

# Profiling For 800 Meters Training Design



# Aerobic Versus Anaerobic Profiling



- Traditional Methods Aerobic Profiling
  - Lactate Threshold
  - Vo2 Max
  - Velocity Tables
- Neuromuscular Development/Anaerobic Profiling
  - Max Lactate
  - Velocities At Anaerobic Races (400 Meter Racing)
  - Lactate Tolerance

# Determine Individual Athletes' Profiles Using Aerobic Methods:

- Aerobic Threshold
- Lactate Threshold
- Max VO<sub>2</sub>
- vVO<sub>2</sub>
- Fractional Utilization of LT & AT based on vVO<sub>2</sub>
- Max Lactate
- Lactate Tolerance

# Energy Demands in Racing

- Specific Event Demand During Racing
  - ▣ Aerobic Demand (Vo2 Max)
  - ▣ Anaerobic Demand (Neuromuscular)
- Combined Zone
  - ▣ Race Specific Aerobic Energy
  - ▣ Race Specific Anaerobic Energy
  - ▣ 50-75% Fluctuation
- Critical Race Development
  - ▣ Anaerobic Reserve
  - ▣ Aerobic Profiling
  - ▣ Neuromuscular Profiling



# Aerobic/Anaerobic Contributions

<u>Event</u>	<u>Aerobic</u>	<u>Glycolytic</u>	<u>Alactic</u>
<b>800m</b>	<b>40%</b>	<b>55%</b>	<b>5%</b>
<b>1500m</b>	<b>50%</b>	<b>48%</b>	<b>2%</b>
<b>3000m</b>	<b>70%</b>	<b>30%</b>	<b>&lt;1%</b>
<b>5000m</b>	<b>80%</b>	<b>20%</b>	<b>&lt;1%</b>
<b>10000m</b>	<b>90%</b>	<b>10%</b>	<b>&lt;1%</b>

# % of Vo2 Max

6

<b>Event</b>	<b>% Vo2 Max</b>
<b>800 Meters</b>	<b>120-136%</b>
<b>1500 Meters</b>	<b>110-114%</b>
<b>3000 Meters</b>	<b>100-102%</b>
<b>5000 Meters</b>	<b>97-100%</b>
<b>10000 Meters</b>	<b>92%</b>

# Physiological Development For Endurance Events Specifically 800 Meters

- Aerobic
- Anaerobic
- Strength
- Biomechanical
- Critical Race Zones



# Profiling 800 Meter/1500 Meter Types





# Physiological Profiles

## Tiffany McWilliams Profile 2004

VO2 Max – 71.0

vVO2 – 4:52

LT – 5:31

AT – 6:40





### Goal Chart and Physiological Parameters Fall 2008

#### 1500 Meter Plan

#### Goal Paces

	800 Meters 120% Vo2	1500 Meters 110% Vo2	vVo2 vVo2	5000 Meters 97% Vo2
December	2:05.30	4:13.84	5:00.85	5:10.15
January	2:04.05	4:11.30	4:57.84	5:07.05
February	2:02.81	4:08.79	4:54.86	5:03.98
March	2:01.58	4:06.30	4:51.91	5:00.94
April	2:00.88	4:05.07	4:50.45	4:59.43
May	1:59.67	4:03.84	4:49.00	4:57.94
June	1:59.08	4:02.62	4:47.55	4:56.44
Summer	1:58.48	4:01.41	4:46.12	4:54.97

Mesocycle	14 days Fall Cycle		
Monday	Threshold(75-80%)	Monday	Strength/Reg
Tuesday	97% vVo2	Tuesday	100% vVo2
Wednesday	Strength/Reg	Wednesday	Strength/Reg
Thursday	95% vVo2	Thursday	95% vVo2
Friday	Strength/Reg	Friday	Strength/Reg
Saturday	85% vVo2	Saturday	75% vVo2
Sunday	AT Vo2 70%	Sunday	Rest

