



Measurement News

Spring 2005 • Number 129



Construction delays of the course for the 2004 Olympic marathon course held up its final measurement until the 11th hour. Fortunately, a top-notch crew of international measurers was able to get the job done in time. Pictured at the finish in historic Panathinaiko Stadium are (L to R) Hugh Jones, Norrie Williamson, Jean-Marie Grall (in charge).

MEASUREMENT NEWS

#129 – SPRING 2005

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ABOUT MEASUREMENT NEWS

Measurement News (MN) is the newsletter of the Road Running Technical Council (RRTC) of USA Track & Field (USATF). MN is our way to talk to one another, so that we all know what's going on.

MN is also sent to many foreign measurers associated with AIMS and IAAF, who are also invited to participate in the dialogue.

MN is published quarterly beginning in spring (four issues per year). MN is sent free to RRTC officers and certifiers, and AIMS/IAAF measurers.

If you wish to reproduce or report on anything in MN, go ahead, but an attribution would be appreciated.

MN wants to make road course measurement as good as it can be. All opinions and grievances are solicited. No cows are sacred. If you have a new measurement technique, or if you think things should be done differently, send in your contribution to MN. Your opinion will be given space. Nothing changes until somebody tries!

Electronic copy or clean typed material is most welcome, but send what you can.

Deadlines: Material intended to be included in the Summer 2005 issue must be in the Editor's hands by May 20. Next issue will be mailed in early summer 2005.

ROAD RUNNING TECHNICAL COUNCIL

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Visit the RRTC website at:

<http://www.rrtc.net>

A complete list of certified courses may be downloaded from this site.

A complete USATF measurement book can be downloaded from this site.

ONLINE MEASUREMENT FORUM

All it takes to become a subscriber is access to email. Simply send to **mnforum-request@rrtc.net** with "subscribe" as the subject (to unsubscribe, use "unsubscribe" as the subject).

To post messages to the list, send email to **mnforum@rrtc.net**. Please keep your comments in the body of the email (no attachments please). Also, please send only plain text; i.e., avoid formatted (HTML) messages (If you use HTML formatting, the formatting will be removed).

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Chairman's Clatter - From Mike Wickiser

January Measurement News??? What happened to January MN? Very limited activity both in the area of MN submissions and MNForum. Have we said all there is to be said on course measurement? Probably not, but certification does slow down during the winter months when riding a bike on ice and snow is simply out of the question. Assuming things pick up MN should get back on track with issues every other month. Measurement News is what each of you readers make it. The content is a direct result of your letters and comments.

Retirements and Changes: Long time certifier Bob Harrison has chosen to retire as MS certifier. A while back Bob helped get Dave Rogers started out as TN certifier and Dave has assumed Mississippi as well.

Doug Loeffler as some of you may know has his own home based business. After some pretty lean years Rail Technologies is starting to pay off and requires more of Doug's time as it begins to be profitable. For this reason Doug felt it best if he relinquished the Validations Chairman's position to someone who could devote the proper time to the job. As luck would have it, VC East Paul Hronjak also saw career changes and suddenly had time to volunteer. No he didn't retire; he just changed hours around and found more time as a result. Time, talent and a willingness to volunteer made for Paul now being a two fer'. In addition to being the VC East, Paul Hronjak is the Validations Chairman.

Many many thanks to Doug for his years of hard work and diligent attention to the Validations position.

Bernie Conway: Bernie's health has been a topic recently since he became ill at the airport awaiting the IAAF annual meeting in New Dehli. Well Bernie informs me that he is walking his way back to his former health and vitality. He recently took on the task of doing some supply (substitute) teaching. Three different schools in as many days and teaching drafting, French, careers, and woodworking instead of his usual science & physics. After that stint, "measuring a half marathon will be most welcome."

A handwritten signature in black ink that reads "Mike Wickiser". The signature is written in a cursive style with a small arrow pointing to the right below the name.

Editor's Note

Last Measurement News??? "Communication Breakdown" might have been a huge hit for Led Zeppelin, but it's bad news for the measurement community. Activity on MNF and Pete Riegel's bulletin board has been slow to non-existent, and submissions to Measurement News have come from just the usual suspects. Unless others begin to take a more active role in the exchange of ideas, all of these channels of communication may wither up and die. Right now MN is being published on a quarterly basis to reflect the diminished material; any further drop in submissions may push it into oblivion. If you have anything to share, please email it to the addresses on the masthead.

Olympic Marathon Measured

A note from Hugh Jones to Jean-Francois Delasalle, Pete Riegel and Norrie Williamson reads:

"I received an enquiry from Rodolfo Eichler about the Athens course to which I replied as below. I am copying this to you separately (and have informed Rodolfo of this) because the second part of the message concerned an unrelated matter.

Dear Rodolfo,

Funny you should ask me about Athens. I was there this last weekend, measuring the course. This was not my official duty, which had been given to Jean-Marie Grall (FRA). I know Jean-Marie from 8 years ago, when we were in Atlanta under Pete Riegel's chieftainship. I have seen him regularly at the Paris Marathon since then. He was the appointed measurer in Athens, as I had been in Sydney. No-one else had any official role.

However, two of us expressed interest in attending informally. This was myself and Norrie Williamson (RSA). I became mandated for Jury Service here in UK in the period for which the measurement was scheduled. I thought I would not be able to attend, but managed to get flights limited to within the weekend (out 23.00 23/07, back 20.00 25/07) - so I did get to court on time this morning (10.30).

We measured the course in Athens twice - on Saturday (16.30-19.30) for length, and then on Sunday (08.30-13.30) for locating split kilometres. All three of us did the measurement on Saturday, but Jean-Marie took charge of the marking of the kilometre points on the Sunday, according to re-measurements of the course (on the Sunday) by Norrie and I. Our shortest Saturday measurement was 42,184m, so Jean-Marie retracted the start line by 11m for our Sunday exercise. Our Sunday measurement was only to locate intermediate kilometres (on Saturday we had references near every 5km point, and we readjusted our Sunday measurement according to these reference points)

I think that the certification of the course may be the duty of Jean-Francois Delasalle, but I cannot be sure of this. Ultimate responsibility may lie with Jean-Marie Grall."

The following from Jean-Marie Grall to Pete Riegel:

Dear Pete,

Thanks for all your remarks.

There's no problem to send my report to other people. It's ok as there's no secret ...

Referring to the Marathon report, reference marks were made by me in 2003 when I measured the Athens classic marathon, but, for the games, the road was slightly modified.

Cheers,

Jean-Marie

Following from Pete Riegel:

Jean-Marie sent Pete Riegel a CD containing his comprehensive 91 page report of the measurement, with color maps, photographs of every split, complete measurement results. It is a masterpiece. Nobody documents as well as Jean-Marie Grall. Pete Riegel has added the report to the Archival CD, which contains scores of technical reports, manuals, and measurement reports from Olympics and World Championship races. Contact Pete Riegel if you want one. Cost is \$5.00 postpaid.

