

# MEASUREMENT NEWS



May

1994

Issue #65



Mike Wickiser is our Validations Chairman. You may hear from him if someone runs a record time. He assigns measurers to check out the courses on which records are set. Read about Mike inside.

## MEASUREMENT NEWS

#65 - May 1994

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### A. C. LINNERUD STEPS DOWN

A. C. Linnerud, North Carolina certifier since 1982, has asked to be relieved of his duties as RRTC certifier for North Carolina. Various other obligations have left him with work overload, leaving him with insufficient time to deal with course certification applications.

A. C. is likely the world's most prolific course measurer. Our listing of his courses reveals 516 courses personally measured by him. This is an impressive body of work, and a towering service to the sport of road running.

A.C. was one of the pioneers in computerizing his calculations. The last several USATF Conventions have seen A.C. with his laptop computer, surrounded by the curious, demonstrating how his program works.

We are sorry to see A.C. step down after such an impressive record of measurement and service as one of the pioneer certifiers. He will be missed.

A.C. will retain his authority to sign off on courses he measures himself, as a recognition of his contributions to the sport.

Wayne Nicoll will assume temporary certifier duties for North Carolina until a replacement is found.

### HOW WE DID IN 1993

This summary is based on the course list as it existed on February 25. All 1993 courses, except for a few of the late-submitted ones, are here. Now it's time to see how we did last year:

Most active certifier: Tom McBrayer - 102 courses certified (87 last year)

Most active measurer: Dan Brannen - 41 courses measured (24 last year)

Most active state: Texas, with 100 courses certified (85 last year)

Measurers active in 1991: 308 (314 last year)

State with most active measurers: Tie:  
New York, with 21 (11 last year)  
California, with 21 (22 last year)

Courses certified in 1991: 1149 (Same as last year)

31 people measured 10 or more courses, accounting for 50 percent of the courses certified last year.

COURSES CERTIFIED  
IN STATE IN 1993

ACTIVE MEASURERS  
IN STATE IN 1993

COURSES CERTIFIED  
BY CERTIFIERS IN 93

MEASURERS WITH  
10 OR MORE

TX 100  
CA 86  
IL 72  
OH 68  
NY 62  
NJ 62  
FL 56  
PA 50  
OK 47  
MI 40  
MA 37  
NH 34  
NC 32  
GA 30  
KS 30  
CO 29  
AL 28  
SC 22  
CT 20  
TN 18  
WA 18  
VA 17  
ME 16  
IN 16  
DC 15  
MD 14  
IA 11  
OR 11  
UT 10  
MT 10  
DE 10  
RI 10  
AR 9  
MN 7  
KY 7  
MO 7  
NE 7  
LA 6  
AZ 5  
MS 5  
NM 4  
NV 4  
VT 4  
SD 2  
WV 1

1149

NY 21  
CA 21  
FL 20  
TX 18  
OH 14  
MA 13  
PA 13  
KS 11  
AL 10  
GA 10  
SC 9  
CO 9  
NJ 9  
NH 8  
ME 8  
IN 7  
MI 7  
OK 7  
MD 6  
AR 6  
CT 6  
TN 6  
IL 6  
VA 6  
NC 5  
OR 5  
WA 4  
KY 4  
IA 4  
VT 3  
UT 3  
MS 3  
NM 3  
MO 3  
LA 3  
AZ 2  
DC 2  
MN 2  
NV 2  
SD 2  
RI 2  
NE 2  
MT 1  
DE 1  
WV 1

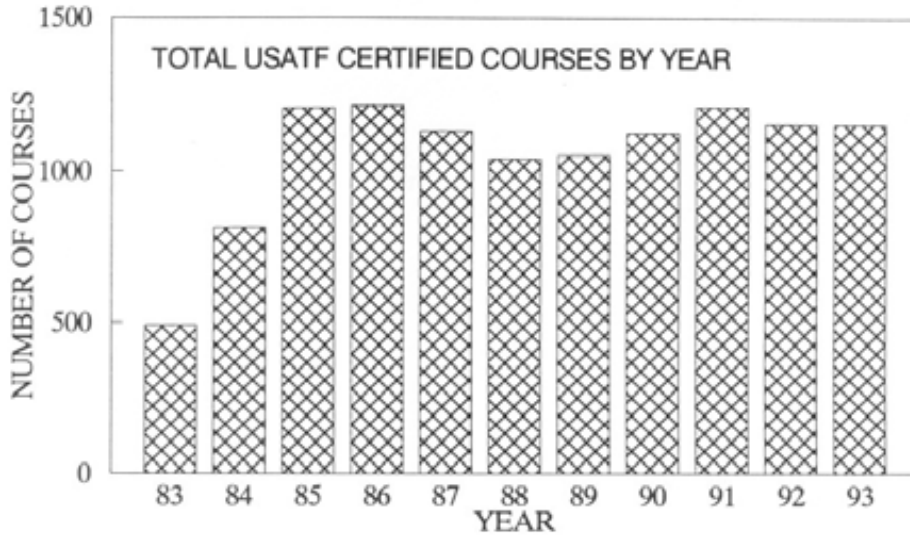
308

ETM 102  
WN 92  
PR 75  
JW 69  
DL 51  
BB 49  
RE 47  
AM 45  
RS 43  
DB 41  
SH 39  
BG 37  
RN 36  
RH 33  
GAN 31  
RT 29  
ACL 29  
DP 29  
CW 28  
WC 27  
BS 27  
DR 20  
MR 18  
MW 17  
JD 16  
JS 15  
KU 14  
TK 12  
LB 11  
FH 10  
GT 10  
FC 9  
DLP 9  
MF 8  
RR 7  
BC 4  
EL 4  
KY 3  
AS 2  
TB 1

1149

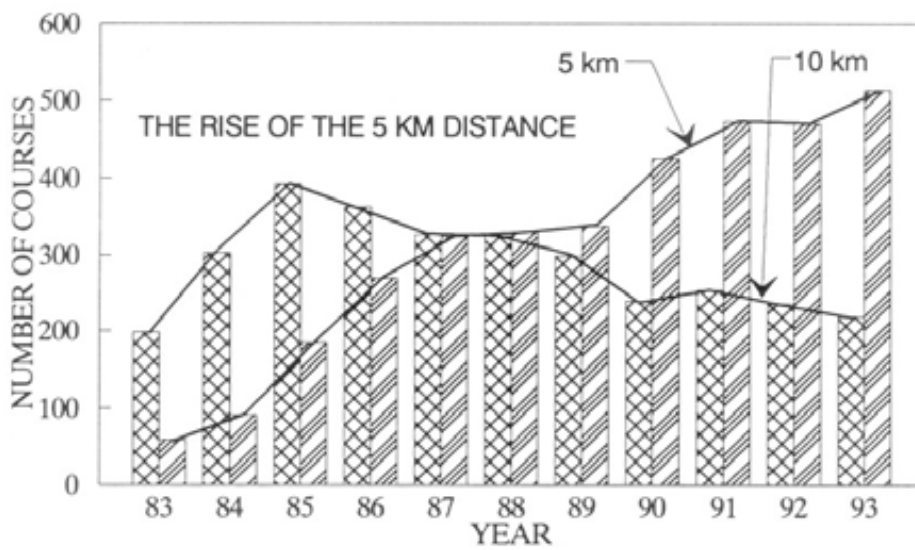
D Brannen 41  
W Nicoll 40  
G Lafarlette 34  
J Knoedel 30  
A Beach 29  
R Scardera 28  
C Hinde 26  
M Courtney 24  
E McBrayer 23  
A Linnerud 22  
G Newman 21  
R Thurston 20  
S Hubbard 19  
D Connolly 15  
P Riegel 15  
R Nelson 14  
D Standish 14  
D White (DE) 14  
S Berglund 13  
R Letson 13  
G Witkowski 13  
- GuidoBros 12  
B Harrison 12  
J Grandits 11  
T Knight 11  
J Wight 11  
W Cornwell 10  
J Devitt 10  
J Kuo 10  
M Polansky 10  
J Sissala 10