#### Physiological Parameters

	800-1600m vVo2	1000-1600m 97% vVo2	1200-2000m 95% vVo2	20-40 minute: LT 85% vVo2	8-10 miles 80% vVo2	8-12 miles 75% vVo2	12-15 miles AT 70% vVo2
September	5:02.65	5:11.83	5:18.60	5:56.07	6:18.30	6:43.56	7:12.37
October	5:02.05	5:11.27	5:17.96	5:55.36	6:17.56	6:42.75	7:11.51
November	5:01.45	5:10.71	5:17.32	5:54.65	6:16.82	6:41.94	7:10.65
December	5:00.85	5:10.15	5:16.68	5:53.94	6:16.08	6:41.13	7:09.79



**Goal Chart and Physiological Parameters**

**1500 Meter Plan**

**Goal Paces:**

	800 Meters	1500 Meters	vVo2	5000 Meters
	120% Vo2	110% Vo2	vVo2	97% Vo2
December	2:05.30	4:13.84	5:00.85	5:10.15
January	2:04.05	4:11.30	4:57.84	5:07.05
February	2:02.81	4:08.79	4:54.86	5:03.98
March	2:01.58	4:06.30	4:51.91	5:00.94
April	2:00.88	4:05.07	4:50.45	4:59.43
May	1:59.67	4:03.84	4:49.00	4:57.94
June	1:59.08	4:02.62	4:47.55	4:56.44
Summer	1:58.48	4:01.41	4:46.12	4:54.97

Mesocycle	14 days		
Monday	Threshold(75-80%)	Monday	Strength/Reg
Tuesday	97% vVo2	Tuesday	120% Vo2
Wednesday	Strength/Reg	Wednesday	Strength/Reg
Thursday	110% Vo2	Thursday	120% Vo2
Friday	Strength/Reg	Friday	Strength/Reg
Saturday	vVo2	Saturday	110% Vo2
Sunday	AT Vo2 70%	Sunday	Rest

**Physiological Parameters**

	200-400m	400-600m	600-800m	1000-1600m	20-40 minutes	6-8 miles	8-10 miles	Easy Run
	120% Vo2	110% Vo2	vVo2	97% Vo2	LT 88% Vo2	80% Vo2	75% V02	AT 70%Vo2
December	62.65	67.69	5:00.85	5:10.15	5:41.88	6:16.06	6:35.85	6:56.69
January	62.02	67.01	4:57.84	5:07.05	5:38.45	6:12.30	6:31.89	6:52.52
February	61.41	66.34	4:54.86	5:03.98	5:35.07	6:08.54	6:27.93	6:48.35
March	60.79	65.68	4:51.91	5:00.94	5:31.72	6:04.78	6:23.97	6:44.18
April	60.44	65.35	4:50.45	4:59.43	5:30.06	6:01.02	6:20.01	6:40.01
May	59.84	65.02	4:49.00	4:57.94	5:28.41	5:57.26	6:16.05	6:35.84
June	59.54	64.70	4:47.55	4:56.44	5:26.76	5:53.50	6:12.09	6:31.67
Summer	59.24	64.38	4:46.12	4:54.97	5:25.14	5:49.74	6:08.13	6:27.50

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# Aerobic:

## Aerobic Efficiency

- \* Development of Aerobic Threshold & Lactate Threshold
- \* Substrate Capability
- \* Cellular Oxygen Uptake
- \* Capillarization
- \* Aerobic Metabolites



# Aerobic:

## Aerobic Power

- Development of Cardiovascular System
- Cardiac Output
- VO2 Max



# Anaerobic:

## Anaerobic Alactic

- Anaerobic Power
- Maximum Velocity
- Contractile Strength, Metabolic



# Anaerobic: Anaerobic Glycolytic

- Anaerobic Capacity & Efficiency
- Lactate Tolerance
- Buffering Capacity @ Event Speed



# Biomechanical

- Body Mechanics
- Recovery Mechanics
- Ground Preparation Mechanics
- Impulse Mechanics
- Arm Action Mechanics