Measurement Tip: Digital Split Points

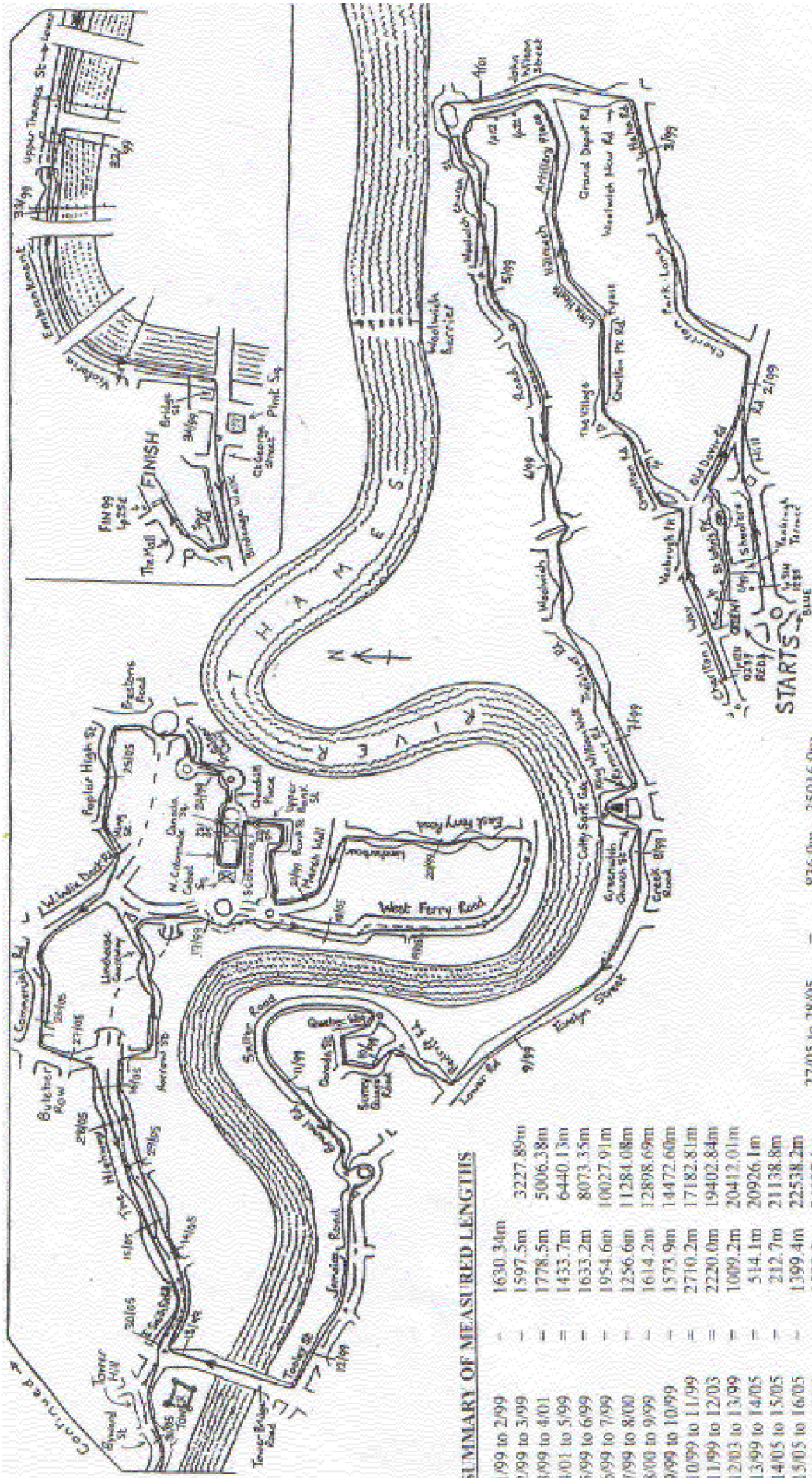
Got a digital camera? Got a CD burner? If so, you can give a race director a little bit extra next time you measure a course. Just photograph the splits after you get them painted. Take a ton of pictures – after all, once you have the equipment they cost you nothing but a little time, plus a dime for the CD. Put them on a CD and send it to the race director.



The photos also serve to refresh your memory when you are writing up the measurement.

Pete Riegel
riegelpete@aol.com

FLORA LONDON MARATHON 17 APRIL 2005



STARTS

27/05 to 28/05	836.9m	35016.9m
28/05 to 29/05	396.0m	35412.9m
29/05 to 30/05	1077.6m	36490.5m
30/05 to 31/05	543.9m	37034.4m
31/05 to 32/09	909.17m	37943.57m
32/99 to 33/99	676.34m	38619.91m
33/99 to 34/99	2043.66m	40663.57m
34/99 to FIN99	1544.96m	42208.53m

FINISH POSITION 1m BEFORE FIN99
COURSE FROM REF 1999 TO FIXED (2005) FINISH = 42207.53m
STARTLINE POSITION IS 12.53m EAST OF REF 1999 (p31111285)

SUMMARY OF MEASURED LENGTHS

1/99 to 2/99	1630.34m
2/99 to 3/99	1597.5m
3/99 to 4/01	3227.89m
4/01 to 5/99	5006.38m
5/99 to 6/99	6440.13m
6/99 to 7/99	8073.35m
7/99 to 8/00	10027.91m
8/00 to 9/99	1256.6m
9/99 to 10/99	1614.2m
10/99 to 11/99	12808.69m
11/99 to 12/03	1573.9m
12/03 to 13/99	14472.60m
13/99 to 14/05	2710.2m
14/05 to 15/05	17182.81m
15/05 to 16/05	2220.0m
16/05 to 17/99	19402.84m
17/99 to 18/05	1009.2m
18/05 to 19/05	20412.01m
19/05 to 20/99	514.1m
20/99 to 21/99	20926.1m
21/99 to 22/05	212.7m
22/05 to 23/05	21138.8m
23/05 to 24/99	1399.4m
24/99 to 25/05	22538.2m
25/05 to 26/05	1598.9m
26/05 to 27/05	862.6m
27/05 to 28/05	24999.7m
28/05 to 29/05	751.1m
29/05 to 30/05	25750.8m
30/05 to 31/05	1642.4m
31/05 to 32/99	27393.2m
32/99 to 33/99	28957.7m
33/99 to 34/99	1564.5m
34/99 to FIN99	1057.6m
FIN99 to 23/05	30015.3m
23/05 to 24/99	569.6m
24/99 to 25/05	30584.9m
25/05 to 26/05	467.5m
26/05 to 27/05	31052.4m
27/05 to 28/05	1143.9m
28/05 to 29/05	32196.3m
29/05 to 30/05	1599.0m
30/05 to 31/05	33795.3m
31/05 to 32/99	384.7m
32/99 to 33/99	34180.0m

London Marathon course changes

by Hugh Jones

A year ago Evans Rutto and Sammy Korir were neck and neck, 36.4km into the Flora London Marathon. Then they were a tangle of limbs as they crashed to the floor together outside the doors of the race headquarters hotel.

This is where the course takes the first of a double bend on a glazed brick surface, and it was wet. There have been few wet London Marathons over the 24 editions held so far, but I remember hitting this same spot in the 1986 race, when I was lying a distant second to Toshiheko Seko, and suddenly feeling my feet slipping out from under me, although I managed to keep upright.

Rutto and Korir's spill, captured in detail by the cameras, prompted the race organisers to re-think this part of the course. This section in front of the race hotel had always been crowded with spectators, sometimes to the extent of endangering public safety. It is about 100m before passing under Tower Bridge and onto the cobbles in front of the Tower of London.

The cobbles have historically been another obstacle to fast running in London, as runners often lose their rhythm here, their muscles jolted by uneven foot placement (these cobbles are 'historic', with an appropriately sculpted profile). But they had become part of the 'tradition' of the course - alongside the carpeting laid over them which did nothing to lessen their impact and often tripped back markers as it got rucked up.

This section of the course was also very photogenic. Since recent reconstruction around the Tower has been finished, new camera angles have opened up. The BBC pronounced themselves satisfied with the proposed new route to go around the back of the Tower, over Tower Hill rather than along Tower Wharf on the riverfront.

This change cuts about 600m from the course, removes all the cobbled sections and cuts out nine corners. Furthermore, the description Tower "Hill" dramatises the geography. The gradients must have seemed mountainous to those who walked up from the Tower to the executioner's block in Tudor and Elizabethan times, but to modern day elite marathon runners it's more like a pimple. It does insert a rise where none existed before, but that rise is only from 8.2m to 13m over about 300m - and of course runners then have that extra bit of gravity as they rejoin the old route west of the Tower.

From the measurement aspect two tasks remained one was to insert a new stretch of road to make up for the missing distance (the finish line is fixed, and the start position can only vary by about 20m to avoid messing up those precious camera angles).

We found this distance in Canary Wharf, the Dockland office development that the marathon loops around between 24-33km. Instead of running right through the Wharf itself, the route now describes an S-bend, doubling back before continuing on its way. This was inserted in what has become the 19th mile, either side of the 30km point, which itself now lies almost at the doors of Canary Wharf Tower, the tallest building in Britain (at a paltry 800' / 244m). Six new corners were added in, and two were taken out from the equivalent section of the old route.

> One leisurely Sunday afternoon measurement of a few new bridging sections reassured us that the numbers would add up, but the configuration of the route was slightly more complicated. As runners come off Tower Bridge at 20.4km they turn right, at the start of a 16km-long loop to the east, run counter-clockwise. When they completed this loop they passed underneath Tower Bridge, onto the cobbles. If they returned on the same road on which they went out, then slower runners would block the road for the front runners. That required loop to now be run clockwise, so that runners started it on the south side of the road (against the normal direction of traffic) and finished, running west, on the north side.

Because the loop was previously very close to 7 miles (with another 1.5 miles out-and back on

the same road) the old mile reference points for 22 miles down to 17 miles became the new reference points for miles 13 to 18. The additional distance in the 19th mile required new reference points to be established from 30km through to 23 miles, just before the new route rejoins the old course. Then it's the same grand finale as ever: around the long bend in the river towards Big Ben, and the final miles through St James's Park to finish on The Mall in front of Buckingham Palace.

Publicity announcing the new route declared it to be up to a minute quicker than the old one. This is publicists' licence. A few corners have been removed along with the cobbles and aslight rise inserted. the time saving is ordinarily likely to be just a few seconds. But it could be a minute, or more, for those runners who might otherwise have had the stuffing knocked out of their legs by the sculpted cobbles of Tower Wharf. Or those who may have otherwise ended up as a tangled heap of limbs on the doorsteps of race HQ.

