Tour (RUS)
- **07 IAAF Walking Challenge (CHN)**
- 07 World Championships (JAP)
- **08 IAAF Walking Challenge (CHN)**
- 08 World Walking Cup (RUS)
- **08 Olympic Games (CHN)**



Competition

- Look towards the emerging walking nations (Korea, Japan, China) for U/20 & U/23 competition opportunities between junior and senior representation.
- There is good depth in that age group, less financial strain on us, and regular competition in Asia prior to Beijing can only be of benefit in 2008.



Race Results - Jared Tallent 2004/2005 Season

Event	Distance	Place	Time	Place	Date
VRWC Invitational event	20km	Melbourne	1:27:02.0	1st	25/10/2005
ACT Interclub	3000m	AIS Track	0:11:47.0	1st	13/11/2004
ACT Interclub	3000m	AIS Track	0:11:34.0	1st	28/11/2004
ACT Twilight Meet	3000m	AIS Track	0:11:30.0	1st	4/01/2005
ACT Twilight Meet	5000m	AIS Track	0:19:37.0	1st	18/01/2005
Telstra A Series - Canberra	20km	LBG	1:25:53.0	2nd	6/02/2005
Telstra A Series - Adelaide	10,000m	Santos	DSQ	DQ	19/02/2005
Telstra A Championships - Sydney	20km	Homebsuh	1:27:15.0	5th	6/03/2005
ACT Championships	5000m	AIS Track	0:19:48.0	1st	9/03/2005

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ACT Twilight Meet	5000m	AIS Track	0:19:37.0	1st	18/01/2005
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Telstra A Series - Adelaide	10,000m	Santos	DSQ	DQ	19/02/2005
Telstra A Championships - Sydney	20km	Homebsuh	1:27:15.0	5th	6/03/2005
ACT Championships	5000m	AIS Track	0:19:48.0	1st	9/03/2005
IAAF Challenge - China	20km	Cixi (China)	1:22:53.0	43rd	23/04/2005

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VRWC Invitational event	20km	Melbourne	1:27:02.0	1st	25/10/2005
ACT Interclub	3000m	AIS Track	0:11:47.0	1st	13/11/2004
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ACT Twilight Meet	3000m	AIS Track	0:11:30.0	1st	4/01/2005
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Telstra A Championships - Sydney	20km	Homebsuh	1:27:15.0	5th	6/03/2005
ACT Championships	5000m	AIS Track	0:19:48.0	1st	9/03/2005
IAAF Challenge - China	20km	Cixi (China)	1:22:53.0	43rd	23/04/2005
LBG 20mile AFORWC	32km	Canberra	2:22:38.0	1st	12/06/2005
Ballarat Walkers Club	3km	Ballarat	0:11:45.0	1st	21/06/2005
NSW State Teams Champs	10km	Sydney	0:39:59.0	1st	25/07/2005
World Championships	20km	Helsinki			6/08/2005

Process Related Goals

Nathan Deakes - 10 x 2km (2')			Jared Tallent - Speed 8x2km (2min)		
Naumburg (SAALE) - 16/04/04			Naumburg SAALE - 24/07/05		
Distance	Split	Recovery	Distance	Split	Accumulative time
2	0:08:10.50	0:02:00.00	2	0:08:04.30	0:02:00.00
4	0:07:55.50	0:02:00.00	4	0:07:56.50	0:02:00.40
6	0:07:52.50	0:02:00.00	6	0:07:59.20	0:02:00.50
8	0:07:47.50	0:02:00.00	8	0:07:50.80	0:02:01.30
10	0:07:44.50	0:02:00.00	10	0:07:43.70	0:02:00.50
12	0:07:41.50	0:02:00.00	12	0:07:36.90	0:02:01.00
14	0:07:38.50	0:02:00.00	14	0:07:41.50	0:02:00.50
16	0:07:39.50	0:02:00.00	16	0:07:38.20	
18	0:07:38.50	0:02:00.00		Last 10km 38:31.0	
20	0:07:35.50				
	1:17:44.0	1:35:44.0		1:02:31.1	1:16:35.3
		1.23			1.23
	Average speed/km	0:03:53.2		Average speed/km	0:03:54.4

Race Results - Jared Tallent 2004/2005 Season

Event	Distance	Place	Time	Place	Date
VRWC Invitational event	20km	Melbourne	1:27:02.0	1st	25/10/2005
ACT Interclub	3000m	AIS Track	0:11:47.0	1st	13/11/2004
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ACT Championships	5000m	AIS Track	0:19:48.0	1st	9/03/2005
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World Championships	20km	Helsinki	1:23:42.0	18th	6/08/2005