575



**STANDARD DISTANCE USATF CERTIFIED COURSES**

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
10 km	198	303	392	363	327	325	299	240	255	236	219
5 km	59	91	185	270	324	330	338	425	473	471	513
8 km	42	101	137	95	83	72	70	74	67	64	49
5 mi	31	48	89	68	91	65	66	57	62	62	39
Mar	47	61	82	61	53	55	54	49	47	49	43
HMar	17	34	60	51	44	32	26	41	32	37	40
Cal	0	1	14	5	28	20	43	60	80	80	65
<b>ALL COURSES</b>	<b>492</b>	<b>816</b>	<b>1204</b>	<b>1211</b>	<b>1129</b>	<b>1036</b>	<b>1050</b>	<b>1121</b>	<b>1208</b>	<b>1149</b>	<b>1149</b>





ROAD RUNNING TECHNICAL COUNCIL  
MICHAEL A. WICKISER  
VALIDATIONS CHAIRMAN

2939 Vincent Rd.  
Silver Lake, Ohio 44224

216-929-1605 home  
216-384-4700 work

April 17, 1994

Dear Measurement News readers,

When Pete Riegel requested a photo to be on the cover of MN, I was excited and a bit nervous. I am seldom flattered by a camera and tend to avoid having my picture taken. However, I am pleased to at least see a photo of the people whose names and voices I read about, write to, and talk to in USATF dealings. Unable to remain faceless any longer, I will tell a little about myself.

Employed at Ohio Edison as a Garage Supervisor. I am responsible for the maintenance of about 700 cars, trucks, and various types of specialized equipment. After smoking three packs of cigarettes a day for far too many years, I stopped and took up running. About the same time as I found out about road racing.

I read an article on TAC's course measurement and certification. Area races at the time were hardly close to the proper distance. Needless to say, I got involved in course measurement. My wife Karen and I were also involved in the local running club and together we were in charge of racing services for about three years. During this time I ran Finish Lines, helped organize road races, sat on advisory committees, as well as measured a few race courses. After passing racing services on to the next willing volunteer my involvement in the sport has been more directed at the certification and validation process, hence my current position. I still run regularly and seldom go less than ten miles every Saturday morning. My bicycle sees more use now and I only manage to run a select number of races. I remain active in the local Children's Hospital race as well as a few others. Suffice it to say, I am proud of any contribution to sport of running that I have made.

Now that you know a little about me. I hope this helps put a face with the name.

Best regards,

A handwritten signature in cursive script, appearing to read 'Mike', with a small flourish at the end.

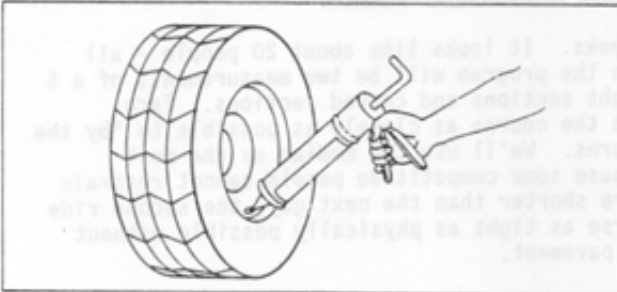
## NO MORE FLAT TIRES

Mike Wickiser discovered a new tire-sealer. It's called "Tire Seal" (see below). Mike says it comes in a tube to be used with a caulking gun. Cost is \$2.40 per tube and one tube will fill a bike tire.

Pete Riegel also discovered a sealing product. It's called "Slime" and is sold in bike shops. It is fluorescent green, and comes in a four-ounce squeeze bottle. You deflate the tire, squirt the four ounces of slimy green stuff into the tire, and reinflate. It supposedly self-seals any puncture up to 1/8 inch. It cost Pete \$3.95 to do his rear tire. So far no flats, but maybe the Tuffy insert has had something to do with that.

### Prevents Flats!

You can now enjoy puncture sealing protection on your tractors, mowers, bicycles and other off highway pneumatic tires. This extremely effective sealant is easy to install either in our shop or you can do it yourself at home with a caulking gun. Those troublesome slow leaks can now be permanently sealed and flats resulting from punctures up to 3/16" in diameter will be avoided. This is a permanent application and will last for the life of the tire.



### Do It Yourself!

To install yourself, rotate tire so valve stem is down to 6:00 o'clock position. Remove valve core and allow tire to deflate. Cut off tip of caulking tube on 7/8" mark, slide over valve stem and force sealant into tire with caulking gun. Replace valve core and inflate tire to correct pressure for trouble free, puncture sealing protection.

**STOP FLAT  
TIRES**  
with

**TIRE  
SEAL**

Distributed By:

**Myers**  
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1293 S. Main Street, Akron, Ohio 44301  
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## TOM FERGUSON ON THE ROAD TO RECOVERY

Last month it was reported that Tom Ferguson, Hawaii Certifier, has suffered a heart attack. Tom wrote that this was not quite accurate, but close. Tom is recovering well.

## NEW RUNNING BOOK

Norrie Williamson, course measurer from South Africa, has written an entertaining and informative book - Everyone's Guide to Distance Running. It contains much of the information found in most other how-to-run books, but also has got some perspectives I hadn't seen before. It's well worth a read. After twenty years of reading running books I was unenthusiastic at the idea of reading yet another, but turning a few pages got me caught up in the thing. Norrie, in addition to being a good course measurer, is also a very good ultrarunner, and he combines his personal experience with what's scientifically known to produce one of the best, and most sensible, running books I've seen. It's published by Oxford University Press. Ask about it at your bookstore.

Norrie possesses the distinction of having the highest average length of the USA certified courses he has measured. He has so far measured only the Key-to-Shining-Key point-to-point course in Florida (FL 93074 PR), having an overall length of 100 miles. Let's hope he has the chance to measure some more in the US, even if it affects his average.

