

# 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  
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## 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**

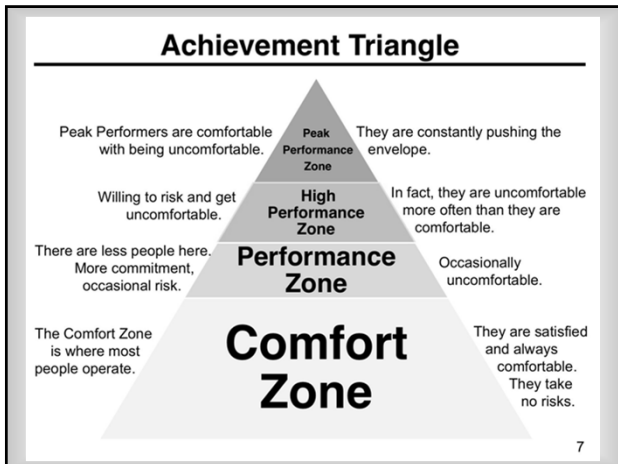
### Circuit Stations:

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



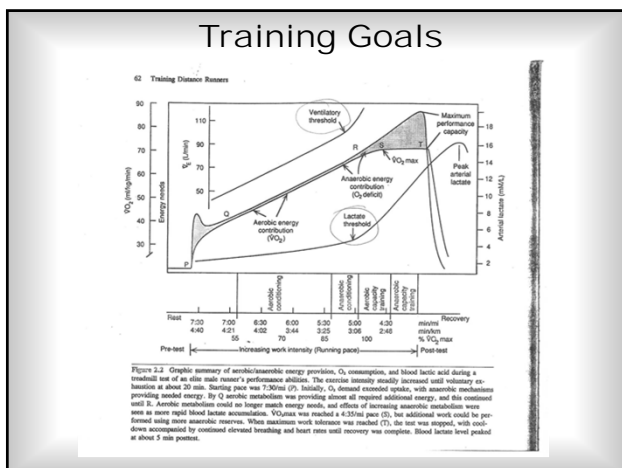
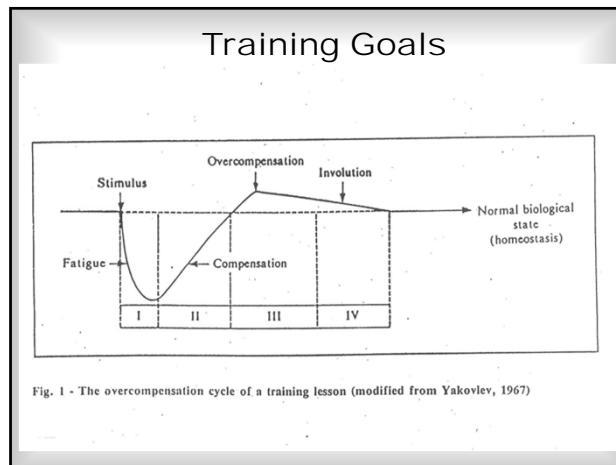
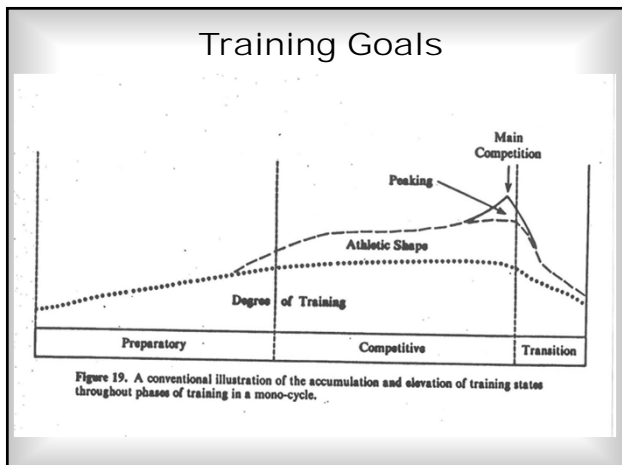
THE BIOLOGICAL LAWS OF TRAINING