Measurement of the Month

The Don Scott Trot – A 5k on the Runway

By Pete Riegel

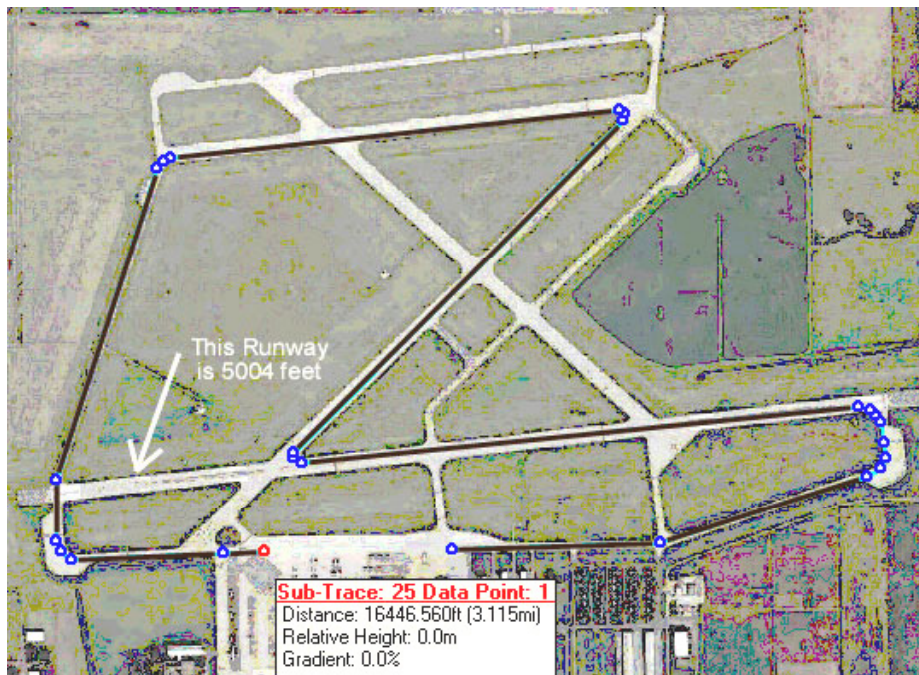
The Ohio State University Airport is located in north Columbus, Ohio. It was named Don Scott Field in honor of the former All-American athlete who died in a bomber crash in England on October 1, 1943.

I was contacted by Doug Grout, who plans to hold a race at the airport next July in conjunction with some Airport aerial festivities. He sent me a description of the proposed route as described by his airport contacts. I immediately set to work to do what I could to see whether the proposed route would come out to the desired length.

The first step was to get a good scale map of the airport. I went to the airport's web site and did not find exactly what I was looking for. However, I did obtain an aerial photo of the runways and a detailed description of each one, including their elevations and length.

Some time ago I obtained a copy of Accuroute, which is a map-scaling program. You import a map or diagram, and use a built-in calibration algorithm. Then you draw a path, and the program tells you how long it is. You can download a test version from <http://www.accuroute.co.uk>.

The aerial photo had no scale attached to it. However, the longest runway was noted as having a length of 5004 feet, so I used this as my calibration value and plotted the proposed route. It looked like it might work.

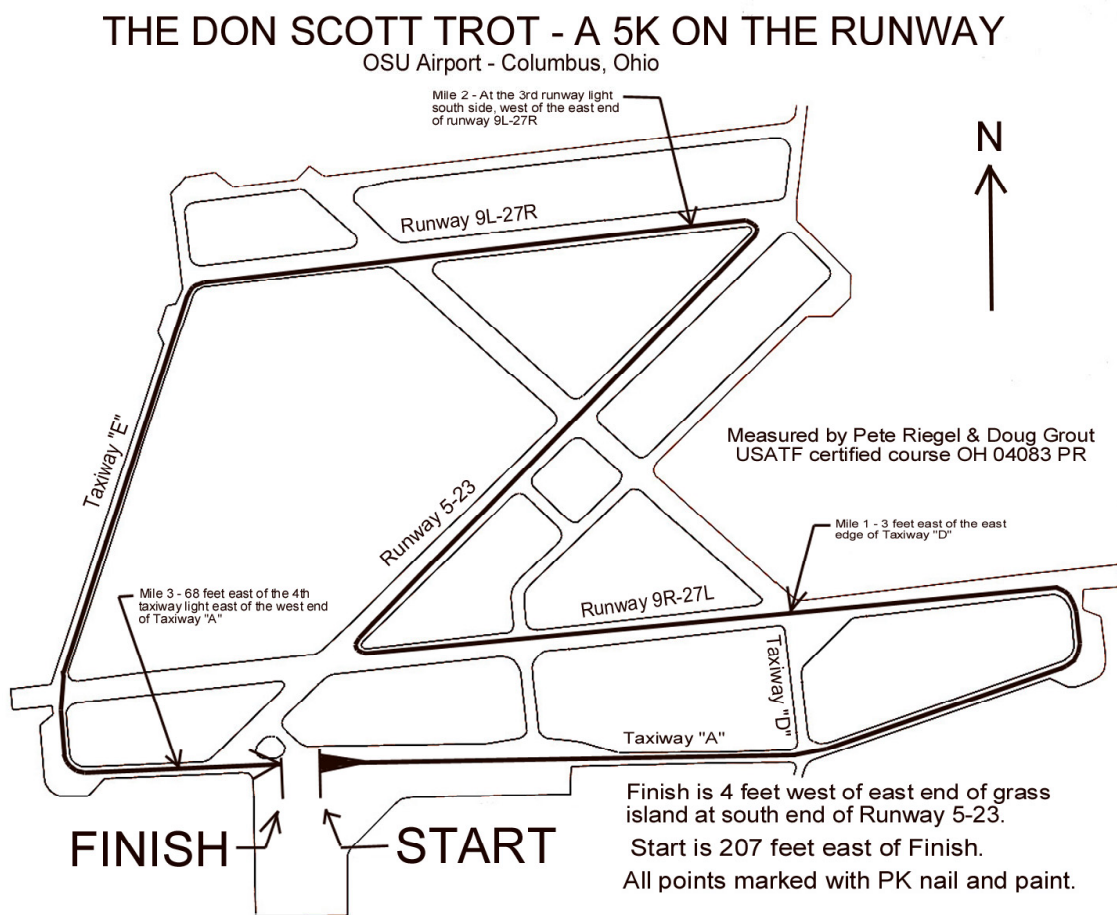


The course as plotted by Accuroute

While I've found that Accuroute works well, the answers are only as good as the calibration and tracing, and the quality of the map or photo. I wondered whether I had picked the right points on the ends of the runways for my calibration, but reasoned that I couldn't have been all that far off and the result was certainly good enough for preliminary work.

Doug and I met in the coffee shop at the airport, and were joined by Dale, who was to escort us around the runways as we measured. While I thought the course would work out, I was reluctant to lay down splits on the first ride, even though Doug had calibrated his bike so as to measure with me. Instead we began at the finish and rode the course backwards, stopping at my calculated start line. Dale preceded us in a truck, and instructed us never to pass him. He was in contact with the control tower, and we stopped several times enroute while a plane took off or landed.

The start and finish were closer together than the mapwork had predicted, but acceptable, so we laid down the three, two, and one mile splits on the next ride, which agreed with the first. Dale painted each split and put in PK nails as we rode.



This was the second course I've measured on an airport, and it was a lot more fun than the first. There's no traffic on the roads and no hills. The only potential problem – which turned out not to be a problem – was documenting the locations of the splits on the vast airport plain. It turned out that runway and taxiway lights were abundant, and made good reference points.