## THE PHOENIX MEASUREMENT SEMINAR

The seminar will start in two weeks. It looks like about 20 people - all experienced - will be there. On the program will be two measurements of a 6 to 7 km course, featuring straight sections and curved sections. Each measurer will attempt to measure the course as closely as possible to "by the book," maintaining 30 cm from turns. We'll use the median as the most accurate measurement here. Because some competitive people cannot restrain themselves from trying to measure shorter than the next guy, the second ride will attempt to measure the course as tight as physically possible without jumping the curb or leaving the pavement.

The calibration course will be measured by each participant as leader. The participant will measure the calibration course as he chooses, with the helper accepting his instructions. This will give some insight into calibration course variation.

Each participant will bring a tape, and we will do a comparison of the lengths of the tapes. It is hoped that we will see little difference in their lengths.

Dave Yaeger of Canada suggested that we do an exercise to define how accurately we are able to eyeball directly across the street when doing an offset maneuver. We'll do this too.

Look for results in the next MN.

### SHOULD WE HAVE A LOGO?

While visiting the expo at the London Marathon I noticed that almost every one of the hundreds of race flyers available had a common characteristic - they each carried a small logo which attested to the accuracy of the course. In Britain you do not get a BAF/AAA race permit unless your course is accurate.

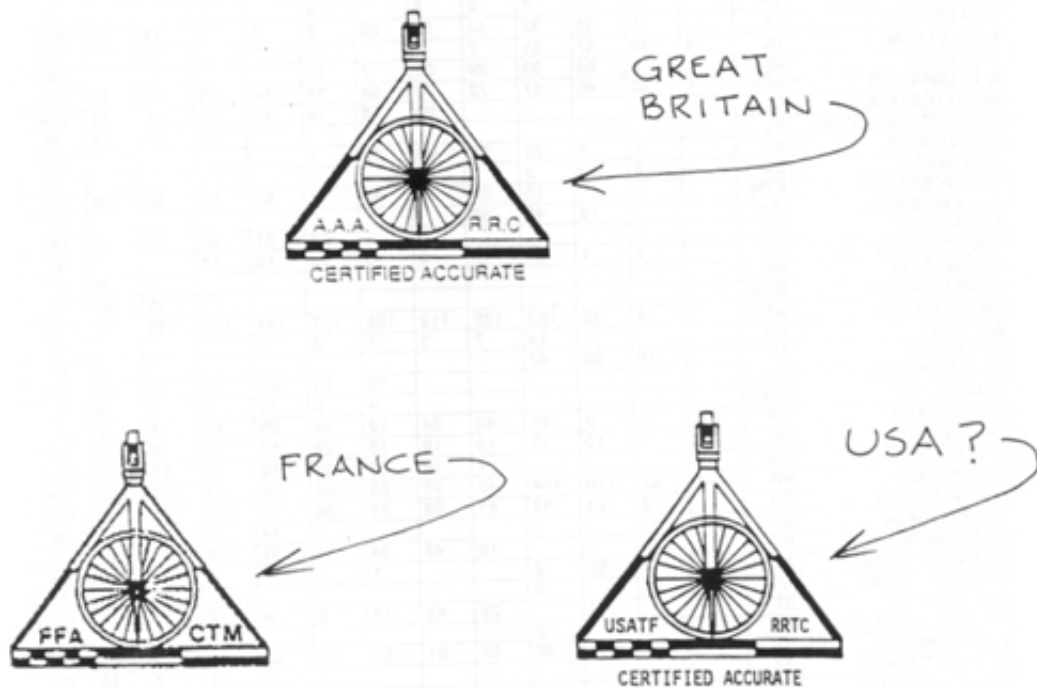
Here we encourage the use of the course certification number on the race flyer. Some races do this, some do not.

I think the use of a logo could boost the awareness of course accuracy. It has more visual impact than a course number (which can also be used). Below you will see the logo used by the British. It was designed by John Disley.

The logo has been modified for use in France, as also shown below.

The Road Runners Club of America used to have a logo which was almost identical to its precursor, the RRC of Great Britain. Is it time for us to adopt some sort of logo which would have greater impact than a course number? Do we need to invent our own or should we jump on the already-moving bandwagon?

Your thoughts on the matter are solicited.





**CERTIFIER ACTIVITY BY YEAR**

		82	83	84	85	86	87	88	89	90	91	92	93	Total
LEE BARRETT	LB							3	13	15	12	9	11	63
BOB BAUMEL	BB		34	71	81	73	66	60	55	52	74	79	49	694
TOM BENJAMIN	TB		4	22	17	16	2			1	3	1	1	67
DAN BRANNEN	DB					6	50	71	38	39	45	43	41	333
BEN BUCKNER	BU				2									2
BILL CALLANAN	BC							1	1	3	2	2	4	13
HAL CANFIELD	HWC				3									3
PAUL CHRISTENSEN	PC		15	35	45	30	1							126
FELIX CICHOCKI	FC						8	7	20	16	29	9	9	98
TED CORBITT	TC	10	185	97	14									306
WOODY CORNWELL	WC											4	27	31
JOHN DEHAYE	JD					6	11	6	23	25	10	18	16	115
GEORGE DELANEY	GD	2	28	28	64	54								176
GORDON DUGAN	GLD		2	6	8	3								19
TOM DURANTI	TD	1	24	36	52	33								146
BOB EDWARDS	RE						13	51	56	48	33	25	47	273
LEN EVENS	LE		3	10										13
TOM FERGUSON	TF				1	5	6	6	1	3				22
MICHAEL FRANKE	MF								11	7	10	7	8	43
CHARLES GEORGE	CEG		2	6										8
BILL GLAUZ	BG				14	37	22	31	31	28	36	38	37	274
BILL GRASS	WG					42	70	20	4	15	9	3		163
BEN HABLUTZEL	BH						1							1
FINN HANSEN	FH				6	6	14	11	6	15	4	10	10	82
BOB HARRISON	RH									4	13	7	33	57
BASIL HONIKMAN	BH			3	34	43	44	39	54	22				238
SCOTT HUBBARD	SH					22	36	31	18	33	17	25	39	221
BILL HUGHES	WH				11		1							12
CARL JEANSONNE	CJ		2	1	26	8								37
DAVID KATZ	DK		1	10	7	2	3		2					25
TOM KNIGHT	TK		11	33	32	44	37	29	8	7	19	11	12	243
BOB LETSON	RL	4	48	37	61	7								157
JIM LEWIS	JL		2	24	32	29	33	7	13					140
A. C. LINNERUD	ACL	1	22	40	87	72	76	54	54	64	55	43	29	597
DOUG LOEFFLER	DL						23	18	16	41	77	68	51	294
ELIZABETH LONGTON	EL										17	24	4	45
KEVIN LUCAS	KL		1	5	22	71	68	32	1					200
DALE MATTY	DM		5	10	2									17
TOM MCBRAYER	ETM				10	26	36	64	71	87	71	87	102	554
JOHN MCGRATH	JMC			13	43	36								92
AMY MORSS	AM								28	31	50	35	45	189
GREG NELSON	GN		1	1	25	15	6	10	12	10	14			94
RAY NELSON	RN											5	36	41
GENE NEWMAN	GAN											15	31	46
WAYNE NICOLL	WN		4	32	123	125	112	106	117	138	149	139	92	1137
BILL NOEL	BN				14	7	3	7	3	1				35
AL PHILLIPS	AP		16	23	47									86
DAVE POPPERS	DP							10	23	27	35	36	29	160
DON POTTER	DLP							4	8	12	4	5	9	42
RICK RECKER	RR		2	9	27	46	34	12	18	25	16	14	7	210
DAVID REIK	DR		1	10	15	19	19	19	29	17	19	19	20	187
MIKE RENNER	MR					1	19	20	25	18	16	17	18	134
PETE RIEGEL	PR	1	67	110	154	143	97	85	58	66	62	112	75	1030
RON SCARDERA	RS		2	24	48	61	55	76	68	52	83	61	43	573
JOHN SISSALA	JS								5	14	6	19	15	59
BRIAN SMITH	BS					19	43	34	31	51	27	43	27	275
ALLAN STEINFELD	AS		4	50	2			1					2	59
WADE STOCKMAN	WS				5									5
BOB TESCHEK	BT					25	48	15	6	4	2			100
PATRICIA THORNTON	PT				2									2
BOB THURSTON	RT		9	41	66	55	61	51	23	22	31	22	29	410
GEORGE TUTHILL	GT								1	1	3	7	10	22
KARL UNGUREAN	KU								1	5	15	11	14	46
STEVE VAITONES	SV						10	6						16
MIKE WICKISER	MW							10	21	23	15	7	17	93
JAY WIGHT	JW							41	50	67	65	72	69	364
FREDERIC WILSON	FW						2	4	5	6	10	10		37
CARL WISSER	CW	1	21	41	38	72	24	51	53	29	36	24	28	418
KEN YOUNG	KY						4	3		6	3	4	3	23
Total		20	516	828	1240	1259	1158	1106	1081	1150	1197	1190	1149	11893

