



The following article appeared in the 6/87 edition of *Skogssport*, the official magazine of the Swedish Orienteering Federation.

Training Tips From A Swedish Orienteering High School

by Thomas Pettersson (translated by Debbie Newell)

I have been requested to describe the training we pursue at the orienteering high school in Strängnäs. This school year 28 students studied orienteering at Thomas High School. It is possible to have very fine orienteering training in the Strängnäs district, with, for example, the woods around Åkers Styckebruk available, with good maps and detailed terrain.

The students' school schedule is arranged so that two entire afternoons per week are devoted to special training in orienteering. To accomplish this, the students are allowed to drop 5 hours per week of other subjects, which are replaced by orienteering. Two additional afternoons per week are also devoted to orienteering, these being in late afternoon after school.

Periodicity

Periodicity means training different things during different periods of the year. We have four different training periods, which I will now describe.

I. Base Training Period 1 (November 15-March 15)

During this period, the purpose is to build up a good base of conditioning. The key words are: far, easy, long! This period should include distance running in the country, general and special strength training, flexibility training, and quality training.

The distance running is often done with map in hand; we call it "homesickness." We travel out by bus from Strängnäs and run home.

To avoid stress injuries, which

often appear in this period, we often recommend skiing 1-3 times per week. It is easy on the leg muscles and also exercises the whole body. You should still do one running workout per week even if you ski a lot.

It is important that you stay in contact with maps during this period, which otherwise consists mostly of conditioning training. If there is a lot of snow, it is more difficult, but jogging with a map or ski orienteering is better than nothing at all.

In summary, one week during base training looks like this:

<i>Monday:</i>	speedwork/ intervals/hills
<i>Tuesday:</i>	skiing/distance running
<i>Wednesday:</i>	calisthenics/ strength and flexibility work- out/relaxation & ball games
<i>Thursday:</i>	"homesickness"

The remaining days, Friday through Sunday, the students train on their own or with their respective clubs.

Cross-training

Many who train a lot sooner or later meet with injuries. One way to avoid (or at least minimize) this is to vary your training as much as possible. You can, for example, first do a running workout, and then swim intervals in a pool. In the first workout, you get "sport specific" training, while in the other workout, you train the heart and lungs without risking

stress injuries such as shin splints or Achilles tendonitis.

II. Transition Period 1 (March 16-April 30)

During this time the training is directed towards preparation for the coming racing season. There are two important goals: 1) begin training technique, and 2) begin running in the woods. This assumes that you can find snow-free terrain, which varies widely here in the country. One way is to travel to a location in the south.

We work on technique 2-3 times per week during this period. The first workout is usually of a simple type, to develop map contact again (for example, route choice orienteering, where the students run two and two, night orienteering legs during the day, and forest running with a map). Thereafter, the technique workouts are intensified more and more. While in the beginning of this period you can often train in small groups (2-5 students), as the exercises gradually become more difficult, you should train alone for best concentration.

The conditioning training during this period continues, but commonly the workouts become a little shorter and faster. All training is done in the woods. Strength training also continues, with one combination workout per week, which is done - or *should* be done - all year round.

The tempo training becomes more intense now, and it is best to do it with map in hand. I would like to mention two models: →

1. *Long Workout.* You should find a runnable area, where you set 5-8 controls per 1000 meters. The legs should be relatively easy. The idea is to maintain the fastest speed you can for the number of controls you decide to do. On the short legs you rest by lowering the tempo to just over "jogging speed."

2. *Tempo Loops.* The other method consists of "tempo loops," with an "active rest" within. The loops measure 2-2.5 km. The area should be relatively open and easy to run, and the control points should be easy. From a central point, all the loops begin with a jogging run up to the start point. The athletes themselves determine the number of loops they will do. It is appropriate to set 3 or at the most 5 loops.

By the end of this period, the orienteering races have started in earnest. Because of this, we usually exchange Monday's rest with Wednesday's training. In other words, Mondays are devoted to "recovery training" after the weekend races. We do a running workout on trails or in the woods for about 45 minutes, and then an easier strength workout, with emphasis on flexibility training and stretching to restore balance to the body's muscles.

We do little or no strength training for the leg muscles now; they will be trained and maintained through the other

workouts. Avoiding stress injuries is the most important thing.

III. Racing Period 1 (May 1 - 31)

Here at the orienteering high school, we continue training during this important period, similar to the previous period. You should be in top form at this stage, and the training is directed, above all, towards being entertaining. Some quantity training, continuing quality running, and some alternative sport is what we do during this period.

We also continue the technique training, but not too much and not too difficult. You get enough orienteering technique through all the races, so it is better to save motivation for racing.

As mentioned earlier, we always do a recovery workout on the Mondays after race weekends, with easy running, some strength training, and stretching. It is important to mention that stretching is an injury-preventing type of training. The muscles function best if they are restored to their "normal" length (the fibers are restored to the way they should work) after hard exertion. Consequently, the muscles are ready for new work, and will function optimally.

Some problems, among others the periosteum type, can be avoided

through stretching, but too much stretching can lead to overextension of the joints, which will give rise to other injuries. Unfortunately, it is all too common that we don't "have enough energy" to stretch immediately after finishing. Hopefully, we can improve, for it is not much to ask.