USATF/RRTC CERTIFIED COURSE LIST
New Entries, November - December 2004

DISTANCE	COURSE ID	STA	LOCATION	COURSE NAME/RACE	m/km DROP	pct SEP	MEASURER	REPLACES
5 km	AL 04017 JD	A	Huntsville	Spirit of Halloween 5k	0.0	1 C	Jones	AL 99017 JD
5 km	AL 04021 JD	A	Tuscumbia	Heart Run 5k	0.0	1 D	Michael	
5 km	AL 04022 JD	A	Birmingham	'04 Hog Jog 5k	1.0	2 R	Melanson	
20 km	AL 04023 JD	A	Birmingham	'04 Hog Jog 20k	0.3	1 R	Melanson	
5 mi	AL 04024 JD	A	Northport	Roger Prichett Mem. Wildcat 5M	0.2	2 R	Carroll	AL 04020 JD
5 km	AL 04025 JD	A	Birmingham	UAB 5k Classic - Run For Home	0.0	2 R	Melanson	
5 mi	AL 04026 JD	A	Gardendale	North Jefferson Charity Run	0.0	0 R	Melanson	AL 91027 JD
10 km	AR 04004 DLP	A	Rogers	Run For A Child	-0.1	2 C	Knott	
42.195 km	AR 04005 DLP	A	Mountain Home	Mountain Home Marathon	2.1	31 B	Torrey	
21.0975 km	AR 04006 DLP	A	Gentry	Ozark Academy Half Marathon	0.7	11 C	Knott	
5 km	AR 04007 DLP	A	Little Rock	Run For Their Lives 5k	0.6	2 G	Ballard	AR 99005 DLP
42.195 km	AZ 04009 GAN	A	Tucson	Tucson Marathon	15.2	95 G	Newman	AZ 04003 GAN
21.0975 km	AZ 04010 GAN	A	Tucson	Tucson Half Marathon	10.3	74 G	Newman	AZ 04002 GAN
5 km	CA 04015 TK	A	San Francisco	Run to the Far Side 5k	0.0	9 T	Knight	CA 87032 CW
10 km	CA 04016 TK	A	San Francisco	Run to the Far Side 10k	0.0	2 T	Knight	CA 03016 TK
5 km	CA 04037 RS	A	San Francisco	Dolores 5km	0.0	1 B	Dake	
1 mi	CA 04038 RS	A	San Francisco	Dolores Mile	0.0	10 B	Dake	
Cal	CA 04039 RS	A	Newport Beach	Pacific Coast hwy. 1000 ft.	0.0	100 R	Scardera	
21.0975 km	CA 04040 RS	A	Newport Beach	Orange County Half Marathon	2.9	8 R	Scardera	
5 km	CA 04041 RS	A	Newport Beach	Orange County 5km	0.0	6 R	Scardera	
Cal	CA 04042 RS	A	Newport Beach	University Dr. 1000 ft.	0.0	100 R	Scardera	
42.195 km	CA 04043 RS	A	Newport Beach	Orange County Marathon	1.4	4 R	Scardera	
5 km	CA 04044 RS	A	Los Angeles	Say No to Drugs 5k	0.0	0 R	Scardera	
10 km	CA 04045 RS	A	Los Angeles	Say No to Drugs 10k	0.0	0 R	Scardera	
1 mi	CA 04046 RS	A	San Diego	Hospitality Point One Mile	0.0	0 R	Letson	
21.0975 km	CA 04047 RS	A	Chico	Bidwell Classic Half Marathon	0.0	2 D	Welch	
1 mi	CA 04048 RS	a	San Francisco	San Francisco Classic Mile	0.0	16 B	Dake	
Cal	CA 04049 RS	A	Vacaville	Leisure Town Rd. 2640 ft.	0.0	100 R	Sturgeon	
5 km	CT 04021 PH	A	Willimantic	ACT Scholarship 5k	0.3	7 D	Bolt	
5 km	CT 04022 PH	A	Manchester	Parker Holt 5k	0.3	1 T	Brown	
5 km	CT 04023 PH	A	Milford	Platt Tech 5k	0.0	2 B	Stephenson	
5 mi	DC 04003 JS	A	Washington	Navy 5 Mile	0.0	0 J	Sissala	
42.195 km	DC 04004 RT	A	Washington	Marine Corps Marathon	-0.5	2 R	Thurston	
10 mi	DC 04005 RT	A	Washington	Army Ten Mile	0.2	5 R	Thurston	
5 km	DC 04006 RT	A	Washington	Arch 5k	0.0	0 R	Thurston	
5 km	FL 04059 DL	A	Jacksonville	Pace 5k Run/Walk	0.0	1 D	Alred	
5 km	FL 04060 DL	A	Miami	Run for the Cure 5k	0.0	4 G	Witkowski	
5 km	FL 04061 DL	A	Casselberry	The Autumn Rock & Run 5k	0.2	3 T	Ward	
5 km	FL 04062 DL	A	Tampa	Hidden River 5k - 2004	0.0	12 E	McDowell	
10 km	FL 04063 DL	A	Tampa	Hidden River 10k	0.0	0 E	McDowell	
10 km	FL 04064 DL	A	Lake Buena Vista	Disney 10k Classic 2004	0.3	73 T	Ward	
8 km	FL 04065 DL	A	Naples	Halloween Crazy 8k	0.0	8 M	Sonneborn	
21.0975 km	FL 04066 DL	A	Coral Springs	Halloween Half Marathon	0.0	1 G	Witkowski	
5 km	FL 04067 DL	A	Parkland	Scholarship Run 5k	0.0	4 G	Witkowski	FL 99062 DL
42.195 km	FL 04068 DL	A	W. Palm Beach	Palm Beach Marathon - alt.	0.0	0 D	Loeffler	
1 mi	FL 04069 DL	A	W. Palm Beach	Palm Beach Marathon - 1 Mile	0.0	0 D	Loeffler	
10 km	FL 04070 DL	A	Parkland	Scholarship Run 10k	0.0	2 G	Witkowski	FL 99063 DL
Cal	FL 04072 DL	A	Clermont	South Lake Hospital 300 meter	0.0	100 D	DeNoon	
2.5 km	FL 04073 DL	A	Clermont	Lake Louisa 2500 meter	0.0	0 D	DeNoon	
5 km	FL 04074 DL	A	Tampa	Pace Race 5k	0.0	1 A	Johnson	
10 km	FL 04075 DL	A	Tampa	Hidden River 2004 10k	-0.2	6 E	McDowell	
5 km	FL 04076 DL	A	Tampa	Hidden River 2004 5k	-0.4	12 E	McDowell	
5 km	FL 04077 DL	A	Hollywood	Orange Bowl Trek 5k	0.0	2 G	Witkowski	
Cal	FL 04078 DL	A	TheVillages	Polo Ground 100 ft. Calibration	0.0	100 J	Smith	
5 km	GA 04021 WC	A	Cartersville	Home Run 5k Road Race	0.0	0 W	Cornwell	
10 km	GA 04022 WC	A	Savannah	Savannah River Bridge Run	0.0	2 J	Fornaro	GA 98007 WC