## WHAT WILL BE THE LENGTH OF THE OLYMPIC MARATHON?

This is not an idle question. The last time we were involved in an Olympic Marathon measurement was in 1983, when we were getting ready for the Los Angeles Olympics. Thirteen people came to Los Angeles and measured. The course was divided into about 20 different segments of varying lengths, with permanent benchmarks installed between segments. Six enroute baselines were used during the measurement.

A large amount of data was generated. Bob Baumel, Bob Letson and Pete Riegel began working on the data, using various calculation methods. When it came time to decide which method to use, there was a long period of disagreement among the three, since no commonly-accepted standard then existed to use with multiple measurements.

When two people measure a course, the measurement yielding the lower measured value is taken as official. This much we now accept. It is when we have more than two measurements that things begin to get complicated.

As I understand it, when we have three well-agreeing measurements we use the median as official. If we have four measurements, we take the lower of the two median values. Usually there will be little difference between the median and the average.

What if we have several intervals? Do we look at them individually, or do we simply look at each person's measurement of the entire course?

Below you will find a set of measurements that represent what 15 measurers might find if they measured a marathon course in three segments. They are not highly unusual values, and no tricks or pitfalls are in the data. We are likely to obtain similar data when we measure the Olympic Marathon course in Atlanta. We will almost certainly have a lot of measurers, drawn by the Olympic magnet to exercise their craft. The course will have numerous reference points, established beforehand.

Here is my idea of a reasonable procedure to use:

- 1) Average constant will be used by all measurers to determine lengths.
- 2) Each segment will be treated individually - that is, one value will be determined for each segment, and these values added up to make a total official measured length.
- 3) Values that are wildly different from the others will be disregarded.
- 4) The median measurement (or lower of 2 if an even number of measurements exists) of remaining measurements will be taken as the official length of the segment.

If this procedure was used on the example data, I would add 24.3 meters to make the course correct.

I would like to have some discussion on this, so that we do not have to wrangle endlessly after we measure the course.

### Questions for Readers

Is the proposal reasonable? Do you have a different idea of how it should be done? How would you treat the data?

If we can reach consensus now, we can avoid argument later. Almost certainly, the argument will be over a trivial distance. Let's do our thinking now and save aggravation later.

### Example Measurement Data

Lengths shown below were determined using average constant, and include 1.001 Short Course Prevention Factor (SCPF):

#### Lengths Obtained by 15 Measurers of 3 Marathon Course Segments

Rider	A	B	C	Total
1	6210.9	12482.2	23484.1	42177.2
2	6213.6	12488.6	23482.7	42184.9
3	6214.1	12489.9	23488.7	42192.7
4	6215.2	12491.4	23468.8	42175.4
5	6212.7	12501.0	23475.2	42188.9
6	6215.4	12498.2	23475.8	42189.3
7	6222.1	12491.0	23462.4	42175.4
8	6213.0	12480.7	23472.3	42166.0
9	6210.8	12489.2	23475.2	42175.2
10	6213.5	12488.8	23475.9	42178.1
11	6213.3	12485.1	23466.6	42164.9
12	6212.1	12485.8	23496.0	42193.9
13	6219.8	12485.6	23470.7	42176.1
14	6213.6	12486.9	23476.5	42177.0
15	6213.9	12490.6	23483.2	42187.6
Average	6214.3	12489.0	23476.9	42180.2
Median	6213.6	12488.8	23475.8	42177.2
High	6222.1	12501.0	23496.0	42193.9
Low	6210.8	12480.7	23462.4	42164.9
Std Dev	2.93	5.15	8.48	8.67

	<u>Length, m</u>	<u>Amount to add</u>
Sum of Shortest Splits (6210.8+12480.7+23462.4) =	42153.9	41.1
Median Overall Measurement =	42177.2	23.3
Sum of Median Splits (6213.6+12488.8+23475.8) =	42178.2	24.3
Sum of Avg Splits (6213.7+12488.1+23476.1) =	42180.2	26.3
Average Overall Measurement =	42180.2	26.3

How much should be added to the course?

## LAST MONTH'S PUZZLE

The Triathlete's Dilemma was suggested to me as a puzzle by my son Tom. When he sent the puzzle, it was a duathlon, and the answer was too easy to find. To add challenge, I added the long pond without telling Tom and put it in MN. I knew the thing could be solved by some analytical method, but try as I might I could not come up with an elegant analytical solution. The best I could do was to beat it to death on the computer until I had the answer.

The first, and correct, answer received was from Tom:

The bike should be parked 14159.68 meters from the finish line.  
Finish time will be 1:44:34.5.

Helge Ibert sent in the next solution (method unknown), and given the time lag for MN to get to Germany was probably the fastest response to the puzzle.

