

Queen City Wheelmen

Cincinnati, Ohio

MAY 1983

CYCLING FOR RUNNERS

Based on my own experiences, I am firmly convinced that cycling is of significant benefit for fitness in general, and running in particular. Despite differences in skills involved and neuro-muscular specificity, runners at virtually all levels can successfully incorporate cycling in their training programs.

SIMILARITIES

All of the research that I have seen suggests that the cardiovascular and metabolic requirements and benefits of the two sports are virtually identical. Consequently, competitive cyclists often follow training regimens that incorporate over-distance, intervals, time trials, hill work and jams (fartlek) in much the same manner as competitive runners.

The indicators that you use when running such as pulse rate, respiration rate, fatigue, talk test, or that "gut" feeling will have roughly the same levels for given levels of effort in cycling. Some other standards to be discussed later may not be as reliable; time and distance in particular.

Among the muscle groups used in cycling are the low back, hamstring, thigh, and calf as in running. For this reason, cyclists use weight training and stretching routines that are the same as or very similar to those for runners.

DISSIMILARITIES

Runners are quick to notice the different role of some of these muscle groups in cycling. Most noteworthy is the frontal thigh or quadriceps as this is the first to "burn" during intense cycling effort. The abdominal and arm/shoulder muscles are also used extensively. The range and type of motion is distinctly different. Cyclists make perfect little circles with their feet. With a standard 170 mm crank, the diameter of this circle is less than 13-1/2 inches. For runners, a much greater stride length is essential for even minimal performance.

By virtue of design, the bicycle is much more energy efficient than running. But exactly how much more is subject to debate. Wind resistance increases geometrically as relative air speeds increase beyond ten miles per hour. Thus, speed, wind speed and direction, the cyclist's exposed frontal area, efficiency of the bike, rider proficiency, terrain

and road surface are all factors that influence the required energy expenditures for a given distance. To determine running equivalency, use three to five miles of cycling for every mile of running. Another rule of thumb is that a cycling workout requires approximately twice the time that an equivalent running workout does.

Unlike running, road shock does not occur with each stroke but with more or less frequency depending on the road surface. What shock is received is first dampened by the cycle's wheels and frame, then distributed to five points on the rider's body. Accordingly, there is not the incidence of knee trauma, bunions, stress fractures, shin splints, tendonitis, low-back pain or other maladies associated with running.

Although running and cycling have similar physiological requirements, it is interesting to note that world class cyclists tend to have a slightly higher percentage of body fat than do world class runners. Whether the sport requires or permits the higher level is subject to debate. In addition, there is some research which suggests that runners are capable of sustaining a higher percentage of maximum oxygen uptake, a trait acquired by carefully choosing one's parents as much as by training.

CYCLING FOR RUNNERS

Lydiard was once quoted as saying, "The best exercise for running is running." I am inclined to agree. In general, even superbly conditioned swimmers or cyclists have difficulty making the transition to running. They must relearn the two sports. The idea then is not to practice running by cycling (or vice versa) but to use one sport to condition for the other. This is most successful when we exploit the differences between the two activities. In this manner, we can avoid the inevitable focus of cumulative stress on joints and connective tissue and counteract the tendency toward muscular imbalances associated with a singular activity.

SPECIFICS

Well, what do you do and how do you do it? I'm hesitant to recommend a training program for cycling for a number of reasons. One factor is the changeable nature of our weather and our seemingly unforgiving terrain.

In general terms, your program should look something like this:

Present weekly mileage: UNDER 20 MILES

Pick a nice day each week and substitute 10-15 miles of cycling over level to gently-rolling terrain for up to four miles of running. Try to average 10 to 12 miles per hour, but be careful that you can pass the talk test. Allow yourself to get out of breath only when climbing hills. Gradually increase speed and distance with emphasis on the latter. If you are riding a bicycle with gears, select a gear low enough that you can pedal at least 40 rpm's. A good target would be to complete 25 miles in 2-1/2 hours or less. Use inclement weather to experiment with extended runs or increased weekly mileage.

