

ENDURO BASICS

TIMEKEEPING TACTICS

An easy-to-understand guide for the complete bonehead

By Gary Woodling

Any hard-core enduro rider will admit that it takes more than good riding ability to be consistent. Timekeeping also plays a major role. Basically, it's nothing more than knowing where you're supposed to be on the course at any particular time. To do this, you need a watch and speedometer. The only item on the speedometer used is the odometer, and it *must* be resettable. Some people think that the mph pointer is used, but not so.

Speed averages

In any event, you will be told to maintain a certain speed average. For example: Go 24 mph for 4.0 miles. Twenty-four miles per hour is just that: 24 miles in one hour. OK. Now, how many minutes are there in one hour? Sixty, right? RIGHT! That means you go 24 miles in 60 minutes. If you wanted to know how many miles you went in one minute, you would divide 24 by 60, which works out to be .4 miles every minute. By this point, you either get the picture or tear up the magazine in total confusion.

The basic idea is to simplify your speed averages so you know your mileage per minute, not per hour. If you take 15 mph and divide it by 60, you get .25 miles every minute.

Hey, but wait a minute! Two-and-a-half tenths (.25 miles) every minute? How can they have a check at 2½ tenths when your odometer reads tenths, not half-tenths? Good question. All checks *have* to be on whole tenths, like 15.4 or 36.7 miles, *not* 15.45 or 36.75 miles.

This means that checks can be every .5 miles in a 15 mph average. So, when timekeeping in 15 mph terrain, go .5 miles every two minutes.

Study the speed average chart in this article. In some averages, you'll find a blank, like 20 mph. 20 mph is .33333 miles per minute. 1.0 mile per three minutes is the closest that checks can be placed, so that's where you ride. Take any odd-ball average like 18.6

mph. The closest that checks can be placed is 3.1 miles every 10 minutes, so that's where you ride. Get the idea?

Possible checks

In a given speed average, use the mileage per minute chart. This same chart, and the math to produce it, is the method used by a club to place a secret check. So, when on the trail, check yourself by riding to the mileage where a check *can* be and check your time. The idea is to ride as fast as you can between possibles and check your time when you get there. Sort of a burst of speed, then slow down in case of a check, speed, slow, speed, slow, etc.

Perfect timekeeping suggests you arrive at possibles exactly 30 seconds past the minute. This is where Burleson rides. Depending on the average, I ride 10-15 second past the minute to give me 45 seconds before I'm late (the next minute). "AA" riders Rick Munyon and Mike Godfrey ride at around 20 seconds past. Don Sanford rides at 0 seconds past and sometimes one or two minutes early. No thank you.

Known checks (or known controls) are usually at the start and finish of each loop. You can be up to 15 minutes early without penalty points. Some events have a secret finish and you cannot be early. Check out the governing rules for events in your areas, as they may be different. The rules that I'll be mentioning are for Nationals. Checks cannot be closer than three miles apart (or five miles, depending). Which means when you're less than three miles from the finish, GO FOR IT!

Free territory

Any section which cannot contain a secret check is called FREE TERRITORY. Examples are the three (or five) mile distance from a start check or finish check and three (or five) mile sections used to check your speedometer against the one used for the course. We'll talk about these later.

There are two types of GAS

CHECKS: *Regular* and *Emergency*. *Regular* gas checks usually have a known control and some time in the schedule to pit. *Emergency* gas checks have no control and no time allocated to pit. Free territory for an *Emergency* gas check is defined as two miles before and three miles after. In any section where checks cannot exist, ride WFO to the max and check your time at the end.

Making a route chart

Now that you know where known checks, speedometer checks, possibles and free territory are, you need to keep track of them. A route chart (or scroll) does the trick. It's a simple device with two rollers and a window for viewing.

First, take your schedule and figure out possibles for all speed averages. List them, and the proper times, on your scroll. All free territory sections should list the beginning and ending mileage and times only. Use several different colors in marking pens or ink for clarity.

In a long section, like 28 miles at 24 mph, it is easy to make a mistake on your route chart. When listing the possibles for a long section, first list the mileages at every 10 possibles. This way, when you go back and start filling in all the possibles, you recheck your addition every 10 possibles. If you start at the beginning and keep adding .4 every minute (for 24 mph), it's hard to check your addition until the end of the section. If you made a mistake in the beginning and carried it through to the end, you'll have four feet of route chart to tear off and start over.