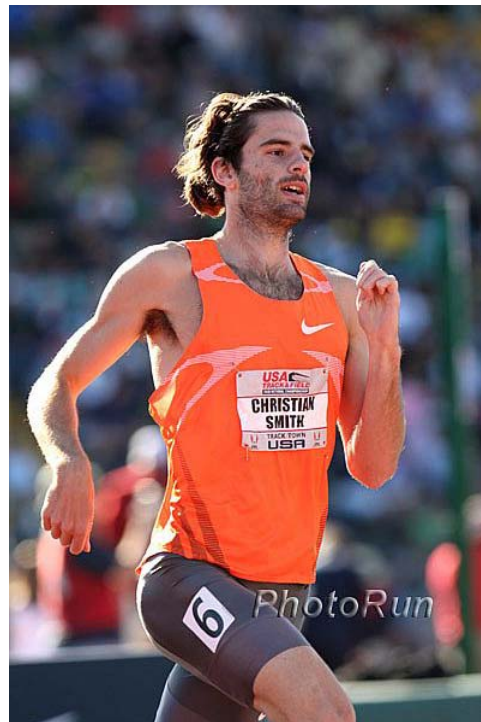
# Strength



- Strength Endurance: Contractile Endurance
- Elastic Strength  
Contractile Power  
Elasticity
- Maximum Strength  
Relative Strength

# Middle Distance

## 800-1500 Meter Annual Plan



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# Interval Training vs. Repetition Running

## Interval Training

- High Total Volume; many reps, in sets
- Extent of Run is Short
- Incomplete Recovery (worthwhile breaks]
- Training to Train
- Race Simulation

## Repetition Running

- Reps Longer in Duration (extent of run), no sets
- Less # of Repetitions
- Near Complete Recovery
- Training To Race
- Race or Fitness Testing



### Goal Chart and Physiological Parameters Fall 2008

#### 1500 Meter Plan

#### Goal Paces

	800 Meters	1500 Meters	vVo2	5000 Meters
	120% Vo2	110% Vo2	vVo2	97% Vo2
December	2:05.30	4:13.84	5:00.85	5:10.15
January	2:04.05	4:11.30	4:57.84	5:07.05
February	2:02.81	4:08.79	4:54.86	5:03.98
March	2:01.58	4:06.30	4:51.91	5:00.94
April	2:00.88	4:05.07	4:50.45	4:59.43
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June	1:59.08	4:02.62	4:47.55	4:56.44
Summer	1:58.48	4:01.41	4:46.12	4:54.97

Mesocycle	14 days Fall Cycle		
<b>Monday</b>	Threshold(75-80%)	<b>Monday</b>	Strength/Reg
<b>Tuesday</b>	97% vVo2	<b>Tuesday</b>	100% vVo2
<b>Wednesday</b>	Strength/Reg	<b>Wednesday</b>	Strength/Reg
<b>Thursday</b>	95% vVo2	<b>Thursday</b>	95% vVo2
<b>Friday</b>	Strength/Reg	<b>Friday</b>	Strength/Reg
<b>Saturday</b>	85% vVo2	<b>Saturday</b>	75% vVo2
<b>Sunday</b>	AT Vo2 70%	<b>Sunday</b>	Rest

#### Physiological Parameters

	800-1600m	1000-1600m	1200-2000m	20-40 minutes	8-10 miles	8-12 miles	12-15 miles
	vVo2	97% vVo2	95% vVo2	LT 85% vVo2	80% vVo2	75% vVo2	AT 70% vVo2
September	5:02.65	5:11.83	5:18.60	5:56.07	6:18.30	6:43.56	7:12.37
October	5:02.05	5:11.27	5:17.96	5:55.36	6:17.56	6:42.75	7:11.51
November	5:01.45	5:10.71	5:17.32	5:54.65	6:16.82	6:41.94	7:10.65
December	5:00.85	5:10.15	5:16.68	5:53.94	6:16.08	6:41.13	7:09.79



**Goal Chart and Physiological Parameters**

**1500 Meter Plan**

**Goal Paces:**

	800 Meters	1500 Meters	vVo2	5000 Meters
	120% Vo2	110% Vo2	vVo2	97% Vo2
<b>December</b>	2:05.30	4:13.84	5:00.85	5:10.15
<b>January</b>	2:04.05	4:11.30	4:57.84	5:07.05
<b>February</b>	2:02.81	4:08.79	4:54.86	5:03.98
<b>March</b>	2:01.58	4:06.30	4:51.91	5:00.94
<b>April</b>	2:00.88	4:05.07	4:50.45	4:59.43
<b>May</b>	1:59.67	4:03.84	4:49.00	4:57.94
<b>June</b>	1:59.08	4:02.62	4:47.55	4:56.44
<b>Summer</b>	1:58.48	4:01.41	4:46.12	4:54.97