Helge reported the following splits:

Run 11.547 km in 46:11  
Swim 1.002 km in 30:04  
Bike 14.160 km in 28:19

Other responses included:

Bob Langenbach	1:44:35	14159.68	(analytical)
Pete Riegel	1:44:34	14159.65	(computer)
Gene Newman	1:44:34	14159.68	(analytical)
Brian Smith	1:44:34	14160	(computer)
Mike Wickiser	1:44:38	14226	(method unknown)
Roger Gibbons	1:44:34	14139	(method unknown)
Bill Glauz	1:44:43	14159.7	(analytical)

I suspect Bill may have transposed a number when typing his solution for time, because his methodology was otherwise correct.

Bob Baumel did not submit an answer, but suggested that the problem is very similar to refraction of light through differing media.

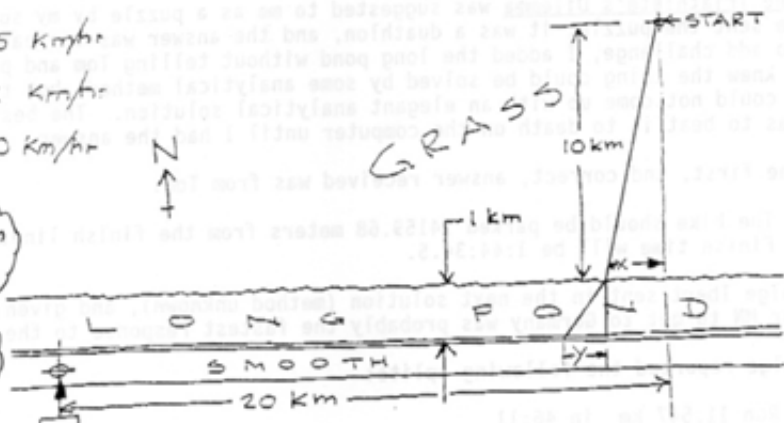
Given that a bike is about 2 meters long, it could be a puzzle in itself deciding what part of the bike should be placed at the bike mark.

$V_R = 15 \text{ km/hr}$

$V_S = 2 \text{ km/hr}$

$V_B = 30 \text{ km/hr}$

SOLUTION TO THE TRIATHLETE'S DILEMMA - FROM TOM RIEGEL



THE TIME IT TAKES THE CONTESTANT TO COMPLETE THE COURSE IS GIVEN BY THE FOLLOWING EQUATION:

$$T = \frac{\sqrt{x^2 + 10^2}}{15} + \frac{\sqrt{y^2 + 1}}{2} + \frac{20 - x - y}{30}$$

THIS IS A SECOND-ORDER EQUATION, WITH NO DISCONTINUITIES, SO ITS PARTIAL DERIVATIVES WILL GIVE US MORE INFORMATION ABOUT IT.

$$\frac{\partial T}{\partial x} = \frac{1}{15} \cdot \frac{1}{2} \cdot \frac{2x}{\sqrt{x^2 + 10^2}} - \frac{1}{30}$$

$$\frac{\partial T}{\partial y} = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{2y}{\sqrt{y^2 + 1}} - \frac{1}{30}$$

$$\frac{\partial^2 T}{\partial^2 x} = \frac{1}{15} \left[ (x^2 + 10^2)^{-3/2} - x \cdot (x^2 + 10^2)^{-5/2} \right]$$

$$\frac{\partial^2 T}{\partial^2 y} = \frac{1}{2} \left[ (y^2 + 1)^{-3/2} - y^2 (y^2 + 1)^{-5/2} \right]$$

IT CAN BE SHOWN THAT THE SECOND-DERIVATIVES ARE POSITIVE FOR ALL (X,Y) INDICATING THAT THE CURVATURE IS CONCAVE UPWARDS. THEREFORE FINDING WHERE THE PARTIAL DERIVATIVES ARE ZERO WILL YIELD AN ABSOLUTE MINIMUM.

$$\frac{\partial T}{\partial x} = \frac{1}{15} \cdot \frac{x}{\sqrt{x^2 + 10^2}} - \frac{1}{30} = 0$$

$$x = \frac{15}{30} \sqrt{x^2 + 10^2}$$

$$\frac{\partial T}{\partial y} = \frac{1}{2} \cdot \frac{y}{\sqrt{y^2 + 1}} - \frac{1}{30} = 0$$

$$y = \frac{2}{30} \sqrt{y^2 + 1}$$

SINCE x + y WILL BOTH BE POSITIVE

$$x^2 = \left(\frac{15}{30}\right)^2 (x^2 + 10^2)$$

$$y^2 = \left(\frac{2}{30}\right)^2 (y^2 + 1)$$

SIMPLIFYING YIELDS

$$x = \sqrt{\frac{15^2 \cdot 10^2}{30^2 - 15^2}} = 5.773502692$$

$$y = \sqrt{\frac{2^2 \cdot 1^2}{30^2 - 2^2}} = 0.06681531048$$

- 1) HE SHOULD PARK HIS BICYCLE 14 Km, 159 m, 68 cm EAST OF THE FINISH LINE
- 2) HIS FINISH TIME SHOULD BE 1 HOUR, 44 MINUTES, 34.456 SECONDS

## USA Track & Field

Gene A. Newman  
Member of RRTC and National Certifier  
232 Heather Croft  
Pleasantville, N.J. 08232

609-641-8791 (home)

Pete Riegel  
USA Track & Field  
Chairman  
Road Running Technical Council  
USA Track and Field  
3354 Kirkham Road  
Columbus, Ohio 43221

Dear Pete,

I had a request from a race director, if he could use a course which I had measured and certified. I said this would be great for the runners and hence sent him the certification papers. The race director then advertised his race as certified and used the **Certification Number** on his race application. Next, I received a call from the race director, who had paid a fee to have this course measured and certified. The race director of the original course did not mind using the course, but had reservations about using the **Certification Number**. There are no hard feelings, just questions which I could not answer.

This seems to be a legitimate point. Has this ever come up before? Should there be a fee or donation to the original race, when a new race uses their **Certification Number**? I could also be asking; Is there any ownership of a race measured for a group, who pays a fee to have this done? I know that anyone can purchase copies of all races certified for a small charge, but we could be creating a problem. Maybe, we should refer those who have a request for a race course to the original race director? Then again, maybe we could suggest a donation to the original group. I really don't know. Do you or any National Certifiers have any ideas on this subject area??

Finally, it should be noted the new group using this course is sympathetic to the old group and probably would be willing to give a donation. I don't feel any of the persons involved are unreasonable, but are concerned.

Sincerely yours,

cc. Barbara Altman (Original Race Director )  
cc. Bill Gormley ( New Race Director )

## USA TRACK & FIELD



Peter S. Riegel  
Chairman, Road Running Technical Council  
3354 Kirkham Road  
Columbus, OH 43221-1368

614-451-5617 (home)  
614-424-4009 (work)  
614-451-5610 (FAX, home)

April 8, 1994

Gene Newman - 232 Heather Croft - Pleasantville, NJ 08232

Dear Gene,

Your questions about multiple use of the same course don't all have solid and satisfactory answers. You handled the situation well.