In wet weather, use an ink pen instead of a marker to minimize running. Also lay a strip of clear Scotch tape on both sides of the tape, along its entire length, to help reinforce it when wet. If it tears apart inside the box, it's all over but the shouting.

I've tried some computer-made route charts, but the only problem is that the numbers are too small to read at speed, even with a magnifier. If someone tries to offer you a computer-made route chart, make sure you can read it OK and tape over the perforations to keep it from tearing.

Turn mileage

Most events will have turns listed with their mileage on a sheet available before the event. Examples: 18.4-R, 27.7-L, where L means left and R means right. You can write these on your scroll between possibles, or list them on a separate scroll. Drew Smith is one who uses two route charts in this fashion.

Alternate methods

Some clubs don't give you a schedule before the event, so you have to ride and keep time in your head. This is very difficult, and there are computers designed for this purpose. These com-

puters basically read off a mileage that you try to match with your odometer. A problem arises at a speed change when you're late. At that point, you dial in the new average and total mileage, but you must remember that you're late.

This nightmare of remembering is almost as bad as no computer at all. One solution is to mount a plastic memoboard (kitchen variety) on your gas tank and attach a marker to a string. You can use this board for computations and figures. It looks bogus, but works.

If you try to keep time in your head,

not get lost. It is common to have .1, .2 and .3 mileage differences. Rarely will you have a .0 (zero) error. Remember this mileage difference, if any. You must add or subtract it every three (or five) miles.

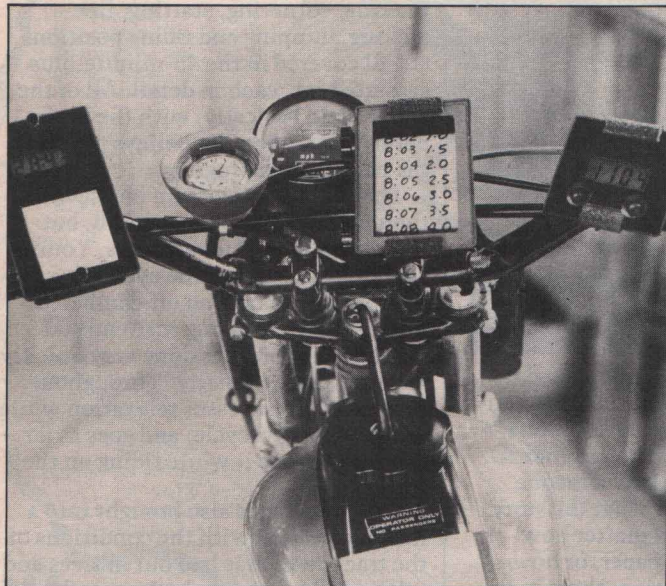
Whenever you use the reset knob to adjust the odometer, you have to ride about a half-tenth before the odometer starts counting again. This "odometer lag" is really obvious in Yamaha IT odometers. They don't start counting until you've ridden about one-tenth. To compensate for this induced error, whenever you use the reset, add another half-tenth to compensate for

the lag. After practice, all this lag and error compensating becomes second nature and you can do it without stopping or even slowing down.

Instrument mounting

Mount your rollchart to the far left on the bars, so you can turn it with your thumb and still hold the grip. Make sure your front brake cable won't catch your speedo or clock as the forks compress. These are delicate instruments, so make sure they have ample rubber mounting to rotate and give if you crash.

Watch your speedometer cable. It's your main bloodline in timekeeping. If



reset your odometer to zero at each speed change. A list of speed averages broken down is also handy. Keep one with you.

Odometer error

The first three (or five) miles is used for speedometer calibration. This gives you a chance to check your speedometer against the one used by the club on the course. Zero your odometer at the start and ride to the marker sign three (or five) miles out. You must be very careful to follow the course and

COMMON SPEED AVERAGES Mileage Per Minutes

MPH	ONE	TWO	THREE
6	.1	.2	.3
9	—	.3	—
12	.2	.4	.6
15	—	.5	—
18	.3	.6	.9
20	—	—	1.0
21	—	.7	—
24	.4	.8	1.2
27	—	.9	—
30	.5	1.0	1.5
36	.6	1.2	1.8
40	—	—	2.0
42	.7	1.4	2.1
45	—	1.5	—

SAMPLE ROUTE CHART FOR "WART HOG" ENDURO

START
Go 18 MPH

8:00 — 0.0

Free To

8:10 — 3.0

Go 24 MPH

8:11 — 3.4

8:12 — 3.8

8:13 — 4.2

8:14 — 4.6

8:15 — 5.0

Reset To 7.0

8:20 — 7.0

8:21 — 7.4

8:22 — 7.8

Go 15 MPH

8:24 — 8.3

8:26 — 8.8

8:37 — 11.9

8:38 — 12.5

8:39 — 13.1

Free To

Emergency Gas

8:43 — 15.5

Go 24 MPH

Free To 18.5

(Chart continues for remainder of run.)