Mesocycle	14 days		
<b>Monday</b>	Threshold(75-80%)	<b>Monday</b>	Strength/Reg
<b>Tuesday</b>	97% vVo2	<b>Tuesday</b>	120% Vo2
<b>Wednesday</b>	Strength/Reg	<b>Wednesday</b>	Strength/Reg
<b>Thursday</b>	110% Vo2	<b>Thursday</b>	120% Vo2
<b>Friday</b>	Strength/Reg	<b>Friday</b>	Strength/Reg
<b>Saturday</b>	vVo2	<b>Saturday</b>	110% Vo2
<b>Sunday</b>	AT Vo2 70%	<b>Sunday</b>	Rest

**Physiological Parameters**

	200-400m	400-600m	600-800m	1000-1600m	20-40 minutes	6-8 miles	8-10 miles	Easy Run
	120% Vo2	110% Vo2	vVo2	97% Vo2	LT 88% Vo2	80% Vo2	75% V02	AT 70%Vo2
<b>December</b>	62.65	67.69	5:00.85	5:10.15	5:41.88	6:16.06	6:35.85	6:56.69
<b>January</b>	62.02	67.01	4:57.84	5:07.05	5:38.45	6:12.30	6:31.89	6:52.52
<b>February</b>	61.41	66.34	4:54.86	5:03.98	5:35.07	6:08.54	6:27.93	6:48.35
<b>March</b>	60.79	65.68	4:51.91	5:00.94	5:31.72	6:04.78	6:23.97	6:44.18
<b>April</b>	60.44	65.35	4:50.45	4:59.43	5:30.06	6:01.02	6:20.01	6:40.01
<b>May</b>	59.84	65.02	4:49.00	4:57.94	5:28.41	5:57.26	6:16.05	6:35.84
<b>June</b>	59.54	64.70	4:47.55	4:56.44	5:26.76	5:53.50	6:12.09	6:31.67
<b>Summer</b>	59.24	64.38	4:46.12	4:54.97	5:25.14	5:49.74	6:08.13	6:27.50

# Aerobic Development (Fall)

22

- Aerobic Threshold
- Lactate Threshold
- Avo2 Difference
- Vo2 Max
- vVo2



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# Aerobic Threshold Fall Goal Sheets

<b>Fall Training Period</b>			
			<b><u>Aerobic Threshold</u></b>
			<b>12-15 miles</b>
	<b>vVo2</b>		<b>AT 70% vVo2</b>
<b>September</b>	5:02.65		7:12.37
<b>October</b>	5:02.05		7:11.51
<b>November</b>	5:01.45		7:10.65
<b>December</b>	5:00.85		7:09.79

# Aerobic Threshold Training Sessions

24

- 8-10 miles @ 6:20+ per mile (Hilly Course)  
*September*
- 10-12 miles @ Sub 6:45 per mile (Hilly Course)  
*October – December*
- 12 miles @ Sub 6:30 per mile (Hilly Course During  
Fall – Flatter Course During Track)
- 8-10 miles @ Sub 5:45-6:00 per mile (Flat Course)  
*Track Cycle*



# Lactate Threshold Fall Goal Sheet

25

		<u>Lactate Threshold</u>				
		<b>1200-2000m</b>	<b>20-40 minutes</b>	<b>8-10 miles</b>	<b>8-12 miles</b>	
	<b>vVo2</b>	<b>95% vVo2</b>	<b>LT 85% vVo2</b>	<b>80% vVo2</b>	<b>75% vV02</b>	
<b>September</b>	5:02.65	5:18.60	5:56.07	6:18.30	6:43.56	
<b>October</b>	5:02.05	5:17.96	5:55.36	6:17.56	6:42.75	
<b>November</b>	5:01.45	5:17.32	5:54.65	6:16.82	6:41.94	
<b>December</b>	5:00.85	5:16.68	5:53.94	6:16.08	6:41.13	

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# Lactate Threshold Training Sessions

26

- 8 miles @ 6:15 pace (*September*)
- 10 miles @ 6:20-30 pace (*September*)
- 20-30 Minute Test Run on Track @ 5:40-45 per mile (*October-December*)
- 5x1600m @ 5:15 (95% vVo<sub>2</sub>) w/3 min b/ reps (*December*)

