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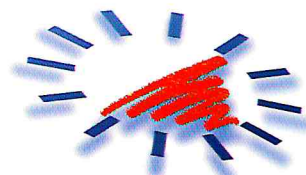
Fair Play
– a natural choice
in orienteering

No. 1-2

2002

INTERNATIONAL ORIENTEERING FEDERATION

Orienteering 2003 in Switzerland



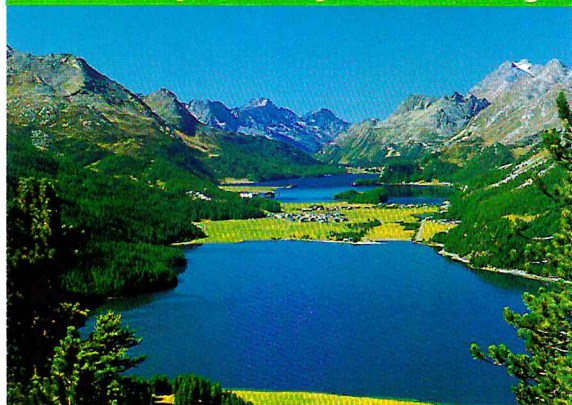
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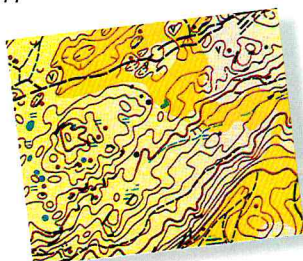
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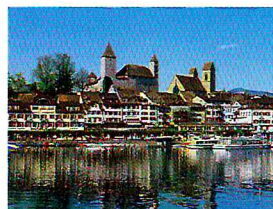
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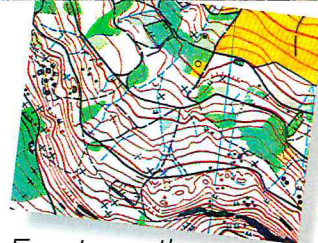
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Sweden: IOF, Swedish postal giro no. 84263-3, SEK 120 (*SEK 160)
U.K.: Pages Editorial & Publishing Services, Ballencrieff Cottage,
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e-mail: pages@clara.net GBP 8.50 (*GBP 11)
U.S.A.: Sidney Sachs, 6212 Thomas Drive, Springfield, VA 22150-1220,
USA, e-mail: sachs@nova.org USD 16 (air mail)
or USD 12 (surface mail)

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PUBLICATION NOTES

Orienteering World is the official journal of the International
Orienteering Federation IOF. Permission from the Editor-in-chief
should be sought prior to reproduction of articles or photographs.

ISSN 1015-4965. Next issue: 2003/1-2.

Subscriptions: Europe and all surface mail – EUR 13.50, Air mail out-

side Europe – EUR 18.

Subscriptions to: IOF, Radiokatu 20, FIN-00093 SLU, FINLAND, or to
one of the subscription agents.

Front cover: Orienteering is all about making sound route choices.
Petter Niklason, 13, heading towards the next control.
Photo: Keith Samuelson



All international sports federations (IFs) within the Olympic Movement have to ensure that their statutes, practice and

activities are in conformity with the Olympic Charter. The IFs govern their respective sport at world level and they aim at promoting its overall development. Among other things, it is the duty of all IFs to include in their rules and regulations the principles of fair play, i.e. the basic values and the right conduct of their respective sports. And equally important: the IF must also seek to ensure that everybody – be it athlete, coach, organiser, referee or any other people involved in the sport – is not only aware of the existence of these rules and regulations, but also respects them.

Playing fair is a question of taking the right decision, of choosing the right route. One can decide to play by the rules, or one can seek to gain an advantage by violating them – by cheating. Fair play is not only about rules, regulations, legal rights and obligations, though, but it is also about our sense of what is right and just.

The sport of orienteering is all about making sound route choices. As orienteers we constantly have to make decisions on where to go next. There is no marked route in the terrain for us to follow, we always have to make a route choice of our own. Unless we manage to make the right choice, we'll lose the game.

Do we orienteers always play fair, is orienteering free of cheating? No, we cannot claim our sport to be an exception in this regard. Also we orienteers sometimes show a lack of judgement, just like all of us occasionally make a bad route choice in the terrain. However, because of the nature of our sport, it ought to be easy for us orienteers to understand the importance of taking the right decision also when it comes to fair play – it should in fact be a natural choice.

Barbro Rönnerberg



PHOTO: KEITH SAMUELSON

Artificial rules should reflect natural justice

SUE HARVEY,
IOF PRESIDENT

The fascination of sport rests on two things: the uncertainty of the result, and the existence of agreed rules. Let's look at these in turn.

Imagine a football match where it was 100% certain which team would win. Would you go and watch? You might go to admire the skill of the players, but all the excitement would be gone. The first question everyone asks after a sporting competition is: Who won?

As an extension to this, clearly the longer the result is in doubt, the more exciting the match. 5-0 at half time is not nearly as gripping as 2-2 until the last minute. Except to watch our own team play, we will not go far to watch a game where one side has no hope of winning.

For this reason, sports governing bodies try to separate teams/players into leagues of a similar skill level, and to develop the weaker players in order to provide a closer competition.

Ultimately, we seek the classic head-to-head clash, where two equal athletes fight it out, and, by a supreme effort of will or skill, one prevails. Then we applaud the true champion.

The second characteristic of sport, the existence of agreed rules, is also essential. The competitors must know what the rules are, and agree to abide by them. This is what we mean by fairness.

Therefore, the first element of fairness is that the rules – whatever they are – are clear, understood and enforced. It is one of the most important functions of an international federation to ensure this. Thus, it is



essential that, as we approach a World Championship, everybody knows which version of the rules will apply. Similarly, the list of substances classified as doping must be available to all in good time beforehand.

It is also important that there is a satisfactory method of checking whether the rules are being obeyed. Thus, in orienteering, if for a particular competition spikes are prohibited for environmental reasons, the competitors' shoes must be checked at the start. A rule which cannot be checked is useless. Indeed, it is worse than that, as it encourages a general lack of respect for the whole body of rules, and so threatens the very basis of sport. So, a rule forbidding competitors to visit terrain before an event is not a very good rule because it is impossible to check if anyone has broken it. Better to allow all to have an equal opportunity to visit.

Not only must compliance be verifiable for there to be fairness, non-

compliance must be penalised. Thus, in orienteering, a competitor who follows is penalised when he mis-punches because he has a different split.

Finally, the integrity of the referee is fundamental to all sport. The referee must know and enforce the rules consistently and continuously. There is always the possibility of human error, especially when a game is fast and complex. That is covered by appeals and jury. Intentional mis-judging, however, threatens the whole competition. All referees and judges are on trust, and a fair referee is admired and revered. A corrupt judge is despised and dismissed.

Perhaps the nearest we have in orienteering is the course planner and event advisor, who are on trust not to reveal the courses beforehand. Allocating the courses (splits) randomly, as in relays, can help support fairness.

This brings us to natural justice. Sport is an artificial situation, where a set of rules are laid down solely for the purpose of defining how the winner is selected. At the same time, the more that these artificial rules can be made to fit with what feels naturally fair (natural justice), the better we like it.

Sport is attractive because it has a lot of elements which we wish applied in life – a fair start, equal conditions for all, known rules, a defined objective. While we may not be too successful in achieving these elements in life, we can at least strive to make sure they are provided in our sport.



At relay events, rival competitors wait side by side for their team-mates to arrive at the changeover.

PHOTO: KEITH SAMUELSON

Fair Play – ultimately a question of personal choice

BY PIRITTA FORSSTRÖM

Integrity, fairness, and respect – these are the principles of fair play. Sport offers an excellent opportunity to teach fair play in a way that is both effective and fun.

The principles of fair play are reflected in five simple statements:

- Respect the rules
- Respect the officials and their decisions
- Respect your opponent
- Give everyone an equal chance to participate
- Maintain your self-control at all times

Fair play means that one can choose

whether to participate in a sport or not. No one should practise a sport just because his parents or coach want him to. If an athlete fails to play by the rules of the sport, he/she will normally be penalised (e.g. in the form of disqualification, time loss or other specific penalty). Playing fair goes beyond that. The spirit of the game, the opponents and the officials should be respected as well. Fighting and “mouthing off” can easily spoil the activity for everybody. The ability to control one’s temper also pays off in other parts of life too. When playing fair, winning isn’t everything but it’s also important to have fun, improve

one’s skills, make friends and do one’s best. An athlete who plays fair is honest, sets a good example, reflects a healthy lifestyle, is proactive, independent and a good team player. Without fair play, some athletes will come to believe that winning or scoring points are the only aims – and that means they will miss a lot of the enjoyment and opportunities that sport and recreation have to offer.

The role of the coach in teaching fair play is extremely important. The spirit and manner in which a performer competes is very often a straight reflection of the coach’s own strength

of commitment to fair play.