Cal	HI 04090 PR	A	Lahaina	Wainee Street 1000 ft.	0.0	100	R	Pate		
	21.0975 km HI 04091 PR	A	Lahaina	Maui Surf & Sand H'MAR	11.7	69	R	Pate		
	5 km IL 04109 JW	A	Morris	5k Fun Run	0.0	0	C	Hinde	IL	02083 JW
	5 km IL 04110 JW	A	Chicago	UNCF Walkathon	0.0	0	C	Hinde		
	5 km IL 04111 JW	A	Aurora	Have No Mercy 5k	0.0	2	C	Hinde		
	5 km IL 04112 JW	A	Aurora	Sweetness 5k Upland Alternate	0.0	4	J	Wight		
	10 km IL 04113 JW	A	Aurora	Sweetness 10k Upland Alternate	0.0	5	J	Wight		
	5 km IL 04114 JW	A	Chicago	Bucktown 5k	0.0	0	N	Marquez	IL	99039 JW
	5 km IL 04116 JW	A	Lisle	Morton Arboretum 5k	0.0	2	C	Hinde		
	5 km IL 04117 JW	A	Chicago	Memory Run 5k	0.0	0	C	Hinde		
	10 km IL 04119 JW	A	Oak Park	Frank Lloyd Wright 10k	0.0	4	N	Marquez		
	4 mi IL 04122 JW	A	Chicago	Fitness Mind, Body, Spirit	0.0	0	C	Hinde		
	5 km IL 04123 JW	A	Crest Hill	Jingle Bell 5k	0.0	4	C	Hinde		
	5 km IL 04124 JW	A	Chicago	Liver Walk Run	0.0	0	C	Hinde		
	5 km IL 04125 JW	A	Chicago	Comer Kids Classic	0.0	4	C	Hinde		
	8 km IL 04127 JW	A	Chicago	Goose Island Turkey Trot	0.0	0	N	Marquez		
	5 km IL 04128 JW	A	Batavia	Fox Trot	0.0	1	C	Hinde	IL	01107 JW
	10 km IN 04079 PR	A	Elkhart	The Great Race 10 km	-0.6	70	P	Riegel	IN	97010 PR
	5 km IN 04080 PR	A	Elkhart	The Great Race 5 km	-1.2	80	P	Riegel	IN	97009 PR
	21.0975 km IN 04081 PR	A	Elkhart	Amish Country Half Marathon	0.7	51	P	Riegel	IN	04013 PR
	5 km KS 04047 BG	A	Overland Park	Sprint 5k	0.0	3	K	Raymer		
	5 km KS 04048 BG	A	Wichita	WSU Spring 5k	0.0	2	C	Ensz		
	5 km KS 04049 BG	A	Wichita	Link 4 Life	0.0	4	C	Ensz		
	2 mi KS 04050 BG	A	Wichita	Black Arts Festival	2.8	90	C	Ensz		
	21.0975 km KS 04051 BG	A	Wichita	Wichita Half Marathon	0.0	1	C	Ensz		
	8 km KS 04052 BG	A	Wichita	Journey 2-Gether	0.0	1	C	Ensz		
	4 mi KS 04053 BG	A	Wichita	Jingle Bell '04	0.0	0	C	Ensz		
	42.195 km KS 04053 BG	A	Wichita	Wichita Marathon	0.2	46	C	Ensz		
	5 km KS 04055 BG	A	Wichita	Frosty Five	0.0	4	L	Richardson	KS	03057 BG
	5 km MA 04017 RN	A	Waltham	Halloween Hustle 5k	0.5	6	R	Nelson	MA	02017 RN
	5 mi MA 04024 RN	A	Weymouth	Dreamcatcher Classic	0.0	0	R	Nelson	MA	96015 RN
	5 mi MA 04026 RN	A	Boston	Ollie Road Race 2004	0.4	11	S	Vaitones	MA	03022 RN
	10 km MA 04027 RN	A	Boston	Tufts 10k for Women	0.8	2	S	Vaitones	MA	03001 RN
	42.195 km MD 04008 JS	A	Baltimore	Under Armour's Marathon	0.0	2	J	Sissala	MD	03010 JS
	21.0975 km MD 04009 JS	A	Baltimore	Care First Half Marathon	0.0	3	J	Sissala	MD	03011 JS
	5 km MD 04010 JS	A	Kensington	Cardinal 5k	0.0	1	P	Quinn		
	5 km MD 04011 JS	A	Hagerstown	Fall Parks & Rec Trek 5k Run	2.4	29	T	O'Keefe		
	42.195 km MD 04012 JS	A	Sparks	Northern Central Trails Marathon	0.0	1	J	Sissala	MD	02021 JS
	5 km MD 04013 JS	A	Towson	Towson YMCA Turkey Trot 5k	0.0	5	J	Sissala		
	8 km MD 04014 JS	A	Hyattsville	Outback Steakhouse 8k	0.0	0	J	Sissala	MD	01011 JS
Cal	MD 04015 JS	A	Piney Point	Piney Point Rd. 300 meter	0.0	100	L	Recto		
	5 km ME 04011 RF	A	Saco	Kerrymen Pub 5k & Mary's Walk	0.0	9	R	Fitzpatrick	ME	01009 WN
	5 km MI 04012 SH	A	Grandville	Grandville Rotary	0.0	7	R	Dewey	MI	03019 SH
	21.0975 km MI 04018 SH	A	Walker	Grand Rapids	0.0	0	D	Kern		
	42.195 km MI 04019 SH	A	Walker	Grand Rapids	0.0	0	D	Kern		
	5 km MI 04020 SH	A	Jenison	Reformation Run	0.0	4	R	Dewey	MI	03022 SH
	10 km MI 04021 SH	A	Detroit	Turkey Trot	0.0	0	S	Hubbard	MI	97030 SH
	5 km MN 04034 RR	A	St. Paul	Winter Carnival	0.0	0	E	Paulson		
	21.0975 km MN 04035 RR	A	St. Paul	Winter Carnival	0.0	0	E	Paulson		
	5 km MN 04036 RR	A	Northfield	Turkey Day	0.9	6	E	Paulson		
	5 km MN 04037 RR	A	Minneapolis	Arena	0.6	8	D	Wright		
	5 km MN 04038 RR	A	St. Joseph	Snowflake Shuffle	0.0	8	T	Reagan		
	5 km MO 04045 BG	A	Kansas City	Zoo Run	1.4	28	L	Joline		
	10 km MO 04046 BG	A	Kansas City	Zoo Run	0.7	14	L	Joline		
	42.195 km MO 04056 BG	A	St. Louis	Spirit of St. Louis Marathon	0.0	0	J	Neuschwander	MO	04009 BG
	21.0975 km MO 04057 BG	A	St. Louis	Spirit of St. Louis Half Marathon	0.0	0	J	Neuschwander	MO	04010 BG
Cal	NC 04073 PH	A	Mecklenburg County	Bob Beatty Rd. 1000 ft.	0.0	100	D	White	NC	96032 PH
Cal	NC 04074 PH	A	Ocean Isle Beach	Laurenburg 2000 ft.	0.0	100	H	Dykes		
	5 km NC 04075 PH	A	Ocean Isle Beach	Oyster Festival 5k	0.0	1	H	Dykes		
	10 km NC 04076 PH	A	Ocean Isle Beach	Oyster Festival 10k	0.0	0	H	Dykes	NC	97039 PH
	5 km NC 04077 PH	A	Claremont	Claremont/Shuford YMCA 5k	0.0	2	T	Rhodes		

	10 km	NC 04078 PH	A	Claremont	Claremont/Shuford YMCA 10k	0.0	1	T	Rhodes	
	10 km	NC 04079 PH	A	Fort Bragg	Jingle Bell 10k	0.0	1	J	Ramirez	
	8 km	NC 04082 PH	A	Raleigh	Dalmatian Dash 8k	0.0	0	N	Wood	
	10 km	NC 04083 PH	A	Huntersville	Fall Harvest 10k	-0.5	2	T	Long	
	5 km	NC 04085 PH	A	Chapel Hill	Southern Village 5k	0.0	0	N	Wood	
21.0975 km		NC 04086 PH	A	Ocean Island Beach	Ocean Island Half Marathon	0.0	0	F	Guy	
	5 km	NC 04087 PH	A	Ocean Island Beach	Ocean Island 5k	0.0	1	F	Guy	
	5 km	NH 04017 RF	A	Manchester	DWC 5k Turkey Trot	3.1	77	R	Fitzpatrick	
	5 km	NJ 04044 LMB	A	Lyndhurst	Meadowlands 5k	0.0	3	J	Parks	
	5 km	NJ 04045 LMB	A	Harrington Park	Harrington Park 5k	-0.9	2	P	Hess	
	10 km	NJ 04046 LMB	A	Warren Twp.	Mountain Top 10k	0.6	2	L	Baldasari	
	8 km	NJ 04047 LMB	A	Glen Ridge	Ashenfretler 8k	0.0	0	J	Parks	
	1 mi	NJ 04048 LMB	A	Glen Ridge	Ridger Romp	0.0	0	J	Parks	
	10 mi	NJ 04049 LMB	A	West Windsor	USATF-NJ 10 Mile Championship	0.0	0	L	Baldasari	
	5 km	NJ 04050 LMB	A	Burlington Twp.	Green Acres Park 5k	0.0	5	L	Baldasari	
	5 km	NJ 04051 LMB	A	West Caldwell	Run Through the Caldwells 5k	-1.2	1	L	Baldasari	
	10 km	NJ 04052 LMB	A	Paramus	Terri Roemer Paramus 10k	0.0	1	J	Parks	
	5 km	NJ 04053 LMB	A	Paramus	Terri Roemer Paramus 5k	0.0	2	J	Parks	
	5 km	NY 04003 DK	A	Mineola	Mineola Mustang 5k	0.6	4	D	Katz	
Cal		NY 04038 KL	A	Greece	Clearwater Circle 1000 ft.	0.0	100	K	Lucas	
	8 mi	NY 04039 KL	A	Greece	Freezeroo #5 - 8 Mile	0.0	1	K	Lucas	
	5 km	NY 04040 KL	A	Clifton Springs	5km Eagle Run X-C	-0.6	1	K	Lucas	
	10 km	NY 04041 KL	A	Ogden	Freezeroo #1 - 10km	0.0	1	K	Lucas	
6.385 mi		NY 04042 KL	A	Perinton	Freezeroo #4 - 10km-ish	0.0	0	K	Lucas	
	10 km	NY 04043 KL	A	Perinton	Freezeroo #4 - 10km	0.0	3	K	Lucas	
	5 km	NY 04044 KL	A	Irondequoit	Freezeroo #3 - 5km	0.0	0	K	Lucas	
	5 km	NY 04045 KL	A	Honeoye	Honeoye 5 km	0.0	6	K	Lucas	
3.5 mi		NY 04050 AM	A	New York	Chase Corp. Challenge	0.0	0	P	Hess	
	5 km	NY 04051 AM	A	Hornell	Hornell YMCA 5k	0.0	1	G	Tillson	
Cal		NY 04052 AM	A	Garden City	Nassau CC W.Ellington 1000 ft.	0.0	100	G	Westerfield	
	5 km	NY 04053 AM	A	Garden City	Nassau Community College 5k	0.0	0	G	Westerfield	
	5 km	OH 04077 PR	A	Sylvania	Toledo Metro Parks 5km	-0.2	5	D	Standish	
	4 mi	OH 04078 PR	A	Canton	Kemphorn VW Great Pumpkin	0.0	1	J	Wilhelm	
	5 km	OH 04082 PR	A	Granville	Jennifer Travis Memorial 5k	0.0	0	J	Glaze	
	5 km	OH 04083 PR	A	Columbus	The Don Scott Trot 5k Runway	0.0	1	P	Riegel	
Cal		OH 04084 PR	A	Dublin	Metro North 1026.27 ft.	0.0	100	P	Riegel	OH 91008 PR
Cal		OH 04085 PR	A	Columbus	Kirkham Road 1000 ft.	0.0	100	P	Riegel	OH 92088 PR
42.195 km		OH 04086 PR	A	Cincinnati	Flying Pig Marathon 2005	0.0	3	D	Connolly	OH 04011 PR
21.0975 km		OH 04087 PR	A	Cincinnati	Flying Pig Half Marathon 2005	-0.6	5	D	Connolly	
	5 km	OH 04088 PR	A	Cincinnati	Flying Pig 5k	0.9	3	D	Connolly	
	10 km	OH 04089 PR	A	Cincinnati	Flying Pig 10k	-0.1	3	D	Connolly	
	5 km	OK 04028 BB	A	Oklahoma City	Bricktown Blaze	0.0	6	D	Garrett	
	5 km	OK 04029 BB	A	Woodward	Run for Shelter	0.4	2	D	Garrett	
	5 km	OK 04030 BB	A	Oklahoma City	Forget Me Not Run	0.0	0	D	Garrett	
	8 km	OK 04031 BB	A	Oklahoma City	Toys for Tots	0.0	0	D	Garrett	
	3 km	OK 04032 BB	A	Oklahoma City	Toys for Tots	0.0	0	D	Garrett	
	5 km	OK 04033 BB	A	Talihina	Choctaw Nation Reach 2010	0.0	0	G	Lafarlette	
	5 km	OK 04034 BB	A	Guthrie	Guthrie Land Run 5km	0.0	2	D	Garrett	
	5 km	OK 04035 BB	A	Oklahoma City	Downtown In December Run	0.2	2	D	Garrett	
42.195 km		PA 04012 WB	A	Philadelphia	Philadelphia Marathon 2004	0.0	0	B	Belleville	PA 03023 WB
	5 km	SC 04031 BS	A	Honea Path	Black Cow Stampede	0.3	6	B	Marable	SC 04031 BS
21.0975 km		SC 04028 BS	A	Myrtle Beach	Halloween Half Marathon	0.0	1	H	Schmooock	
	5 km	SC 04029 BS	A	Pawley's Island	Pawley's Island 5k	0.0	2	D	White	
	5 km	SC 04030 BS	A	Daniel Island	Charleston Race for the Cure 5k	0.0	5	M	Desrosiers	
	5 km	SC 04032 BS	A	Greenwood	Greenwood 5k Challenge	0.0	1	W	Terry	
	5 km	SC 04033 BS	A	Anderson	Electric City Gobbler 5k	-0.6	3	W	Terry	
	5 km	SC 04034 BS	A	Pacolet	Hotel Hill Climb	1.8	52	B	Smith	
	5 km	SC 04035 BS	A	Spartanburg	Doggie dash - Duncan Park	-0.4	1	B	Smith	
	10 km	SC 04036 BS	A	Aiken	Whiskey Road Race 10k	0.0	0	C	McKeel	SC 02017 BS
	10 mi	SC 04037 BS	A	Aiken	Aiken Triple Crown	0.0	0	C	McKeel	SC 02005 BS
	5 km	SC 04038 BS	A	Charleston	Reindeer Run	0.0	0	M	Desrosiers	SC 02032 BS
	5 km	TN 04028 DJR	A	Surgoinville	Phillips Bend 5k	0.0	0	D	Rogers	TN 02015 RH
	5 km	TN 04029 DJR	A	Chattanooga	Race for the Cure 5k UTC 2004	0.0	0	B	Minehan	TN 03010 DJR