# Vo2 Max/vVo2 Fall Goal Sheet

27

	<u>Vo2 Max &amp; vVo2</u>			
	800-1600m	1000-1600m	1200-2000m	
	vVo2	97% vVo2	95% vVo2	
September	5:02.65	5:11.83	5:18.60	
October	5:02.05	5:11.27	5:17.96	
November	5:01.45	5:10.71	5:17.32	
December	5:00.85	5:10.15	5:16.68	

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# Vo2 max/vVo2 Training Sessions

28

- 5x1600m @ 5:00-02 (95% vVo2) w/5 min b/reps (October-November)
- 10x800m @ 2:26-30 (vVo2) w/90 seconds b/reps (November)
- 2400m @ 5:15 pace (95% vVo2) rest 15 minutes then do 4x1200m @ 3:45 (vVo2) w/3-4 minutes b/reps (October-November)
- 8x1000m @ 3:05-07 (97% vVo2) 3 min b/reps (October-November)
- 2x2 miles @ Sub 5:10-12 pace (97% vVo2) w/10-15 min b/reps (November)

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# 14 Day Cycle October/November

- Monday-8 -10 miles @ 6:30 pace
- Tuesday-8x1000m @ 3:07 w/3 min b/reps
- Wednesday-Easy Run/Weights
- Thursday-2400m @ 5:07 Pace Rest 20 min then do 8x400m Hills @ Steady
- Friday-Easy Run/Weights
- Saturday-5 miles @ 5:40-45 pace
- Sunday-10-12 miles @ Sub 7:00 pace Rolling Hills
- Monday-Easy Run/Weights
- Tuesday-10x800m @ 2:26 w/90 sec b/reps
- Wednesday-Easy Run/Weights
- Thursday-2000/1600/1200/1600/2000 @ 5:05-08 pace (hilly terrain) w/3-5 min b/reps
- Friday-Easy Run/Weights
- Saturday-8 miles @ 6:05 pace
- Sunday-Rest



### Goal Chart and Physiological Parameters

#### 800-1500 Meter Plan

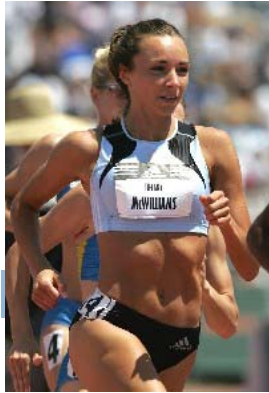
#### Goal Paces

	800 Meters	1500 Meters	vVo2	5000 Meters
	120% Vo2	110% Vo2	vVo2	97% Vo2
<b>December</b>	2:05.30	4:13.84	5:00.85	5:10.15
<b>January</b>	2:04.05	4:11.30	4:57.84	5:07.05
<b>February</b>	2:02.81	4:08.79	4:54.86	5:03.98
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<b>Summer</b>	1:58.48	4:01.41	4:46.12	4:54.97

Mesocycle	14 days
<b>Monday</b>	Threshold(75-80%)
<b>Tuesday</b>	97% vVo2
<b>Wednesday</b>	Strength/Reg
<b>Thursday</b>	110% Vo2
<b>Friday</b>	Strength/Reg
<b>Saturday</b>	vVo2
<b>Sunday</b>	AT Vo2 70%

#### Physiological Parameters

	200-400m	400-600m	600-800m	1000-1600m	20-40 minutes	6-8 miles	8-10 miles	Easy Run
	120% Vo2	110% Vo2	vVo2	97% Vo2	LT 88% Vo2	80% Vo2	75% V02	AT 70%Vo2
<b>December</b>	62.65	67.69	5:00.85	5:10.15	5:41.88	6:16.06	6:35.85	6:56.69
<b>January</b>	62.02	67.01	4:57.84	5:07.05	5:38.45	6:12.30	6:31.89	6:52.52
<b>February</b>	61.41	66.34	4:54.86	5:03.98	5:35.07	6:08.54	6:27.93	6:48.35
<b>March</b>	60.79	65.68	4:51.91	5:00.94	5:31.72	6:04.78	6:23.97	6:44.18
<b>April</b>	60.44	65.35	4:50.45	4:59.43	5:30.06	6:01.02	6:20.01	6:40.01
<b>May</b>	59.84	65.02	4:49.00	4:57.94	5:28.41	5:57.26	6:16.05	6:35.84
<b>June</b>	59.54	64.70	4:47.55	4:56.44	5:26.76	5:53.50	6:12.09	6:31.67
<b>Summer</b>	59.24	64.38	4:46.12	4:54.97	5:25.14	5:49.74	6:08.13	6:27.50