A study of coaches and their athletes undertaken by Angus Reid (1991) revealed some important and interesting findings about how they perceive and practice fair play:

1. The vast majority of athletes and coaches place a higher value on fair play competition than on winning. However, most athletes associate fair play primarily with respect for the rules, whereas most coaches associate fair play with the respect for the officials. It is important that all have a clear understanding of what fair play is, and that everybody works together toward common fair play goals.
2. Younger athletes are more open-minded and committed to fair play than older athletes. This highlights the need for fair play education for both groups. Older athletes need to be reminded of the importance of fair play; younger athletes need to be taught fair play effectively so that it "sticks" in later years.
3. Young athletes look first to coaches, parents, and league officials for guidance on fair play, but these individuals may often lack the proper teaching tools.

Promotion of fair play is not only the athletes' and coaches' responsibility, but also parents, teachers, sport organisations, medical officers, referees, public authorities, journalists and spectators should recognise these responsibilities and act upon them.

Orienteering requires fair play in relation to nature

"All persons taking part in an orienteering event shall behave with fairness and honesty. They shall have a sporting attitude and a spirit of friendship. Competitors shall show respect for each other, for officials, journalists, spectators, and the inhabitants of the competition area. The competitors shall be as quiet as possible in the terrain." (Competition Rules for IOF Foot Orienteering Events 26.1)

The basic rules of fair play naturally also apply in orienteering. Orienteering offers activities for people of all ages

and abilities. Most events offer courses where members of a family can participate at various levels of competence, all the way from enjoying a walk in the woods to a competitive race. World Championships and World Cup events are always organised for both men and women at the same time and same place.

In addition, orienteering has some characteristics which bring an additional dimension to fair play.

In orienteering fair play also means a respect for nature. Orienteering events are organised in some of the most beautiful areas in the world. As the natural outdoor environment is the arena for the sport, orienteers are also concerned for the environment. Environmental issues are taken into account already when planning events. Scheduling events, mapping and course planning are carried out in close co-operation with landowners and hunters. In the beginning of the summer as well as during the deer hunting season, orienteering events are hardly organised at all. Free zones are marked on the map as well in the terrain to avoid disturbing bird nesting, deer breeding and conservation or other sensitive areas. Cultivated fields and private land around buildings are embargoed areas as well. All the infrastructure of an event centre is dismantled immediately after the competition, and waste and trash are carried away (most of it is recycled). No trace of a sport event can be found in the area afterwards.

Though every human action does leave its mark in nature, several studies have proven that flora and fauna in an area used for orienteering are not permanently affected. Vegetation recovers to the condition it was before the event, and biologic diversity is not threatened at all.

Orienteering has come out of the woods

The major threat to fair play in any sport is the excessive importance attached to winning. Winning brings prestige to the competitor himself, to his club, to his country and it may



The natural outdoor environment is the arena for orienteering.

PHOTO: ERIK BORG

also bring substantial material reward. Playing to win is the essence of competitive sport, but when there is over-concern for the result competitors are driven increasingly to violate the rules in order to win.

Orienteering can still be considered as a true amateur sport, even though a few top elite orienteers devote themselves totally to their sports career. Competitions used to be held far away from the cities and inhabited areas and people outside the sport didn't know too much about it. Now, orienteers have, quite literally, come out of the woods and the sport is gaining a foothold among young people and the public in general. Visibility means more spectators, more media coverage and more commercial partners to the sport. There is always a threat that side effects of commercialised sport might easily run over the principles of fair play, even in orienteering. Ultimately, safeguarding fair play means personal responsibility and individual choices from everyone involved.

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The land orienteers run on varies enormously across the world. The world elite, here represented by Swedish Fredrik Löwegren, have to master them all.

PHOTO: KEITH SAMUELSON

Organising fair competitions – a complex task

BY CLIVE ALLEN

Many features of an orienteering competition require skilled preparation for the race to be fair – the choice of terrain, and the quality of the map and the course planning to name just three. The 'level playing field' which is readily available to a greater or lesser extent for many sports is a hard-won objective for orienteers. Many different factors can influence the outcome of an orienteering race, and each has to be carefully assessed and taken care of in the planning process to try to ensure that in the competitions, physical effort and skill in navigation – not chance – provide the winners.

Fairness is ensured through the long-established system of event controlling. For all orienteering races Controllers, now called Event Advisors, are appointed, experienced officials from another club or, for an international race, even another country. The Event Advisor's job is to check all the arrangements, often down to the finest detail, to ensure that competitors enjoy fair competition. These 'external eyes' can often bring significant improvements to the quality of an event.

No such thing as 'ideal' terrain

Organising a fair competition starts with the choice of terrain. There's no such thing as 'ideal' terrain; the land orienteers run on varies enormously across the world, and there are many terrain types on which a first-class competition can be planned. What can be done, however, is to identify terrain which is clearly unsuitable, such as large tracts of jungle, very steep mountain country, or old mining areas which are simply too detailed to represent on a map.

In many countries there is a shortage



The inaugural World Championships sprint race in Finland last year provided a very close competition in an urban environment. Gunilla Svärd, Sweden, cast a glance at the results board when she arrived in the finish area.

PHOTO: PIIRJO VALJANEN

of really good terrain. Wherever terrain has been used for orienteering before, fairness is maintained by allowing all competitors to see previous editions of the map. For major competitions, terrain is chosen which has not been orienteered on for several years. The ultimate in fairness is to allow training in the area shortly before the competition itself, as was done for the inaugural World Championships sprint race in Finland last year. But it can be argued that this reduces the "unseen, so

unknown" element which helps to make orienteering such a challenging and unique sport. How to ensure fairness in sprint competitions in the desired urban venues whilst retaining all the characteristics of orienteering is an on-going debate in IOF.

Signs in the terrain from earlier runners can give advantage to later starters, so the proven best runners in an international field are given the later start times. This has the additional benefit of bringing the race to



For every orienteering event, the organisers obtain approval for the use of the terrain from the landowner.

PHOTO: TEEMU VIRTANEN

Fairness and the landowner

Orienteers work hard to keep on good terms with the people who allow use of the terrain, the landowners. For every event, agreements have to be reached on access beforehand for mapping, out-of-bounds areas, care for wildlife, sensitive areas such as marshes which may need to be avoided, where the car park will be, any charges, and so on.

In many countries, national agreements are in place which cover many

of these points in guideline format, but local communication with the forest owner or his agent at the early planning stage of an event is always essential. Local residents, shooting tenants and other users of the forest who may be affected by the event are always contacted well in advance. Meeting an angry man with a shotgun half-way round the course, sharing the forest tracks with a car rally, or suddenly landing in the middle of a paintball 'war', are horror stories which are avoided as a result.

a climax near the end, good for spectator and media interest.

Planning a fair course

The map itself has to be fair – a major task in itself. And then there is the work of the course planner, responsible for setting courses where no-one can take unfair advantage over another. There are many different facets to this, one of the most fundamental being that competitors should never be able to gain advantage by taking controls out of order. This is now easy to prevent by the use of electronic punching, an innovation which has led to the more effective use of small areas. 'Out and back' courses, with controls on the out and return sections relatively close together, can now be planned without compromising fairness. Modern versions of electronic punching provide a visible or audible indication that the 'punch' was recorded and also give the runner a check on which controls on the course have been visited.

Two aspects of course planning which have been in focus a lot over the years are 'bingo controls' and controls on similar features close together. A bingo control is one where luck plays a major part in the runner's ability to find it. It may, for instance, be an isolated pit a long way from any other clear feature on the map, with the flag hung below ground level, or one pit in a random group of very similar-looking pits. Such controls are unfair and must be avoided. Again, it is regarded as unfair in the heat of competition to have two controls on similar features within 50 metres of each other.

Even small matters need careful attention. For example, the control flag has to be positioned in such a way that the control feature is seen before the flag and that the flag is equally visible from all main directions of approach.

Runners' expectations – matched by reality

Legs on a course are often set with a

relatively direct and challenging route between the controls, and other less direct but safer routes.

The planner has to ensure that the map fairly shows the relative runnability of the terrain on the different alternatives, and that it is accurate especially in the neighbourhood of the controls. The runner makes a route-choice decision appropriate for his orienteering skills and will then find that his expectations for the chosen route are matched by reality. The planner has to avoid places where luck takes precedence over judgement, such as areas mapped as thick forest or high vegetation where there are a few quick ways through.

Fairness and secrecy – new issues for debate

How much should later starters be able to learn about the performance of earlier runners? Is it fair that runners standing at the start-line within the arena can see extracts from the race map on a big screen whilst they wait? Is it fair to the existing race leader when a runner out in the forest can hear the commentary and perhaps be spurred on by the knowledge that he is in with a chance of winning? Is it unfair for the event commentator to 'count down' a runner – especially a home country runner – as he approaches the finish line? The discussions on what is or isn't fair become ever sharper as the aims of

the Leibnitz Convention – to bring orienteering more out of the forest and into the public eye – are put into practice.

Sprint orienteering at World Championship level poses special challenges to ensure that the race is fair to all. Not least in the choice of terrain, since it is possible to stage very exciting races in an urban environment which anyone can access at any time. With short race times and tenth-of-a-second timing, even the slightest delay beyond the control of the runner becomes magnified. There is still much to be done in developing race organisation to keep races fair whilst upping the tempo!

Is this my control? Controls on similar features close together are unfair and must be avoided.

PHOTO: KEITH SAMUELSON



BY BRIAN PARKER

An environmentally-friendly sport

An environmental audit of the World Orienteering Championships 2001, held near Tampere in Finland, declared it to be *'the World's most environmentally-friendly major sports event of 2001'*.