The question has come up before. Basically, in the case of certificates and course numbers RRTC is much like the patent office, with an important exception. People submit data, and receive a patent. This gives them exclusive legal rights to the patented device or process for a period of time. During that time anyone at all can obtain a copy of the patent, which reveals the secrets of the invention.

Where we differ from the patent office is that we do not grant exclusive rights to a course to anybody. Public roads are involved, and we have no police powers. We have simply certified that the distance from point A to point B, by a given route, is a given distance. This is simple truth, and truth has no owner. The course number is a device we use to identify the physical course - it is not tied to any one race.

A course certification number is not owned by anyone, as it is simply a device we use to identify a given route, such as State Route 315 or Interstate 70.

I am glad that no hard feelings are involved in your situation, since the potential for them exists. There have been a very few situations where tempers got hot.

In short, certification of a course does not convey any ownership to the original race group, beyond a slight moral one. A second user, in my mind, would be bound by simple courtesy to confer with the original user to work things out. And the first user should be prepared to bend a little - after all, we are usually using public roads and paths. It appears that those involved in your situation are aware of this and are on their way to working things out. Whether a fee should be involved is up to the participants to settle.

Giving course information to anyone who asks does carry a downside risk of course misuse, but it has long been our policy to be completely open and public about everything we do. I'd hate to see this change.

I'll put your letter and this reply in the May Measurement News, and we will see what others may have to say on the subject.

Best regards,

A handwritten signature in cursive script, appearing to read 'Peter'.

## LET US PRAY

The following was snipped from the April, 1994 issue of Road Race Management:

### Commentary

#### *A Ticking Time Bomb*

A refreshing (to say the least) 19 mph tailwind meant Cosmas Ndeti and Uta Pippig fell just 25 seconds and 38 seconds short respectively of reigniting the "Rule 185.5" debate at this year's Boston Marathon. Those were the margins that each missed surpassing the accepted world marathon records (2:06:50 and 2:21:07). Anyone in the measurement community who believes the debate is over simply because a compromise was worked out and is now on the books for 185.5 is in for a rude surprise when a faster time comes on the Boston course (which always fails the 1-meter/kilometer test and easily would have flunked the wind test this year).

*/Phil Stewart/ ●*

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### COURSE MAPS WITH SPLITS

I recently received a panicked call from a local race director. Her race was the next day, and she discovered that her course map did not have the splits on it, and the paint was gone from the road. She asked me to check the file and see what I could find. The course was one I had measured for her several times in different variations, but on this most recent one, it had been measured by someone else, a guy who combines course measurement and finish line operation in one sales package.

Upon checking I discovered that the course was a first measurement for the measurer, and the map was not the best. The start and finish were on it, and the course route, but nothing else. I felt bad about it, so I drove out to the course and did a layout of the four 1 mile splits in the 5 mile course. The race director was happy that I did so.

We do not require that any splits be on the map beyond those necessary to define the overall length of the distance which is certified. However, this incident reinforced what we have all known. The course map is a tool for the race director, and a race without splits, or with inaccurate ones, does not receive loud applause from the runners. If the map does not have splits on it, it is of very limited use to the race director beyond the first year.

Certifiers, please include a copy of the split points on the certificate whenever possible. It's best if the measurer puts them all on the map. Second best is to copy the list of splits that most include with their measurement data. In my case, no list of splits was included with the data.

Our Map of the Month may well be considered as "Certificate of the Month." The measurers, Jim Smith and Ken Hardwick, prepared a neat and definitive map, and accompanied it with a series of excellent sketches of all the splits. The certifier, Bob Baumel, combined everything on one easily-copied piece of paper. His certificate is neat and legible, and the resulting product is one any race director would be happy to display to others.

Neatness counts. The only thing that shows, once the data has been reviewed, is the certificate and course map. Certificates should be as least as neat as the map they accompany. They are the public reflection of our work.

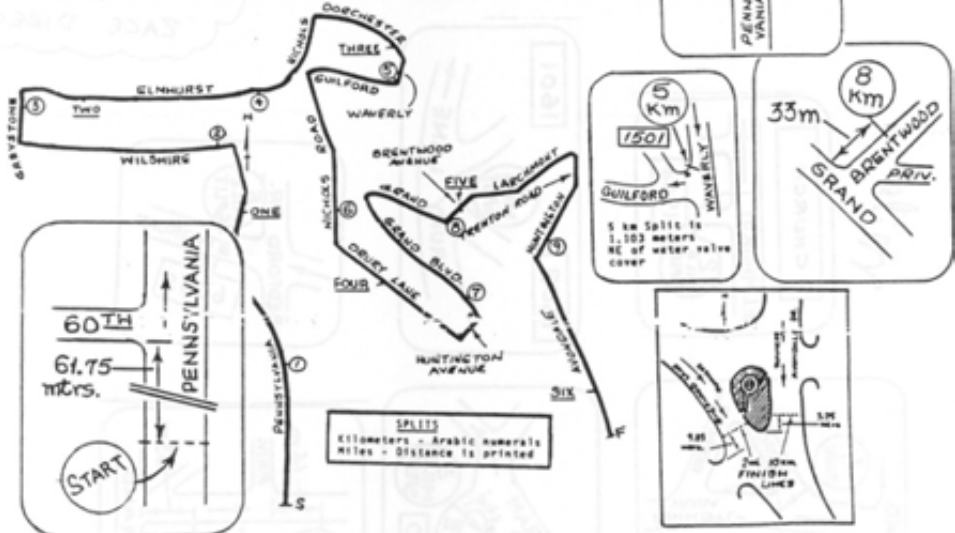


OK 94012

MAP AND CERTIFICATE OF THE MONTH

**REDBUD CLASSIC TEN KILOMETER RUN**  
Oklahoma City, Oklahoma

This 10,000 meter road course was measured by Jim Baker, Ken Hardwick and Jim Smith on 8 March 1992 and on 6 March 1994 along the SPR according to the procedures of the Road Running Technical Council, USATF. Start, midway and finish positions are exact. Other splits are approximate. Map - partially to scale.



See other split descriptions on back of Certificate



Road Running Technical Council  
USA Track & Field

**Measurement Certificate**

Name of the course: Redbud Classic 10 km Distance: 10 km  
 Location (state): Oklahoma (city): Oklahoma City  
 Type of course: road race  cross country  calibration  track  Configuration: partial loop  
 Type of surface: paved 100 % dirt 0 % gravel 0 % grass 0 % track 0 %  
 Altitude (meters above sea level): Start 353.5 m Finish 363 m Highest 375 m Lowest 353.5 m  
 Straight line distance between start & finish: 1.65 km Drop: -0.95 m/km Separation: 16.5 %  
 Measured by (name, address, & phone): Jim Smith and Ken Hardwick  
 Race contact (name, address, & phone): Jim Baker, 1603 Bihuerst, Oklahoma City, OK 73120 (405) 752-9097  
 Measuring Methods: bicycle  steel tape  electronic distance meter   
 Number of measurements of entire course: 2 Date(s) when course measured: 8 Mar 92, 6 Mar 94  
 Race date: 17 April 1994 Course paperwork postmark date: 14 March 1994  
 Difference between two best measurements of the course: 1.8 meters Certification code: OK-94012-BB  
 Replaces: OK-92028-BB (if applicable) Notice to Race Director: Use this Certification Code in all public announcements relating to your race.