Present weekly mileage: 20 - 40 MILES

You might consider trying to ride twice weekly. For example, 10 - 15 miles some evening and a longer ride of 25 or so on the weekend. Depending on how you feel, you should drop at least five miles from your weekly running program but no more than ten miles. Continue to avoid hilly terrain. If possible, select a gear that will permit you to pedal at about sixty revolutions per minute. At this point in your program, this is more important than actual speed or distance travelled. As you progress, continue to add distance on your long day. Don't worry about speed, yet. If you maintain your pedal rpm's on the hills that you encounter at 60 or so, you are building the base for future speed. Again, as time or weather conditions interfere with your cycling workouts, experiment with additional running.

Present weekly mileage: 60 TO 80 MILES

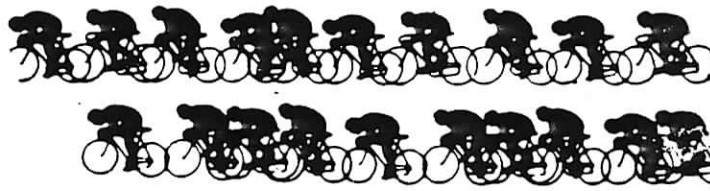
Ride whenever and wherever you can. Substitute four miles of cycling for any of your "junk" running miles. Don't sacrifice any of your quality runs or those runs which you enjoy most. Be careful to build intensity and distance in your cycling program gradually. Don't ride more than 200 miles per week for at least the first six weeks. Fifty to seventy-five miles is a good distance for that long once-a-week ride. With sufficient intensity, 15 miles are good, short workouts. Ride uphill anaerobically being sure to pedal over the crest of the hills and try to keep those feet moving on the downside. 70 - 80 revolutions per minute is your target for average pedal speed with peaks of 100 rpm's. Toe clips and straps are essential at this level. You

may even consider a cleated cycling shoe to maximize the benefit of applying force over the full 360 degree rotation of each foot. Once again, avoid hard runs after hard cycling efforts unless you are preparing for a specific biathlon or triathlon-type event which requires it. Why? The very muscle groups used predominately in cycling (i.e. the quads) are the muscles most important for proper alignment of the legs in running. If the quads are fatigued, you are more prone to injury; especially the knees. You can follow a hard running workout with a hard cycling effort to multiply the effect or productive stress; or a moderate cycling workout to accelerate recovery. Don't push so hard or long that you get the "bonk". There are still cars, trucks, and buses... and that pothole up ahead that command your attention.

Present weekly mileage: 80 MILES AND OVER

You probably have the greatest need for crossover training, but the least time, interest or energy. Let me suggest a casual high rpm (at least 60) ten-miler after your next strenuous workout or race. Compare your recovery. Or try a moderately-paced 25 miler on your next rest or easy day. Make note of any difference in joint stiffness. Keep these comparisons in mind the next time you are burned-out or injured. You'll probably find room in your schedule for cycling.

Variety and moderation is the key to successful training!



RACING NEWS

Here's a bike race for both the Novice racers and USCF riders. It is the OBERLIN MAYFAIR BIKE RACES sponsored by the Oberlin Cycling Club in Oberlin, Ohio on April 30.

Novice Jrs.	12:30 PM	\$2.00	6 miles
Novice Srs.	1:00 PM	\$3.00	10 miles
USCF Sr 4	1:45 PM	\$3.00	20 miles
Sr 2,3 & Vets	3:00 PM	\$6.00	35 miles

You may send your entry fee and Standard athlete's waiver to the Oberlin Cycling Club PO box 342 in Oberlin, OH 44074. For further information contact Walt Shubsda 216/775-2076 or 216/774-7695.

RACE FLYER EXPRESS

From time to time the club receives word of races and other special events between newsletter publication dates. Many of these races are not advertised in CUSA or Velo-News. This translates to missed opportunities. As a service to the membership the club has instituted the RACE FLYER EXPRESS. To participate just send a few SASE's to the QCW with a note regarding the kinds of events you are interested in. The club will absorb the other costs involved in expressing race apps. and other material to you.

