

TRAINING ZONES: OVERVIEW

Zone	Meaning
L1: Active Recovery	Easy, leisurely cruise to the coffee shop and back. You barely break a sweat.
L2: Endurance	Easy pace during which you can speak in complete sentences. Pace for most long rides, plus pace for CAF rides.
L3: Tempo	A pace that "feels like work," but you can maintain for a long time. You can speak in short phrases. OK for short periods.
L4: FTHR	Hard pace that you can maintain for maximum of 30 minutes to an 1 hour. You will not want to talk.
L5: VO2 Max	Very hard pace that you can maintain for only a few minutes before you have to back off the pace.
L6: Anaerobic Capacity	Extremely hard pace that you can only maintain for less than a minute, and usually only 30 seconds or less.
L7: Neuromuscular Power	Short high pedal rate bursts that are not taxing when performing, but can make your legs feel very heavy afterwards.

TRAINING ZONES: DETAILED

1. Perform a Functional Threshold Heart Rate or Functional Threshold Power Test. Follow this link to a handout explaining the test:
<https://goo.gl/Vkv2bv>
2. Multiply the Threshold number by the percentages to the right to populate zones.
3. Contact robert@ccsd.com for an electronic version of this zone chart, which automatically populates the zones.

	Zone	HR from %FTHR	%FTHR
Functional Threshold Heart Rate (FTHR) _____ beats/minute	L1: Active Recovery	< _____ HR	<70%
	L2: Endurance	_____ to _____ HR	70% to 83%
	L3: Tempo	_____ to _____ HR	83% to 94%
	L4: FTHR	_____ to _____ HR	94% to 101%
	L5: VO2 Max	> _____ HR	>101%
	L6: Anaerobic Capacity	>> _____ HR	>>101%
	L7: Neuromuscular Power	N/A	N/A

	Zone	Power from %FTP	%FTP
Functional Threshold Power (FTP) _____ watts	L1: Active Recovery	< _____ W	<55%
	L2: Endurance	_____ W to _____ W	55% to 75%
	L3: Tempo	_____ W to _____ W	75% to 90%
	L4: FTP	_____ W to _____ W	90% to 105%
	L5: VO2 Max	_____ W to _____ W	105% to 120%
	L6: Anaerobic Capacity	> _____ W	>120%
	L7: Neuromuscular Power	>> _____ W	>>120%

MDC TRAINING MILEAGE

BLOCK	Week	Week Start	Total Weekly Mileage
ENDURANCE	1	4-Jun	145
	2	11-Jun	155
	3	17-Jun	165
	4	25-Jun	170
	5	1-Jul	125
DEVELOPMENT	6	9-Jul	180
	7	16-Jul	190
	8	23-Jul	200
	9	30-Jul	160
CAPACITY	10	6-Aug	215
	11	13-Aug	230
	12	20-Aug	245
	13	27-Aug	170
OVERLOAD	14	2-Sep	260
	15a	9-Sep	275
	15b	10-Sep	290
	16	17-Sep	
	17	24-Sep	
	18	1-Oct	305
TAPER	19	8-Oct	180

Workout #1

Endurance + Leg Speed

1-2 hours

Warmup 20 minutes in Zone 1.

Perform 2 sets 10 leg speed intervals of 1 minute each with 1 minute rest between intervals. [2 x (10 x 1 min leg speed x 1 min rest)].

5 minutes rest between sets.

Perform leg speed intervals seated.

Leg speed = An easy gear that allows for 100+ rpm for 1 minute.

Finish the rest of the ride at endurance pace (Zone 1 and 2) at 85 to 100 rpm.

Workout #2

Endurance + On-the Bike Strength

1-2 hours

Warmup 20 minutes in Zone 1.

Perform 6 strength intervals of 3 minutes each with 3 minutes rest between intervals. (6 x 3 min strength x 3 min rest).

Alternate standing and sitting for entire 3 minute duration of each interval.

Strength = A hard gear that allows for 50 to 60 rpm for entire 3 minutes. Can be big chainring or small chainring. Can be on hills or flats.

Finish the rest of the ride at endurance pace (Zone 1 and 2) at 85 to 100 rpm.

Workout #3

Endurance + On-the Bike Strength Standing Hills

1-2 hours

Warmup 20 minutes in Zone 1.

Perform 6 strength intervals of 3 minutes each with 3 minutes rest between intervals. (6 x 3 min strength x 3 min rest).

Stand entire 3 minute duration of each interval. Perform this workout on sustained hills.

Strength = A hard gear that allows for 50 to 60 rpm for entire 3 minutes.

Finish the rest of the ride at endurance pace (Zone 1 and 2) at 85 to 100 rpm.

Workout #4

Endurance + Tempo

1-2 hours

Warmup 20 minutes in Zone 1.

Perform 2 to 3 sets of 15 minute Tempo Zone 3 intervals with 5 minute rest between intervals. (2 to 3 x 15 min Tempo Zone 3 x 5 min rest).