**Be It Officially Noted That**

Based on examination of data provided by the above named measurer, the course described above and in the map attached is hereby certified as measurably accurate in measurement according to the standards adopted by the Road Running Technical Council. If any changes are made to the course, this certification becomes void, and the course must then be recertified.

Validation of Course - In the event a National Open Record is set on this course, or at the discretion of USA Track & Field, a validation remeasurement may be required to be performed by a member of the Road Running Technical Council. If such a remeasurement shows the course to be short, then all pending records will be rejected and the course certification will be cancelled.

Automatic Expiration - This certification automatically expires ten years after date of issue, although it may be renewed for additional ten-year periods upon testimony to RRTC that the course is still in use, and has not been altered, and that all key points (start, finish, turn around points, cone positions, etc.) described on the attached map can still be located precisely.

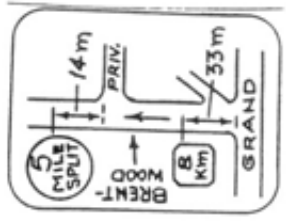
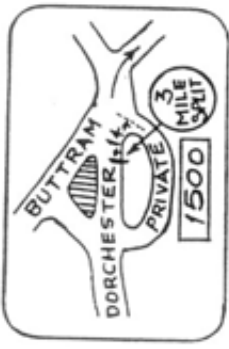
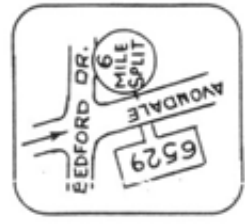
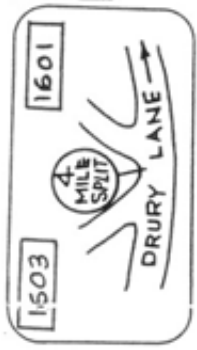
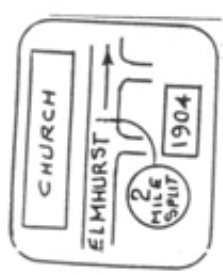
AS NATIONALLY CERTIFIED BY:

*Robert T. Baernd*

Bob Baernd - USATF/RRTC National Certifier  
129 Warwick Rd, Ponca City, OK 74601 (405) 765-0050 Date: 30 March 1994

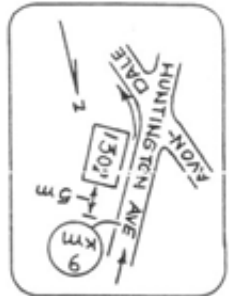
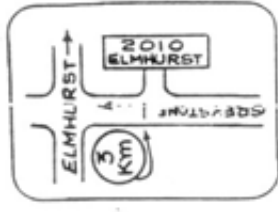
MAP & CERTIFICATE OF THE MONTH.  
 VERY USEFUL TO THE RACE DIRECTOR

*arrived*

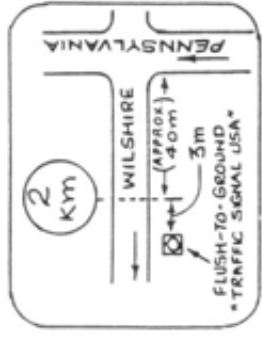


*Pennsylvania*

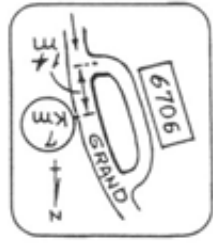
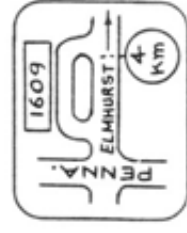
5 km for 10K- SHOWN ON CERTIFI- CATE



8 km for 10K- SHOWN ON CERTIFI- CATE



1 km for 10K- SHOWN ON CERTIFI- CATE



## IT'S NICE TO BE APPRECIATED

Dave Walsh, British road running statistician, has some kind words to say about course measurers, and those race directors who cooperate in helping out the statistician. Here is the introduction to his annual summary Road Review 1993:

2

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## INTRODUCTION

With the demise of Athletics Today the task of gathering results and statistics has become more difficult as the only surviving weekly athletics magazine has not the need or the interest in providing a comprehensive and accurate information service. This has given two problems. Firstly it is not always possible to believe results as printed, and in addition, the overall coverage is down. Whilst this review lists many results which have not been notified nationally I am aware of a good number which have escaped my trawl - the effort to track down the missing data would not be justified in terms of time or expense. As an example it took four phone calls to confirm one significant half marathon time which failed to gain notice elsewhere.

The basic format remains as last year. Asterisks (\*) after a race winners name indicate retention of a title whilst an asterisked time shows a new course record. This is not always a routine task as races quite often have two or three titles! - but we try.

Some 1450 race results are shown in brief, about half of the total road races in the UK last year.

My thanks again to the dedicated band of individuals who provide the essential information which makes it possible to produce meaningful performance lists - the course measurers.

To many to list by name, they spend many hours in the service of the sport, sometimes in hazardous conditions, cycling around race routes to confirm distances.

Additional plaudits go to a small band who regularly provide information and the essential results sheets. Take a bow Barbara Gostelow, Colin Shields, John Driscoll, John Walsh and Dave Sanderson. Thanks also to Rob Champion for including a request for results to me in his "Racemaster" package.

Cover photo and others through the book by courtesy of Mark Shearman; the picture of Richard Nerurkar finishing the Cabbage Patch (Twickenham) 10 by courtesy of Malcolm Ellis.