MINI-MARATHON CLINIC

Is it hard to balance? What are those things? How long have you been doing this? Are you running tomorrow? How fast are you going? Where can I get something like that? How much does that cost?

These are a few of the most frequently asked questions at the roller demo. Don Bartholomew and Greg Hanfbauer answered lots of inquiries during the 3.5 hour stint on the rollers. Many thanks are due also to Campus Cyclery for the loan of a Turbo Trainer and the demo assistants Betty and Gary Lane and Dan Guthrie.

TUESDAY NITE TIME TRIALS MOVE TO THURSDAY

As you may already know Mark Vincent, our time trial coordinator/timer/record keeper, for the past several years has announced his retirement effective at the end of the 82 season. He'll be devoting more time to his family, job, and his personal fitness program.

We have been fortunate enough to recruit a volunteer from the membership, George Catt. Here is what he has to say:

New people call for new techniques. Along with the new members you also have a new timer. Me. There are going to have to be some changes. First, no dues, no times. I'll only keep cards on current members. Secondly, fifty cents a ride, at least 'til the treasury looks a little more reasonable. Thirdly, Time Trials will be on Thursday nights at 6:30 beginning on April 28.

The last, but most important change, I will only time every other week. If you want time trials on alternate weeks, you will all have to pitch in and volunteer your services. I'll help anyone who can take the time to be interested. Any takers can call me at 791-7417. Let's get together on this.

MEMBERSHIP

In this issue is the membership roster that reflects only paid up members through April 1. Only these members are receiving the current newsletter. If you have a friend who does not appear on the roster you may want to share some of the newsy items.

We are sending reminder notices to former members asking that they support the club in 83. We are also asking them to let us know why if they have chosen to allow their membership to lapse.

HELP WANTED

The following unsalaried positions are available:

- Newsletter reporter
- President (temporary)
- Vice Pres (temporary)
- Secretary (temporary)
- Special events chairman
- Member of Executive Committee

For further information contact Greg Hanfbauer c/o QCW by mail or phone.

SUCH A DEAL!!!!

Ellen Lady writes that she has one pair of bib-style Lycra shorts with padded super chamois for sale. They are size 3 and she is asking \$27. The QCW makes no warranties expressed or implied. Call Ellen for details 562-2568 or 721-3716. No, we don't know why Ellen wants to sell them, especially if she is losing her shirt on the deal.

DO YOU GET COLD FEET ?

Keeping the cyclists feet warm is quite a challenge during the cooler months. Rewarming cold feet is often just as problematical after prolonged exposure. The response of the extremities to cold was recently reported in THE PHYSICIAN AND SPORTS MEDICINE. The conclusion of this article is as follows: Torso protection is as important as extremity protection for long exposures.

It seems that when the foot is sufficiently chilled the overall blood flow to it is reduced. In addition all the superficial blood flow is directed to the deep veins. Unlike the hands which maintain superficial bloodflow the feet cannot be effectively rewarmed externally. This suggests that once a rider becomes cold, his feet will remain cold, until the entire body is rewarmed and blood flow to the foot restored.

If you accept this analysis you'll omit the third pair of socks on your next 35 or below ride. It will make more sense to add clothing or windbreaking material to your torso than to your feet. (In the words of the author, "Distribute thermal insulation to reduce heat losses in a manner complementary to physiological heat conservation mechanisms"). And putting your feet on the hearth when you return won't do as much good as sitting on it.

OHIO BICYCLE FEDERATION

Don Burrell, the Southwest region Rep. for the organization reports that the OBF has formed the several committees for '83. If any of these committees or their tentative projects interest you contact Don.

STATEWIDE COORDINATION-Continue event calendar, coordinate patch rides, clarify role with Ohio Bicycle Rally, Develop Communication with AAA.

ENACTMENT-support recs of OBAC, promote rideshare laws, promote use of Surface Transportation Act, list friends of cycling in gov't, clarify role of OBF and OBAC.