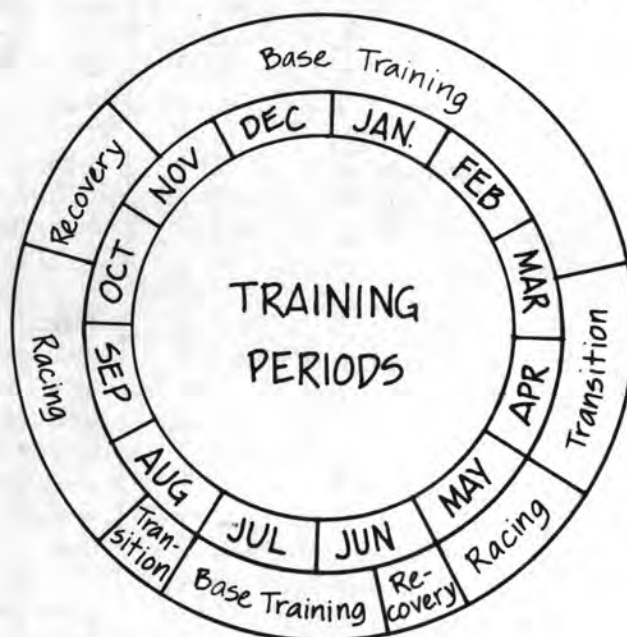
IV. Recovery Period 1 (June 1-15)

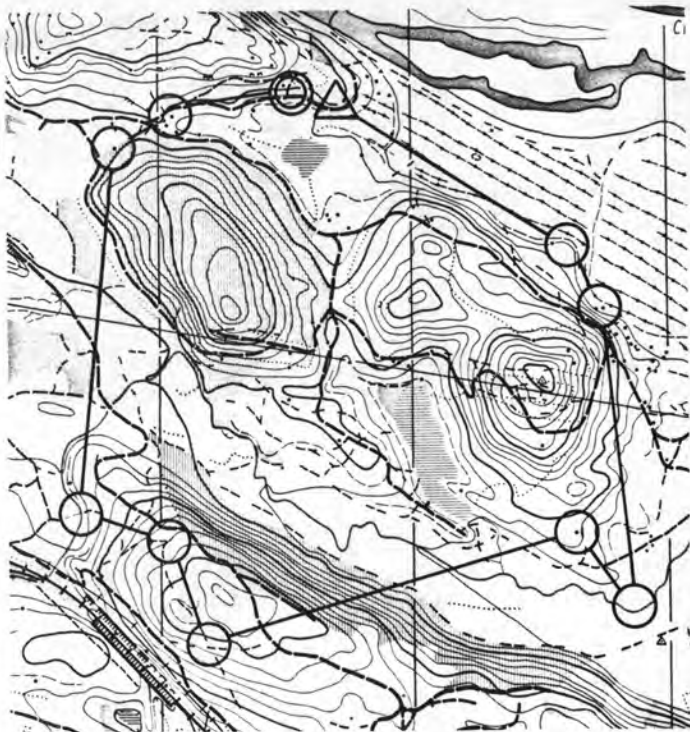
After an intensive racing season, it can be nice to get away from orienteering thoughts, and train as the mood strikes you: a slower tempo and easier training, a little exercise. Towards the end of the period you can do a little longer running workouts at an easy tempo.

Start the Sequence Over

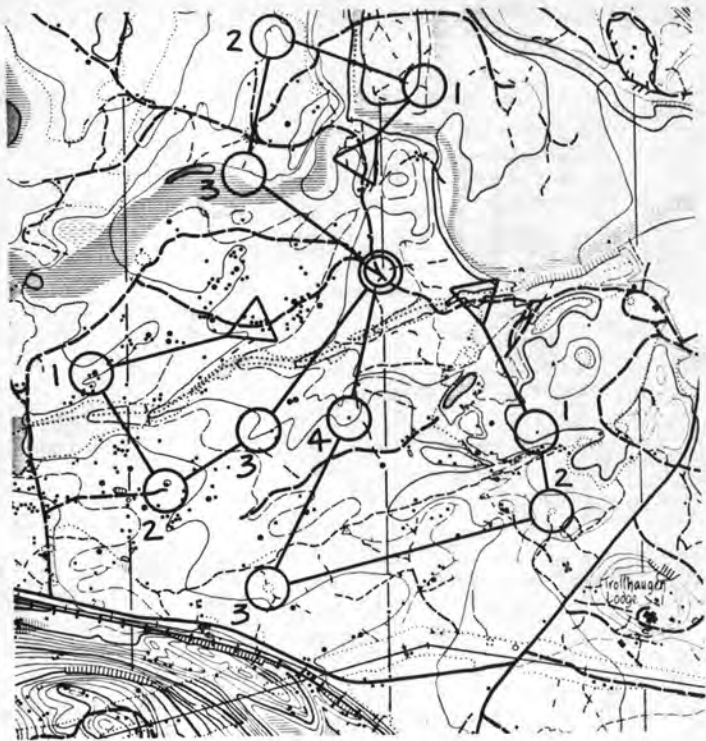
Now we start the four periods again with Base Training Period 2 (June 16 - July 31), Transition Period 2 (August 1 - 15), Racing Period 2 (August 16 - October 15) and Recovery Period 2 (October 16 - November 15).

These dates are, of course, not exact, but can function as an aid when you plan a training program. It is also important with all training to keep an accurate training diary to plan for the future.





