

2014 West Coast SuperClinic – Marco Ochoa Responses, Adaptations, and Peaking Using Vigil’s Principles and Philosophy at Developmental Levels

**WEST COAST
TRACK & FIELD
SUPERCLINIC**

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Sacramento
City College

Developing a Successful
Cross Country Program

Define your Cross Country Program-

Goals and Purpose-

- Develop Athlete’s Strong Character
- Develop a Sense of Responsibility
- Develop a Sense of Accountability
- Develop and Maintain a Positive Attitude

Building and Maintaining The Team-

- Set Specific Goals for Team and Athletes
- Post Pictures, Newspaper Article, Stats
- “Athlete of the Week”
- Team Dinners
- Cross Country T-Shirts
- Running Camp

Developing a Successful
Cross Country Program

Developing Distance Runners-

- Mental Toughness and Confidence
- Motivation
- Training Plan

Training Methods-

- Terminology
- Basic Physiology
- Training Principles

Periodization-

- Monocycle
- Macrocycle
- Microcycle

Developing a Successful
Cross Country Program

Planning Practice-

- Yearly Training Plan
- Season Training Plan
- Weekly Training Plan
- Daily Training Plan
- End of Season Plan
- Summer Training Plan
- Supplemental Training

Aspects of Recovery-

- Recovery between intervals
- Recovery between sets of intervals
- Recovery between hard training days
- Recovery required following injury or overtraining

Developing a Successful
Cross Country Program

*I keep six honest serving men,
They taught me all I knew;
Their names are What and Why and When
And How and Where and Who.*

Rudyard Kipling

1. What should be done?
2. Why is it being done?
3. When should be done?
4. How is it done?
5. Where should it be done?
6. Who should do it?

**PLYOMETRIC DRILLS
and
CORE EXERCISES**

Core Workout:

Planks-	Prone, left side, right side, supine
Iron Cross-	Stretching-Hip swing from side to side
Scorpions-	Stretching of hip flexors
90 Degree Crunches-	Hips, knees, and ankles at 90 degree angles
Windshield Wipers-	Knees at 90 degree angle, straight legs, holding ball
Birdog	

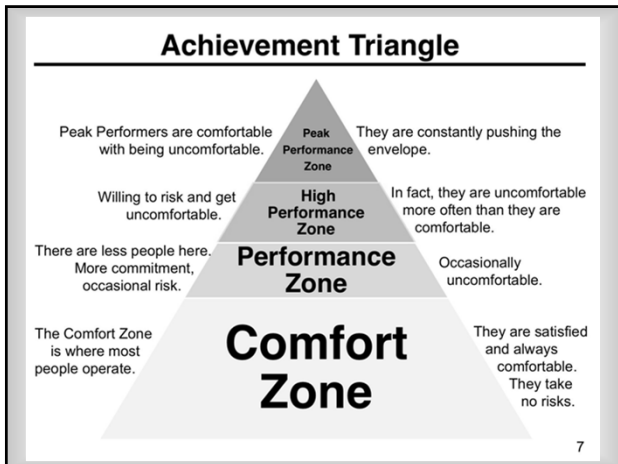
Circuit Stations:

- Kettle bell Squats
- Abs roll outs with Jack La Lane Wheel
- Squats with medicine ball
- Pushups
- Burpies
- Low Hurdle Step Overs
- High Hurdle Hip Flexion
- Incline Pull-ups on Bar
- Leg Swings

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PLYOMETRIC DRILLS and CORE EXERCISES		
Hurdle Drills-	10-15	Exercises
Stadiums-	1-Leg / 2-Leg Hops, High Knees Stride Up	
Running Form Exercises-	Lunges, Butt-Kicks, High knees, Straight Leg, Heel Walks, Toe Walks, Karaoke, A-B Skips	
Abs Work-	Sit-Ups, Crunches, Planks, Scissor, Prone Superman, Jane Fonda, Donkey Kicks	
Medicine Ball-	Abs exercises, Flexibility and Coordination drills	

