## SUPPORT DOCUMENT TO CUSTOM TRAINING PLAN SPREADSHEET

## PRELIMINARY STEPS IN CREATING YOUR PLAN

1. The training plan demands that you are able to monitor your heart-rate. A heart-rate monitor will give invaluable feedback and eliminate the subjective vagaries of 'feel'.
2. Calculate your lactate threshold (LT). This can be approximated by determining your average heart rate for a 10 to 25 mile ( 16 to 40 km ) time trial, then subtracting 3 beats. This is very hard work and an unnatural level of effort.
3. Calculate your 'personal training zones'. The training plan is based on 5 levels of effort:

## Zone 1: 65-75\% of LT

As an example, at an LT of 160 bpm , Zone 1 is a heart rate of 104-120. This zone is for warm-ups and recovery between harder efforts. You need a flat road since even moderate hills boost your heart rate too high. Many riders use indoor trainers for these rides. The pace, will seem slow. Use the heart-rate monitor because you'll be tempted to speed.

## Zone 2: 75-85\% of LT

(120-136 for an LT of 160) This is basic aerobic training to improve your body's ability to transport oxygen. The effort seems moderate but significant training occurs. Pro cycling teams often do 8-hour early-season rides in Zone 2 to build a base.

## Zone 3: 85-90\% of LT

(136-144 for an LT of 160) This trains the body to use and replace carbohydrate stores.

## Zone 4: 95-105\% of LT

(152-168 for an LT of 160) At this level your body learns to eliminate lactic acid. The stress level is large. Intervals from 90 seconds to 20 minutes are the hallmark of this zone.

## Zone 5: maximum effort

You must tolerate $10-25$ seconds of all-out sprints.
Note that no training is called for in the $90-95 \%$ range. It's too intense for aerobic improvement but not intense enough to develop top-end speed. The result is incessant fatigue without much improvement.
4. Set an achievable target for your year-hours. A pro would clock upwards of 1000 hours. Enter your target in the 'Input your target year-hours here:' of the custom training plan spreadsheet. I have used 400 hours in my example.
The 'Defined Training Time' on the spreadsheet) will account for $77 \%$ of those year-hours ( 308 hours per my example). You will need to account for the remaining $23 \%$ in one day rides of 2.0 hours, increasing to at least 4.5 hours duration, with your heart rate predominantly in Zone 2. These rides need to be long to deep condition the muscle fibres.
5. Pick the date you want to peak, and count back 36 weeks.

For us this would be 08 July.

## YOUR TRAINING PLAN

The year is divided into 3 'macrocycles' termed 'base', 'build', and 'peak.' Each period has an overall goal. During the base macrocycle an aerobic fitness foundation is established. The macrocycles are split into 'microcycles'. These are shorter periods in which you calculate the specific number of hours to ride based on your yearly targeted ride hours, and the specific amounts of time you spend in each training zone.

## BASE MACROCYCLE (16 weeks from late October to early February)

## MICROCYCLE 1

Total riding time: $6 \%$ of yearly hours.
Intensity: 88\% of your riding in Zone 2, 12\% in Zone 3.
You decide how to apportion these efforts among your rides.
Week 1: $23 \%$ of microcycle hours.
Week 2: $26 \%$ of microcycle hours.
Week 3: 29\% of microcycle hours.
Week 4: $22 \%$ of microcycle hours.

## MICROCYCLE 2

Total riding time: $7 \%$ of yearly hours.
Intensity: 82\% of your riding in Zone 2, 18\% in Zone 3.
You decide how to apportion these efforts among your rides.
Week 5: $23 \%$ of microcycle hours.
Week 6: $26 \%$ of microcycle hours.
Week 7: 29\% of microcycle hours.
Week 8: $22 \%$ of microcycle hours.

## MICROCYCLE 3

Total riding time: $8 \%$ of yearly hours.
Intensity: 82\% of your riding in Zone 2, 12\% in Zone 3-6\% in Zone 4.
Erhard recommends intervals at LT minus 10 BPM for Zone 4 workouts.
Week 9: $23 \%$ of microcycle hours.
Week 10: $26 \%$ of microcycle hours.
Week 11: $29 \%$ of microcycle hours.
Week 12: $22 \%$ of microcycle hours.

## MICROCYCLE 4

Total riding time: $9 \%$ of yearly hours.
Intensity: 76\% of your riding in Zone 2, 12\% in Zone 3. 12\% in Zone 4.
Erhard recommends intervals at LT minus 10 BPM for Zone 4 workouts.
Week 13: $23 \%$ of microcycle hours.
Week 14: $26 \%$ of microcycle hours.
Week 15: 29\% of microcycle hours.
Week 16: $22 \%$ of microcycle hours.
BUILD MACROCYCLE (16 weeks from early February to late May)

## MICROCYCLE 1

Total riding time: $9 \%$ of yearly hours.
Intensity: 70\% of your riding in Zone 2, 12\% in Zone 3-6\% speed work, 6\% hill intervals at LT minus 5 BPM. 6\% flat intervals at LT minus 5 BPM.

Week 17: $22 \%$ of microcycle hours.
Week 18: $27 \%$ of microcycle hours.
Week 19: $33 \%$ of microcycle hours.
Week 20: 18\% of microcycle hours.

## MICROCYCLE 2

Total riding time: $10 \%$ of yearly hours.
Intensity: 65\% of your riding in Zone 2, 6\% in Zone 3. 6\% speed work, $6 \%$ hill intervals at LT minus 5 BPM. $6 \%$ flat intervals at LT minus 5 BPM, and $11 \%$ racing or fast group rides.

Week 21: 22\% of microcycle hours.
Week 22: $27 \%$ of microcycle hours.
Week 23: 33\% of microcycle hours.
Week 24: $18 \%$ of microcycle hours.

## MICROCYCLE 3

Total riding time: $11 \%$ of yearly hours.
Intensity: The same as microcycle 2 but allow less recovery time between intervals. $65 \%$ of your riding in Zone 2, 6\% in Zone 3. 6\% speed work, 6\% hill intervals at LT minus 5 BPM. 6\% flat intervals at LT minus 5 BPM, and $11 \%$ racing or fast group rides.

Week 25: 22\% of microcycle hours.
Week 26: $27 \%$ of microcycle hours.
Week 27: $33 \%$ of microcycle hours.
Week 28: 18\% of microcycle hours.

## MICROCYCLE 4

Total riding time: $9 \%$ of yearly hours.
Intensity: 60\% Zone 2, 6\% in Zone 3.- 6\% speed work, 6\% hill intervals; $5 \%$ flat intervals, and $16 \%$ racing or fast group rides.

Week 29: $22 \%$ of microcycle hours. With the example of 36 hrs, this is 7.9 hrs for this week.
Week 30: $27 \%$ of microcycle hours.
Week 31: $33 \%$ of microcycle hours.
Week 32: 18\% of microcycle hours.
PEAK MACROCYCLE (4 weeks from late May to July)
Total riding time: $8 \%$ of yearly hours.
Intensity: 53\% of your riding in Zone 2, 5\% in Zone 3-6\% speed work, 12\% intervals with some and some flats; $24 \%$ racing group rides.

Week 33: $22 \%$ of macrocycle hours. With the example of 32 hrs , this is 7 hrs for this week.
Week 34: 27\% of macrocycle hours.
Week 35: 33\% of macrocycle hours.
Week 36: 18\% of macrocycle hours.