ENGINEERING-Bike trails on State maps, develop alert network for highway projects, inventory existing bike routes, brochure for rails to trails.

EDUCATION AND ENFORCEMENT-Promote commuting, promote enforcement of operation and equipment laws, use PSA's to promote bike use, ID other organizations to implement OBF programs.

PUBLIC INFORMATION-Evaluate OBF newsletter, membership pin or patch, events calendar, participation patch, Ohio cycling brochure, OBF policy statements, contact list of bike experts.

INDY VELODROME OPENS MARCH 7

Yes, the Major Taylor Velodrome is open for business. The March schedule is:

Mon&Thu 9:00-4:30 Open Riding

4:30-7:00 Recreation

Tu,We,Fr 9:00-4:30 Open Riding

4:30-7:00 Training

Sat&Sun 8:30-11:30 Training

11:30-5:00 Recreation

Fees are \$1 per session with a helmet rental fee of \$.50. Season passes are \$35.

Classes are scheduled for this year. There is a citizen's Development Program and a Racer's Clinic. Loaner bikes are available. Sessions start April 4 and run thru May 9. Note that Roger Young will be teaching the Racer's Clinic. Call 926-VELO for further details.

NEWS FROM THE CINCINNATI CYCLE CLUB

The CCC announces that the Ohio Bicycle Rally will be Friday thru Sunday July 22-24 at Miami University in Oxford, Ohio. The CCC has quite a weekend planned for those among us who are interested in tours, workshops, and some of the more social aspects of cycling.

Registration fees are reasonable. A variety of lodging and meal plans are also available at nominal cost. Children are welcome. For more info contact Gary Adams 661-5766 or Bob Becker 631-4983.

By the way, the CCC does a lot for cycling and cyclists. Gary or Bob would be pleased to discuss membership information.

To QCW Newsletter Editor: Gravel pits in Clifton? In response to your query in the last newsletter, I claim that you need look no further than the delightful construction site on Riddle Road. At any rate, the stumpjumper belongs to Tom "20% grade" Griffiths and he won't let me ride it. He's afraid I'll dent the rims. Or maybe that I won't come back.

I notice that the newsletter now appears in dot-matrix type. Well, I have a digital word processor also... but mine has five digits, it's attached to my left arm, and squeezes the brake in corners. I also noticed that our newsletter contains the standard club entry form which advertises our "club races" and "weight training". Next thing you know, we'll have a club team in the COORS' (lantern rouge, non?).

Actually, some of us do train with weights. My own experience has been interesting, so I'll share it here with my fans and detractors. I began lifting weights, with a simple machine which allowed some basic movements, in September, after a marvelous season of riding cat. IV behind Jon Spicker where I actually won some money (equal to 0.003% of cycling expenditures). I became aware of the odd fact that riders whom I could catch and leave gasping in a time trial were managing to cross the finish line in front of me in criteriums. When this wasn't the result of my cornering prowess, it had to be a lack of speed. Yes, when your sprint is clocked on a sundial, you'll get to watch a lot of exciting finishes. So I did some reading, which makes as much sense as training, and learned about fast and slow twitch muscle fibers. And how greatly I needed some more fast ones. Lots more!

So, I started pumping some iron. And discovered how weak I was in the process. But that didn't last long. After six months of agonizing labor, I am up to a mediocre level and still improving. I have approximately doubled my strength and increased my definition without significant weight gain. Fears of "bulking up" are largely groundless. It is a near impossibility for 99% of cyclists to gain ten pounds of muscle in a year. Ten pounds of fat is a different story, though. Right, K___? (I won't mention names.) The instrument of weight gain is not the barbell, it's the open refrigerator door!

There have been some benefits already. For one thing, it is warm in a gym, and often dry. And my knees are feeling far better than they did last year when I enjoyed three months of crippling patellar

tendonitis from a combination of big gears/cold weather/no rest days. Now I can do full barbell squats with 150 pounds for 10 reps, nothing spectacular, but a major advance nonetheless.