- ❖ **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 <sub>2</sub> max | Training interval run time | Systems challenged          | Target training sessions            | Training interval distance      | Target pace for                       |
|--|---------------|------------|----------------------|----------------------------|-----------------------------|-------------------------------------|---------------------------------|---------------------------------------|
| Speed and strength<br>SI and FT fiber development<br>Increased neuromuscular recruitment<br>Improved blood buffering ability<br>Tolerance to stress of acidosis  | >9 mM         | 200        | 130                  | 30 sec                     | Anaerobic capacity training | Short Interval<br>Repetitions       | 800m<br>↓<br>1,000m             | 800m<br>↓<br>1,500m                   |
| Speed<br>SI and FT fiber development<br>Some increase in neuromuscular recruitment<br>Some increase in blood buffering ability<br>Increased glycolytic enzymes   | 8 mM          | 190        | 150                  | 2 min                      | Anaerobic capacity training | Long Interval<br>Long speed         | 800m<br>↓<br>3,000m             | 3,000m<br>↓<br>5,000m<br>↓<br>10,000m |
| Stamina<br>SI and some FT Type Ia development<br>Increased heart chamber size<br>Increased stroke volume<br>Increased oxidative/glycolytic enzymes<br>Increased blood volume                                   | 5 mM          | 180        | 80                   | 8 min                      | Anaerobic conditioning      | Tempo training<br>Pace training     | Marathon race pace<br>15-25 min | Marathon                              |
| Endurance<br>SI fiber development<br>Increased blood volume<br>Increased connective tissue development<br>Increased muscle fuel storage<br>Increased oxidative/glycolytic enzymes<br>Increased capillarization | 3.5 mM        | 160        | 75                   | 30 min                     | Aerobic conditioning        | Over-distance training<br>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<sub>2</sub> 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<sub>2</sub> 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 |
|---|--|--|--|---|--|--------|
| <b>Anaerobic Capacity</b><br>(30sec-2min) | <b>Aerobic Conditioning</b><br>(20min-60min) | <b>Aerobic Capacity</b><br>(2min-8min) | <b>Aerobic Conditioning</b><br>(20min-60min) | <b>Anaerobic Conditioning</b><br>(8min-20min) | <b>Aerobic Conditioning</b><br>(60min-1hr45) |        |
| 400m Repeats                              | Recovery Run                                 | Mile Repeats                           | Recovery Run                                 | Tempo Run<br>-----<br>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<br>16x700m | Mountain Run<br>12 mi | Recovery Run<br>10 mi | Mile Repeats<br>6x1mi | Recovery Run<br>10 mi | Tempo Run<br>10 mi | Long Run<br>18 mi |
| Lappers<br>16x700m |                       |                       | Mile Repeats<br>6x1mi |                       | RACE               |                   |
| Lappers<br>16x700m |                       |                       | Mile Repeats<br>6x1mi |                       |                    |                   |
| Lappers<br>16x700m |                       |                       | Mile Repeats<br>6x1mi |                       |                    |                   |
| Lappers<br>16x700m |                       |                       | Mile Repeats<br>6x1mi |                       |                    |                   |
| Lappers<br>16x700m |                       |                       | Mile Repeats<br>6x1mi |                       |                    |                   |
| Lappers            |                       |                       | Mile Repeats<br>6x1mi |                       |                    |                   |
| Lappers            |                       |                       | 2mi T-T<br>3x1mi      |                       |                    |                   |
| Lappers            |                       |                       | 2mi T-T<br>2x1mi      |                       | Conference         |                   |
| Lappers            |                       |                       | 2mi T-T<br>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<br>885 - 4:32 - 4:50<br>895 - 4:22 - 4:40<br>905 - 4:12 - 4:30<br>915 - 4:02 - 4:20<br>925 - 3:52 - 4:10 | 9:24 - 10:00<br>9:24 - 9:40<br>9:24 - 9:40<br>9:24 - 9:40<br>9:24 - 9:40<br>9:24 - 9:40            |
| 4:15 - 4:30         | 875 - 5:00 - 5:17<br>885 - 4:50 - 5:07<br>895 - 4:40 - 5:00<br>905 - 4:30 - 5:00<br>915 - 4:20 - 5:00<br>925 - 4:10 - 5:00 | 10:00 - 10:36<br>9:40 - 10:16<br>9:20 - 10:00<br>9:02 - 9:38<br>8:44 - 9:20<br>8:26 - 9:02         |
| 4:30 - 4:45         | 875 - 5:17 - 5:33<br>885 - 5:07 - 5:23<br>895 - 4:57 - 5:13<br>905 - 4:47 - 5:03<br>915 - 4:37 - 5:03<br>925 - 4:27 - 5:03 | 10:36 - 11:02<br>10:14 - 10:40<br>9:56 - 10:22<br>9:34 - 10:00<br>9:16 - 9:42<br>8:58 - 9:24       |
| 4:45 - 5:00         | 875 - 5:33 - 5:53<br>885 - 5:23 - 5:43<br>895 - 5:13 - 5:43<br>905 - 5:03 - 5:43<br>915 - 4:53 - 5:43<br>925 - 4:43 - 5:43 | 11:10 - 11:46<br>10:48 - 11:24<br>10:28 - 11:04<br>10:08 - 10:44<br>9:48 - 10:24<br>9:28 - 10:04   |
| 5:00 - 5:15         | 875 - 5:53 - 6:10<br>885 - 5:43 - 5:58<br>895 - 5:33 - 5:48<br>905 - 5:23 - 5:48<br>915 - 5:13 - 5:48<br>925 - 5:03 - 5:48 | 11:46 - 12:26<br>11:22 - 12:02<br>11:00 - 11:40<br>10:32 - 11:12<br>10:14 - 10:54<br>9:56 - 10:36  |
| 5:15 - 5:30         | 875 - 6:10 - 6:28<br>885 - 5:58 - 6:13<br>895 - 5:48 - 6:02<br>905 - 5:37 - 6:02<br>915 - 5:27 - 6:02<br>925 - 5:17 - 6:02 | 12:26 - 13:06<br>11:58 - 12:38<br>11:32 - 12:12<br>11:02 - 11:42<br>10:44 - 11:24<br>10:26 - 11:06 |
| 5:30 - 5:45         | 875 - 6:28 - 6:45<br>885 - 6:18 - 6:31<br>895 - 6:07 - 6:21<br>905 - 5:57 - 6:21<br>915 - 5:47 - 6:21<br>925 - 5:37 - 6:21 | 12:36 - 13:20<br>12:08 - 12:52<br>11:40 - 12:24<br>11:12 - 11:56<br>10:44 - 11:28<br>10:16 - 11:00 |
| 5:45 - 6:00         | 875 - 6:45 - 7:03<br>885 - 6:35 - 6:49<br>895 - 6:25 - 6:49<br>905 - 6:15 - 6:49<br>915 - 6:05 - 6:49<br>925 - 5:55 - 6:49 | 13:20 - 14:06<br>12:48 - 13:34<br>12:16 - 13:02<br>11:48 - 12:34<br>11:20 - 12:06<br>10:52 - 11:38 |
| ALL TIME ADJUSTMENT | 5-9 sec*/Mile<br>4-8 sec*/Mile<br>3-3 sec*/Mile<br>0   | 7,000" = 8,000"<br>8,000" = 9,000"<br>9,000" = 10,000"<br>10,000" = 11,000"                        |