There will be many around the world who, on first reading this announcement, may find it difficult to comprehend. How can orienteering, which uses countryside often of high landscape and conservation value and which is often thought to have the potential to damage flora and disturb fauna, be declared to have held the most environmentally-friendly sports event of the year?

Overall environmental impact assessed

The answer is that the audit panel, comprising members from the World Wide Fund for Nature, the Finnish Environmental Institute and the IOF, did not focus solely on the environmental impact of the event within the competition terrain.

This, from previous experience, was expected to be low and well within acceptable limits. Instead the environmental performances of *all* aspects of the event, including reduction of material and energy consumption, recycling of waste, educating and influencing participants, goods suppliers and the public, and not just the competition area, were assessed. For all of these elements performance was monitored against pre-set targets to WWF standards.

Reflecting the importance of wildlife protection the audit paid close attention to the measures for avoiding and minimising environmental impact on flora and fauna. These had been planned in co-operation with landowners, hunters, environmentalists and local authorities. Sensitive zones were identified from the environmental database held by Tampere City, designated out-of-bounds and avoided by the courses. An independent biological survey of random spot checks on routes in the competition area showed no harm to any



PHOTO: KEITH SAMUELSON

significant or valuable area and the overall impact of the competition was assessed as minor.

All but one target met or exceeded

Overall the audit concluded that the event had met or exceeded each of its agreed environmental targets except one, there being a shortfall with transport arrangements, with public transport being under-utilised. The audit panel deliberated on the aim of the Championships (together with its associated public races) of being the most environmentally-friendly sports event of the year and identified a number of qualifications.

Clearly, a small event has a smaller environmental impact than a larger one under the same conditions. Similarly, an event taking place in a sensitive environment is likely to have more impact than one in a non-sensitive environment. The panel concluded that, to achieve the stated aim, the event needed to be large; secondly, it needed to achieve low

environmental impact levels; thirdly, it needed to have the potential, in the absence of good management practices, for substantial environmental impact; fourthly, it needed to achieve significant advances in promoting environmental awareness.

Given these qualifications, the panel was unable to identify any other mass participation sporting event using the countryside which could match the WOC 2001 environmental performance and considered that it was reasonable to conclude that "the *World Orienteering Championships 2001 was the most environmentally-friendly major sports event of the year*".

This audit conclusion was a value judgement based partly on a quasi-numerical approach but largely on comparisons with results in other environmental audits. Methods are being developed for conducting these environmental audits on a more reliable mathematical basis but, until such quantitative methods are available, it is not possible to compare

with absolute precision the environmental standards of any one event or any one sport with any other.

Recognition to orienteering's environmental credentials

However, it is clear that the Championships achieved an exemplary environmental performance. Such a conclusion, arising from the event being independently and fairly assessed, is good news for all those who contributed, including the landowners, environmentalists, Tampere City authorities and, particularly, the event organisers. It is also good news for orienteering, because it gives formal recognition to the sport's good environmental credentials. There have been many large orienteering events achieving similar, but unaudited, environmental standards to the Tampere World Championships (the 2001 World Masters Orienteering Championships in Lithuania, the 1996 Six-days in Switzerland, and the Swedish O-Ringen are some examples). There will be many more in the future.

Promoting environmental awareness

The reason why the World Orienteering Championships 2001 were considered to be particularly environmentally-friendly may be understood from comments made by the Secretary General of the World Wide Fund for Nature in Finland. He emphasised that "the competition itself, that is the actual competitors running through the forest, is not a threat to the natural environment". He considered that the sport's procedures in the planning and organisation of the World Championships safeguarded the flora and fauna of the competition terrain, and that the main environmental concerns lay with other factors such as the compe-

tition centre, energy, emissions and wastes, support goods and services.

It appears that the main objective of WWF was to promote environmental awareness among those associated with the event by relating the experience of being in semi-natural countryside to practical environmental issues such as energy use and waste disposal. The WWF Secretary General sees orienteering, a sport which uses the natural environment, as potentially playing a significant role in linking sports with global environmental sustainability, in accordance with the Olympic Movement's Agenda 21.

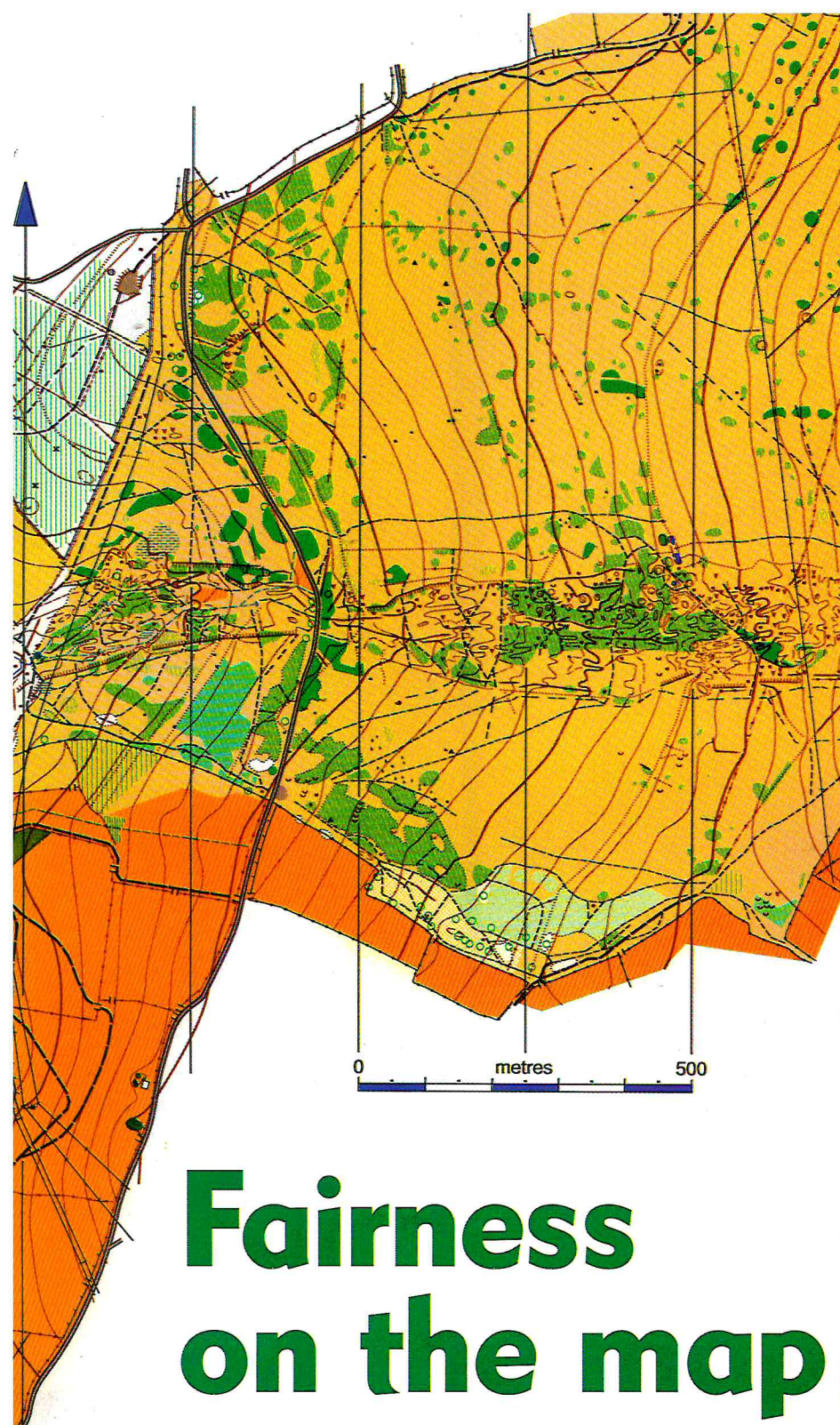


The World Orienteering Championships participants quickly learned about sorting waste, and the event centre was left remarkably clean.

PHOTO: PIIRJO VALJANEN







Fairness on the map

BY CLIVE ALLEN

Orienteering maps have developed and improved throughout the history of the sport, and are now very sophisticated creations produced with the aid of much modern technology. The quality of the map is crucial to the fairness of an orienteering competition.

No map is perfect

There's no such thing as a 'perfect map' – put 10 map-makers on the same piece of terrain and you will get 10 dif-

ferent maps. This is true even with professional mappers at work, as was illustrated when IOF carried out trials a couple of years ago. One man's clear vegetation change, for instance, may seem insignificant to a different eye.