The real test will come on the road this spring. If the regimen works, that is if I can win something, then I'll publish my training program in a forthcoming QCW newsletter and retire to Palm Springs amidst the accolades. If it doesn't work, I'll be a stumpjumper and move to gravel pit, or become a club officer, or stick with time trialing, which after all, isn't called the "race of truth" just because there aren't any crashes, but rather because it can't be faked. DAN MOCSNY

TIME TRIALING . . .

By Watson N. Nordquist

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Time trialing is rapidly growing in popularity among US cyclists... for sport, recreation or physical fitness in general. For many years it had flourished in other countries, especially the U.K. During the thirties and into the early forties, road time trials were a standard fixture on the New England racing schedules. There Leon Landry (then editor-publisher of the magazine BICYCLING and a leading bicycle dealer) in cooperation with member clubs of the Federated Bicycle Clubs of New England, promoted an extensive series of interclub time trials over various distances and courses, with Best-All-Rounder (BAR) awards given annually to the cyclists having the best averages for three different distances. In recent years, time trialing has again become an increasingly favorite activity for both touring and racing clubs.

Reflecting the recognition now given to road time trialing as a sport, the 1974 decision of the ABL of A established District and National 25-Mile Road Time Trial Championships. A time trial has also become a common feature of "stage races".

Although a recognized track racing event for many years, this discussion will be directed to road events where riders typically start at one-minute intervals without any drafting being permitted. It is both a test of and developer of physical fitness. A time trial (TT) basically pits the rider against the clock, and only secondarily against other riders.

In club time trials, it is typical that any member can participate, enjoy it and benefit from it. All cyclists who race in sanctioned mass-start events should do some time trialing. The development of a hard, steady pace should help a racer maintain a lead in a breakaway attempt, or to regain the field if dropped in an especially long and fast jamming session, on a rugged hill climb, or as a result of tire failure or spill. The fastest individual TT times--as great as 25-27 mph for seniors--are faster than the average pace of many mass-start races. The touring cyclist can have some fun "racing" in a club TT without the risks that are inherent in mass-start racing and without having to master all the skills required in other forms of racing. In fact, there is less chance of an accident in a TT than in the average club tour for example. The touring cyclist further benefits by developing the stamina and strength that help make long distance cross-country rides, at a more comfortable pace, more enjoyable. For less-dedicated cyclists, it is a better way to keep fit than just occasionally riding around the block.

Many clubs have found a series of weekday evening time trials to be a highly worthwhile activity. They help bridge the gap between racing and touring members of the club, between the highly trained athlete and the beginner. The weekly ride against the clock gives the individual a definite measure of the progress in his own physical development. It sharpens his awareness of the importance of regular exercise and of finer points of equipment selection and maintenance. For the cyclist who has "thought" about getting into competitive racing, time trialing is an easy first step. If his or her times aren't anywhere close to those of other riders of the same age\sex class, then perhaps the individual isn't physically or psychologically ready for open competition. For any cyclist it constitutes an incentive to train or merely exercise via the bicycle on a more regular basis. It certainly contributes to the self-discipline essential to maintaining good physical health.

TIME TRIAL COURSE CONDITIONS

The most popular distances for road time trials are 10 and 25 miles for club events, and 25 miles for sanctioned events (for riders holding amateur racing license). The course selected should be as flat and smooth as possible, free from heavy traffic and having few if any cross-roads or stop signs. It helps if traffic on any intersecting road is controlled by stop signs.

ABL of A rules applicable specifically to road TT's are not consistent with general practice and need to be reviewed. Technically, a TT should be on an out-and-back course. That is, riders go half the total distance in one direction, make a U-turn, return over the same course and finish at the start line. This means that any advantage to an individual from favorable terrain or having the wind on his back while riding in one direction will be cancelled by reverse directions when riding in the other direction.

A dead-end country road with the turn-around near the road end simplifies race management. However, a dead-end country road usually is narrow and requires heavy braking in order to make the turn. A divided highway or boulevard, if accessible and meets most other conditions, permits riders to make the turn-around at higher speed. All major turns and cross-roads should have course marshals--to stop traffic or to warn riders of approaching traffic. Race promoters usually sweep clean the road surface on any corners as well as the turn-around point.