# vVo2 and Lactate Tolerance Chart

31

	<b>800 Meters</b>	<b>1500 Meters</b>	<b>vVo2</b>
	<b>120% Vo2</b>	<b>110% Vo2</b>	<b>vVo2</b>
	1:49.71	3:51.43	4:34.31
	1:49.18	3:50.31	4:32.98
	1:48.65	3:49.19	4:31.65
	1:48.12	3:48.07	4:30.32
	1:47.59	3:46.95	4:28.99
	1:47.06	3:45.83	4:27.66
	1:46.53	3:44.71	4:26.33
	1:46.00	3:43.59	4:25.00

<b>800 Meters</b>	<b>1500 Meters</b>	<b>vVo2</b>
<b>120% Vo2</b>	<b>114% Vo2</b>	<b>vVo2</b>
2:05.30	4:13.84	5:00.85
2:04.05	4:11.30	4:57.84
2:02.81	4:08.79	4:54.86
2:01.58	4:06.30	4:51.91
2:00.88	4:05.07	4:50.45
1:59.67	4:03.84	4:49.00
1:59.08	4:02.62	4:47.55
1:58.48	4:01.41	4:46.12

# Interval Training Sessions for 120% vVo2 (800 Meters)

32

- 2x8x200m @ 30-32 (120% vVo2) w/200m jog b/reps & w/400m jog b/sets (December)
- 4x4x200m @ 29-31 (120% vVo2) w/60 sec b/reps & w/6 min b/sets (December-January)
- 4x3x200m @ 28-29 (120% vVo2) w/30 sec b/reps & 6 min b/sets (March-June) Pre Race Thursdays
- **8x400m @ 59-62 (120% vVo2) w/5 min b/reps (January-June) Bridge Workout for Success at 800 meters and 1500 meters**
- 2x400/300/250/200/150 @ 59-61/44-45/36-37/28-29/20-21 (120% vVo2) w/4/3/2 min b/reps & 10-15 min b/sets (January-May)
- 2x500/400/300/200 @ 74-75/59-60/44-45/28-29 (120% vVo2) w/5/4/3 b/reps & 10 min b/sets
- 3x3x300m @ 42-43 (120% vVo2) w/2 min b/reps & 6 min b/sets (June-Summer)

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# Interval Training 1500 Meters

33

- 12x400m @ 67-68 (110% vVo2) w/300m jog b/reps (December)
- 4x3x400m @ 66-67 (110% vVo2) w/90 sec b/reps & 5 min b/sets (December-January)
- 3x4x400m @ 65-66 (110% vVo2) w/90 sec b/reps & 5 min b/sets (February-April)
- 5x600m @ 1:35-37 (110% vVo2) w/5 min b/reps (April-June)
- 1000/600/400/300/200 @ 2:40-42/1:36/62/45/28 (110% vVo2) w/6/5/4/3 min b/reps Rest 15 minutes then do 3x300m @ 44 w/3 min b/reps (March-May)
- 2x5x300m @ 48/47/46/45/44 (110-120% vVo2) w/60 sec b/reps & 10 min b/sets (May-Summer)
- 800/400/300 @ 2:08/62/44 (110% vVo2) w/3 min & 90 sec b/reps rest 20 minutes then do 3x300m @ 43-44 (120% vVo2) w/3 min b/reps (May-Summer)

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# Repetition Running 110-120% vVo2

34

- 3x700m @ Increasing Velocity (1:49/1:47/1:45) (110-120% vVo2) w/15min b/reps (May-June)
- 600m @ 1:28-30 w/10 min b/reps (April-June)
- Race 800m then rest 30 minutes then do 2x400m @ 57-58 w/ 5 min b/reps (Summer)
- Kosmin 1500 Meter Test (April-June)  
4xOne Minute Fast (As Far As You Can) w/3/2/1 min b/reps  
 $500.3 - (\text{Distance run} \times .162) = \text{Predicted Time}$
- Kosmin 800 Meter Test (April-June)  
2xOne Minute Fast (As Far As You Can) w/ 3min b/sets  
 $217.4 - (\text{Distance Run} \times .119) = \text{Predicted Time}$