IOF has worked very hard over the years to produce a standard mapping specification where in theory, an o-map should represent the terrain in exactly the same way anywhere in the world – a sensible and straightforward objective, one would think. In practice, indi-

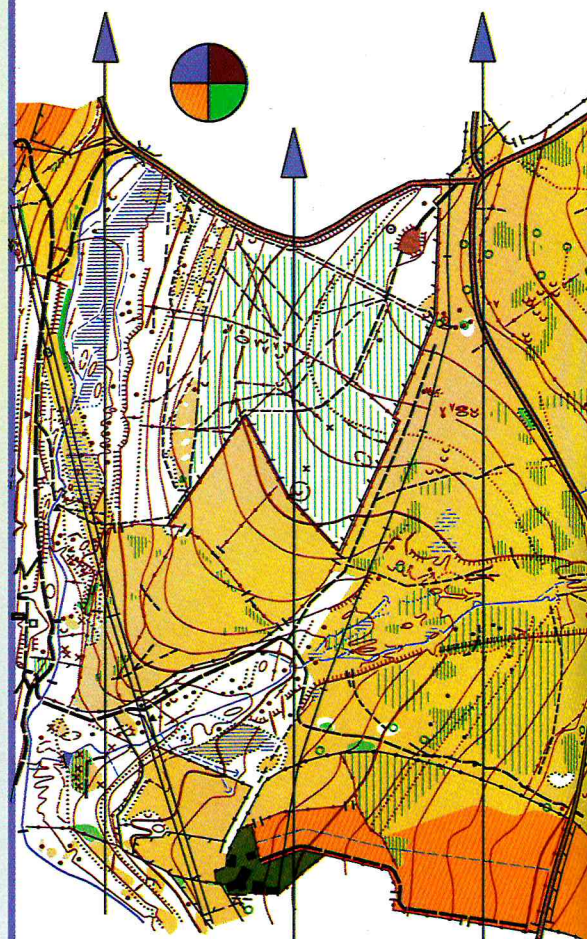
vidual countries, groups of mappers or individuals find numerous reasons why deviations from the norms should be adopted on 'their' land – so as to increase clarity and hence fairness!

One common request for deviation is in the scale of the map. On complex terrain the mapper is keen to represent the detail to the full and argues for 1:10,000 instead of 1:15,000. On the other hand 1:15,000 is better for seeing an overview of the terrain to help choose the best route on a long leg.



Smallhanger

Scale 1:10000 Co



Photogrammetric base material by Stirling Surveys. Based on the 1996 survey by Erik Peckett. Moorland selectively resurveyed by Brian Parker 1998 and extended to include Smallhanger Waste.

Cartography using OCAD5 software.



82

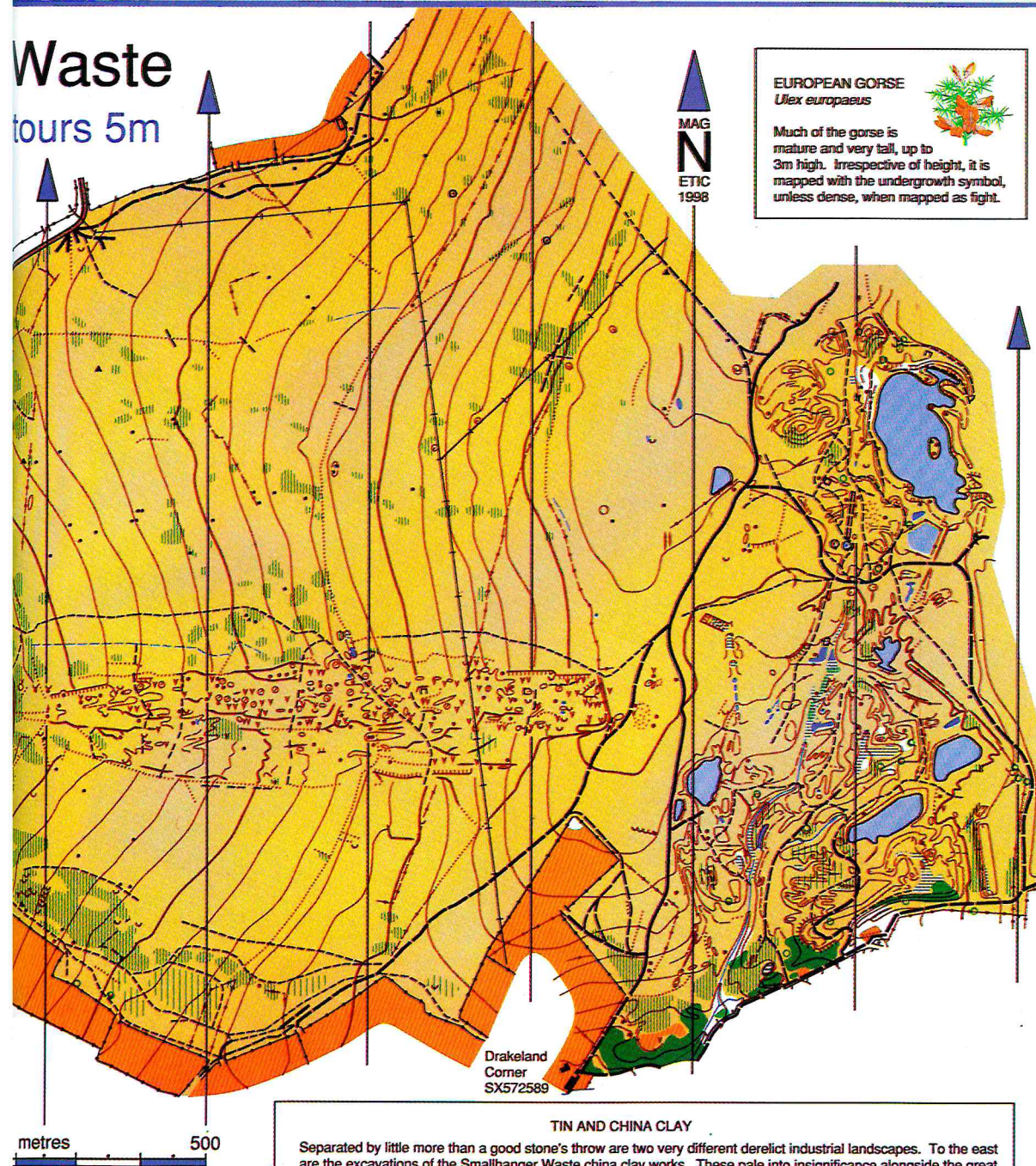
of Dartmouth

Brian Parker, Rook House, Victoria Road,
Dartmouth, Devon TQ6 9HD Tel. 01803 832848

Printing by The

© Devon Orient

Waste ours 5m



EUROPEAN GORSE *Ulex europaeus*

Much of the gorse is mature and very tall, up to 3m high. Irrespective of height, it is mapped with the undergrowth symbol, unless dense, when mapped as fight.



Open	[Orange box]
Rough open	[Yellow box]
Rough open with scattered trees	[Yellow box with small green dots]
Forest - Run	[Light green box]
Forest - Slow run	[Medium green box]
Forest - Walk	[Dark green box]
Undergrowth - Slow run	[Light green box with vertical lines]
Undergrowth - Walk	[Medium green box with vertical lines]
Fight	[Dark green box with vertical lines]
Public road	[Thick black line]
Hardstanding	[Brown box]
Estate road	[Thin black line]
Vehicle track	[Dashed black line]
Footpaths; large, small	[Thin black line with cross-ticks]
Indistinct footpath	[Dashed black line with cross-ticks]
Narrow ride	[Thin black line with cross-ticks]
Stone wall, ruined wall	[Thick black line with cross-ticks]
Fence, ruined fence	[Thin black line with cross-ticks]
High fence, gate	[Thick black line with cross-ticks]
Power line	[Thin black line with cross-ticks]
Major power line	[Thick black line with cross-ticks]
Dangerous cliffs	[Thick black line with cross-ticks]
Rock faces	[Thick black line with cross-ticks]
Boulders, boulder cluster	[Small black dots]
Boulderfield	[Small black dots]
Cairn, rocky pit	[Small black dots]
River, stream, source, weir	[Blue line]
Ditch, footbridge	[Blue line with cross-ticks]
Marsh, narrow marsh	[Blue line with cross-ticks]
Indistinct marsh, ponds, tank	[Blue line with cross-ticks]
Uncrossable marsh	[Blue line with cross-ticks]
Contours, form line	[Wavy black line]
Earthbank/steep slope	[Thick black line with cross-ticks]
Earthwall, ruined earthwall	[Thick black line with cross-ticks]
Gully, small gully	[Thick black line with cross-ticks]
Knolls	[Small black dots]
Depressions	[Small black dots]
Pits, wet pit	[Small black dots]
Broken ground	[Small black dots]
Platform, rootstock	[Small black dots]
Building, small ruin/enclosure	[Small black dots]
Small tower, hide	[Small black dots]
Prominent tree	[Small black dots]
Distinctive vegetation change	[Dashed black line]
Private grounds	[Green box]

TIN AND CHINA CLAY

Separated by little more than a good stone's throw are two very different derelict industrial landscapes. To the east are the excavations of the Smallhanger Waste china clay works. These pale into insignificance alongside the great modern pit just off the map but are more than large enough for orienteering purposes. Representation of this terrain is a mapper's dream, with bold contours readily understood by the map reader. The same cannot be said of the Wheal Florence tin mine in the centre of the map where stream works and shallow ore extraction have produced a chaotic landscape. In this hotchpotch of humps and hollows contouring is positively misleading. Instead the terrain is mapped as a network of deep and shallow tin streaming gullies in which large pits and knolls abound.

Two different maps of the same area, both produced by experienced mapmakers and from the same photogrammetric plot. The area is an old tin mine in S.W. England.