Motivational Factors	
➤ Develop a Philosophy-	<i>Based on Values</i>
➤ Believe In Something-	<i>Builds Confidence</i>
➤ Creating a Family-	<i>Pride, Love, Dedication, Hard Work</i>
➤ Be a Student of The Sport-	<i>Research Related Topics</i>
➤ Exposure to Excellence-	<i>Do not settled for second Best</i>
➤ Inspirational Connections-	<i>Other People's Achievements</i>
➤ Develop a Positive Attitude-	<i>In Life, Team, and Athletes</i>
➤ Group Dynamics-	<i>Running as a Way of Life. On and Off the Field</i>
➤ Transform Individual Talent Into Great Teams-	<i>As A Team Everyone Achieves More</i>



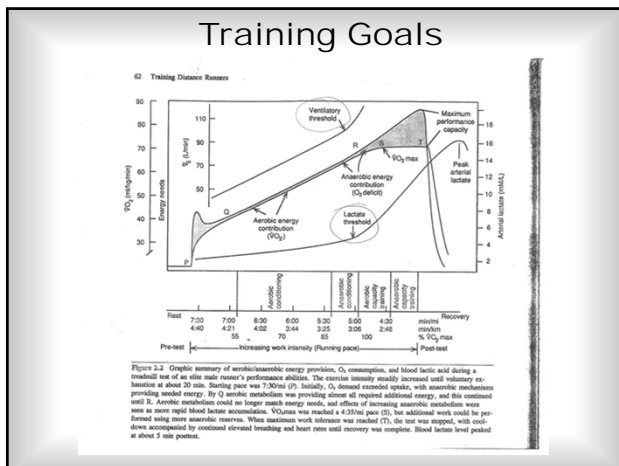
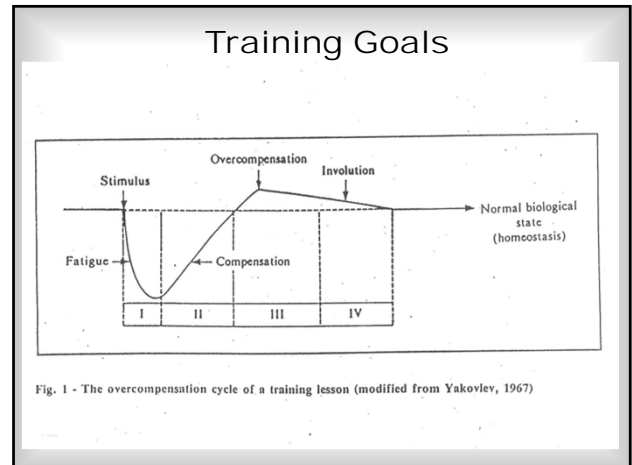
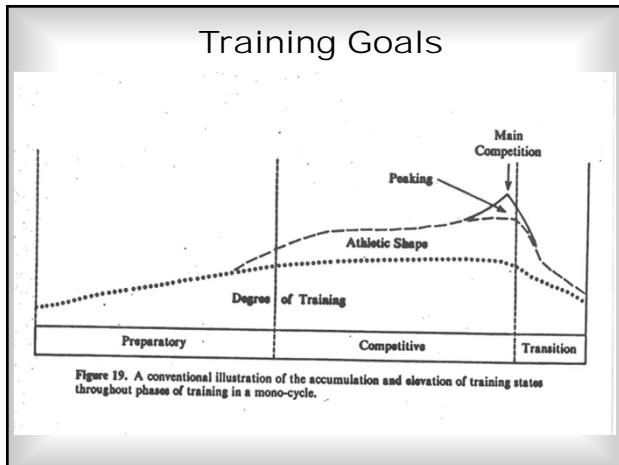
THE BIOLOGICAL LAWS OF TRAINING

- ❖ **The structure and performance capability of an organ/organ system is determined by the following:**
 - Its genetic constitution
 - The quality and quantity of work carried out
- ❖ **The greater the demand/stress placed on an organ within its physiological limits, the more intensely it adapts and more efficient it becomes.**

- PHYSIOLOGICAL TESTING**
- Objectives
- *Provide Baseline Information*
 - *Provide Markers for Effectiveness of Training*
 - *Detect Areas of Strength and Weakness*
 - *Optimize Performance*

- Training Goals**
- Major Physiological Targets
- **Improve body's ability to transport blood and oxygen**
 - **Increase ability of specific muscle groups to effectively use available oxygen**
 - **Shift blood lactate threshold to higher proportion of maximum speed/power**
 - **Increase aerobic capacity**
 - **Improve speed**
 - **Improve running economy**