Long Workout



Tempo Loops

The Ballad of Betsy O'

(sung to the tune of "Sweet Betsy from Pike")
by Debbie Newell

Oh, this is the story of sweet Betsy O'
To orienteer in the park she did go
But it was ill-fated, this trip to the park
For she did not return until long after dark

'Twas on the green course near control number three
She'd just crossed a stream and was feeling quite pleased
But 'fore she could punch in at old number three
She was knocked on her can by a galloping Swede

When Betsy came to it was late afternoon
She knew the controls would be picked up quite soon
But she was determined to find number three
She wouldn't be stopped by no galloping Swede

She found number three and continued the course
But darkness was falling, she knew she'd be forced
To find all the markers as fast as she could
Or the rest of the group would think she was no good

When Betsy crawled in to the finish that day
She'd found all the markers, but barely could say
"The next time I'm out on a course in the trees
I'll watch out behind me for galloping Swedes"

Orienteering To Be In Washington State Games

In 1989, our state will join 32 other states that hold annual Summer and Winter Games. The inaugural games will commemorate Washington's 100th anniversary, and will include sports such as skiing, track and field, tennis, and, as a demonstration, orienteering!

As a demonstration sport, orienteering will have only a final event, and no regional playoffs like the other sports. Rules for participation in the games are not yet final, but entry will probably be open to anyone.

The 1989 Games will be held the first week of August at a location to be chosen in February, so keep that date open on your calendar, and watch the newsletter for information as it develops.

Cascade Chatter by Harvey Friedman

As usual, I'll start off by trying to list those folks who joined up since last issue of *Bearing 315*. Words of both thanks and welcome go to the following new or renewing club members: **Pat Albright, Bob Berreth family, Jim Siscel & Boy Scout Troop 304, James Davis, Dick Diesner family, Clarence Dietrich family, Phil & Michelle Everett, Melissa Fleming, Georgie Friedenber, Judy Hill family, Peter Kehoe, Matti Löppönen, Robert Olsen, Brad Payne, Bo Powell, Joe Saba, Melanie Wheeler family, Douglas Woods family.**

If you all don't come to meets, you'll probably not see your name in the newsletter until the next time you renew; also, membership cards are only available in person at a club function such as regular meets, meetings, pot-o-lucks, but not at any ski-o meets, nor night-o meets, nor canoe-o meets (unless you are lucky), nor training events, nor workshops, nor at all in January 1988 (see below).

Now, on to the fun stuff. First, I want to apologize for not mentioning in last edition's column that all that excellent imported table wine at the 10th Anniversary Banquet

was donated by club member and oenologist **Bruce McAlister**. All who were there thank you, Bruce. . . The reason COC membership cards will be unavailable in January is because my wife Anne and I will be going to Tasmania to attend the **Asia Pacific Orienteering Carnival** there in early January. Since it is so expensive to fly that far, we will spend most of the rest of the month sightseeing on mainland Australia until my vacation time is consumed. See you again in February. . . Speaking of February, perhaps **Katie & Doug Sprugel** will host a pot-o-luck then or later on after they are settled in the house that they just bought at 10559 - 41st Place N.E. in Seattle. I have seen it and I can assure everyone that it is fine for holding meetings, pot-o-lucks, hosting visiting mappers, etc. Still more in February, and still more about Katie. She will be leaving her current position at the University of Washington and moving to a new position with Zymogenetics, a Seattle biotechnology firm, where she'll be continuing her work on the use of protein growth factors to improve wound healing. Bob "Nettles in the Knees" Reddick will probably want to be kept informed on the progress of that applied research. . . Speaking of progress, **Jessica Rykken** is making progress at adapting to the life of a Peace Corps volunteer in Nepal.

She would probably welcome mail from any club members who knew her before she went off to Smith College; her address is: **Jessica Rykken, c/o American Peace Corps N-162, G.P.O. Box 613, Kathmandu, NEPAL**. Actually, that was her address three months ago. . . **Mike Schuh** has a new job working for Teltone in Bellevue. . . **Sandy Kish Miller** has a new job on the 7200 block of Greenwood, much more convenient traveling there than to her former job in downtown Seattle. . . Sandy's father, **Paul Kish**, is here for the next few months seeing if he prefers Seattle's wet weather to upstate New York's cooold weather. . . **Eileen Breseman**, who we haven't seen at club events recently, has a good excuse. She had a knee operation (like Curt Warner's) the day before Thanksgiving. Hope she recovers soon and will be able to run as fast as Curt. . . Former club member now living in Oslo, **Ingemar Jansson** and his new bride Helga are expecting in April. . . Former club member from Bergen, **Stein Sandven** was in the U.S. in early December to attend the A.G.U. meetings in San Francisco and exchange ideas with other researchers in his area of oceanography. Anne and I were lucky enough to host him for a couple of days, but we learned that he is so busy with work that he won't be going to the APOC in Tasmania.

Orienteering Suit for Washington?

A prototype orienteering suit for use as a state-wide suit has been made - and Pat Reddick is wearing it to local orienteering events to get comments. The material is a supposedly-breathable, ripstop, 1.9 oz. lightweight uncoated water-resistant nylon fabric, color spruce green (for the Evergreen State), with a white yoke in the shape of a "W".

Features include:

- reflective stripes on arms and legs
- a large hidden pocket across the shirt front with Velcro closures on two openings
- venting under arms and down back of legs
- two pockets with Velcro closures in front of double-thickness pants drawstring
- pants identical to Treklite Thornknickers, only long
- white yoke on top is in the shape of a "W" to represent Washington

- club patch, name, school name or colors your option

A question has been raised about the true breathability of this fabric. The teakettle steam test has been done, but real runner tests in varying temperatures, indoor track vs. outdoor, and fast speed conditions still need to be conducted. We're trying to meet the needs of 90% of the orienteers in the North-west who might buy a suit. So the best compromise in durability, quality, breathability, and features is being sought. Want to test the prototype yourself? It's a size Medium (shirt 40 chest, pants 36 waist by 29 length), and roomy enough for most of us. For information, call (206) 581-0009 anytime.