Deciding on which scale is fairest for a particular race is not always easy. However for older age groups with poorer eyesight it is now common practice to enlarge a 1:15,000 map to 1:10,000, with the symbols enlarged in proportion.

A compromise between clarity and detail

One of the biggest developments in map-making in the last 25 years has been the adoption of photogrammetric plots as base material. Initially this

led to some incredibly detailed maps. A classic of its kind, the 1979 map of Craig a' Barns in Scotland was described by IOF Environmental Officer Brian Parker as "a brilliant piece of work but totally unreadable".

Gradually it was appreciated that the map of any area has to be a compromise between clarity and detail. Put on too much detail, and the map becomes difficult to read and interpret; over-generalise and the chance factor, such as encountering major

runnability variations not shown on the map, becomes too prominent.

Sprint orienteering - a new challenge for mapmakers

The latest mapping challenge is to produce 'fair' maps for the new sprint discipline. Here, one of the biggest problems is to show clearly on the map where one can go and what is impassable in a densely built-up area. IOF is working on new map norms to cater for the fresh situations sprint racing provides.



For many years Unni Strand Karlsen has used a considerable amount of hours to provide advice to organisers of major orienteering races, both at home in Norway and abroad. The Norwegian feels that she has a duty to give something back to the sport that she has had so much joy of.

PHOTO: ERIK BORG

Communication is not always easy

BY ERIK BORG

Unni Strand Karlsen is one of IOF's Event Advisors. Each year she devotes a great deal of time on a voluntary basis to control orienteering races. She consciously tries to employ a "soft" approach in terms of communication, but nor is she afraid to put her foot down when necessary.

– Communication is always difficult, but you have to build good relations with the people in the organising team. The objective to organise a good event is of course our common goal and everyone has something to offer the others, she says.

The Norwegian woman from the orienteering town of Fredrikstad, right in the south-east corner of Norway, not far from Halden, was the IOF Controller for the World Masters Orienteering Championships in Lithuania. She is now well under way with the task of IOF Event Advisor of the World Cup races, incorporating the European Championships, to be held in Denmark in 2004. She has already been on one visit to the venue in Denmark, and another visit is planned very soon. The task takes up quite a few unpaid days.

– I have got a lot out of the sport of orienteering over the years, such as

wonderful experiences, getting to know lots of people and seeing lots of incredibly beautiful places in the natural environment. It is practically a duty to give something back in return. The task of event advisor allows me to meet lots of great new people, often with a different culture and background than my own. That in itself is also a challenge, she adds.

In demand as an event advisor

Not only does Unni act as an event advisor for international events, she is also frequently involved in the same task at home in Norway. This year, for

example, she has been involved in the work for the Norwegian Championships.

Unni has considerable experience of the sport of orienteering. She was a Norwegian national team member from 1972 to 1982 and helped to win several medals for Norway during this period. She has performed well in her age class in later years too. Her administrative experience within the sport includes four years as Chairperson of the Østfold Regional Orienteering Association and five years as the leader of the Technical Committee of the Norwegian Orienteering Federation. She is currently a member of the IOF Rules Commission.

Unni is glad of all the experience she has. She believes it is a big advantage to have experience as an active orienteer and a precondition for being familiar with all aspects of an o-event in order to act as an event advisor.

– So you must have both the time and the desire to do the job. There can be a lot to do under certain periods, adds Unni.

A lot to think about

As event advisor she has to ensure that the organiser complies with the applicable rules and regulations and avoids mistakes.

– You have to provide advice and guidance, and demonstrate sensitivity and show respect. At the same time you must be able to say yes or no and be strong enough to put your foot down, she states.

– It is important that the map and the courses are of a high quality. And the results must be correct, of course. The terrain shall have an appropriate level of difficulty and be suitable for the race. Many organisers believe that when the map and the courses are good, then everything is OK, but many other aspects have become important in recent years. The media must be well-catered for, and the layout of the finish area etc. shall be spectator-friendly, comments Unni.

Cultural differences

While things are done in one way in one country, completely different solutions may be adopted in other countries. All the different solutions may be correct.

– There are also several route choices. In Norway, I know how things are done. In other places there are other ways of doing things and also other problems to solve. When I was the controller for the World Masters Orienteering Championships in Lithuania, I couldn't speak a word of Lithuanian, nor was I familiar with the culture. I had a lot to learn, and it easy for problems to arise in such a situation, she states.

– My experience is that the more experienced organisers are the ones who are most receptive. It is important that the key people are familiar with IOF's regulations, the so-called Leibnitz convention and ISOM 2000 (IOF's mapping standards), believes Unni.

Knocked down by a motorist

The 49-year old Norwegian is normally fully occupied in her full-time job as junior school teacher.

– It can be tiring at times, but I really like the job. I teach mathematics, social sciences, art and handicrafts.

But Unni still finds the time to compete in orienteering events in her spare time.

– It's great to orienteer and keep myself fit. I am not so focused on the competitive aspect any longer.

As a 16-year old, Unni discovered the sport which would play such an important part in her life. Her orienteering club, Oppsal IF in Oslo, was and still is a large club.

– Initially, I started to do athletics, but then I also began to take part in orienteering, she adds.

She hasn't done very much orienteering this year. She was knocked down by a motorist when she was out cycling this spring.

– I was thrown up into the air and landed on my lower back. I actually think it would have been better to have broken a leg, but it's not so bad now. I have become much better, and will recover completely in time", she adds.



The event advisor needs to make sure that the lay-out of the event centre is media friendly. An unrestricted zone in the finish area allows TV crews and photographers to get good shots of the athletes immediately after the race.

PHOTO: ERIK BORG

Quality assurance of orienteering events

BY DAVID ROSEN

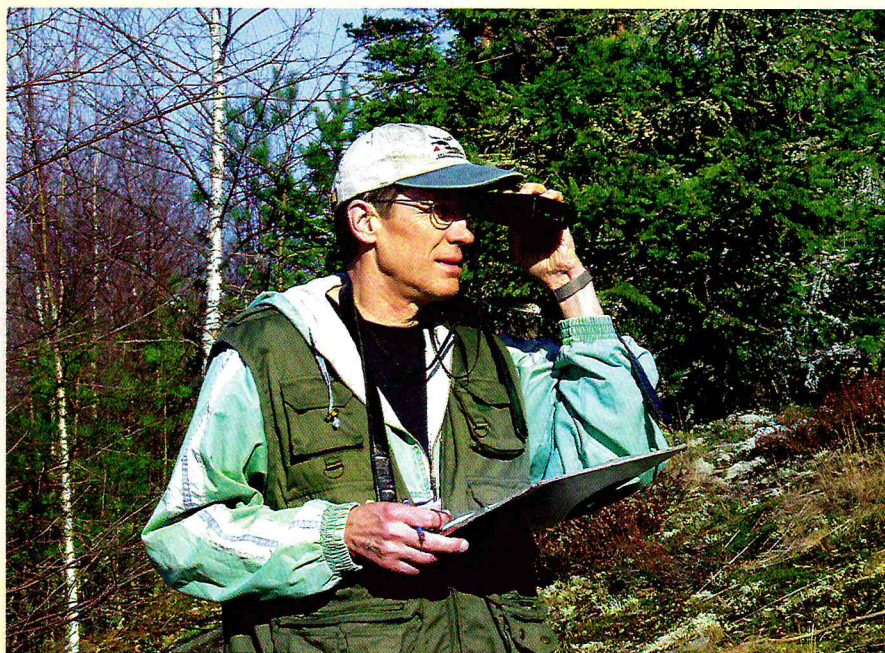
Orienteering is a comparatively complex sport. A fundamental requirement is that the competition should be a test of navigational skill, concentration and running ability. Luck and other random factors should be minimised.

If an error in the course planning or the organisation makes the competition unfair, then any courses affected by the error may have to be declared void. One example might be if a control flag is not correctly positioned, so that competitors have to search around at random to locate the control flag. Some will be lucky and will stumble across it quickly wasting only a few seconds, others will be unlucky and will lose more time. Another example might be if the code on a competitor's control description list is incorrect, so that on arriving at the flag, competitors will think they are not at the right one and will waste time looking elsewhere.

Independent person appointed to ensure fairness

There has long been a tradition in the sport of appointing an independent person as 'Controller' for an orienteering competition. In order to ensure his or her independence, the controller must not be a member of the organising club. The controller is involved as an advisor to the event from the earliest stage in its conception, and takes care not to become too closely involved in the organisational work. One might say that the controller is the competitors' representative on the organising committee.

The controller will work particularly closely with the course planner to ensure that the courses are fair and that they are of a suitable technical and physical difficulty for the com-



The quality of the map is crucial to the fairness of an orienteering competition. The mapmaker must be able to produce a fair map of any terrain.

PHOTO: TEEMU VIRTANEN

petitor classes assigned to them. Normally, the controller will make several advance visits to the forest, and will check all the proposed control sites. At a large event, the administration of a large number of courses is a complex task, and it is essential that the course planner has this additional check on his/her work to ensure that any mistakes are identified and corrected in good time. Once the control flags have been placed in the forest, the controller will visit them all just before the competition as a final check that they have been correctly positioned.