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Training Goals

Physiological adaptations	Blood lactate	Heart rate	% VO_2 max	Training interval run time	Systems challenged	Target training sessions	Training interval distance	Target pace for
Speed and strength SI and FT fiber development Increased neuromuscular recruitment Improved blood buffering ability Tolerance to stress of acidosis	>9 mM	200	130	30 sec	Anaerobic capacity training	Short Interval Repetitions	800m ↓ 1,000m	800m ↓ 1,500m
Speed SI and FT fiber development Some increase in neuromuscular recruitment Some increase in blood buffering ability Increased glycolytic enzymes	8 mM	190	150	2 min	Anaerobic capacity training	Long Interval Long speed	800m ↓ 3,000m	3,000m ↓ 5,000m ↓ 10,000m
Stamina SI and some FT Type Ia development Increased heart chamber size Increased stroke volume Increased oxidative/glycolytic enzymes Increased blood volume	5 mM	180	80	8 min	Anaerobic conditioning	Tempo training Pace training Marathon training	Marathon race pace 15-25 min	Marathon
Endurance SI fiber development Increased blood volume Increased connective tissue development Increased muscle fuel storage Increased oxidative/glycolytic enzymes Increased capillarization	3.5 mM	160	75	30 min	Aerobic conditioning	Over-distance training Base work	All longer distances	
	2 mM	140	60	2 hr				

Figure 3.5 The primary training zones of performance during training.

Endurance/Aerobic Conditioning

- ❖ Bulk of training should be in the aerobic conditioning or base training phase
- ❖ Must be done at appropriate paces
65%-75% of VO_2 Max (or using the athletes 2-mile PR)
Ex: 10 min 2-miler = 300 sec/mile @ 65% = 7:42,
@ 75% = 6:40 mi/aerobic training pace
- ❖ Slower pace will bring little or no measurable aerobic improvement

Anaerobic Conditioning

Lactate/Ventilatory threshold pace
Or
Steady State run

- ❖ Brings appropriate adaptations in muscle cells that are stimulated by higher intensity stimuli
- ❖ Increases the adaptational response of the heart and cardiovascular system
- ❖ 75%-90% of VO_2 Max
Ex: 10 min 2-miler = 300 sec/mile @ 75% = 6:40;
@ 90% = 5:33 ml/Lactate Ventilatory Threshold pace
- ❖ Orange Coast-
2 x 20 minute Tempo

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Aerobic Capacity

- ❖ Challenges the maximum aerobic capabilities
- ❖ 90%-100% of VO2 Max
Ex: 10 min 2-miler = 300 sec/mile @ 90% = 5:33;
@ 100% = 5:00 mi/pace
- ❖ Adequate recovery and rest between intervals is essential
- ❖ Interval can not be to long or it will bring excessive fatigue

Anaerobic Capacity

- ❖ Very Intense training
- ❖ 100%-130% of VO2 Max
Or
95% or more of maximum pace
- ❖ Improve racing speed and strength

Weekly Training Cycle

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Anaerobic Capacity (30sec-2min)	Aerobic Conditioning (20min-60min)	Aerobic Capacity (2min-8min)	Aerobic Conditioning (20min-60min)	Anaerobic Conditioning (8min-20min)	Aerobic Conditioning (60min-1hr45)	
400m Repeats	Recovery Run	Mile Repeats	Recovery Run	Tempo Run ----- Race	Long Run	

Training Monocycle

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Hill Repeats					Long Run	
Hill Repeats		Tempo Run				
Hill Repeats						
Hill Repeats		Tempo Run				
Lappers		2-Mi Repeats				
Lappers		2-Mi Repeats				
Lappers		2-Mi Repeats				
Lappers		Mi Repeats				
Lappers		Mi Repeats				
Lappers		Mi Repeats				
Lappers		Mi Repeats				
400m Repeats		Mi Repeats			Conference	
400m Repeats		Mi Repeats			So. Cal.	
400m Repeats			3K Time-Trial			
	Mile T-T					STATE MEET