	5 km	TN 04030 DJR	A	Nashville	Athens AZA 5k	0.0	0	J	Zeigler		
	21.0975 km	TN 04031 DJR	A	McMinnville	McMinnville Half Marathon	0.0	0	T	de Paulis		
	5 km	TN 04032 DJR	A	Jonesborough	Jingle Bell 5k	-0.6	11	M	Studholme		
	10 km	TN 04033 DJR	A	Townsend	Townsend 10k	-0.2	0	A	Morgan		
	5 km	TX 04018 WG	A	Mission	Trick or Trot	0.0	0	B	Grass		
	5 mi	TX 04031 JF	A	Austin	Austin Turkey Trot	0.0	1	J	Ferguson	TX	04027 JF
	42.195 km	TX 04087 ETM	D	San Antonio	Marathon of the Americas	-0.1	0	D	Blick	TX	02093 ETM
	5 km	TX 04088 ETM	A	Richardson	RHS Excellence in Education 5k	-1.2	1	C	Clines		
	21.0975 km	TX 04089 ETM	A	San Antonio	San Antonio Half Marathon II	-0.3	1	D	Blick	TX	04080 ETM
	42.195 km	TX 04090 ETM	A	San Antonio	Marathon of the Americas	-0.1	0	D	Blick	TX	04087 ETM
	5 km	TX 04091 ETM	A	Grand Prairie	Lone Star Park 5k	0.2	1	C	Clines		
	5 km	TX 04092 ETM	A	Fort Worth	You Go Girl 5k	0.0	2	ME	Polansky	TX	03100 ETM
	5 km	TX 04093 ETM	A	Cleburne	Southern Stampede 5k	-0.4	4	C	Clines		
	21.0975 km	TX 04094 ETM	A	Dallas	CCCD The Half 2004	0.0	1	K	Ashby		
	5 km	TX 04095 ETM	A	Houston	Uptown Turkey Trot 5k	0.0	1	R	Barnhill		
	10 km	TX 04096 ETM	A	Houston	Uptown Turkey Trot 10k	0.1	1	R	Barnhill		
	5 km	TX 04097 ETM	A	Galveston	Run Like the Dickens 5k	0.6	1	R	Barnhill	TX	95097 ETM
	10 km	TX 04098 ETM	A	Houston	Conoco Phillips Rodeo Run 10k	-0.4	13	E	McBrayer	TX	03097 ETM
	5 km	TX 04099 ETM	A	Houston	Conoco Phillips Rodeo Run 5k	-0.9	12	E	McBrayer	TX	02098 ETM
	5 km	TX 04100 ETM	A	Houston	Houston Press II 5k	0.0	5	E	McBrayer	TX	04070 ETM
	21.0975 km	TX 04101 ETM	A	Fort Worth	Cowtown Half Marathon	0.0	2	M	Polansky		
	21.0975 km	TX 04102 ETM	A	Dallas	Dallas White Rock H'MAR	0.0	1	A	Beach		
	5 km	TX 04103 ETM	A	The Woodlands	Entergy Corp. & Parents	0.2	2	R	Barnhill		
	5 mi	TX 04104 ETM	A	Houston	Park to Park 5 Mile Run	0.3	64	E	McBrayer	TX	03107 ETM
	5 km	VA 04005 JS	A	Vienna	Navy Federal 5k Run/Walk	0.0	0	J	Sissala		
	5 km	VA 04032 RT	A	Fairfax	Truro Preschool 5k	0.0	0	R	Thurston		
	8 km	VA 04033 RT	A	Arlington	Marine Corps Marathon 8k	-2.6	8	R	Thurston		
	10 km	VA 04034 RT	A	Ashland	Ashland Harvest 10k	0.0	2	M	George		
	5 km	VA 04035 RT	A	Locust Grove	Lake of the Woods 5km	0.0	0	V	Culp		
	10 km	VA 04036 RT	A	Reston	Fall Into Winter 10k	-0.6	3	R	Thurston		
Cal		VA 04037 RT	A	Virginia Beach	Atlantic Ave 1000 ft.	0.0	100	M	Studholme		
	42.195 km	VT 04002 RF	A	Stowe	Stowe Marathon	0.1	0	R	Fitzpatrick		
Cal		WA 04008 BL	A	Chelan	Chelan Airport 335.32 meter	0.0	100	A	Dausman	WA	02013 BL
	42.195 km	WA 04009 BL	A	Chelan	Shore to Shore Marathon	0.9	26	A	Dausman		
	21.0975 km	WA 04010 BL	A	Chelan	Shore to Shore Half Marathon	0.6	25	A	Dausman		
	10 km	WA 04011 BL	A	Chelan	Shore to Shore 10km	3.1	88	A	Dausman		
	10 km	WA 04012 BL	A	Kennewick	Fall Frolic and Footrace 10km	0.0	0	A	Dausman		
	5 km	WA 04013 BL	A	Kennewick	Fall Frolic and Footrace 5km	0.0	0	A	Dausman		
	10 km	WA 04014 BL	A	Mt. Vernon	YMCA Fowl Run 10km	0.0	1	T	Cotner		
	5 km	WA 04015 BL	A	Lynnwood	Lynnwood Hi5 Festrin 5km	0.0	0	T	Cotner		
	10 km	WA 04016 BL	A	Lynnwood	Lynnwood Hi5 Festrin 10km	0.0	0	T	Cotner		
	5 km	WA 04017 BL	A	Bellevue	Seafair (Bellevue) 5km	-0.4	1	T	Cotner	WA	03021 BL
	5 km	WA 04018 BL	A	Everett	Yankee Doodle Dash 5km	0.0	1	T	Cotner	WA	00003 MR
	10 km	WA 04019 BL	A	Everett	Yankee Doodle Dash 10km	0.0	0	T	Cotner	WA	00004 MR
	21.0975 km	WI 04114 JW	A	Hilbert	Cheesehead Half Marathon	0.0	1	D	Moore		
	42.195 km	WI 04118 JW	A	Milwaukee	Lakefront Marathon	1.4	95	D	Weyer	WI	01098 JW
	5 km	WI 04120 JW	A	Fitchburg	Thanksgiving Day Berbee Derby	0.0	4	N	Marquez		
	10 km	WI 04121 JW	A	Fitchburg	Thanksgiving Day Berbee Derby	0.0	2	N	Marquez		
	1 mi	WI 04126 JW	A	Madison	Capitol Mile	3.6	14	T	Aten		
Renewed											
	100 km	CA 95008 CW	A04	San Francisco	Ruth Anderson 100km	0.0	1	C	Wisser		
	50 km	CA 95011 CW	A04	San Francisco	Ruth Anderson 50km	0.0	1	C	Wisser		
	50 mi	CA 95012 CW	A04	San Francisco	Ruth Anderson 50 Mile	0.0	2	C	Wisser		
	10 km	IA 94004 MF	A04	Iowa City	Iowa City Road Races 10k	0.0	0	J	Schimek		
	5 km	NJ 93024 GAN	A04	Dover	Dover Renaissance 5 km	0.0	1	P	Lee		
	15 km	NJ 93030 DB	A04	Bernards Twp.	Great Swamp Devil 15k	0.0	0	D	Brannen		
	5 km	SC 94012 BS	A04	Aiken	Wachovia Aiken Sun Run	0.0	1	E	Prytherch		
Various		TX 93011 ETM	A04	Houston	Bear Creek RW Loop	0.0	3	E	McBrayer		