The price is yet to be determined - the final prototype and fabric will influence it slightly. We're shooting for \$26.00 for the pants, and \$24.00 for the shirt, plus shipping. Yes, you may order the parts separately.

We must have 10 orders to start. If you are interested, please let us know your size, name, address, and phone number. No commitment or payment is necessary until the final design and cost are known, but we need your expression of interest. Thanks.

Bob and Pat Reddick

Hot Food At Winter Meets

Kurt Blakstad will be arranging hot food at our winter orienteering meets. If you can bring hot soup or cider to a meet, please let Kurt know.

Club Meeting

The next club meeting will be at the Greenwood Library (8016 Greenwood N.) on Monday, January 9 at 7:00 p.m. Be there.

Finnish Fieldchecker Among Us

Raimo Pitkanen, a fieldchecker from Finland, will be in Seattle until the end of January, working on our Marckworth Forest map, which we will use at this year's state championships in September. If you see him at a meet, be sure to say "päivää."

Meet Results

B.C. Orienteering Festival -

September 5-7

Day 1 Day 2 Total

Course 1

D-Novice

1. Nancy Oakes	42:04	27:02	69:06
2. S. English	33:12	37:36	70:47

Course 2

H13-14

4. Billy MacDonald	78:22	18:51	97:13
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D-Open E

1. Peggy Tharp	70:06	61:07	131:11
4. Pat Reddick	97:54	75:19	173:13

Course 3

D15-16

1. Rachel Tharp	47:49	43:36	91:25
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D-Open D

2. Laura Skog	58:49	123:18	182:07
Valerie Enger	DNS	70:53	--

Course 4

D-Open-C

1. Pat Albright	84:53	65:39	150:30
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D45

3. Anne York	114:51	75:52	190:42
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H-Open-C

Billy MacDonald	87:13	DNS	--
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H50

2. Bob Reddick	136:04	56:50	192:53
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H55

1. Knut Olson	66:56	59:07	126:01
Len Englund	DNF	170:15	--

Course 5

D-Open-B

1. Sandy Miller	87:16	86:59	174:14
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H45

4. Harvey Friedman	124:36	97:28	222:03
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Course 6

D-Open-A

1. Eileen Breseman	99:06	98:00	197:05
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H-Open-B

4. Dave Dummeyer	91:22	93:46	185:07
6. Dave Tallent	109:15	87:44	196:59
8. Philip Freeman	138:52	106:11	245:03
Rick Hood	110:14	DNS	--

H40

1. Mike Tharp	70:06	66:59	137:03
Robert Miller	102:19	DSQ	--
Bill MacDonald	116:55	DSQ	--

Course 7

D21

1. Debbie Newell	87:11	96:34	183:44
3. Mary Forbes	98:47	117:47	216:34

H-Open-A

2. Rick Breseman	98:06	95:15	193:20
3. Bob Forbes	94:13	103:50	198:02
5. Arnold Kay	109:46	110:44	220:29

H19-20

Nathan Tharp	DSQ	125:19	--
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H35

1. G. McCausland	77:59	79:30	157:28
6. Dale Width	90:38	92:54	183:31
Carl Moore	DNS	120:15	--
Rick Hood	DNS	173:09	--
Martin Mellish	DSQ	DNS	--

Course 8

H21

4. Ron Pontius	90:09	86:20	176:27
5. Dave Enger	92:52	88:35	181:25
7. Thomas Gloor	117:38	92:01	209:38
11. Mike Schuh	118:12	110:31	228:42

Woodland Park Night-O -

November 7

Meet Director: Roger Sharp

Courses: Mike Schuh

Registration: Bill Fritz

Starts: Georgie Friedenberg, Kurt Blakstad

Finish: Roger Sharp

Punch-Checker, Timer, & Heckler: Rick Breseman

Course Pickup: Rick Breseman, Dave Lilly

Other Help: Sandy Kish Miller, Bob Reddick

Recruiter: Betty Berreth

Again, *relentlessly* nice weather in this, the Gobi Desert of the Northwest. The cruel, cruel weather was unnighly warm. The moon was out. A good gathering with good event helpers made it enjoyable.

Roger Sharp

Course 1 (1.3k, 8 controls)

Bob Reddick	13:46
Tony Saulewicz	19:55
Bruce McAlister	25:56
Lori Day	27:38
Bob Berreth	39:22
Renier Loftus/Betty Berreth	47:08
Dave Lilly	DSQ

Course 2 (2.4k, 13 controls)

Debbie Newell	22:37
Thomas Gloor	22:41
Sandy Kish Miller	23:26
Dave Lilly	23:36
Rick Breseman	28:15
Harvey Friedman	35:16

Bob Reddick	36:30
John Lilly	37:12
Newman/Smith/Burke/Barsugli	40:58
Eileen Breseman	41:11
Jim Siscel	41:23
Jean Davis	46:47
Layman/Morin/Grass	46:55
Kurt Blakstad	47:00
Agneta Hagman	48:12
Michelle Everett/Janet Miller	49:50
Melanie Wheeler	53:36
Tony Saulewicz	54:37
Steve & Paul Herber	56:48
The Engers	61:43
Don Atkinson	DNF