Training Monocycle

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Lappers 16x700m	Mountain Run 12 mi	Recovery Run 10 mi	Mile Repeats 6x1mi	Recovery Run 10 mi	Tempo Run 10 mi	Long Run 18 mi
Lappers 16x700m			Mile Repeats 6x1mi		RACE	
Lappers 16x700m			Mile Repeats 6x1mi			
Lappers 16x700m			Mile Repeats 6x1mi			
Lappers 16x700m			Mile Repeats 6x1mi			
Lappers 16x700m			Mile Repeats 6x1mi			
Lappers			Mile Repeats 6x1mi			
Lappers			2mi T-T 3x1mi			
Lappers			2mi T-T 2x1mi		Conference	
Lappers			2mi T-T 1x1mi			
M Time-Trial					Nationals	

REFERENCE POINT TRAINING BASE = MILE TIME

LEVEL I	REPEAT MILE TIMES	WOD T - 2 MILE TIMES
4:00 - 4:15	875 - 4:42 - 5:00 885 - 4:32 - 4:50 895 - 4:22 - 4:40 905 - 4:12 - 4:30 915 - 4:02 - 4:20 925 - 3:52 - 4:10	9:24 - 10:00 9:24 - 9:40 9:24 - 9:40 9:24 - 9:40 9:24 - 9:40 9:24 - 9:40
4:15 - 4:30	875 - 5:00 - 5:17 885 - 4:50 - 5:07 895 - 4:40 - 5:00 905 - 4:30 - 5:00 915 - 4:20 - 5:00 925 - 4:10 - 5:00	10:00 - 10:36 9:40 - 10:16 9:20 - 10:00 9:02 - 9:38 8:44 - 9:20 8:26 - 9:02
4:30 - 4:45	875 - 5:17 - 5:33 885 - 5:07 - 5:23 895 - 4:57 - 5:13 905 - 4:47 - 5:03 915 - 4:37 - 5:03 925 - 4:27 - 5:03	10:36 - 11:02 10:14 - 10:40 9:52 - 10:18 9:34 - 10:00 9:16 - 9:42 8:58 - 9:24
4:45 - 5:00	875 - 5:33 - 5:50 885 - 5:23 - 5:40 895 - 5:13 - 5:30 905 - 5:03 - 5:30 915 - 4:53 - 5:30 925 - 4:43 - 5:30	11:02 - 11:40 10:40 - 11:16 10:28 - 11:00 10:10 - 10:46 9:52 - 10:28 9:34 - 10:10
5:00 - 5:15	875 - 5:50 - 6:10 885 - 5:40 - 5:58 895 - 5:30 - 5:48 905 - 5:20 - 5:48 915 - 5:10 - 5:48 925 - 5:00 - 5:48	11:40 - 12:30 11:22 - 12:10 11:04 - 11:50 10:46 - 11:32 10:28 - 11:10 10:10 - 11:00
5:15 - 5:30	875 - 6:10 - 6:30 885 - 5:58 - 6:15 895 - 5:48 - 6:02 905 - 5:37 - 6:02 915 - 5:27 - 6:02 925 - 5:17 - 6:02	12:30 - 13:16 12:10 - 12:50 11:52 - 12:30 11:32 - 12:08 11:14 - 11:50 10:56 - 11:42
5:30 - 5:45	875 - 6:28 - 6:45 885 - 6:18 - 6:31 895 - 6:07 - 6:19 905 - 5:57 - 6:07 915 - 5:47 - 6:07 925 - 5:37 - 6:07	12:56 - 13:30 12:30 - 13:06 12:04 - 12:38 11:42 - 12:16 11:24 - 11:58 11:06 - 11:40
5:45 - 6:00	875 - 6:45 - 7:03 885 - 6:35 - 6:48 895 - 6:25 - 6:48 905 - 6:15 - 6:35 915 - 6:05 - 6:35 925 - 5:55 - 6:35	13:30 - 14:06 13:06 - 13:38 12:40 - 13:12 12:18 - 12:50 11:56 - 12:28 11:34 - 12:06
ALLIQUOT ADJUSTMENT	5-8 sec*/Mile 4-6 sec*/Mile 3-5 sec*/Mile 0	5,000" = 8,000" 6,000" = 10,000" 7,000" = 12,000" 8,000" = 14,000"