SAMPLE SCHEDULE WONDER WART HOG ENDURO Three-Mile Island Motorcycle Club 3rd Annual Super Hunky Memorale

	SPEED AVERAGE	MILES	TOTAL MILES	KEY TIME
1. START Loop-1	GO 18 mph for 3.0		0.0	8:00
SPEEDOMETER Check			3.0	—
SPEED CHANGE	GO 24 mph for 4.8		3.0	8:10
RESET	FROM 5.0 to 7.0		7.0	8:20
SPEED CHANGE	GO 15 mph for 3.5		7.8	8:22
SPEED CHANGE	GO 36 mph for 6.6		11.3	8:36
EMERGENCY Gas Check			15.5	—
SPEED CHANGE	GO 24 mph for 42.4		17.9	8:47
2. FINISH Loop-1			60.3	10:33
----- 27-Minute Break -----				
3. START Loop-2	GO 21 mph for 11.9		60.3	11:00
SPEEDOMETER Check			63.3	—
SPEED CHANGE	GO 24 mph for 32.4		72.2	11:34
SPEED CHANGE	GO 9 mph for 2.7		104.6	12:55
4. FINISH Loop-2			107.3	1:13

it fails, you might as well use a calendar to keep time. With long-travel suspension, the cable is stressed more than in the days of five-inch forks. Keep an eye on it and replace it regularly. Make sure it won't get caught in the front tire. Also, carry a spare.

When the speedometer is new, take a super-small Phillips screwdriver (jeweler's size) and remove the screw holding the reset knob. Either remount it with Loctite (careful not to get any on the plastic), or solder a spring and new knob onto the shaft. The stock knob usually falls off when least expected.

In wet weather, seal your route chart with duct tape to help keep out moisture and wrap a baggie over the speedo if your bike is left outside, overnight.

On the trail

Now that your route chart has all the information you need, you just kick back, enjoy the ride and match your speedometer to your watch and rollchart. With a minimum of math chores for your head, you can ride much faster when necessary. Go to the start early, ready to set your clock. On the line, when your riding number appears on the flipcards, your clock should say 8:00 and odometer 0.0. Go for it and try

to stay on time.

At the checks

All checks have a colored flag to show what type they are. White = observation, no timing. Yellow = known check, early OK. Red and white = secret check, timed to minute only. There is one more type of secret check: the EMERGENCY CHECK (or tie-breaker). The tie-breaker is marked by a green and white flag, and the rider is timed to the minute and *second* he arrives. Ideal arrival time is 30 seconds. Slow down and try to enter and put your foot down at 30 seconds. Stand-up trials riding is legal as long as you don't stop the bike, put your foot down, or ride zig-zag.

You only have to do this at tie-breakers. At regular checks (red/white flat), you can enter the check at any time during your minute. Because rules allow a 10-second clock error, don't risk riding in any closer than 10 seconds to another minute. In other words, you can enter the check 10 seconds after.

When you ride into a check, look at the flip cards and verify that the number you earned is indicated on your scorecard. Sometimes, in the confusion, a checker will write the number he sees at the time he gets around to marking your card. In that case he'll mark you a minute late. Never argue with a checker. They are human and prone to mistakes. If you calmly and politely explain the error, they will usually correct it on the spot. Make sure that any corrections on your scorecard are initialed by the checker. If not, you'll be disqualified later.

Before you leave the check, dial in the odometer calibration figure you found from the speedo check, and the extra half-tenth for lag. Your odometer will now read spot-on when you arrive at the three (or five) mile end of free territory (remember, checks cannot be closer than three miles). After practice, a good rider will spend about 5-10 seconds in a check.