Speed Session Summary 04/05

2004/2005 Speed Session Summary - Jared Tallent

Date	Volume(km)	Speed/km	Total time/walking time	Location	Km/week	speed/wk
9/01/2005	12	0:04:10.0	1.20	Kaleen	132.8	05:05.2
30/01/2005	14	0:04:06.0	1.21	Kaleen	149.5	05:06.9
11/02/2005	16	0:04:11.8	1.21	Thredbo 1380m	153	05:04.2
14/02/2005	16	0:04:11.1	1.21	Thredbo 1380m	100	05:03.2
4/04/2005	15	0:04:05.7	1.24	Kaleen	161	04:58.0
12/04/2005	12	0:04:00.8	1.17	Kaleen	124	05:00.9
6/06/2005	21	0:04:08.7	1.17	Kaleen	168.2	04:53.5
20/06/2005	21	0:04:09.5	1.17	Kaleen	106.5	05:09.6
1/07/2005	20	0:04:00.2	1.22	Kaleen	171	05:01.0
17/07/2005	12.5	0:03:53.7	1.35	Kaleen	136.5	05:04.9
24/07/2005	16	0:03:54.4	1.23	Naumburg/Saale	124.5	05:00.2

Hill Training – Mt Stromlo



Types of Session

- 14km All out Effort
- 10km (5') + 10x400m (on 3')
- Long Walk 20-25km

30/10/2007	1:01:07.0
8/05/2009	1:01:16.0
19/03/2010	1:02:06.0
18/12/2009	1:02:45.0
15/05/2009	1:02:49.0
15/05/2007	1:03:13.0
26/10/2007	1:03:32.0
19/01/2009	1:03:36.0
4/11/2005	1:03:37.0
12/02/2008	1:03:50.0
5/02/2008	1:03:50.0
11/12/2009	1:03:53.0
12/03/2010	1:03:55.0

Men's 20km Walk – Osaka

Jared Tallent

- Was ranked 23rd on 2007 Performance Rankings
- Was ranked 29th on PB Performances
- Finished 18th in Helsinki with a Pre Race ranking of 40th

- In Osaka, Jared was Disqualified at 16km in 5th Position

The Australian Dilemma

- Availability of a quality Altitude Venue
Thredbo 1380m (Nov-March only)
- Non alignment of competitive season
with European summer – Multi Peak
- Population base is in the southern
states - it's winter in June/July/August

Do I stay home?

or

Do I go to Europe?

Altitude Training - Risks

- ↓ Plasma Volume
- ↓ VO₂Max (↓ ~7% per 1000m)
- ↓ in training Intensity
- ↑ in travel time to competition venue
- ↑ in Athlete fatigue levels both at rest and while training
- ↑ likelihood of illness (and Injury?)

Why would any coach intentionally program these known training responses prior to a Major Championship?

Other Considerations

4-9 weeks at an international venue means that the athlete is:

- not earning an income
- away from partner/family/friends
- living with coach/athletes/competitors
- not attending university for that semester
- not training in a familiar environment
- taking athletes away from full medical coverage and Service Support

2005-2008 Altitude Model

- 2 x 14 days camps at Thredbo (1380m)
Nov/Dec and Jan/Feb combined with BOC
Altitude House for 10-14days

Pre Championship (August)

- 21 days LHTL at 3000m for 14 h/d
- 7 days no altitude – recovery
- 14 days LHTL at 3000m for 14 h/d
- Finished LHTL 3 days prior to departure ~3
wk prior to first competition

Jared Tallent Altitude 07/08

- In addition to the 35 days pre Olympics Jared Tallent completed:
- 10 days in March
- 21 days in January
- 15 days in Oct/Nov 07 (athletes stayed out on weekend)
- 14 days in Thredbo Nov 07
- **95 days Altitude Exposure in Olympic year**

Early AIS LHTL Studies

- Initial studies 8-10 h/d, 2-4wk, continuous or 1-2 days at normoxia per wk
- 1.0-1.5% improvement in performance in events 45sec to 17min (Hahn et al. 2001)
- No real change in red cell mass or VO₂max
- Improvements in exercise economy and/or muscle buffering (Gore et al. 2001; Saunders et al. 2004)

Courtesy: Saunders, P

Recent AIS LHTL Studies

- Increased dose of hypoxia to try and stimulate EPO production
- 50 days (5 on 2 off) at 2800m, 8-10 h/d increased Hbmass, economy and performance (Saunders et al. 2009)
- 21 days at 3000m, 14 h/d increased Hbmass (3-6%), VO₂max (2-5%) and performance (2-4%)
(Clark et al. 2009; Robertson et al. 2009; Saunders et al. 2009)

Courtesy: Saunders, P

Canberra Weather

Historical Weather for Championship Cities 2007-2012									
Month	July	August						July	Oct
City	Canberra	Bangkok	Osaka	Beijing	Berlin	London	Shenzen	Belgrade	New Delhi
Average High Temperature	11 °C	32 °C	33 °C	29 °C	23 °C	22 °C	32 °C	27 °C	33 °C
Average Low Temperature	1 °C	26 °C	24 °C	21 °C	13 °C	13 °C	27 °C	18 °C	19 °C
Average Mean Temp	6 °C	29 °C	29 °C	25 °C	18 °C	18 °C	29 °C	23 °C	25 °C
Average Morning Relative Humidity	88%	87%	81%	90%	84%	89%	85%	72%	
Average Afternoon Relative Humidity	58%	66%	60%	63%	54%	56%	73%	43%	