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USATF/RRTC CERTIFIED COURSE LIST
New Entries, January - February 2005

DISTANCE	COURSE ID	STA	LOCATION	COURSE NAME/RACE	m/km DROP	pct SEP	MEASURER	REPLACES
8 km	AL 04027 JD	A	Birmingham	Brenda Ladun's Conquer Cancer	0.0	1	R Melanson	
1 mi	AL 05001 JD	A	Mobile	Mobile Moonlight Mile	-0.6	13	J Bowie	
5 km	AL 05002 JD	A	Birmingham	BE5K Benefiting Kid One	-0.2	12	R Melanson	
42.195 km	AL 05003 JD	A	Birmingham	Mercedes Marathon	0.0	0	R Melanson	AL 03034 JD
21.098 km	AL 05004 JD	A	Birmingham	Mercedes Half Marathon	0.0	1	R Melanson	AL 03035 JD
4 mi	AR 05001 DLP	A	Batesville	HealthSouth 4M	0.5	3	G Ballard	
21.098 km	CA 04017 TK	A	San Francisco	Kaiser Permanente 1/2 Marathon	2.8	14	T Knight	CA 03017 TK
10 km	CA 05002 RS	A	Pacific Grove	Together With Love 10k	0.0	2	D Thurston	CA 97009 KY
5 km	CA 05003 RS	A	Pacific Grove	Together With Love 5k	0.0	3	D Thurston	
100 km	CA 05004 RS	A	Elverta	Jed Smith Ultra Classic 100km	0.0	1	D Scott	
42.195 km	CA 05005 RS	A	Huntington Beach	2005 Pacific Shoreline Marathon	0.0	0	R Scardera	EXPIRES 2007
10 km	CA 05006 RS	A	LaHambra	LaHambra 10km	0.0	0	R Scardera	CA 02038 RS
5 km	CA 05007 RS	A	LaHambra	LaHambra 5km	0.0	0	R Scardera	CA 02037 RS
3 mi	CT 03001 PH	A	Watertown	Watertown Harvest Ramble 3Mile	0.0	0	W Graustein	
Cal	GA 04001 JD	A	Kennesaw	Airport Road 1000 ft.	0.0	100	J DeHaye	
50 km	GA 04002 JD	A	Rockmart	Silver Comet Ultra Run	0.0	0	J DeHaye	
10 km	GA 05001 WC	A	Bainbridge	Kiwanis River Run	0.0	1	B McGuire	
42.195 km	GA 05002 WC	A	Tybee Island	Tybee Marathon	0.0	0	R Boyette	GA 04005 WC
21.098 km	GA 05003 WC	A	Tybee Island	Tybee Half-Marathon	0.0	0	R Boyette	GA 01012 WC
5 km	GA 05004 WC	A	Tybee Island	Tybee 5k	0.0	1	R Boyette	GA 95001 WC
5 km	GA 05005 WC	A	Millen	Millen 5k	0.2	1	J Hite	
5 km	GA 05006 WC	A	Powder Springs	Run for the Son	0.0	3	J Grosko	
10 km	GA 05007 WC	A	Powder Springs	Run for the Son	0.0	1	J Grosko	
5 mi	MA 04025 RN	A	Douglas	Douglas Family Fun Run 5 Miler	0.5	4	J Kuo	
Cal	MD 04015 JS	A	Piney Point	Piney Pt. Road 300 meter	0.0	100	L Recto	
42.195 km	MD 04016 JS	A	Piney Point	Lower Potomac River Marathon	0.0	0	L Recto	
Cal	MD 04017 JS	A	Berlin	Assateague Isle. 1000 ft.	0.0	100	M Shaw	
42.195 km	MD 04018 JS	A	Ocean City	Ocean City Maryland Marathon	0.0	0	M Shaw	
5 km	MS 04001 PH	A	Hernando	Fall on the Square Hernando	0.0	0	R McCrerey	
5 km	NC 05001 PH	A	Cary	Cary Road Race	0.0	0	N Wood	NC 99006&02001
10 km	NC 05001 PH	A	Cary	Cary Road Race	0.0	0	N Wood	
5 km	NC 05002 PH	A	Cary	Cary Road Race	0.0	0	N Wood	
10 km	NC 05003 PH	A	Cary	Cary Road Race	0.0	0	N Wood	
5 km	NC 05004 PH	A	Sanford	Cary Road Race	0.0	0	N Wood	
5 km	NJ 05001 LMB	A	Middletown	Spring Into Summer 5k	-0.6	4	L Baldasari	
5 km	NJ 05002 LMB	A	Livingston	Run for Rachel	0.0	2	J Parks	
20 km	NJ 05003 LMB	A	Newark	Newark Distance Classic 20k	0.0	0	J Parks	
5 km	NJ 05004 LMB	A	Newark	Newark Distance Classic 5k	0.0	1	J Parks	
21.098 km	NV 04004 BC	A	Las Vegas	2005 Las Vegas Half Marathon	5.8	92	B Callanan	NV 98009 BC
10 mi	NV 05001 BC	A	Mesquite	2005 Mesquite 10 Miler Course	4.8	33	B Callanan	NV 99014 BC
42.195 km	NV 05002 BC	A	Las Vegas	2005 Las Vegas Marathon	4.9	95	B Callanan	NV 98008 BC
5 km	NY 04053 AM	A	Cazenovia	Chilly Chili 5k	-3.0	8	D Oja	
5 km	OH 04092 PR	A	Cincinnati	Right to Life 5k	-0.4	3	D Connolly	
5 km	OH 05001 PR	A	Miami Township	Run for the Poor 5k	0.0	1	D Connolly	
10 km	OH 05002 PR	A	Genoa Twp.	Run Happy 10k	0.0	0	P Riegel	
5 km	PA 05001 WB	A	Pittsburgh	Race for the Cure - Run Course	1.5	7	R Yurick	PA 03007 WB
5 km	SC 05001 BS	A	Greenville	Run Downtown Road Race	1.2	10	D White	
5 km	SC 05002 BS	A	Myrtle Beach	Myrtle Beach 5k	0.0	21	D White	SC 04007 BS
8 km	SC 05003 BS	A	Simpsonville	Sunrise Run 8k	0.5	1	D White	
5 km	SC 05004 BS	A	Columbia	Lake Carolina Relay for Life 5k	0.0	1	S Blake	
42.195 km	SC 05005 BS	A	Myrtle Beach	Myrtle Beach Marathon	0.0	0	D White	SC 03004 BS