Resets

They allow a rider to catch up after being late in a rough section. If you are late during an event, the easiest way to get back on time is to pay your buddy to pick you up in a helicopter and haul you along the course a good distance and drop you. This is what a reset does. You ride up to it, and bammo, this sign tells you to add two or three or whatever miles onto your mileage. Sometimes they convert you from three minutes late to two minutes early. Checks are usually not placed at a reset.

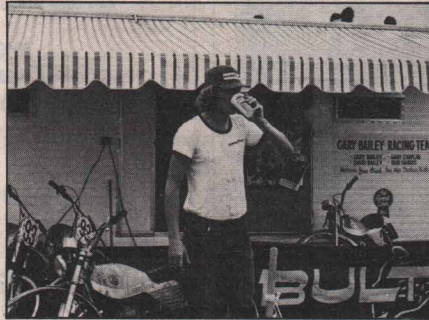
This should be all you need to get your clock-watching down pat. These tricks are the most popular and successful. Some individuals devise very kinky methods. Look around at the events and check some out. Feel free to experiment and do what feels good. □

WIN MOTOCROSS

PROFESSOR GARY BAILEY'S NEWEST MOTOCROSS SCHOOL

Learn at home, by videocassette!

By Brian George



How many times have you picked up the latest copy of a magazine that contains an article on how to ride, start, corner, or jump, read through that article, and wished you had someone there to show you just what the story was talking about? No matter how much is put down on paper, or how thorough the explanation, there is always going to be the problem of not actually seeing the move performed by somebody.

Whether it is how to use the clutch, or how to shave a quarter of a second off of your lap times in a corner, it is always a lot easier to understand the method if you can see somebody doing it, right in front of you.

In order to decrease this span, or wall, in learning how to ride motocross, famed Professor Gary Bailey has introduced a new version of his book "How To Win At Motocross" in videocassette form, titled "Win Motocross." The book was a best seller among motorcycle enthusiasts all over the United States, and rather than releasing another book, Gary opted for the videocassette, to more thoroughly explain what he writes in his book, not just with pictures, but actually performing right in front of the camera.

The tape starts out with a little action of Gary and his son David jumping around a beautiful motocross track, all to the music of Arlo Guthrie. (Seems the last movie I reviewed had good ole Arlo and his motorcycle song in it, too.) From there it goes into a plug for the sponsors of the movie, PDQ Motocross Vitamins, and Hi-Point Racing

Products, then on to an explanation of the gear needed for motocross, the bike, and preparation of the bike.

Gary brings out some very interesting points on how tightly to grip the bars, where to put your levers, and how to set your bars in this beginner-oriented segment of the picture. After that, the cassette moves to the actual riding portion of the school.

In the school section, Gary and David perform all of the basic necessities for beginning and novice riders to view, but better riders can also pick up a few pointers if they watch the Professor throw his Bultaco around the track. Braking, cornering, starting, line-picking, jumping and riding positions are all covered in the 45-minute-plus cassette tape, each in detail. All of the skills begin basically, with the beginner in mind, then the Baileys pick up the pace as they progress.

The track they perform on accents their abilities not only to teach, but their overall abilities as riders. Young David really catches the eye with a section on how to take an off-cambered turn. A heavy braking, rear-end slide through the corner is done very quickly and very professionally. Throughout the film, Gary stresses relaxation while riding the motorcycle, and goes as far as to exaggerate it while riding on the track.

This relaxing is also brought into a fine perspective with the conditions of the track, which is laid out in trees and rolling hills, winding both up and down with various types of corners, jumps, rough whoops, ruts and even a "pit" jump.

The Gary Bailey "Win Motocross" videocassette tape has something for everyone. Even Maico's Danny "Magoo" Chandler learned something new from it in his first viewing! It is done mainly for the beginner and novice enthusiast, but all of the basics are there, and no matter how good you are, there's most likely something in there for you to benefit from. This is a new breakthrough in the field of motocross schools, and the Professor brings it to you not only in an understandable fashion, but thoroughly explains every step as he goes along. And at the end, he reviews everything you just learned, along with the proper way to practice as well as race.

For \$49.95, you can get one of the Win Motocross videocassette tapes, in either VHS or Betamax, from Gary Bailey's Cycle Barn, P.O. Box 118, Axton, Virginia 24054. We highly recommend one for those who have both a video tape player, and a young one interested in the sport of motorcycling. It is a good, sensible way to start out a racing career, or better the one you've already developed. □