



CAF NorCal Training Plan 2016

INTRODUCTION

The Challenged Athletes Foundation (CAF) NorCal Back to Back Century (NorCal) training program will prepare you for the back to back century NorCal from Sausalito, CA to Sonoma, CA via 11 weeks of weekend group training rides, plus ancillary workouts for individual completion during the week. This program, as a benefit of your fundraising, will physically prepare you for 3 days of cycling covering over 250 miles.

If you are based in San Diego, there are weekend training rides with 4 groups, which you can join depending on your experience level and physical ability. Each group will have multiple Ride Leaders, whom you will meet at the first ride and come to know during the program. These experienced Ride Leaders will be points of contact for learning more about cycling, guidance about the event, support during training rides and at the event, and friendship for years to come.

If you are not based in San Diego, and will not be attending the weekend training rides, please try to simulate the training ride mileage and climbing on those days based on the ride schedule.

GENERAL OVERVIEW

The training plan calendar on the following pages will follow this general pattern:

Monday:	Day Off with Optional Off-the-bike Strength Training
Tuesday:	Structured Workout
Wednesday:	Endurance Ride with Optional Off-the-bike Strength Training
Thursday:	Structured Workout
Friday:	Easy Spin or Day Off with Optional Off-the-bike Strength Training
Saturday:	Either CAF Training Ride or Endurance Ride (Individual or Group)
Sunday:	Either CAF Training Ride or Endurance Ride (Individual or Group)

Please review the training plan calendar on the following pages for specific workouts, training ride dates, and other information.

PLAN STRUCTURE

The training plan is progressive and structured. As the weeks progress, the **volume** (either hours or miles) and **intensity** (either zones or time in zones) will increase. The **frequency** of workouts (how many times per week), as shown above in General Overview will remain the same.

The program moves linearly through various phases of physical workouts as follows:

- **Endurance:** Building of a solid base of endurance miles to ensure one can handle the later phases of training.
- **Development:** Development of on-the-bike strength and progression to harder aerobic workouts.

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- **Capacity:** Continues the development of aerobic engine and builds in threshold workouts to improve lung and heart capacity.
 - **Taper and Event:** Recovers all systems in preparation for the main event.

The weekly mileage goals are just that: goals. While it would be to your advantage to meet the weekly mileage goals, do not stress out if you cannot. We realize that you are busy with family, work, fundraising, etc. Do your best to reach the goals.

If you cannot meet the weekly mileage goals, just focus on performing the two weekly structured workouts during the week sometime, and attending the weekend training rides.

TRAINING ZONES

You will find a description of training zones at the back of the training guide.

Follow the Training Zones: Overview if you wish to perform the workouts using perceived effort. This is the easiest way to get started on the training plan without extra equipment or testing. If you wish to delve deeper and become more focused with the training plan, follow the Training Zones: Detailed, which requires a heart rate monitor or a power meter. A link to a test protocol can be found with the details.

STRENGTH TRAINING

As an addendum to the on-the-bike workouts, off-the-bike strength training is suggested on select days of the workout calendar. Strength training comes in many forms, from traditional weight work in the gym to Pilates to yoga to CrossFit to Boot Camp to etc. There is no one strength training program fit for any one person.

We recommend that if you have a current strength program, then execute it on the days that coincide with the training plan calendar. If you do not have a current strength program, we recommend you work with a fitness professional who understands your cycling goals to develop an appropriate workout routine.

FINAL NOTE

This plan is designed for a variety of riders of different physical conditions and athleticism. If you follow the plan, including the weekday workouts and pay attention to the mileage and climbing, you will be prepared for your CAF event.

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: FTTHR	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/Vkv2by>
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.

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

Functional Threshold Power (FTP) ____ watts	Zone	Power from %FTP	%FTP
	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%

NORCAL TRAINING MILEAGE

BLOCK	Week	Week Start	Total Weekly Mileage
ENDURANCE	1	12-Jun	145
	2	19-Jun	155
	3	26-Jun	165
	4	3-Jul	170
	5	10-Jul	125
DEVELOPMENT	6	17-Jul	180
	7	24-Jul	190
	8	31-Jul	200
	9	7-Aug	160
CAPACITY	10	14-Aug	215
TAPER	11	21-Aug	170

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.