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# 14 Day Cycle April/May

35

- Monday-Weights in AM  
PM- 6-8 miles @ 6:30 pace
- Tuesday-2x5x600m @ 1:45-48  
w/2 min b/reps & 6 min b/sets
- Wednesday-Easy Run/Weights
- Thursday-3x4x400m @ 65-66  
w/90 sec b/reps & 6 min b/sets
- Friday-Easy Run/Weights
- Saturday-800/400/300 @ Fast  
w/3 min & 90 sec b/reps then do  
2x400m @ Fast with 8 min  
b/reps
- Sunday-10 miles @ Sub 7:00  
pace Rolling Hills
- Monday-Easy Run/Weights
- Tuesday-8x400m @ 59-61 w/5  
min b/reps
- Wednesday-Easy Run/Weights
- Thursday-4x3x200m @ 28 w/30  
sec b/reps & 6 min b/sets
- Friday-Easy Run/Weights
- Saturday-Race or Kosmin Test
- Sunday-Rest

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# 400 Meter/800 Meter Profiling



# % of Vo2 Max

37

<b>Event</b>	<b>% Vo2 Max</b>
<b>800 Meters</b>	<b>120-136%</b>
<b>1500 Meters</b>	<b>110-114%</b>
<b>3000 Meters</b>	<b>100-102%</b>
<b>5000 Meters</b>	<b>97-100%</b>
<b>10000 Meters</b>	<b>92%</b>



**Goal Chart and Physiological Parameters**

**400-800 Meter Plan**

**Goal Paces**

	<b>400 Meters</b>	<b>800 Meters</b>	<b>500 Meters</b>	<b>vVo2</b>
	<b>Anaerobic</b>	<b>130% Vo2</b>	<b>114% Vo2</b>	<b>vVo2</b>
<b>December</b>	48.11	1:49.71	4:12.79	5:13.50
<b>January</b>	47.88	1:49.18	4:11.56	5:11.98
<b>February</b>	47.65	1:48.65	4:10.33	5:10.46
<b>March</b>	47.42	1:48.12	4:09.10	5:08.94
<b>April</b>	47.19	1:47.59	4:07.87	5:07.42
<b>May</b>	46.96	1:47.06	4:06.64	5:05.90
<b>June</b>	46.73	1:46.53	4:05.41	5:04.38
<b>Summer</b>	46.50	1:46.00	4:04.18	5:02.86

**Physiological Parameters**

	<b>150-300m</b>	<b>200-400 m</b>	<b>200-400m</b>	<b>400-600m</b>	<b>600-800m</b>
	<b>Special End</b>	<b>1st Lap</b>	<b>130% Vo2</b>	<b>114% Vo2</b>	<b>vVo2</b>
<b>December</b>	48.11	53.50	54.82	67.42	5:13.50
<b>January</b>	47.88	53.05	54.56	67.09	5:11.98
<b>February</b>	47.65	52.60	54.30	66.76	5:10.46
<b>March</b>	47.42	52.15	54.04	66.43	5:08.94
<b>April</b>	47.19	51.70	53.78	66.10	5:07.42
<b>May</b>	46.96	51.25	53.52	65.77	5:05.90
<b>June</b>	46.73	50.80	53.26	65.44	5:04.38
<b>Summer</b>	46.50	50.35	53.00	65.11	5:02.86

<b>Mesocycle</b> 14 days			
<b>Fall Schedule November</b>			
<b>Monday</b>	Threshold(75-80%)	<b>Monday</b>	Strength/Reg
<b>Tuesday</b>	100% vVo2	<b>Tuesday</b>	100% vVo2
<b>Wednesday</b>	Strength/Reg	<b>Wednesday</b>	Strength/Reg
<b>Thursday</b>	114% Vo2	<b>Thursday</b>	130% Vo2
<b>Friday</b>	Strength/Reg	<b>Friday</b>	Strength/Reg
<b>Saturday</b>	Special Endurance	<b>Saturday</b>	Special Endurance
<b>Sunday</b>	Rest	<b>Sunday</b>	Rest