One or more race officials are usually stationed at the turn-around point to (1) offer traffic control or warning at that point, (2) check off riders--to ensure that they went the full distance, and (3) hopefully to call out the half-way elapsed time (see later comments).

The lonelier the road and more ideal the course, the lesser the possible problems with police or other authorities. A good club TT course with proper officiating, marshals where needed, and every rider assuming the responsibility of obeying all applicable state or local traffic laws, as well as common courtesy, will normally eliminate or minimize any need for official approval from the authorities. But naturally they, as well as citizens living along the course, should be notified in advance as to what is scheduled. This is especially advisable if it is a single large-scale event or if the TT's are to be held in the same location on a weekly basis. The typical club attitude is that a club TT isn't a race but just another form of physical development activity.

In metropolitan areas and some geographical areas, it is difficult if not impossible to find an ideal time trial course. Riders need to be tolerant of this situation, and recognize that TT times over various courses can only be roughly compared. Another factor involved here is that distances are seldom

surveyed, or may even be deliberately modified to better locate start-finish lines and turn-around points.

BASIC TIME TRIAL RULES

As mentioned, riders start at definite intervals, usually one minute. If a rider closes up to another rider, he must pass within a reasonable distance or fall back. ABL of A rules call for a line-of-travel separation of 80 feet and a passing separation (side) of 7 feet. The first is not very realistic; most clubs and officials consider a line of travel separation of 20 feet to be sufficient; and a passing separation of 7 feet would likely put the passing rider into the next lane or across the center line of the road, either of which would be illegal in most cases. The purpose is clear, however, that in no case is a rider allowed to use another rider or any moving vehicle as a windbreaker, except momentarily as necessary in the procedure of one passing the other. Riders start in the order of past performance, with the slowest rider first off the mark and the fastest rider being last to start.

EQUIPMENT AND CLOTHING NEEDS

In open sanctioned TT's, most of the general road race rules apply. These include mandatory use of a helmet that meets official specifications, white ankle-length socks, black trunks that come within 8" of the knee or to mid-thigh, a shirt or jersey that covers the shoulders, and gear restrictions for juniors and intermediates. However, equipment-wise, most clubs and race promoters permit fixed-gear bicycles to be used. In some cases, only a front wheel brake is required; in others, brakes on both wheels. Some race promoters, especially for small-scale events, are more lax than others with respect to clothing--except for helmets--always mandatory.

Club races, in which any member (and usually hot prospects) can compete, should require the above but do not always do so. Their very practical reason is to make it easier for more members to enjoy the TT experience, and to attract new blood. A beginning cyclist needs to gain a little experience and know that this is going to be his thing before he makes much further investment beyond the bicycle itself. Helmets, hated as they are by most riders, should be the most mandatory of all, since the cyclist riding individually is more susceptible to the rare experience of running over an excited dog, as well as

the rare but every-ride possibility of taking a header resulting from a front tire blowing out and then jamming the front wheel. Some clubs require a helmet, but do not enforce the rule.

In club TT's, most any bike will do and regardless of what equipment he has the rider should be made to feel welcome. An adequate braking system should be the only mandatory requirement. But any rider can do better on the lightest highest quality bike he can afford.

Assuming you have only on tight turn at the turn-around point, it probably makes little difference whether the frame is designed for track, criterium or road racing... or for touring. However, any dead weight (such as extra bottle cages, lights, luggage racks, etc.) that can be removed should be. The rotating elements are most important. All accessories should be as light as possible, consistent with strength, high quality and be well maintained. As you move out from the center of rotation, lightness of weight takes on increasing importance. This includes hubs, spokes, rims, tires; chainwheels and rear gear clusters; crankarms, pedals, toeclips and shoes.