Lincoln Park - November 21

Meet Director: Mike Schuh

Course Setters: Tony Saulewicz, Mike Schuh

Registration: Pat Albright

Start: Judy Shannon

Finish: Kurt Blakstad, Tony Saulewicz

Instruction: Mike Schuh

Marker Pickup: Pat Albright, Bob Reddick,

Tony Saulewicz, Judy Shannon

Weather: overcast, cold, windy

Course 1 (1.5k, 8 controls)

Jeremy Rice	10:01
Jill Shaw	10:27
Hampton/Graves	10:38
David Rehkopf	10:56
Bob Reddick	10:56
Melissa Moffett	12:20
Lauren Rice	13:10
Toby Rice	13:47
Jon Rehkopf	16:41
Bill Seymour	16:57
Todger/Koerker	17:56
Stacy Rice	26:49
Ken Lew	27:33
Nancy Werdal & Campfires	28:56
Wade G.	29:19
Mark Hemme	30:36
Dave Fletcher	33:21
Dick Wilson	38:50
Mary Jones Jennings	40:41
Andy James	52:10
Khoa	75:45

Course 2 (1.9k, 9 controls)

Bill MacDonald	19:45
Vo Khoa	21:37
Mark Hemme	22:34
Jill Shaw	23:45
Mo Nguyen	24:42
Lauren Rice	28:05
John H. Nitardy	28:55
Bill Seymour	28:55
Ken Lew	28:56
David Rehkopf	29:04
Hofferber/Henschleid	31:20
Toby Rice	37:28

Dave Fletcher	40:48
Rebecca Werdal/Elizabeth Lunde	41:04
Nancy Werdal/Campfire group	43:41
Fred Warder	46:33
Dave Hemme	49:28
JoAnne Sperry	54:16
Jeremy Rice	56:48

Course 3 (3.4k, 16 controls)

Jeff Coker	20:24
Dave Tallent	23:47
Dave Lilly	24:21
Sean O'Brien	24:59
Debbie Newell/Boomer	26:31
Carl Moore	26:40
Mac MacDonald	27:54
Scott Elich	28:24
Richard Hampta	28:48
Bob Reddick	28:55
Melissa Moffett	29:06
John Nitardy	29:24
Tim Denison	29:51
Ken Knapp	31:11
Richard Neidhardt	31:45
David Rehkopf/Toby Rice	33:19
Geoff Shaw	33:26
Will Sperry	33:41
Hofferber/Henschleid	36:34
Mike Wilson	36:52
Kurt Blakstad	37:58
Knut Olson	39:45
Harvey Friedman	40:51
Enright/Skog	41:01
Robert Olson	42:03
Dave Fletcher	43:17
Mo Nguyen	43:38
Mike Liebrock/Katri Noyd	46:47
Steve Layman/Laura Morin	47:06
Toby Barnes	48:42
Toby Graves	49:28
Ralph Lovely	54:19
Pat Reddick	60:51
Rich Sprmals & friend	62:35
Browne/Lines	73:56
H. Hagman	77:40
Jeremy Rice	DNF

Evergreen O' Cup - November 27-28 Nisqually Orienteers

Course 1

Day 1: 1.5k; Day 2: 1.9k

Mark Friesen	8:36	11:30	20:06
Trevor Pugh	11:58	18:33	30:31
Jennifer Vincent	30:58	17:59	48:57
Bob Becker	9:12		
Bob/Justin/Jacob	10:39		
Jude Clavin	11:32		
Abel Zimmerman	11:32		
Ryan Clingman	11:35		
Kyra Magnuson	12:20		
Kelly Nab	12:20		
Brett Gorley	13:17		
Dave Johnson	16:25		
Brad DeWees	16:56		
Mike Hollstron	16:56		
G. & J. Preble	21:58		

James Kather	29:28
Sarah Burnwell	33:38
J. Granquist	33:38
B. Granquist	33:38
Girl Scouts	34:30
Renae Rose	56:33
Rose Rose	56:33
Terry/Shawn/Kelly	16:07

Course 2

Day 1: 2.4k; Day 2: 2.8k

Jason Smith	21:21	23:55	45:16
James Kather	22:23	23:15	45:38
Melissa Moffett	26:54	26:23	53:17
Al Saucoda	21:21	37:44	59:05
Mark Friesen	46:21	20:58	67:19
Pat Reddick	49:48	63:42	113:30
Maureen Levitt	76:18	60:11	136:29
Martin Vincent	DNF	36:58	
Mark Bayard	16:57		
Bob Becker	23:56		
Brett Forley	26:43		
P. Miller/Andy	28:13		
D. Johnson	29:39		
Ryan Clingman	36:57		
David Hastings	38:14		
D & B DeWees	38:30		
John Wlson	38:34		
Ginger Anderson	43:49		
S.K.T. Hartung	45:16		
Abel Zimmerman	45:35		
Jude Calvin	45:35		
Gary Preble	46:13		
M. Hofferber	49:47		
Kyra Magnuson	70:01		
Kelly Nash	70:01		
Bob Meade	70:21		
P & M Hastings	89:46		
Molly Bye	103:57		
Paul Kish	117:49		
Hoff Perkins		24:28	
Andrew Ceibman		24:44	
M. Christofferson		38:35	