<b>Mesocycle</b> 14 days			
<b>Spring Schedule April</b>			
<b>Monday</b>	Strength/Reg	<b>Monday</b>	Strength/Reg
<b>Tuesday</b>	130% vVo2	<b>Tuesday</b>	130% vVo2
<b>Wednesday</b>	Strength/Reg	<b>Wednesday</b>	Strength/Reg
<b>Thursday</b>	Special Endurance	<b>Thursday</b>	Special Endurance
<b>Friday</b>	Strength/Reg	<b>Friday</b>	Strength/Reg
<b>Saturday</b>	Race	<b>Saturday</b>	Race
<b>Sunday</b>	Rest	<b>Sunday</b>	Rest

# 14 Day Cycle October/November

- Monday-6-8 miles @ 75% vVo2
- Tuesday-8x800m @ vVo2 Max w/3 min b/ reps
- Wednesday-Easy Run/Weights
- Thursday-16-400m @ 114% vVo2 w/equal rest
- Friday-Easy Run/Weights
- Saturday-4x3x150m @ 400m Speed
- w/3 min b/ reps & 8 min b/sets
- Sunday-Rest
- Monday-Easy Run/Weights
- Tuesday-10x600m @ vVo2 Max w/90 sec b/ reps
- Wednesday-Easy Run/Weights
- Thursday-20x200m @ 114% vVo2 w/100m jog b/ reps
- Friday-Easy Run/Weights
- Saturday-3x300/250/200/150 @ Date Pace 400m w/4/3/2 min b/ reps
- w/6 min b/sets
- Sunday-Rest

# 14 Day Cycle April/May

40

- Monday-Easy Run/Weights
  - Tuesday-2x3x400m @ 53-54 w/5 min b/reps & 10 min b/sets
  - Wednesday-Easy Run/Weights
  - Thursday-3x250/200/150 @ 400m speed 3/2 b/reps & 8 min b/sets
  - Friday-Easy Run/Weights
  - Saturday-800/400/300 @ Race 800m then 4x400m
  - Sunday-Rest
- Monday-Easy Run/Weights
  - Tuesday-2x400m/200m/200m/200m @ Race Pace w/3 min & 90 sec b/reps & 10 min b/sets
  - Wednesday-Easy Run/Weights
  - Thursday-2x250/150 @ 400m Speed w/30 sec b/reps & 15 min b/sets
  - Friday-Easy Run/Weights
  - Saturday-Race 800m & 4x400m Relay
  - Sunday-Rest

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# Interval Training Sessions for 130% vVo2 (800 Meters)

41

- 2x8x200m @ 26-27 (130% vVo2) w/200m jog b/ reps & w/400m jog b/sets (December)
- 4x4x200m @ 25-27 (130% vVo2) w/60 sec b/ reps & w/6 min b/sets (December-January)
- 4x3x200m @ 25-26 (130% vVo2) w/30 sec b/ reps & 6 min b/sets (March-June) Pre Race Thursdays
- **5-8x400m @ 50-53 (130% vVo2) w/5 min b/ reps (January-June) Fulcrum Workout for Success at 800 meters**
- 2x400/300/250/200/150 @ 53/40/33/26/18 (130% vVo2) w/4/3/2 min b/ reps & 10-15 min b/sets (January-May)
- 2x500/400/300/200 @ 66/53/40/26 (130% vVo2) w/5/4/3 b/ reps & 10 min b/sets
- 3x3x300m @ 40 (120% vVo2) w/2 min b/ reps & 6 min b/sets (June-Summer)

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# Special Endurance Sessions for 400 Meters

42

- 3x3x150m @ 17 w/5 min b/reps and 10 min b/sets (November)
- 3x250/200/150m @ 29/23/17 w/5/4/ b/reps w/10 min b/sets (December-May)
- 3x3x150m @ 25-26 (130% vVo2) w/30 sec b/reps & 6 min b/sets (March-June) Pre Race Thursdays
- **3x250m/150m @ 28/17 w/2 min b/reps (January-June) Fulcrum Workout for Success at 400 meters**
- 2x300/200/150 @ 35/23/17 w/6/5 min b/reps & 10-15 min b/sets (April-May)
- 2x350m @ 40+ 20 min b/sets

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