Events organised under the authority of the IOF include the most prestigious events in the world orienteering calendar: the World Championships, the Junior World Championships, the World Masters Championships, the World Cup series plus the IOF World Ranking Events. These events are staged in countries throughout the world in an amazing

variety of terrain and conditions. Nevertheless, all these events must conform to the IOF Rules and be staged to world class standards.

Two-level licensing system

In order to assure the quality of events organised under its authority, the IOF has set up a network of IOF Event Advisors. Each of these events has an IOF Event Advisor assigned to it at an early stage. In the case of World Ranking Events, the Event Advisor will often be from the organising nation, but for the World Championships and World Cups, the IOF Event Advisor will usually be from a different nation.

The IOF Event Advisor works with the organiser and national controller to ensure that the event is organised to the highest international standards. The first requirement is that the courses are fair and of the correct standard, but in many cases, provid-

ing the IOF Event Advisor is confident in his/her ability, much of the in-forest work will be done by the national controller. At the most major international competitions, there are many special considerations which do not occur at even the largest national competitions. The IOF Event Advisor will be able to use his/her experience to give guidance on such matters as provision for the media and VIP's, arrangements for ceremonies, food and accommodation for the teams, arrangements for doping tests, and enhancing spectator interest.

Federations nominate their most experienced and capable controllers as IOF Event Advisors and the IOF arranges clinics two or three times a year where training is provided for potential IOF Event Advisors. In order to be granted an IOF Event Advisors licence, a person must also

demonstrate that they have a good command of the English language, that they are an active orienteer, that they have considerable experience of international competition outside of their own nation, and they are familiar with the rules and other publications (e.g. Map Specifications, Control Descriptions) of the IOF. The licences are reviewed every two years and only renewed if it can be demonstrated that the person continues to be actively involved at both national and international level.

Recently, a category of Senior IOF Event Advisors has been introduced. These are the most experienced and capable IOF Event Advisors who are judged capable of acting as IOF Event Advisors at World Championships and World Cups. They will also be appointed to advise at prestigious events such as the World Games.

Significant results but scope for further improvement

Over the past four or five years, the system of IOF Event Advisors (formerly called IOF Controllers) has had a significant effect in raising the quality of the major orienteering events, ensuring that the world's top competitors know that wherever they compete, the competition will conform to international standards.

But there is no room for complacency. There are still problems that occur from time to time, often associated with the pressure to experiment with new race formats, or to make use of new technology. The IOF will continue to improve its quality assurance procedures to try to ensure that all its competitions are of the highest standard.

The author is chairman of the IOF Rules Commission

A big screen in the event centre raises the spectator and media-friendliness of the competition.

PHOTO: TEEMU VIRTANEN



A true Champion would never cheat



WADA Director General Harri Syväsalmi emphasises the importance of an effective anti-doping programme and continuous testing in order for orienteering to retain its image as a drugs-free sport also in future.

PHOTO COURTESY: WADA

BY TEEMU VIRTANEN

The sport of orienteering is lucky enough never to have been associated with doping. The IOF and the national orienteering federations have excellent co-operation with international and national anti-doping bodies and doping tests are fre-

quently conducted in order to uphold orienteering's image as a clean sport.

Harri Syväsalmi, Director General of the international anti-doping agency WADA, considers orienteering to be a sport where respect for the rules

has become a natural choice.

– Orienteering as a sport is by its very nature a harmonisation of the mind, body and soul and of man and his natural environment. The choice of respecting the rules of the sport is a natural one because if you choose to cheat, you are off the map, says Syväsalmi.

Whilst Syväsalmi does not anticipate doping problems within the sport, he stresses the importance of creating an effective anti-doping programme, out-of-competition doping tests in particular, in order to ensure that all athletes at the highest level are competing on a drugs-free basis. WADA is currently exploring the possibility of an agreement with orienteering.

– An effective anti-doping programme serves not only to build confidence within the sport, but in the community as well, Syväsalmi states.

Harri Syväsalmi has an extensive background in sports. Before his appointment with WADA, he held several sports related positions with the Finnish government. He also has personal experience of orienteering at world level as he was team member and manager of the Finnish student teams at the World University Championships in orienteering in 1978, 1980 and 1982.

– I learned to find my way around in the woods through orienteering training, but more importantly, I learned much about life from spending time with such extraordinary athletes, Syväsalmi recalls.

Positive test results prove that the system works

WADA was founded in 1999. Based in Montreal, Canada, WADA is an independent body that provides services to the international sports federations and the Olympic movement in areas of doping such as testing, research and education. WADA reports independently on the observation of testing in certain events such as the Olympics. – Moreover, for the first time, WADA brings together the Olympic Movement and



Harri Syväsalmi has an extensive background in sports, including personal experience of orienteering.

PHOTO COURTESY: WADA

public authorities under a common umbrella in the fight against doping in sport, Syväsalmi continues.

Although Syväsalmi regrets the number of positive doping cases, he underlines that this is a clear indication that the system really works. The detection of a doping infraction sends a clear message to athletes who are using banned substances. – When an athlete tests positive for the use of a banned substance, it serves not only to protect the rights of those athletes who are competing in a fair and ethical manner but it also builds confidence in the system. Anti-doping initiatives are in place to protect the rights of athletes, Harri Syväsalmi emphasizes.

Work on harmonized anti-doping rules under way

There are many challenges facing anti-doping work in the future, one of them being the issue of gene manipulation. According to Harri Syväsalmi, WADA has paid due attention to this threat. – WADA has been working with experts over the past year to address gene manipulation and the potential impact it may have on the future of sport. Early this year, WADA held a conference at the Banbury Center in New York which brought together experts in the field of gene manipulation. WADA intends to pursue this issue and further study its impact.

World-wide harmonisation and effective unannounced testing are extremely

important to the future of doping-free sport. WADA is currently conducting unannounced testing in more than 80 countries and also supports the development of national anti-doping programmes. Together with its stakeholders, WADA is currently developing the World Anti-Doping Code which is meant to come into effect on 15 August, 2004.

The work in relation to developing the Athlete Passport is also in progress. The passport system was launched at the Olympic Winter Games in Salt Lake City, and it is meant to be a tool in the practical anti-doping work, but also to provide clean athletes with a visual and tangible way to publicly demonstrate their commitment to doping-free sport.

Education is important

– With a view to the long-term, one of WADA's most important issues is education. We believe that a real and durable change for the better requires that attitudes first change, and that a renewed respect for the values of sport must be the underlying reason for those attitudes changing, Syväsalmi explains.

It is most important that the new generation of athletes has a negative attitude to the use of drugs. WADA implements an outreach and awareness program at large multi-sport, multinational events to raise awareness about anti-doping amongst athletes, coaches and others involved in sport. These events are staffed with anti-doping athletes and also retired Olympians who act as role models for the future generation.

What would the WADA Director General Harri Syväsalmi like to tell the youngsters of today – the world elite athletes of tomorrow?

– Athletes with promise should not risk their health to gain success. Any Olympic champion would say that success doesn't happen overnight. Trust in yourself and your abilities and aim for greatness on your own merits. Lastly, a true Champion would never cheat in order to find an easier way to greatness, concludes Syväsalmi.

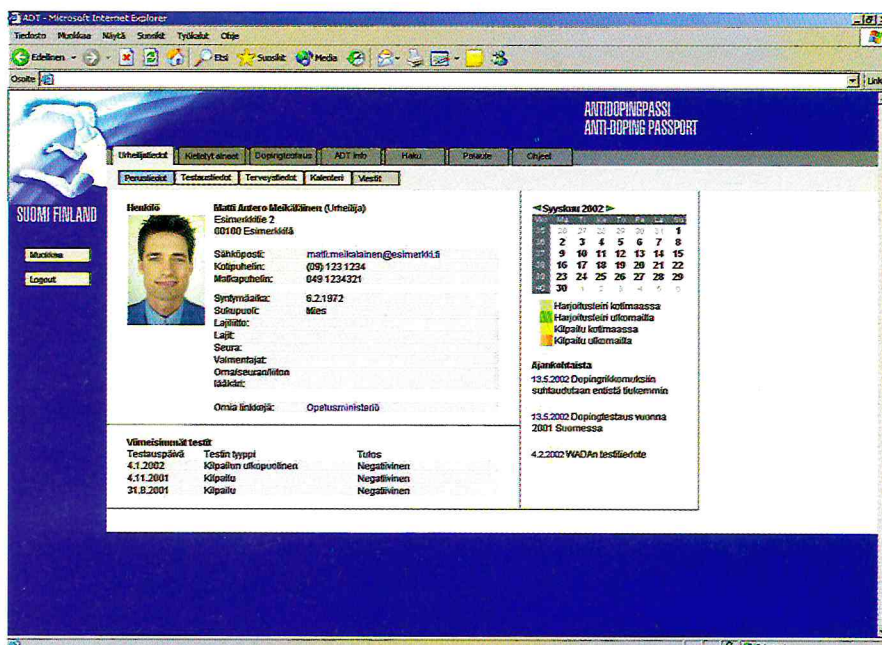
Electronic Athlete Passport soon common practise in doping testing

BY TEEMU VIRTANEN

The World Anti-Doping Agency (WADA) is enforcing doping testing by developing a new athlete passport. The project started officially at the Salt Lake City Winter Olympics in 2002 and it is planned that the passport system will be ready by the 2004 Summer Olympics in Athens. Pilot projects for developing a passport have been carried out in six countries. The person responsible at the WADA organisation is a three-time gold winner from the 1994 Lillehammer Winter Olympics, Johann Koss of Norway.

