

**HIGH PERFORMANCE
SPORT NEW ZEALAND**



ALL ROADS LEAD TO ROME

But you need to be heading somewhat in the right direction

**'Using performance monitoring to prepare
35 athletes to perform at one tournament'**

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Programming for 20-35 athletes to all reach a similar physical peak over a two week period.

- BENCHMARKING what is great, good enough for now or what needs to be worked on!
- PRIORITISE the standards that need to be achieved
- PLAN a 'best case scenario' programme that has all athletes adapting at the same rate that will enhance or maintain all needed qualities over the period.
- MONITOR weekly / fortnightly (excluding fitness & upper) to track that maintenance or improvement is being achieved.
- MODIFY the plan to suit:
 - individuals exercise prescription and competency
 - Training age (although we are still preparing to perform over 1 x 2week block)
 - Rehab / injury
 - Highest 1-2 priority work ons for that athlete.

BENCHMARKING and PRIORITISING

Standards														
Priority		1				2	3	4	5	6			7	
Test		Nordic vs BW	Nordic Left vs BW	Nordic Right vs BW	Diff Left to right	Fitness Test (sec)	10m Speed	GPS Fastest Speed	Squat Predicted 1RM	Jump Velocity at 40kg	Jump Velocity at BW	Pogo Jump RSI	Bench Press reps at BW	Pull Up Max Weight
ELITE (for hockey)		BW +	0-5% Difference			285	-1.6 sec	>34.5 km/h	2 x BW	2.6 +	3.5 +	2.8	11+	1.5 x BW
Threshold		90-100% BW	5-10% Difference			286-300	1.6-1.65sec	33-34.5 km/h	1.7-2x BW	2.3-2.6	3.2-3.5	2.2-2.8	6-10	1.3-1.5 BW
WORK ON!		-90% BW	+10% Difference			300 +	+1.65 sec	-33 km/h	-1.7 BW	-2.4	3.2	-2.2	-6	-1.3 BW

THE PLAN

Periodised plan																																				
Week #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32				
Week starts	2/01/2017	9/01/2017	16/01/2017	23/01/2017	30/01/2017	6/02/2017	13/02/2017	20/02/2017	27/02/2017	6/03/2017	13/03/2017	20/03/2017	27/03/2017	3/04/2017	10/04/2017	17/04/2017	24/04/2017	1/05/2017	8/05/2017	15/05/2017	22/05/2017	29/05/2017	5/06/2017	12/06/2017	19/06/2017	26/06/2017	3/07/2017	10/07/2017	17/07/2017	24/07/2017	31/07/2017	7/08/2017				
Tournaments											Home Series								ASC						Camp?				Depart 24th		WL3					
Phase	Summer Program		S&C Pre-Season Block				Hockey Pre-Season				Hockey Matches		Rest	Hockey Tournament Prep			Hockey Matches		Rest	WL3 Prep Block #1		Camp?		WL3 Prep Block #2		WA / SA prep		Hockey Matches		Rest						
Loading	→	→	↗	↗	↘	↗	↗	↗	↗	↘	↗	↗	↓	↗	↘	↗	→	→	↓	↗	↗	→	→	↘	↗	↗	→	→	↓	↓	↓					
Hockey # PW	0	0	0	0	0	0	3	3	3	3	5	5	1	4	2	4	6	5	1	3	4	6	6	4	4	4	3	5	5	0	0	0				
Ind Hockey # PW	0	0	0	2	2	2	1	1	1	1	0	0	0	1	1	1	0	0	0	1	1	0	0	1	1	2	2	0	0	0	0	0				
Est. Hockey km/w							15	18	19.5	19.5	33.5	29.5	8	27	13	24	44	38	7	25	31	40	40	18	31	36	25	38	38							
Gym # PW	2	2	3	3	2	2	2	2	2	2	1	1	1	3	2	2	1	1	1	2	2	1	1	2	2	2	1	0	0	0	0	0				
MB # PW	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0				
Run # PW	4	4	4	4	4	4	2	2	2	2	0	0	1	1	3	1	0	0	1	1	1	0	0	1	1	1	0	0	0	0	0	0				
Run km/w	20	20	16	18	20	20	9.5	10	8	8	0	0	4	6	13	4	0	0	4	4	4	0	0	3	4	3	0	0	0	0	0	0				
Est Total km/w	20	20	16	18	20	20	25	28	27.5	27.5	34	30	12	33	26	28	44	38	11	29	35	40	40	21	35	39	25	38	38							
Est. A/C load				0.97	1.08	1.08	1.19	1.21	1.10	1.02	1.15	1.00	0.47	1.22	1.03	1.13	1.34	1.12	0.36	0.95	1.24	1.39	1.11	0.62	1.03	1.16	0.83	1.10	1.08							
Conditioning Focus	Base		Aerobic Threshold /VO2(80-95% MAS) + Leg Strength				Aerobic Capacity (95-105% MAS)				Aerobic Power (105-130% MAS)						Maximal Anaerobic Development (SAQ) (90-100% MSS)				Anaerobic Capacity (80-95% MSS)															
Gym Focus	Maintenance		Movement Competency End				Build Force + Develop Plyo Base (Ecc)				Progress Force, begin Power						Maintain Force, Build power				Maintain Force, Power															
Fitness Test							x											x																		
Speed Monitoring							x	x	x	x							x					x	x	x	x	x										
Power Monitoring							x	x	x	x							x					x	x	x	x	x										
Nordic Monitoring							x	x	x	x							x					x	x	x	x	x										