Perform intervals on flat or rolling or hilly terrain. Choose gears that allow 85 to 95 rpm.

Keep pressure on the pedals up hills, down hills, and flats during entire 15 minute interval. Try not to coast.

Tempo Zone 3 is a pace that feels hard, but that you can maintain for the entire 15 minutes of the interval, and repeat for another 1 or 2 intervals.

Finish the rest of the ride at endurance pace (Zone 1 and 2) at 85 to 100 rpm.

Workout #5

Endurance + Tempo Hill Climbs

1-2 hours

Warmup 20 minutes in Zone 1.

Ride Endurance Zone 2 in between hills. On hills and climbs, ride at Tempo Zone 3 for the duration.

When riding Endurance, keep cadence between 90 and 100 rpm. When riding Tempo on hills, keep cadence above 70 rpm.

Cool down for 10 minute at the end of the ride low Endurance pace (Zone 1 and 2) at 85 to 100 rpm.

Workout #6

Endurance + Sweet Spot

1-2 hours

Warmup 20 minutes in Zone 1.

Perform 3 sets of 10 minute Sweet Spot intervals (high Zone 3 and low Zone 4) with 5 minute rest between intervals. (3 x 10 min Sweet Spot x 5 min rest).

Perform intervals on flat or rolling or hilly terrain. Choose gears that allow 90 to 100 rpm.

Keep pressure on the pedals up hills, down hills, and flats during entire 15 minute interval. Try not to coast.

Sweet Spot is high Zone 3 to low Zone 4. This is an uncomfortable, but manageable pace. Push into low Zone 4, then back down to high Zone 3 as needed.

Finish the rest of the ride at endurance pace (Zone 1 and 2) at 85 to 100 rpm.

Workout #7

Endurance + VO2 Max

1-2 hours

Warmup 20 minutes in Zone 1.

Perform 4 intervals of 4 minutes each in Zone 5 with 4 minutes rest between. (4 x 4 min VO2 Max x 4 min rest).

When riding VO2 Max Zone 5, keep cadence between 90 and 110 rpm. When resting between intervals, roll very easy in Active Recovery Zone 1.

Build into the intervals over the first 1.5 minutes, moving from Zone 2 to Zone 3 to Zone 4 and into Zone 5 for the last 2.5 minutes of the interval.

Finish the rest of the ride at endurance pace (Zone 1 and 2) at 85 to 100 rpm.

Workout #8

Endurance + Functional Threshold

1-2 hours

Warmup 20 minutes in Zone 1.

Perform 1 interval of 20 to 30 minutes in Functional Threshold Zone 4. (1 x 20 to 30 min Functional Threshold Zone 4 x unlimited rest after interval).

When riding Functional Threshold Zone 4, keep cadence between 90 and 110 rpm.

Build into the interval over the first 5 minutes, moving from Zone 2 to Zone 3 and into Zone 4 for the remainder of the interval.

Finish the rest of the ride at endurance pace (Zone 1 and 2) at 85 to 100 rpm.

MDC TRAINING PLAN

PHASE: ENDURANCE

06/04/17 Sun	06/05/17 Mon	06/06/17 Tue	06/07/17 Wed	06/08/17 Thu	06/09/17 Fri	06/10/17 Sat
Bike: CAF Ride. TRAINING BEGINS!	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #1. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #1. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Cycle Club Ride.

06/11/17 Sun	06/12/17 Mon	06/13/17 Tue	06/14/17 Wed	06/15/17 Thu	06/16/17 Fri	06/17/17 Sat
Bike: CAF Training Ride	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #1. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #1. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Training Ride

06/18/17 Sun	06/19/17 Mon	06/20/17 Tue	06/21/17 Wed	06/22/17 Thu	06/23/17 Fri	06/24/17 Sat
Bike: Endurance. 2-3 hours Zones 1 & 2. Or choose a Group Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #2. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #2. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Cycle Club Ride.

06/25/17 Sun	06/26/17 Mon	06/27/17 Tue	06/28/17 Wed	06/29/17 Thu	06/30/17 Fri	07/01/17 Sat
Bike: CAF Training Ride	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #2. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Workout #2. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Training Ride

07/02/17 Sun	07/03/17 Mon	07/04/17 Tue	07/05/17 Wed	07/06/17 Thu	07/07/17 Fri	07/08/17 Sat
Bike: Endurance. 2-3 hours Zones 1 & 2. Or choose a Group Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Easy Spin. 1-2 hours Zone 1. Any terrain.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Easy Spin. 1-2 hours Zone 1. Any terrain.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Endurance. 1-2 hours Zones 1 & 2. Or choose a Group Ride.

MDC TRAINING PLAN**PHASE: DEVELOPMENT**

07/09/17 Sun	07/10/17 Mon	07/11/17 Tue	07/12/17 Wed	07/13/17 Thu	07/14/17 Fri	07/15/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #3. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Rolling or hilly terrain. Off-the-bike Strength.	Bike: Workout #3. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Cycling Club Ride.