The passport is intended to be a visual, tangible way for athletes to publicly demonstrate their commitment to doping-free sport and it will serve as a tool for athletes and sport officials to access information. Initially the passport will take the form of a standard citizenship passport, providing athletes with an opportunity to have their drug tests recorded in both the passport and later on the website (electronic database). The database will also provide information on prohibited substances and athletes' testing history.

It is planned that the Database will be developed into a common international system, by which the WADA, international sport federations and national Olympic committees and anti-doping organisations can harmonise their testing procedures and exchange information. Besides the WADA, the information would be available only for restricted parties, such as national testing organisations and laboratories. In the future, the information on the database could also be utilised in sport medicine and research.



The Finnish anti-doping passport is based on an electronic Internet database.

Finland's passport system is already working

BY TEEMU VIRTANEN

Six National Anti-Doping Organisations are currently conducting or have completed pilot programs for the Athlete Passport. An anti-doping passport, similar to the WADA passport, has already been introduced in Finland. This passport system is based totally on an electronic Internet database. There is also a physical passport, yet it is used only as an identification card and no test information is recorded on it. Like WADA's system, the Finnish passport also provides athletes and test organisations with information on tests, prohibited substances and methods.

The first athlete passports were distributed to athletes at the end of September. The project is managed by the Finnish Anti-doping Agency (FINADA), which is responsible for co-ordinating anti-doping work in the country, along with the Finnish Olympic Committee. The project is funded by the Ministry of Education and the planning work began at the end of the year 2001.

– The project is completely Finnish and it is also the very first totally electronic athlete passport system in the world, states Juha Viertola, the Secretary General of the FINADA.

At its first stage the Finnish system will cover the athletes who receive national Olympic Committee's training grants and those who receive top athlete grants from the Ministry of Education. In the future all Finnish top athletes, including those from non-Olympic sports, will be included in the database.

The database will also include sensitive information about athletes. According to those who have developed the system, the information in the database is well-protected. The system has been designed and constructed by Mogul Finland Oy and the system uses the latest computer security technology and the information is as well-protected as connections in the Internet-based bank services.

According to Juha Viertola, it will also be possible to link the Finnish system with WADA's international database. – Naturally our aim is that this system will be able to communicate technically with the WADA system. It would have been possible to connect our database to WADA already this year if they had had the system ready, explains Viertola.

Drugs testing is the norm

BY IAIN ROCHFORD

The instance of drugs use in sport is no longer hot news. Some sports have suffered irreparable damage due to the frequent reports of the use of prohibited substances to enhance sports performances. This ranges from the use of anabolic steroids and other substances to build muscle power in sports where strength is vital. The question is, can orienteering be termed a clean sport?

When orienteering was classified in Denmark last year as a high-risk sport in terms of drugs use, it evoked a strong response from the Danish Orienteering Federation (DOF).

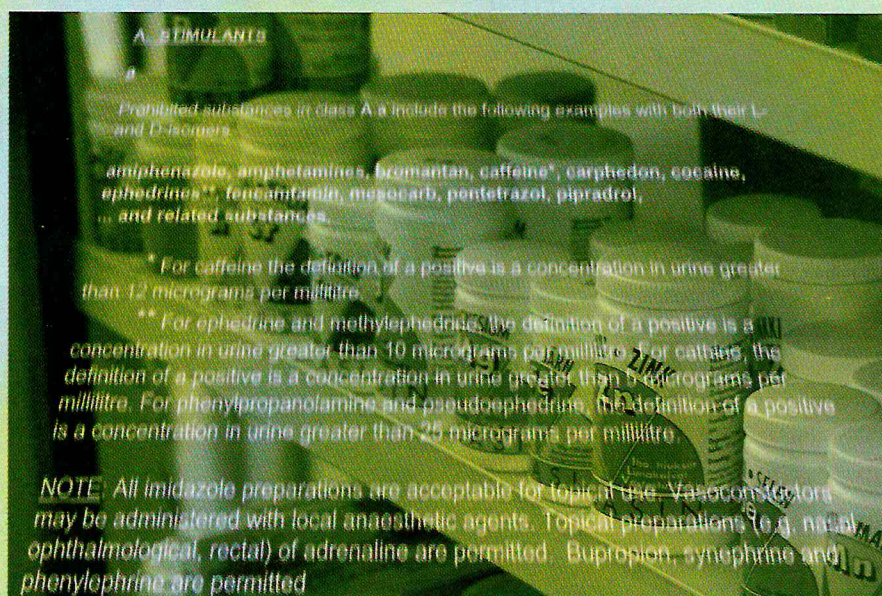
– My immediate reaction was that we certainly don't belong in that group of sports, commented K.K. Terkelsen, the Chairman of DOF's Elite Committee.

– Orienteering was classified in the group of sports which have long struggled with the doping issue, whereas in orienteering it virtually does not exist, he adds. The reason for the classification appears to have been because orienteering is an endurance sport. It had simply been assumed that orienteers could benefit from the drugs that have been used in other such sports.

Signar Eriksson, the Danish National Coach at that time, also disagreed strongly with the classification: – I think they are wrong. Orienteering does not just require endurance, but great powers of concentration and that you can think quickly and clearly. Doping cannot really aid that, he stated. But he was also clear about the advantages of frequent drugs testing: – The more tests show a negative result, the better it is for orienteering's image.

Along with the IOF and other national orienteering federations, DOF has carried out extensive drugs testing in order to confirm orienteering's image as the clean, natural sport of the outdoor environment.

However, it is not only the use of substances to specifically enhance performance that could see an orienteer fail a



The IOC/WADA list of prohibited substances and methods is complex and extensive.

PHOTO: PIRIO VALIANEN

drugs test. The actual list of prohibited substances is bewilderingly complex and extensive, indeed many over the counter medicines contain banned substances. All sportspeople, orienteers included, must think twice before using any medicine to fight common colds or coughs, even though in this case it is arguable that the athlete is only trying to prevent a reduction in his/her ability to perform, rather than enhancing it.

As orienteering is also a sport for everyone, young and old, the world-class elite and those of us who are less fit, there may well be competitors who have to take drugs to relieve their everyday lives. But there is surely a difference between someone who for example has to use beta blockers for a heart condition, and someone who consciously uses such drugs to lower their pulse rate in say a sport requiring intense concentration and accuracy? Even high levels of caffeine would mean the possibility of failing a drugs test. However, caffeine not only acts as a stimulant but also has a negative aspect too: high doses of caffeine can have a urinate side effect and thereby disturb the fluid balance in the body and the athlete can become dehydrated much sooner.

One might believe that the youngest

of the IOF disciplines, Mountain Bike Orienteering, could potentially be a sport where athletes might be tempted to resort to banned substances. Can mountain bike orienteering really be sure that it is clean too?

Dietmar Dörfler, current Austrian champion believes so. – I cannot really imagine that anyone would really use drugs in our sport, firstly there are no financial rewards in MTB orienteering such as there are in pure cycling with professional contracts etc.; quite the opposite actually.

Dietmar obviously has a point there – the more commercialised a sport is, the bigger is the risk that the athletes might choose to enhance their performance by using drugs.

It is pleasing therefore to know that all the results of the anti-doping tests at the inaugural World MTB Orienteering Championships held in France in July were negative.

– MTB Orienteering is a physically demanding sport and it requires a very high degree of fitness and endurance, so it is good to know that our athletes achieve this level of performance without resorting to banned substances, says Sue Harvey, President of the International Orienteering Federation.

IOF ANTI-DOPING CONTROLLER ROGER AERTS: **Anti-doping work is challenging**

BY BARBRO RÖNNBERG

// *The IOF declares that doping is prohibited and the provisions of the IOC Medical Code apply, subject to any necessary changes, to all persons and competitors under the jurisdiction of the IOF and its members" (IOF Statutes, clause 3.1)*