Dave Walsh  
© February 1994

**DISTRIBUTION OF USATF CERTIFIED COURSES**

	01km	01mi	2.5km	05km	05mi	08km	10km	10mi	12km	15km	20km	25km	30km	Cal	HMar	Mar	UMar	Total
AK				10		1	14											38
AL	1	12		57	7	15	39	2	1	3	2	1	1	13	4	3		169
AR		1		32		3	13		3	1	1			12	2	1		69
AZ				11		19	68	2	1	5	3	1	3	2	7	18	4	144
CA	1	16	9	339	28	75	470	20	14	17	17	6	13	19	71	62	20	1197
CO		2		105	16	2	75	2		4	1		2	18	13	13	3	256
CT		5		49	30	7	38	2	1	1	2			26	10	8	6	185
DC	1		1	24	2	15	31	11	2	6	4	3	2		1	8	5	117
DE		4		94	30		26	5		7	1			2	2	1		172
FL	1	6	5	243	27	40	139	3	2	18	3		6	46	21	27	23	610
GA		12	4	118	4	21	99	2	5	9	2			18	13	15		322
HI		1		5	3	3	13	2		3	1	1	1	1	7	9	4	54
IA		3		26	4	10	35	4		2	7	1		7	6	2		107
ID				1		1	1		1	1				1		4		10
IL		8		189	17	21	157	11	6	7	10	2		11	17	17	3	476
IN		1		32	10	22	54	4	3	9	2	2		5	8	9	2	163
KS	2	2		56	2	26	58	5	2	4	2	2	1	9	3	6	2	182
KY		1		41	1	20	22			3			1	9	5	2		105
LA		1	3	8	2	2	7							8	2	8	1	42
MA		2	1	37	51	29	63	11		4	3	1	1	26	7	14	1	252
MD	1	13		27	5	16	51	5	3	6	2			5	2	9		145
ME		1		30	21	5	40	3		5		1		9	7	8	1	131
MI	1	6		77	12	41	88	7	3	14	6	7	1	6	7	14	5	295
MN		3	1	51	9	23	63	1		7	3	5	3		9	11	11	200
MO	1	3		15	2	7	35			1				9	7	20		100
MS			1	13	3	3	10			1	1			4	1	7	2	46
MT				15	4		18			2				4	3	2		48
NC	1	25	2	240	20	38	159	13	3	14	5	2	3	5	13	18	5	566
ND				2		1	4			1				1		1		10
NE		2		11	13	4	42	2	2	2	2	1	2	2	4	10	4	103
NH		1		47	16	25	44	4	2	2	1			12	8	5		167
NJ		18	2	132	78	4	90	12	1	7	4	1	1	5	16	13	5	389
NM			1	19		1	18			1	3		1	1	3	7		55
NV				2	1	3	6			2				1	3	6	7	31
NY	2	10	7	132	40	24	113	12	2	12	15	5	8	19	16	38	23	478
OH	6	11	1	209	79	15	145	9	3	14	4	4	1	26	19	26	9	581
OK	1	17	1	232	5	99	132	2	12	14	5	6	3	10	15	21	4	579
OR			2	17	7	48	50	2	6	6	3	1	4	5	4	11	2	168
PA		2		146	40	12	115	14		7	5			3	13	24	1	382
RI				14	7	3	7	3						1		8	1	44
SC		13	1	129	14	42	84	11	3	6	4	4	1	2	8	13		335
SD				5		4	4			1	1	1	1	1	1	5		24
TN		4		57	15	16	32	2		4			2	9	3	11		155
TX	1	10	4	297	33	33	209	9	2	24	7	11	7	16	21	34	16	735
UT		1		40	2	3	22	1		3	1				3	5		81
VA	1	2		36	17	21	79	8	1	6		3	1	1	11	10	6	203
VT				8		2	9	1	1		1			5	9	5		41
WA		6	6	36	10	25	91	2	7	7	3	3	3		20	29	11	259
WI			1	31	3	23	20	1		3	2	1			3	4	1	93
WV				6	1	4	18	2		1	1			2	1	2		40
WY							1							1		1		3
Total	21	225	53	3555	691	877	3221	212	92	275	142	76	74	406	435	613	186	

### DOWNHILL ROAD MILES

Want to run a fast mile? Try one of the following courses. All are presently active, according to our records, and all have downhill exceeding the record-eligible limit of 1 m/km, some by quite a bit.

Course ID	City	Name of Race	Measurer	Drop Meters	Drop Feet
SC 92013 BS	Piedmont	Saluda River Run One Mile	B Marable	41.8	137
DE 88004 WN	Wilmington	Penn Avenue Mile	D White	30.6	100
VA 87059 RT	Arlington	The Arlington Mile	J Scarborough	27.4	90
NE 92006 KU	Omaha	America's Run One Mile	G Meyer	27.4	90
VA 87041 ACL	CliftonForge	Dabney-Lancaster Mile	A Linnerud	27.4	90
OK 92040 BB	Tulsa	Cherry Street Mile (alt)	G Lafarlette	24.1	79
IL 87038 WG	Rockford	State Street Mile	R Roland	22.5	74
CT 87009 DR	Wallingford	Wallingford Mile	A Morss	20.9	69
ME 92014 WN	Caribou	Musterd Mile	S McDonald	17.7	58
OK 91044 BB	Tulsa	Cherry Street Mile	G Lafarlette	16.1	53
NY 89010 AM	Auburn	Downtown Auburn Mile	D Oja	16.1	53
CT 93008 DR	Stamford	Stamford	- GuidoBros	15.1	50
CO 91011 DP	Denver	Mile High Mile	D Poppers	15.0	49
LA 93004 ETM	Shreveport	Marshall Street Mile	S Gehrig	11.3	37
MI 88006 SH	Marshall	Bar Scheeze Classic	R Dewey	10.9	36
MA 91007 WN	Worcester	Worcester Mile	R Rudman	9.2	30
OK 87019 BB	Tulsa	Corp Challenge 1 mile	G Lafarlette	8.9	29
CT 92008 DR	Preston	Cannon Ball Run	- GuidoBros	7.6	25
KS 92014 BG	Dodge City	Fastest Run in the West	R Sigley	7.4	24
NC 88053 ACL	Roanoke Rps	Festival Road Race	A Linnerud	6.4	21
SC 91009 BS	Columbia	Devine Mile Road Race	D White	6.1	20
OK 88004 BB	Tulsa	Corporate Challenge Alt	G Lafarlette	5.0	16
NC 87060 ACL	Charlotte	Summer Breeze	A Linnerud	4.7	15
MA 91011 WN	Newburyport	High Street Mile	J Burke	4.5	15
SC 87006 WN	Blythewood	Long Creek Plantation RR	W Nicoll	4.5	15
NC 93054 ACL	Cary	Western Wake	A Linnerud	3.1	10

\*\* M00000000! \*\*

The following is taken from the Appalachian Chapter's newsletter, DYNA'S CHATTER. I think you'll find it amusing and clever.

A car dealer in a rural community, who apparently was not too well-liked because of his sales practices, informed a farmer that he (the dealer) would like to purchase a cow. The dealer arrived at the farm to find the cow priced as follows:

BASIC COW.....	\$ 499.95
Shipping and Handling.....	35.75
Extra Stomach.....	79.25
Two Tone exterior.....	142.10
Produce storage compartment.....	126.50
Heavy-duty straw chopper.....	189.60
Four-spigot/high-output drain system.....	149.20
Automatic flyswatter.....	88.50
Genuine cowhide upholstery.....	179.90
Delux Dual horns.....	59.25
Automatic fertilizer attachment.....	339.40
4X4 traction drive assembly.....	884.16
Pre-delivery wash and comb.....	69.80
FARMER'S SUGGESTED LIST PRICE.....	2843.36
Additional dealer adjustments.....	300.00
TOTAL LIST PRICE (including options).....	3143.36

FROM STU RIEGEL  
 EDITOR  
 BRITISH DRIVERS CLUB  
 NEWS - GROVE CITY, OH  
 MARCH 1994 ISSUE