AIS Heat Acclimation



Post Physiology Testing

- ↑ In $\dot{V}O_2$ 64.9 to 67.0 ml/kg/min
- ↑ in Test duration
- ↑ Speed at 2mM (km/h)
- ↑ Speed at 4mM (km/h)
- ↑ $v\dot{V}O_2$
- ↓ HR at 4mM (bpm)
- ↓ HR at 2mM (bpm)
- ↑ Economy at 12, 13, 14 & 15km/h

Hb Mass Testing

		Hbmass (g)	Hbmass (g.kg ⁻¹)	Average	Δ Hbmass	Comments
Jared Tallent	17-Dec-07	804	13.5			
Jared Tallent	18-Dec-07	797	13.6	800	-8	ALT House
Jared Tallent	09-Jan-08	808	13.5		8	ALT House
Jared Tallent	16-Jan-08	844	14.7		43	ALT House
Jared Tallent	23-Jan-08	847	14.6		47	ALT House
Adam Rutter	01-Jan-08	849	14.0			
Adam Rutter	03-Jan-08	879	14.5	864	30	ALT House
Adam Rutter	09-Jan-08	895	14.9		31	ALT House
Adam Rutter	16-Jan-08	886	14.8		22	ALT House
Adam Rutter	23-Jan-08	898	15.1		34	ALT House

Beijing Test Event



1 st	Jared Tallent (AUS)	1:20:11
2 nd	Wang Hao (CHN)	1:20:25
3 rd	Eder Sanchez (MEX)	1:20:57

Generation Change in the Men's 20km Walk was coming in 2008, if not already here



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Tue Session

Tallent Training Regime 2008

Friday Session

Jared Tallent		
Kaleen 1/04/2008 6x2km		
Distance	Split	Recovery
2	0:08:10.00	0:02:00.00
4	0:07:54.00	0:02:00.00
6	0:07:44.00	0:02:00.00
8	0:07:37.00	0:02:00.00
10	0:07:43.00	0:02:00.00
12	0:07:31.00	
Total Time	0:46:39.00	0:10:00.00
Total Time		0:56:39.00
Total session time/walking time		
Average speed/l		0:03:53.3

Kaleen 15km Tempo Walk 4/04/08		
Distance	Split	Accumulated Time
1	0:04:02.00	0:04:02.00
2	0:03:57.50	0:07:59.50
3	0:03:54.50	0:11:54.00
4	0:03:54.50	0:15:48.50
5	0:03:53.50	0:19:42.00
6	0:03:52.50	0:23:34.50
7	0:03:54.50	0:27:29.00
8	0:03:50.50	0:31:19.50
9	0:03:54.50	0:35:14.00
10	0:03:53.50	0:39:07.50
11	0:03:57.50	0:43:05.00
12	0:03:57.00	0:47:02.00
13	0:03:55.00	0:50:57.00
14	0:03:58.00	0:54:55.00
15	0:03:52.00	0:58:47.00
0:58:47.00		0:03:55.13

Sat – 30km 2:18:10 (4:36.3avg)

AIS Support Staff Contribution

Dr Philo Saunders (AIS Physiology)

- Heat Acclimation
- Altitude Protocol
- Physiology Testing

Dr Gary Slater (AIS Nutrition)

- Fluid Balance trials
- Sweat analysis
- Race feeding strategies
- Heat Acclimation

Jo Vaile - PhD Candidate (AIS Physiology – Fatigue & Recovery)

- Pre Cooling Strategies

Altitude Protocol

- 14hrs/Day – 5 days/week for 5 weeks @ 3000m
- Race 21st day after Altitude Exposure
- Pre & Post VO² Max, Economy and Haemoglobin Mass Tests

WK 1	02/07/2007	3000m	Mon-Fri 56 Days
WK 2	09/07/2007	3000m	Mon-Fri 49 Days
WK 3	16/07/2007	3000m	Mon-Fri 42 Days
WK 4	23/07/2007	3000m	Mon-Fri 35 Days
WK 5	30/07/2007	3000m	Mon-Fri 28 Days

25 Days Altitude Exposure

The AIS Heat Acclimation Tent



Heat Acclimation Protocol

6 weeks – 1 session/wk in comparable conditions

WK 1	1 hour continuous building walk
WK 2	1:15 continuous building walk
WK 3	1:15 continuous building walk
WK 4	1:15 faster Tempo walk – 13-14km/hour
WK 5	25 minute Build - 7x1km (3min)13-15km/h Blood samples taken
WK 6	25 minute Build - 7x1km (2min)14km/h Blood samples taken

Beijing 2008 Preparation

More Altitude Exposure

- 3 wks BOC Altitude House Oct/Nov 2007
- 2 Wks Thredbo (1380m) Nov 2007
- 3 Wks BOC Altitude House Jan 2008
- 5Wks BOC Altitude House June/July 2008

Replicate Heat Acclimation

- 6 wks – 1 session/wk
- Arrive in Kochi – 1-2 days earlier

Practice Pre Cooling Strategy better

- Incorporate into later Treadmill session in July
- Key Sessions in Kochi