Tire selection may be governed by the type and condition of road surface, as well as by economics. Most cyclist have economic constraints and can neither afford the choice of tire to suit each event and road condition, nor the highest quality tire. For the beginning cyclist, sew-ups and the rims made for them are generally lighter and faster than clinchers... and permit moving up more readily to better tires as interest develops and funds permit. On the other hand, if the beginning cyclist can afford only one set of tires and will be doing a lot of in-city riding where he will be exposed to road glass, metal chips, etc., lightweight clinchers may save him a lot of grief represented by repeatedly repairing sew-ups or replacing tires.

Of utmost importance in a time trial is the streamlining of yourself and your bike. You need to think about offering the least possible wind interference. Because even in still air, your speed in riding creates a wind effect. This means no loose clothing (without the clothing being so tight as to prevent deep breathing), a smooth outer jersey (silk, nylon or some other synthetic that has no nap), shined shoes, etc. Nylon trunks may be preferable to wool.

But if the weather is at all cool, you may want to wear a light wool or at least a cotton inner shirt

to absorb the sweat and prevent a chill. If rain is likely, some trade-offs may be necessary. There may be a greater chill factor, but wet wool can become very heavy, start sagging, etc., and provide much greater wind resistance than when dry. For wet weather, or if you can afford only one jersey, consider one of the newer fabrics that blend wool and a synthetic.

Position in riding (to be dealt with elsewhere) also affects equipment selection.

PRE-TIME TRIALING PLANNING

This is similar to the planning for any race, and is covered in another section. Briefly, find out all you can about the course if it is not already a familiar one.

If this TT has particular importance to you, ride on the previous day or earlier on race day itself only enough to loosen up. However, if the event is merely for your own development or as part of your training for some other type of racing, just fit it into your schedule as best you can.

Most TT courses are flat enough that you need think only in terms of close-ratio gearing, working down from the highest gear your experience demonstrates you can push without strain under the most favorable conditions; i.e. downhill, wind on your back and hard, smooth road surface.

Plan to take a pair of spare wheels (if you have them) in case of a flat just before the race start. If headed for an unknown race course or uncertain weather conditions, the spare wheels might very well be equipped with different gearing and different type tires. Or, take along an extra gear cluster that can be exchanged if necessary to better accommodate rough terrain.

Some very fast time trialists feel they can shave seconds or more from their times by one or more of the following especially on a flat course: using a track or other frame that gives them the shortest possible chain-drive distance (from chainwheel to back cog), having no derailleur (front or back; this also saves weight), and using either a single free-wheel sprocket or preferably a fixed gear. Using a single rear gear without derailleur also gives the rider the option of using a one-inch pitch chain and sprockets. The thinking of these riders revolves around the benefits of maximum transmission of force with as little chain stretch as possible, as little

friction as possible (no derailleur pulleys, fewer chain links and rollers) and no lost split seconds in shifting gears. However, such practices require an extra outlay of cash, an infinite knowledge of your own capabilities, the ability to mentally and physically adjust to varying race conditions, and superb judgment as to precisely what gearing will be most appropriate for the given course on that particular day.

WHAT TO FIND OUT AT THE RACE

If riding the course for the first time or if there has been a considerable time pass since you rode the course, try to arrive early enough to at least drive over the course to note any conditions that must be considered. Unless you know the course will be marked off incrementally, take note of landmarks that establish your 5-mile and 10-mile points (if a 25-miler) and that will alert you to approaching the turn-around point and the finish line. Also, if you have a choice of rear gear clusters or of tires, take note of road conditions that will help dictate your final selection. Determine as well where and to what extent you may be forced to brake. Braking must be done quickly but effectively, since you lose time and momentum in doing so.

The sign-in deadline is much more important and usually more rigidly enforced on time trials than other events. All riders must sign in before officials can determine the starting order and hand out numbers.

If there's a large field of riders, you should have ample time to assemble and check your equipment, etc. The order of preparatory actions depends on the probable time you have prior to race start time and your likely personal start time. It also depends somewhat on whether there's any place to warm up, once the first rider is off the mark.