Course 3

Day 1: 3.6k; Day 2: 3.2k

Rachel Tharp	30:56	32:31	63:27
Larry Squire	38:19	27:20	65:39
Toby Barnes	43:25	61:57	105:22
Laura Skog	52:55	53:28	106:23
M. Moffett	58:36	86:55	145:31
Mark Bayard	26:15		
Lenny Jordan	27:59		
Carl Moore	28:56		
Kyle Phillips	31:09		
Bob Becker	35:45		
Brooks Martin	39:34		
B & D DeWees	40:47		
Vo Khoa	44:05		
Pat Albright	45:36		
James Pope	46:39		
M. Hofferber	49:36		
Ginger Andersen	57:04		
J. Wilson/K. Olson-Neidhardt/ R. Neidhardt	90:41		
Mark Vardy		23:36	
J. Kastre		37:40	

A. Gilmour	41:51
Neal Family	54:42
JoAnne Sperry	60:45
Phil Freeman	70:35
Susan Patrick	93:47

Course 4

Day 1: 4.8k; Day 2: 5.1k

Michael Pastula	60:51	67:30	128:21
Sandy Kish Miller	89:55	77:41	167:36
Karen LaChance	97:42	80:18	178:00
Bob Reddick	105:31	86:04	191:35
Mac MacDonald	152:00	88:45	240:45
Mark Howlett	118:32	136:22	254:54
Shirley Donald	122:05	147:00	269:05
Harvey Friedman	180:56	106:01	286:57
Katie Sprugel	128:52	DNF	
Mark Vardy	171:51		
Robert Bensen	195:59		
Ardis Dull	DNF		
Keith Wren	DNF		
Carl Moore		73:53	
Mark Bayard		82:42	
Will Sperry		86:52	
Pat Albright		143:52	
Jim Patrick		DNF	
Pete Curry		DNF	

Course 5

Day 1: 5.2k; Day 2: 5.6k

Jeff Coker	56:18	68:23	124:41
Peter Smith	72:28	72:40	145:08
Fred Veler	84:07	75:45	159:52
Scott Elich	79:51	100:51	180:42
Scott Donald	91:04	98:28	189:32
Knut Olson	106:58	84:31	191:29
Arnold Kay/Aska	125:34	89:03	214:37
Gerry Grieve	118:21	98:18	216:39
Craig Brooks	132:21	124:09	256:30
Jennifer Fenton	151:35	122:23	273:58
Debbie Newell	DNF	63:55	
Doug Sprugel	125:35		
Don Atkinson	128:43		
Will Sperry	161:14		
Rick Neidhardt	DNF		
Carl Moore	DNF		
Robert Olson		84:41	
Harry Morgan		132:19	

Course 6

Day 1: 6.4k; Day 2: 6.2k

Ross Burnett	55:09	56:05	111:14
Mark McMillan	64:55	54:54	119:49
Mike Schuh	69:46	65:00	134:46
Dave Enger	77:04	61:42	138:46
Lars Fjelstad	70:51	90:17	161:08
Nathan Tharp	88:33	77:50	166:23
Colin Preston	94:45	80:36	175:21
John Rance	94:45	83:58	178:43
George Pugh	78:47	101:24	180:11
Arthur Caldicott	93:38	99:04	192:42
Arne Skog	99:14	93:31	192:45
Dave Tallent	117:50	118:45	236:35
Kaj Fjelstad	138:56	101:36	240:32
Dave Lilly	DNF	109:43	

Lynndale Park - December 12

Meet Director: Ardis Dull
Course Designers: Mike Schuh, Pat Albright
Registration: Harvey Friedman
Instruction: Betty Berreth
Start: Debbie Sjodin
Finish: Tim Vargo, Pat Albright
Marker Pickup: Dave Lilly, Tim Vargo, Pat Albright, Ardis Dull
Weather: Clear & cold

Course 1 (1.1k, 8 controls)

N. Tharp/J. Smith/Dat Nguyen	14:30
Troop 304 (Paul/Kevin/Shawn)	17:43
Troop 304 (Erik/Mike/Kyle)	21:04
Kelly Nah	22:42
Heather Song	23:11
Tom Schuh	24:04
Kyra Magnuson	28:55
Tony Brunn	29:21
Jeremy Baal	30:34
Troop 304 (Bryan/Barry/Steven)	33:38
Keith Zackrone/Shane Kuk	35:28
David Dick	37:21
Bryan Wheeler	37:35
Troy Schwenke	38:13
Troop 304 (Jason/Phillip/Colin)	48:14
Justin & Betty Berreth	DNF
Sarah & Mary Hemme	DNF
Bryan Waldrop	DSQ
Bob Johnson/Ken Zink	DSQ
Erick Johnson/David Martos	DSQ

Course 2 (1.7k, 12 controls)

Don Atkinson	24:06
Paul Siscel	26:08
Jim Siscel	27:13
Tom Schuh	49:14
Bryan Wheeler/David Dick	51:37
Dick Diesner	57:23
F. Warden/D. Clemans/C. Tuxbury	57:40
Shane Kuk/Keith Zackrone	60:10
Kyle/Shawn/Kevin	63:46
George & Nancy Lilly	98:32
Bob Berreth	DNF

WIOL

Nathan Tharp	Timberline	13:19
Jeff Coker	Wilson	14:38
Jason Smith	Timberline	21:23
Dat Nguyen	Timberline	22:25
Tim Denison	Garfield	24:33
Billy MacDonald		24:52
Steve Corley	Garfield	30:20
Brooks Martin	Yelm	31:44
Kyle Phillips	Yelm	33:33
Eric Exner	Yelm	35:00
Toby Barnes	Wilson	39:53
Kyra Magnuson	Wilson	41:24
Abel Zimmerman	Timberline	42:05
Heather Song	Wilson	43:16
James Kather	Yelm	48:37
Kelly Nah	Wilson	49:15
Melissa Moffett	Stadium	57:31