NORCAL TRAINING PLAN

PHASE: ENDURANCE

06/12/16 Sun	06/13/16 Mon	06/14/16 Tue	06/15/16 Wed	06/16/16 Thu	06/17/16 Fri	06/18/16 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 Ride.

06/19/16 Sun	06/20/16 Mon	06/21/16 Tue	06/22/16 Wed	06/23/16 Thu	06/24/16 Fri	06/25/16 Sat
Bike: Endurance. 2-3 hours Zones 1 & 2. Or choose a Group 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: Endurance. 2-3 hours Zones 1 & 2. Or choose a Group Ride.

06/26/16 Sun	06/27/16 Mon	06/28/16 Tue	06/29/16 Wed	06/30/16 Thu	07/01/16 Fri	07/02/16 Sat
Bike: CAF 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 Ride.

07/03/16 Sun	07/04/16 Mon	07/05/16 Tue	07/06/16 Wed	07/07/16 Thu	07/08/16 Fri	07/09/16 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: 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: Endurance. 2-3 hours Zones 1 & 2. Or choose a Group Ride.

07/10/16 Sun	07/11/16 Mon	07/12/16 Tue	07/13/16 Wed	07/14/16 Thu	07/15/16 Fri	07/16/16 Sat
Bike: CAF 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.

NORCAL TRAINING PLAN**PHASE: DEVELOPMENT**

07/17/16 Sun	07/18/16 Mon	07/19/16 Tue	07/20/16 Wed	07/21/16 Thu	07/22/16 Fri	07/23/16 Sat
Bike: CAF 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 Ride.

07/24/16 Sun	07/25/16 Mon	07/26/16 Tue	07/27/16 Wed	07/28/16 Thu	07/29/16 Fri	07/30/16 Sat
Bike: CAF 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: Endurance. 3.5-4.5 hours Zones 1 & 2. Or choose a Group Ride.

07/31/16 Sun	08/01/16 Mon	08/02/16 Tue	08/03/16 Wed	08/04/16 Thu	08/05/16 Fri	08/06/16 Sat
Bike: CAF 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: Endurance. 3.5-4.5 hours Zones 1 & 2. Or choose a Group Ride.

08/07/16 Sun	08/08/16 Mon	08/09/16 Tue	08/10/16 Wed	08/11/16 Thu	08/12/16 Fri	08/13/16 Sat
Bike: CAF 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: Endurance. 1-2 hours Zones 1 & 2. Or choose a Group Ride.

NORCAL TRAINING PLAN**PHASE: CAPACITY**

08/14/16 Sun	08/15/16 Mon	08/16/16 Tue	08/17/16 Wed	08/18/16 Thu	08/19/16 Fri	08/20/16 Sat
Bike: CAF 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.

NORCAL TRAINING PLAN**PHASE: TAPER AND EVENT**

08/21/16 Sun	08/22/16 Mon	08/23/16 Tue	08/24/16 Wed	08/25/16 Thu	08/26/16 Fri	08/27/16 Sat
Bike: CAF Ride.	Bike: Day Off. Off-the-bike Strength.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain.	Bike: Easy Spin. 1 hour Zone 1. Any terrain.	Travel to San Francisco.	Bike: CAF NORCAL	Bike: CAF NORCAL

08/28/16 Sun	08/29/16 Mon	08/30/16 Tue	08/31/16 Wed	09/01/16 Thu	09/02/16 Fri	09/03/16 Sat
Bike: CAF NORCAL	Bike: Day Off. Off-the-bike Strength.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off.	Bike: Endurance. 1-2 hours Zones 1 & 2. Any terrain.	Bike: Day Off. Off-the-bike Strength.	Bike: Easy Spin. 1 hour Zone 1. Or Day Off.	Group Ride

09/04/16 Sun	09/05/16 Mon	09/06/16 Tue	09/07/16 Wed	09/08/16 Thu	09/09/16 Fri	09/10/16 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