PERFORMANCE MONITORING

- MONDAY
 - 50yard sprint max GPS speed (was 40m sprint test for two weeks)
- TUESDAY - GYM
 - Nordic Hamstring Maximal Eccentric Strength Monitoring + Left/Right Difference at maximal bilateral load
 - Predicted 1RM box squat.
- THURSDAY - GYM (2 of 3 every Thurs)
 - Pogo Jump RSI
 - BW CMJ peak velocity
 - BW +40kg CMJ peak velocity
- SATURDAY - GYM
 - 10m Acceleration.
- MONTHLY
 - Fitness
 - Upper Body



SNAPSHOT OF BEST SCORES

BW	1			2	3	4	5	6			7		
	Nordic vs BW	Nordic Left vs BW	Nordic Right vs BW	Diff Left to right	Fitness Test (sec)	10m Speed	40m Speed	Squat Predicted 1RM	Jump Velocity at 40kg	Jump Velocity at BW	Pogo Jump RSI	Bench Press reps at BW	Pull Up Max Weight
85	0.97	41.8	44.7	93.51	298	1.7	5.35	2.00	2.31			5	1.29
81	1.03	40.4	43.7	92.45	297	1.68	5.33	1.40	2.38			1	1.25
		0	0			0			0				
87	0.87	37.3	38.6	96.63	314	0		1.43	0			0	1.17
77	1.07	44.9	37.1	121.02	319	1.68		1.76	2.31			1	1.19
92						1.65	5.2	1.82	2.78				
84	1.02	43.3	42.6	101.64		1.68	5.19	1.50	2.59				
		0	0			0			0				
		0	0			0			0				
78	0.94	38.8	35.6	108.99	316	1.65	5.16	1.89	2.35			7	1.32
90	0.65	27	31.6	85.44		1.62		1.76	2.67			6	1.28
77	0.82	31.5	31.2	100.96	299	1.61	5.14	1.76	2.28			3	1.29
78		0	0			1.72	5.53	2.03	2.67			10	
		0	0			0			0				
73	0.83	31.6	29.1	108.59	299	1.55			0	3.57			
73	1.09	40.1	39.2	102.30	302	1.63	5.29	1.86	2.27			2	1.27
		0	0			0			0				
75	1.10	41.2	41.2	100.00	319	1.74	5.6	1.60	0			0	1.07
77	1.14	44.3	43.1	102.78	303	1.71	5.43	1.76	2.33			14	1.32
		0	0			0			0				
		0	0			0			0				
		0	0			0			0				
		0	0			0			0				
65	1.35	44.1	43.3	101.85	294	1.62	5.2	1.92	2.14			10	1.38
73	1.13	39.9	42.9	93.01	285	1.62	5.31	2.02	2.23			5	1.41
78	0.99	40	37.5	106.67	315	1.6	5.09	1.67	2.26			8	1.32
80	1.06	43	45.5	94.51	294	1.65	5.39	1.20	2.2			1	1.25
77	0.99	39.2	37.4	104.81	288	1.59	5.13	1.91	2.37			3	1.32
82	1.02	41.2	48.2	85.48	303	1.63	5.27	1.31	2.22				
85	1.13	44.2	52.5	84.19	311	1.58		1.86	2.55			11	1.41
81	0.84	32.6	36.1	90.30	294	1.64	5.29	1.82	2.63			4	1.28
		0	0			1.61			0				
		0	0			0			0				
66	0.73	25.2	23	109.57		0		1.63	2				
	0.99	38.65	39.24	99.27	302.78	1.64	5.29	1.72	2.38			5.69	1.28

Week 7 Physical Snapshot (first week of Weekly monitoring)

*have cropped out names
 ** top speed test changed after a couple of weeks for ease of monitoring

Note the bottom row averages for the team being very red.