Course 3 (freestyle, 21 controls)

Jeff Coker	21:44
Mike Tharp	28:33

Dave Lilly	30:00
Billy MacDonald	37:28
Dave Tallent	40:40
Scott Elich	42:25
Doug Sprugel	42:47
Mac MacDonald	45:40
Toby Barnes/Melissa Moffett	46:10
Mike Lukk	47:33
Ken Knapp	47:53
Bob Reddick	53:24
Martin Mellish	57:28
John Lilly	57:48
Ross Stevens	60:37
Michael Liebrock	64:33
Kelly Nah/Heather Song	84:57
Martin Vincent	94:59
Pat Reddick	131:42
Mark Hemme	DNF
Carl Moore	DSQ

Trollhaugen Ski-O - December 20

Meet Director: Mike Schuh
Courses: Mike Schuh, Pat Albright
Registration: Pat Albright
Start: Pat Albright, Mike Schuh
Finish: Pat Albright, Mike Schuh
Weather: cold, lightly snowing

Some of the markers on Course 1 were misplaced, so no times are recorded.

Course 1 (3.7k, 7 controls)

Arnold Kay/Boomer/Aska
Tanya Hernandez
Bob & Pat Reddick

Course 2 (4.3k, 8 controls)

Dave Lilly/Tom	83:51
Debbie Newell	94:03
Knut Olson/Robert Olsen	103:53
Doug Sprugel	105:14
Don Atkinson	108:20
Martin Mellish	121:05
Sandy Miller/Carol Johnson	147:00

St. Edward Park - December 27

Meet Director: Bruce McAlister
Courses: Mike Schuh, Pat Albright, Arnold Kay, Boomer, Aska
Registration: Eileen Breseman, Harvey Friedman
Start: Betty Berreth
Finish: Bruce, Arnold, Pat Albright, Mike, Jeff Coker
Course Pickup: Arnold, Pat Albright, Rob Olsen
Pies: Robert Miller, Anne York, Bruce, Pat Reddick, Pat Albright, Katie Sprugel

Course 1 (1.3k, 7 controls)

A & E Hankins	16:13
Wanda Howlett	17:51
Melissa Moffett	18:20
Wade Grass	21:38
Jerry Rasmussen	22:09

Tania Hernandez	24:34
Chrlene Moffett	24:43
Cindy Harmon	28:10
Moc/Knight	30:22
John Strong	48:52
Hopkins/Roth group	55:55
Barnes/Williams	DSQ

Course 2 (2.2k, 9 controls)

Nathan Tharp	21:14
Melissa Moffett	24:31
James Lilly	26:00
A & E Hankins	27:15
Rachel & Cindy	33:34
Jason Smith	34:53
Erin Renshaw	35:17
Mariah	36:02
Nancy Oakes	38:21
Sasser/Wrye	38:21
John Strong	51:13
Hunt	52:05
Paul Kish	53:04
Dick Diesner	55:33
Mac Knight	55:53

Course 3 (2.3k, 12 controls)

Robert Miller	41:56
Rob Olsen	44:33
Mark Howlett	46:02
Mac MacDonald	51:35
Bob Reddick	53:10
Billy MacDonald	54:06
Sasser/Wrye/Wrye	57:34
Rachel Tharp	61:16
Harvey Friedman	70:55
John Lilly	71:44
Steve Price	74:36
J.F. Pope	75:14
Anne York	79:00
Mike Tamada	79:58
Mariah	95:33
Michelle Everett	96:53
Suzy Landreville	113:38
Pat Reddick	125:44
Ken Lew	132:31
Tony Saulewicz	DNF
Phil Everett	DSQ

Course 4 (3.6k, 14 controls)

Raimo Pitkanen	49:37
Dave Enger	52:34
Dale Width	58:41
Arne Skog	61:55
Debbie Newell	63:06
Dave Lilly	64:20
Jeff Coker	65:46
Mike Tharp	70:18
Rick Breseman	73:35
Dave Tallent	75:58
Martin Mellish	80:28
Tom Searfus	80:43
Carl Moore	82:27
Jessica Hirschfelder	94:14
Sandy Kish Miller	94:35
Knut Olson	115:00
Dave Dummeyer	118:05
Steve Layman/Laura Morin	128:06
Martin Vincent	146:09
Ardis Dull	DNF