DISTANCE	COURSE ID	STA	LOCATION	COURSE NAME/RACE	m/km DROP	pct SEP	MEASURER	REPLACES
1 mi	TN 04034	DJR	A Jonesborough	Dasher dash Mile	0.0	0	M Studholme	
5 km	TN 04035	DJR	A Memphis	St. Louis School Pace Race 5k	0.0	5	R McCrarey	
5 km	TN 04036	DJR	A Hendersonville	Sumner County YMCA Frostbite	0.0	0	J Ziegler	
10 km	TN 04037	DJR	A Collierville	Run with the Dragons 10k	0.6	2	R Hunter	
21.098 km	TN 04038	DJR	A Memphis	St. Jude Memphis Half Marathon	0.4	1	R McCrarey	TN 02030 RH
42.195 km	TN 04039	DJR	A Memphis	St. Jude Memphis Marathon	0.2	1	R McCrarey	TN 02035 RH
10 km	TN 04040	DJR	A Kingsport	War Party 10k	0.0	1	M Studholme	
5 km	TN 04041	DJR	A Hendersonville	Running of the Fools 5k	0.4	3	J Ziegler	
5 km	TN 04042	DJR	A Murfreesboro	Pace Race 5k	0.0	0	J Ziegler	
5 km	TN 04043	DJR	A Surgoinsville	New Years Day Wake-up Run	0.6	5	D Rogers	
21.098 km	TN 05001	DJR	A Knoxville	Knoxville Half Marathon	0.4	4	A Morgan	
42.195 km	TN 05002	DJR	A Knoxville	Knoxville Marathon	0.2	2	A Morgan	
5 km	TX 05003	ETM	A Houston	Sprint for Life 2005	-0.1	2	E McBrayer	TX 04031 ETM
5 km	TX 05004	ETM	A Houston	Running With the Bulls IV	0.0	0	R Barnhill	TX 04023 ETM
10 km	TX 05005	ETM	A Bedford	Bookin' for Books 10k	0.0	1	C Clines	
2 km	TX 05006	ETM	A Houston	BC Relay Loop	0.0	0	E McBrayer	
21.098 km	TX 05004	JF	A Austin	Freescale Half Marathon	5.5	85	J Ferguson	TX 03022 JF
42.195 km	TX 05004	JF	A Austin	Freescale Marathon	3.2	47	J Ferguson	TX 03022 JF
5 km	TX 05005	JF	A Austin	Cops and Joggers 5k	-0.8	6	J Ferguson	
Cal	TX 04010	WG	A South Padre Island	Highway 100 SPI - 1000 ft.	0.0	100	W Grass	
5 km	TX 04015	WG	A Mission	Correcaminos 5k	0.0	0	B Grass	
2 mi	TX 04017	WG	A Mission	Correcaminos 20 Mile	0.0	0	B Grass	
10 km	TX 05001	WG	A Edinburg	All American 10k	0.0	10	B Grass	TX 04003 WG
10 km	TX 05002	WG	A Edinburg	All American 10k	0.0	10	B Grass	
Cal	WA 05001	BL	A Wenatchee	Hawley St. Bike Path 1000 ft.	0.0	100	T Finegold	
10 km	WA 05003	BL	A Wenatchee	Wenatchee 10k	1.2	16	T Finegold	
42.195 km	WA 05003	BL	A Wenatchee	Wenatchee Marathon	0.3	4	T Finegold	
Cal	WI 04129	JW	A Oregon	Market St. North 300 meters	0.0	100	T Aten	
10 km	WI 04130	JW	A Belleville	UFO Run	0.0	0	T Aten	
Renewed								
10 km	NJ 88007	DB	A05 Newark	Cherry Blossom 10k	-0.9	3	D Brannen	
5 km	NY 93043	AM	A04 Buffalo	B-2000 5k Run	0.0	2	J Grandits	
5 km	NY 94002	DB	A05 Queens	Wilkins Park 5km	0.0	2	D Brannen	
5 km	NY 94008	AM	A05 Lancaster	Chris Griswold Memorial Run	-0.1	2	J Grandits	
5 km	NY 94019	AM	A04 Endicott	W. Endicott Park/TCRC Women's	0.0	7	G Groom	
21.098 km	TX 93004	ETM	A04 Fort Worth	Better Half Marathon	0.0	0	M Polansky	

A complete listing of USATF Certified courses is available at - www.RRTC.Net

PUBLICATIONS AVAILABLE FROM RRTC

Printed Course Lists - A list of certified courses for any state is \$2.00. (Free to RRTC certifiers). You will receive a list that is current as of the last published Measurement News. Courses can be sorted in a special way; otherwise it will be sorted by distance as it appears in MN. Other specially-sorted lists can be done - for instance, you might want to have all the 5k's in IL, IN, and MO. If you are online, lists can be sent that way. Contact Mike Wickiser at MikeWickiser@neo.rrc.net

Web Page Access to Course Lists:The complete list can be downloaded from the RRTC website at www.rrtc.net/download/ Also, try the new USATF Search Engine linked from www.rrtc.net or directly at www.usatf.org/events/courses/search/

Individual Certificates - These may be obtained by sending the course number and \$2.00 per course desired. **SEND THE COMPLETE ID, INCLUDING PREFIX AND SUFFIX LETTERS**, i.e: CA92057 RS. Send course name, length and location as well. If you are thinking of hiring a measurer, this is an excellent way to see the sort of work you can expect. In addition, you may wish to check out a course you intend to run. Bring the map to the course and see if the race director got it right!

Above material may be obtained from: Mike Wickiser - 2939 Vincent Rd. - Silver Lake, OH 44224-2906

Measurement Calculation Computer Program by Bob Baumel, version 1.2 for Macintosh or IBM PC. This software can be downloaded for free from the RRTC website at www.rrtc.net/download/ or Bob will distribute it by email attachment (send requests to webmaster@rrtc.net) or on floppy disks (send blank, formatted diskette and stamped return mailer to Bob at: 129 Warwick Road, Ponca City OK 74601-7424). Be sure to specify Mac or PC version.

Electronic Certificate Templates (available to Certifiers only), in Adobe Acrobat format. Requires Acrobat or Acrobat Reader 4.0 or greater (Current Acrobat Reader may be downloaded for free from www.adobe.com). The template allows you to fill in certificates on the computer and print them. Available in both FS and non-FS version. Distributed by Bob Baumel by email or diskette [same addresses as for Measurement software]. Bob can customize the template with certifier's personal info at the bottom to avoid re-typing it every time (Be sure to specify exact ID text desired when requesting a template).

Online course measurement book, edited by Bob Baumel. It's a revision of the one you can buy from USATF, but the basic procedures have not changed. Available at: www.rrtc.net

Course Measurement Procedures - the Bible of course measurement. Complete instructions for measuring courses for USATF certification. The same procedures are now used for IAAF and AIMS courses. \$9.00 postpaid. Available from: USATF - Book Order Dept. - PO Box 120 Indianapolis, IN 46206

Course Measurement Video - a concise 17 minute introduction to course measurement, intended as a supplement to Course Measurement Procedures. See how it's done! Version 2 sells for \$10 but there are still a few copies of the original version available for \$7.50. Send to: Tom McBrayer - 4021 Montrose - Houston, TX 77006-4956.

Historical/Technical Material Available on CD

Measurement News Archive - Every issue of Measurement News from #1 (1982) to #115 (2002). Full of material describing

measurement techniques, technical articles, and history, written by numerous people worldwide. Set of 2 CD's in pdf (Adobe Acrobat 5.0) format. Cost \$10.00, postpaid.

Historical Archive - A collection of technical articles, measurement reports, seminars spanning the period 1963 to present. Includes detailed full reports of several group rides of Olympic Marathon courses. All on one CD in pdf format. Cost \$5.00, postpaid.

The above two items are available from:
Pete Riegel, 3354 Kirkham Road, Columbus, OH 43221
email: riegelpete@aol.com

OTHER PUBLICATIONS AND EQUIPMENT

Road Race Management is a monthly newsletter providing race organizing ideas and news for race directors. \$97 per year from: Road Race Management - 4904 Glen Cove Pkwy - Bethesda, MD 20816 Phone: 301-320-6865 Fax: 301-320-9164

Jones/Oerth Counters - Paul Oerth - 2455 Union St - Apt 412 - San Francisco, CA94123. Phone: 415-346-4165 Fax 415 346 0621. Email: Poerth@aol.com. US Price is \$70 for the 5 digit model, \$80 for the 6 digit model, postpaid. Foreign price is \$75/\$85 plus postage. Foreign orders shipped by airmail. Visa, MasterCard, American Express cards accepted. Advance payment is required.

RunScore - The flagship of IBM-style finish line programs. For information contact: Alan Jones - 3717 Wildwood Dr - Endwell, NY 13760. Online at: www.runscore.com

Apple Raceberry JaM - Race management software for Macintosh and Windows. Online at www.raceberryjam.com or call Jack Moran at (952) 920-0558.

TOPOGRAPHIC MAPS

USAtopographic maps are available from:

U. S. Geological Survey 303-202-4200

USGS Map Sales
PO Box 25286, Bldg 810
Denver Federal Center
Denver, CO 80225

Delivery will be made in approx. 4 weeks. Ask for latest price.

Maps can be located and ordered online at: www.usgs.gov

Maps can be obtained in just a few days from:

Map Express - PO Box 280445 - Lakewood, CO 80228-0445

1-800-MAP-00EX (1-800-627-0039)

Maps can be located and ordered online at: www.mapexp.com

Topo Maps on CD-ROM - 3-D TopoQuads includes authentic USGS 7.5-minute quadrangle maps, assembled into one seamless database

See an interactive online demo at www.delorme.com

Also - check out Street Atlas USA from the above - it's a seamless street map of the whole USA at a decent price.

USGS TOPOGRAPHIC MAPS ONLINE - FREE

Maps.Com has a section where you can click on to all USGS maps, free. This can be very handy for obtaining accurate elevation information.

Check out: www.maps.com

ROAD RUNNING TECHNICAL COUNCIL

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May 6, 2004