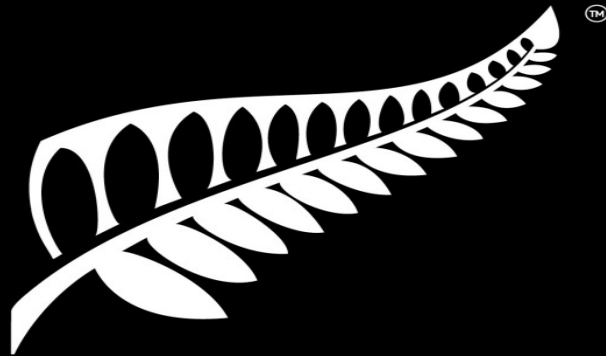
MODIFYING

- PROGRAM DESIGN 3 x per week
 - Release and Mobilize (5-10mins)
 - Activate (5mins)
 - FULL SQUAD PLAN WORK (30mins)
 - E.g Strength session, power session, speed session. (Following the periodised plan)
 - IPP Work (20mins)
 - Focus on highest one-two priority RED scores throughout the week
 - E.g extra Hamstring work, speed/accel technique work, plyo or power work, fitness work, lower strength work.

PHYSICAL IMPROVEMENT FOCUS APRIL MAY 2017			
NAME	IMPROVEMENT FOCUS 1	IMPROVEMENT FOCUS 2	Others
ATHLETE 1	10m Speed	Top speed	HS Flexibility
ATHLETE 2	10m Speed	Top Speed	Hip and Groin
ATHLETE 3	Hamstring Strength	10m Speed	Flexibility
ATHLETE 4	10m Speed	Power	
ATHLETE 5	Fitness		Rehab
ATHLETE 6	Hamstring Strength	Fitness	Core
ATHLETE 7	Lower Strength	Power	
ATHLETE 8	Fitness	10m Speed	
ATHLETE 9	Hamstring Strength	Reactive Strength/Power	
ATHLETE 10	Hamstring Strength	Power	

WL3 TEAM SNAPSHOT OF BEST SCORES

Priority	BW	1				2	3	4	5	6			7	
		Nordic vs BW	Nordic Left	Nordic Right	Diff Left to right	Fitness Test (sec)	10m Speed	GPS Fastest Speed	Squat Predicted 1RM	Jump Velocity at 40kg	Jump Velocity at BW	Pogo Jump RSI	Bench Press reps at BW	Pull Up Max Weight
Defender TA 1	81	1.19	48.7	50.5	96.4	294	1.63	33.4	2.11	2.38	3.19	2.35	2	1.34
Midfield TA 7		1.04	42.4	43.1	98.2	283	1.59	34.5	2.00	2.40	3.31	2.42	5	1.36
Defender TA 11	84	1.02	43.3	42.6	101.6	303	1.63	32.2	2.09	2.59	3.30	1.99	9	1.30
Striker TA 8	70	1.02	33.7	37.9	88.9	297	1.58	34.4	2.20	2.43	3.43	2.49	12	1.50
Striker TA 8	78	1.08	42.5	42.9	99.1	302	1.60	33.8	2.24	2.35	3.05	2.43	7	1.35
Goalie TA 3	90	0.99	45.4	44.6	101.8		1.62		2.01	2.67	3.58	2.08	6	1.31
Goalie TA 5	78						1.61		2.32	2.67	3.33	2.81	10	x
Defender TA 14		1.04	42.4	43.1	98.2	298	1.66	32.9	1.80	2.21	3.21	2.21	5	1.30
Midfield TA 4	73	1.00	37.8	35.2	107.4	284	1.53	34.8	2.04	2.80	3.57	3.10	7	1.34
De/Mid TA 7	73	1.20	43.3	43.5	99.5	298	1.61	33.6	2.11	2.31	3.35	2.77	2	1.27
Striker TA 4		0.91	33.0	34.0	96.0	304	1.60	33.0	1.69	2.09	3.40	2.76	5	1.25
Mid/Striker TA 0.5	75	1.10	41.2	41.2	100.0	299	1.60	33.7	1.68	2.14	3.03	2.13	1	1.13
Mid/Def TA 3	77	1.17	45.1	45.2	99.8	293	1.68	32.0	2.00	2.33	2.98	2.16	15	1.42
Defender TA 6	80	0.84	40.0	33.0	117.0	298	1.56	34.8	2.00	2.66	3.67	2.82	16	1.50
Defender TA 8	80	1.10	42.0	42.1	99.9	304	1.67	32.6	1.75	2.28	3.21	2.11	4	1.28
Defender TA 3	90	1.08	46.7	46.0	101.0	285	1.60	33.1	2.40	2.33	3.37	2.32	7	1.33
Striker TA 1	77	1.06	42.0	41.5	101.2	284	1.58	33.9	2.22	2.37	3.42	2.57	4	1.39
Striker TA 2	85	1.14	48.1	52.5	91.6	299	1.53	34.5	2.07	2.55	3.46	2.64	12	1.50
Team Average	79.4	1.06	42.2	42.3	99.9	295	1.60	33.6	2.04	2.4	3.33	2.45	7.2	1.35



**HIGH PERFORMANCE
SPORT NEW ZEALAND**
STRENGTH & CONDITIONING



THANK YOU FOR YOUR TIME