SCHEDULE OF EVENTS

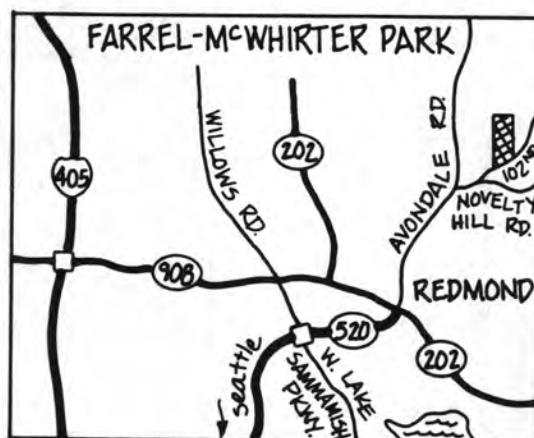
Date/Time	Location	Type	Club	Map	Information
Tue, JAN 5 7:00 p.m.	Board Meeting 1706 N.W. 57th #3, Seattle		COC		Mike Schuh (206) 783-3960
Sat, JAN 9 10-12 noon	Kelsey Creek Park, Bellevue S.E. 4th Pl. & 130th Pl. S.E.	W	SAMM	color 1:3,000	Dave Enger (206) 822-67254
Mon, JAN 11 7:00 p.m.	Club Meeting Greenwood Library, 8016 Greenwood N.		COC		Mike Schuh (206) 783-3960
Sat, JAN 16 10-11 a.m.	Wright Park, Tacoma 6th & I Sts.	W	NISQ	1:2,000	Gary McCausland (206) 352-5542
Sun, JAN 24 10-12 noon	Farrel-McWhirter Park, Redmond Redmond Rd. off Avondale Rd.	W	COC	color 1:3,500	Mike Schuh (206) 783-3960
Sun, JAN 31 11-1 p.m.	Cle Elum Ridge Ski-O I-90, Exit 85	S	COC	color 1:15,000	Mike Schuh (206) 783-3960
Sun, FEB 7 10-12 noon	Bridle Trails State Park, Kirkland 116th Ave. N.E. & N.E. 60th St.	W	SAMM	color 1:10,000	Dave Enger (206) 822-6254
Sat, FEB 13 10-12 noon	U.W. Campus Park in Montlake Parking Lot: free entry, 75c exit before noon	W	COC	color 1:5,000	Mike Schuh (206) 783-3960
Sun, FEB 21 10-11 a.m.	WIOL Championships Spanaway Park, Tacoma OR St. Edward Park, Kirkland	W	NISQ	Fred Veler (759-0323) or Gary McCausland (352-5542)	
Sun, MAR 6 10-12 noon	Hazelwood, Bellevue 116th Ave. S.E. at S.E. 69th Pl.	C	SAMM	b/w 1:15,000	Dave Enger (206) 822-6254
Sat, MAR 12 10-12 noon	Lake Tradition, Issaquah I-90, Front St. exit	C	COC	color 1:15,000	Mike Schuh (206) 783-3960
Sat, MAR 19 10-12 noon	Island Crest, Mercer Island Island Crest Way & S.E. 58th	C	SAMM	color 1:10,000	Dave Enger (206) 822-6254
MAR 19-20	U.S. Intercollegiates, Houston	A	HOC	color 1:15,000	
MAR 26-27	U.S. Long-O and Relay Championships St. Louis	A	SLOC	color 1:15,000	
APR 2-3	Maple Mountain, Duncan, B.C.	C			
Sun, APR 17 10-12 noon	Marymoor Park, Redmond W. Lake Sammamish Parkway	C	SAMM	color 1:10,000	Dave Enger (206) 822-6254
Sat, APR 23 10-12 noon	Lynnndale Park, Relay and Novice Event, Lynnwood 188th Pl. S.W.	C	COC	color 1:5,000	Mike Schuh (206) 783-3960

Event Key:

- A - major event on good quality color map, 5 courses minimum
- B - major local event, 3-4 courses minimum
- C - local club event, 3-4 courses
- S - special event (bicycle, canoe, ski, night, etc.)
- W - Washington Interscholastic Orienteering League event (open to everyone)

Club Key:

- COC - Cascade Orienteering Club
- EOC - Ellensburg Orienteering Club
- NISQ - Nisqually Orienteers
- SAMM - Sammamish Orienteering Club
- HOC - Houston Orienteering Club
- SLOC - St. Louis Orienteering Club



COC OFFICERS AND COORDINATORS

<i>President</i>	Mike Schuh	(206) 783-3960
<i>Vice President</i>		
<i>Secretary</i>	Robin Harvard	(206) 622-0918 (day)
<i>Treasurer</i>	Doug Sprugel	(206) 365-8742
<i>Mapping Coordinator</i>		
<i>Membership Coordinator</i>	Harvey Friedman	(206) 784-2774
<i>Newsletter Editor</i>	Debbie Newell	(206) 488-7471
<i>Training Coordinator</i>		
<i>Publicity Coordinator</i>	Knut Olson	(206) 483-1415
<i>Equipment Coordinator</i>	Arnold Kay	(206) 488-7471
<i>Volunteer Coordinator</i>	Betty Berreth	(206) 546-2128
<i>Social Director</i>	Judy Cohen	(206) 789-5641

"BEARING 315" PUBLICATION SCHEDULE

"Bearing 315" is a bi-monthly publication of the Cascade Orienteering Club. You are encouraged to submit orienteering-related material for publication. Send items for publication to the address below by the scheduled deadline. Material received after the deadline is not guaranteed to appear in the next newsletter issue.

<u>Issue</u>	<u>Publication Date</u>	<u>Submittal Deadline</u>
JAN-FEB	December 31	December 10
MAR-APR	February 28	February 10
MAY-JUN	April 30	April 10
JUL-AUG	June 30	June 10
SEP-OCT	August 31	August 10
NOV-DEC	October 31	October 10

Mail material to: *Cascade Orienteering Club
Newsletter Editor
P.O. Box 31375
Seattle, WA 98103*

COC MEMBERSHIP FEES

Single	\$7.00/year
Family	\$10.00/year
Associate (under 18)	\$4.00/year
Newsletter Only	\$5.00/year

COC "C" MEET FEES

	<u>b/w map</u>	<u>color map</u>
Orienteering Club Members	\$2.00	\$2.50
Non Club Members	3.00	3.50
Novice Course	1.00	1.00
Families (regular fee for first 2 members, \$1.00/person thereafter)		

Special events, such as the State Championships, and "A" meets, have higher fees.

Cascade Orienteering Club
PO. Box 31375
Seattle, WA 98103

Address Correction Requested