07/16/17 Sun	07/17/17 Mon	07/18/17 Tue	07/19/17 Wed	07/20/17 Thu	07/21/17 Fri	07/22/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #3. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Rolling or hilly terrain. Off-the-bike Strength.	Bike: Workout #3. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Cycling Club Ride.

07/23/17 Sun	07/24/17 Mon	07/25/17 Tue	07/26/17 Wed	07/27/17 Thu	07/28/17 Fri	07/29/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #4. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Rolling or hilly terrain. Off-the-bike Strength.	Bike: Workout #4. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Cycling Club Ride.

07/30/17 Sun	07/31/17 Mon	08/01/17 Tue	08/02/17 Wed	08/03/17 Thu	08/04/17 Fri	08/05/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #4. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Rolling or hilly terrain. Off-the-bike Strength.	Bike: Workout #4. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Cycling Club Ride.

MDC TRAINING PLAN**PHASE: CAPACITY**

08/13/17 Sun	08/14/17 Mon	08/15/17 Tue	08/16/17 Wed	08/17/17 Thu	08/18/17 Fri	08/19/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #5. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #5. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Hilly Endurance. 4-5 hours Zones 1 & 2. Or choose a Group Ride.

08/20/17 Sun	08/21/17 Mon	08/22/17 Tue	08/23/17 Wed	08/24/17 Thu	08/25/17 Fri	08/26/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #5. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #6. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Hilly Endurance. 4-5 hours Zones 1 & 2. Or choose a Group Ride.

08/27/17 Sun	08/28/17 Mon	08/29/17 Tue	08/30/17 Wed	08/31/17 Thu	09/01/17 Fri	09/02/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #6. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #6. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Training Ride.

09/03/17 Sun	09/04/17 Mon	09/05/17 Tue	09/06/17 Wed	09/07/17 Thu	09/08/17 Fri	09/09/17 Sat
Bike: Hilly Endurance. 4-5 hours Zones 1 & 2. Or choose a Group Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Easy Spin. 1-2 hours Zone 1. Any terrain.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Easy Spin. 1-2 hours Zone 1. Any terrain.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Training Ride.

MDC TRAINING PLAN**PHASE: OVERLOAD**

09/10/17 Sun	09/11/17 Mon	09/12/17 Tue	09/13/17 Wed	09/14/17 Thu	09/15/17 Fri	09/16/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #7. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #7. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: CAF Cycle Club Ride.

09/17/17 Sun	09/18/17 Mon	09/19/17 Tue	09/20/17 Wed	09/21/17 Thu	09/22/17 Fri	09/23/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #7. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #7. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Hilly Endurance. 5-6 hours Zones 1 & 2. Or choose a Group Ride.

09/24/17 Sun	09/25/17 Mon	09/26/17 Tue	09/27/17 Wed	09/28/17 Thu	09/29/17 Fri	09/30/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #8. See workout descriptions.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Workout #8. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Hilly Endurance. 5-6 hours Zones 1 & 2. Or choose a Group Ride.

10/01/17 Sun	10/02/17 Mon	10/03/17 Tue	10/04/17 Wed	10/05/17 Thu	10/06/17 Fri	10/07/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Workout #8. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Workout #8. See workout descriptions.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Bike: Hilly Endurance. 5-6 hours Zones 1 & 2. Or choose a Group Ride.

MDC TRAINING PLAN

PHASE: TAPER AND EVENT

10/08/17 Sun	10/09/17 Mon	10/10/17 Tue	10/11/17 Wed	10/12/17 Thu	10/13/17 Fri	10/14/17 Sat
Bike: CAF Training Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Easy Spin. 1 hour Zone 1. Any terrain.	Travel to San Francisco.	Bike: CAF MDC

10/15/17 Sun	10/16/17 Mon	10/17/17 Tue	10/18/17 Wed	10/19/17 Thu	10/20/17 Fri	10/21/17 Sat
Bike: CAF MDC	Bike: CAF MDC	Bike: CAF MDC	Bike: CAF MDC	Bike: CAF MDC	Bike: CAF MDC	Bike: Easy Spin. 1 hour Zone 1. Or Day Off.

10/22/17 Sun	10/23/17 Mon	10/24/17 Tue	10/25/17 Wed	10/26/17 Thu	10/27/17 Fri	10/28/17 Sat
Bike: Easy Spin. 1 hour Zone 1. Or Day Off.	Bike: Day Off. Off-the-bike Strength.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Group Ride

10/29/17 Sun	10/30/17 Mon	10/31/17 Tue	11/01/17 Wed	11/02/17 Thu	11/03/17 Fri	11/04/17 Sat
Bike: Easy Spin. 1 hour Zone 1. Or Day Off.	Bike: Day Off. Off-the-bike Strength.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain. Off-the-bike Strength.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off. Off-the-bike Strength.	Group Ride