Ascertain whether any turns and/or intersections will be guarded and to what extent. Will you have right-of-way over a car for instance? Find out how the turn-around point is marked (by tape or painted line on road surface, traffic cone, flags, etc.) and if there is any planned method of alerting riders that they're coming to that point.

Some promoters will have a 25-mile course marked off at 5-mile distances, usually by painted numerals or hash marks on the pavement... and for the last five miles will have indicators for 5, 4, 3, 2, and 1 miles to go to the finish line. Some riders find it

MIKE ALBRINCK 941 LAKESHORE CINCINNATI OH 45231 521-1226/761-6425	DON BARTHOLOMEW 11730 ENYART RD. CINCINNATI OH 45140 NL	ROGER BARTON 4247 WEBSTER CINCINNATI OH 45236 793-4324
GEORGE A CATT 9901 HICKORY BLUFF CT. CINCINNATI OH 45242 791-7417	RICHARD E. COCKS 7355 DEMAR RD. CINCINNATI OH 45243 561-5789	JOSEPH M. DAGNESE 1110 DELTA #2 CINCINNATI OH 45208 321-9611
WILLIAM DAMEN 5932 EUCLID RD. CINCINNATI OH 45236 984-2911	JOEL DAVENPORT 1225 REGENT AVE. CINCINNATI OH 45237 242-1708	ONTRAI DAVIS 1121 FENMORE CINCINNATI OH 45237 242-3471
ROBERT M. DAVIS 2519 SARVIS CT. CINCINNATI OH 45214 661-4677	RICHARD DISTLERATH 7557 WHITEHALL CR CINCINNATI OH 45069 777-9518	RON DREFFER 3522 MOONEY AV CINCINNATI OH 45208 871-7284
KENT FRAZIER 39 GRAHAM CINCINNATI OH 45219 NL	DAVID A. GECKS 352 SHILOH AV. CINCINNATI OH 45220 861-6107	TOM GRIFFITHS 599 HOWELL AVE. CINCINNATI OH 45220 281-6890
GREG HANFBAUER 5070 WESTERN HILLS AV CINCINNATI OH 45238 244-7164	WILLIAM L. HARTMAN 2003 BEECHCROFT CT. CINCINNATI OH 45238 922-8917	STEVE HULL 5049 COAD DR CINCINNATI OH 45237 242-1029
ELLEN LADY 995 PARADROME ST. CINCINNATI OH 45202 721-3716	WILLIAM J. LAPTHORN 6330 STOVER AV. CINCINNATI OH 45237 531-6339	MIKE LIMKE 3222 BLUE ACRES CINCINNATI OH 45239 521-8073
GREG LUKEN 2471 SOUTH RD CINCINNATI OH 45238 941-0378	RON MAKSTALLER 2929 PENSACOLA DR CINCINNATI OH 45239 825-2357	FREDERICK MAUSE 478 NORTH BEND RD CINCINNATI OH 45224 522-5849
BILL MIRBACH 510 KING ST ALEXANDRIA VA 22314 NL	DANIEL MOCSNY 730 RIDDLE RD #405N ALEXANDRIA VA 45220 559-1105	JOHN MONTAG 3663 STETTINUS CINCINNATI OH 45208 NL
TERRY MONTAG 1422 MAPLE WYOMING OH 45215 948-1996	WATSON N. NORDQUIST 3544 EDGEVIEW DR WYOMING OH 45213 631-7786	JIM OBERT 9816 GREENRIVER DR CINCINNATI OH 45231 851-5134
JOHN W. PETER 9821 KNOLLBROOK TERR CINCINNATI OH 45224 793-5850	VICTOR ROTH 6462 LOISWOOD DR CINCINNATI OH 45224 521-0046	JEFFERY W. SLUTZ 3159 NILES ST CINCINNATI OH 45208 321-4553
CRAIG WILLIAMS 3068 W. TOWER AV. CINCINNATI OH 45238 922-3449	DELL WILLIAMSON 4509 CAMBERWELL RD CINCINNATI OH 45209 871-6093	GLENN WOLF 7765 STILLWELL RD CINCINNATI OH 45237 761-4110