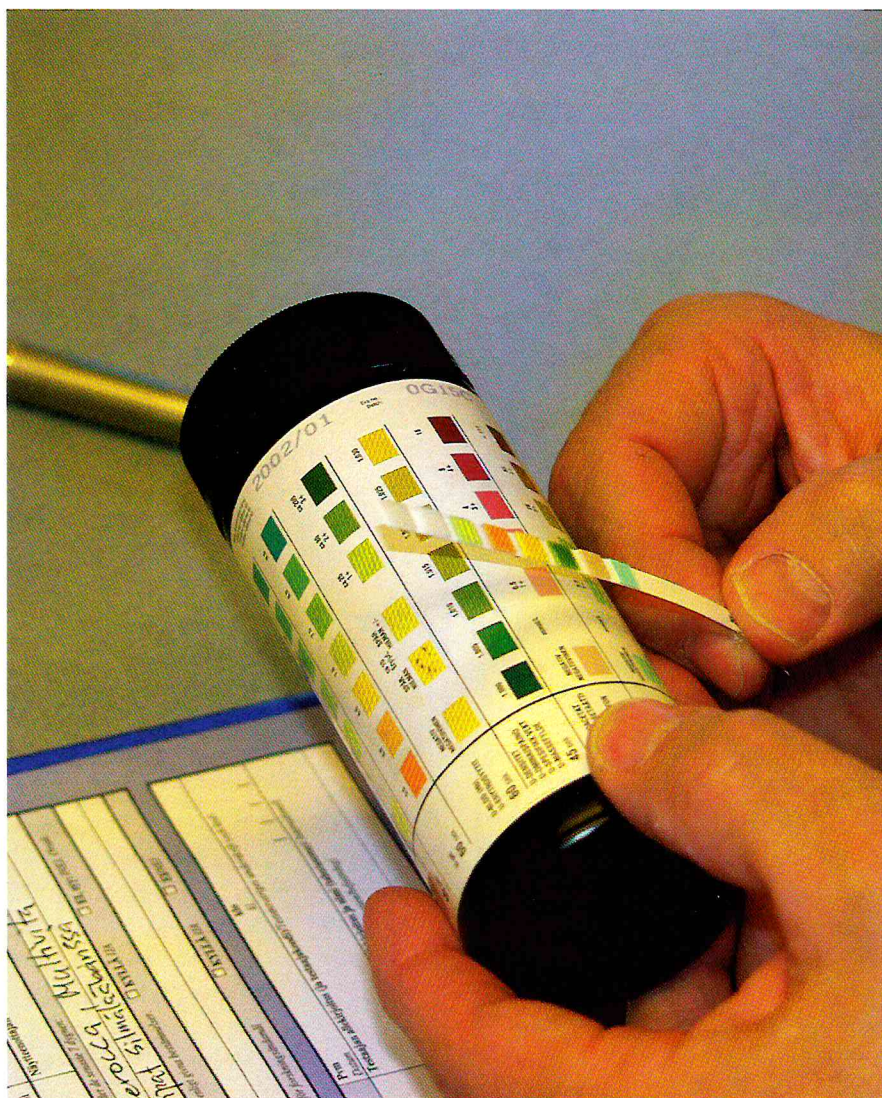
For many decades, the IOF has appointed an Anti-Doping Controller to be responsible for ensuring that doping control is conducted according to the procedures laid down in the Anti-Doping Code. Since 1998, the IOF has also had a Medical Commission which is responsible for providing Council with expert advice on all matters in the field of doping in sport. The IOF Anti-Doping Controller, Belgian Roger Aerts, is one of the four Medical Commission members.

Belgium is not one of the traditional orienteering nations, but Roger Aerts discovered the sport because of his career in the army.

– I was an army officer and except for the four last years, I had the opportunity to serve in Paratrooper units or the headquarters staff throughout my entire career. One of my promotion colleagues and my room-mate during my studies in the Military School became one of the pioneers who introduced the orienteering sport in my country, in the first instance into the Armed Forces, in 1961 and 1962. He convinced me of the importance of this sport in the training of paratroopers. At that time competitions were organised on military maps at a scale of 1:25.000 and on more than one occasion a bit of luck was more than welcome, says Roger Aerts.

Prepared for the challenge

– In the past, I was a member of the committee of our regional orienteering



For the legal protection of the athlete, it is essential that the doping test is properly conducted by authorised personnel. The Stix test is used to measure the specific gravity and pH of the urine sample.

PHOTO: PIIRJO VALIANEN

league, and I used to be responsible for all matters related to "Best Medical Practice in Sports", as it's called by the regional government. Because of this task, I began to collect documents and to attend lectures and conferences regarding doping and anti-doping. When the IOF then looked for somebody to take on the task as Anti-Doping Controller after Norwegian Brit Volden, I was the Vice-President of the

Belgian Orienteering Association and I felt ready to take on this challenge, continues Roger Aerts who has recently been reappointed for a third Congress period of two years.

All the IOF member federations have undertaken to comply with IOF's rules and regulations, including the Anti-Doping Code. Each member federation is also expected to have anti-doping

rules of their own. These rules must naturally be in harmony with the IOF Code and the Olympic Movement Anti-Doping Code.

According to Roger Aerts, the biggest challenge for the IOF in the field of anti-doping work probably is to overcome the difficulties caused by the different speed of development in different countries.

– Some federations are already at a very high level whilst others are just at an early stage of development. This makes the communication difficult. I would hope that, in a not too distant future, each national federation will decide to appoint a contact person responsible for matters in relation to anti-doping. Among other things, the task of this contact person would be to provide the IOF with information about doping tests and related issues, and to assist the IOF Anti-Doping Controller when doping tests are carried out under the responsibility of IOF.

Rewarding to work with the organisers

The responsibility for doping control at World Championships and other major orienteering events is certainly

no easy task. The Anti-Doping Controller must be prepared to master any situation but, fortunately, Roger Aerts loves the challenge.

– Many organisers underestimate the workload of doping tests and pay too little attention to it in the preparatory phase of the event. They tend to believe that everything is just fine once they have found a doping control unit. A very common problem is the escorts. Several months before the event, the organiser is requested to provide an appropriate number of escorts who are not expected to have any other tasks. However, sometimes the escorts are found at a very late stage, which may cause unforeseeable problems. Also, the doping control units often contact the organiser very close to the competition, and I am usually never able to contact them before the event. Therefore, the first contact with the responsible organiser upon my arrival at the venue is very important. So far, I have been able to overcome these and any other obstacles.

– The job as IOF Anti-Doping Controller gives me the opportunity to travel to countries I would never visit



Belgian Roger Aerts has recently been reappointed IOF Anti-Doping Controller for a third Congress period of two years.

otherwise. I also have the privilege of living in very close proximity to the event organisation for several days. It is remarkable to see all these volunteers working day and night to make their competition as successful as possible. Most of them are positive and quite relaxed, no matter how easy or difficult their task may be. It is a true pleasure to work with such dynamic people for a short time, concludes Roger Aerts.

Extracts from the IOF Anti-Doping Code

- 1.1** The provisions of the Olympic Movement Anti-Doping Code apply, *mutatis mutandis*, to all persons and competitors under the jurisdiction of the IOF and its member federations.
- 1.2** Doping is forbidden. Recommending, proposing, authorizing, condoning or facilitating the use of any substance or method covered by the definition of doping or trafficking therein is also forbidden.
- 1.5** This Code applies to all Participants. Participant means any athlete, coach, trainer, official, medical or paramedical personnel working with or treating athletes participating in or preparing for orienteering events under the authority whether direct or delegated, of the IOF. Any person who enters, prepares for or participates in any such event shall have agreed to comply with this Code.
- 1.7** Sanctions are applicable in the event of any breach of the provisions of this Code and the Olympic Movement Anti-Doping Code. Throughout this Code a 'doping offence' means a breach of the provisions of the IOF Anti-Doping Code or the Olympic Movement Anti-Doping Code.
- 2.4** All athletes are subject to doping controls (urine analysis, blood tests and other authorized techniques for detecting prohibited substances or methods).
- 4.3** Each year, the IOF Council decides on the principles for out-of-competition testing, whilst the selection of the athletes or the group of athletes to be tested is at the discretion of the IOF Medical Commission.
- 4.5** For purposes of this Code, only those laboratories accredited by the IOC are qualified to undertake the detection of the presence of Prohibited Substances and the use of Prohibited Methods.

Last year, Frauke Schmitt Gran helped to save a competitor's life at the world's largest orienteering relay, the Jukola relay in Finland. This spring, the 33-year old received a German fair play award. – It was a great honour, but it was a matter of course to stop and help, says the German elite orienteer.

Just over a year ago, Schmitt Gran was preparing to help take her club Halden SK to victory in the women's Venla relay at Jukola, but all their chances of victory disappeared when Frauke stopped to help Russian Anna Fadejeva. The Russian was bleeding copiously from a serious wound in her thigh where a branch had penetrated a hole in a main artery. Frauke used her orienteering top to check the blood flow and then organised help so that the Russian's life was able to be saved.

– It should be a matter of course to act as I did, says Frauke.

But it wasn't a matter of course after all. Several runners had run past the terrified Russian girl.

– It takes a certain way of thinking to perceive what is important in such a situation. The best orienteers are used to dealing rapidly with different situations. Non-elite orienteers probably do not have quite the same capacity, adds Frauke.

Chances of winning disappeared

Frauke was never hesitated in stopping right in the middle of this important relay as she understood the serious condition of the Russian girl. She was holding her thigh and looked very scared. Virpi Juutilainen, another relay runner, also stopped and helped Frauke. They managed to send another runner to the nearest first-aid post to raise the alarm.

When the situation was under control, Frauke began to think about the chance of winning that had disappeared.

A matter of course to provide help

BY ERIK BORG



Frauke Schmitt Gran arrived at the finish of the Venla relay in Finland last year without her orienteering top. She used it in the forest to stem the blood flow for a competitor who had been seriously injured.

PHOTO: ERIK BORG

– I was a bit annoyed that I had ruined Halden's chances of winning. I thought about asking someone else to take over from me, and after a while Halden's second team came along, states Frauke.

Very rare that anyone requires help

It is not often that Frauke experiences that anyone requires help in the forest. On the rare occasion that she hears anyone shout out aloud, she turns round to see what can have happened.

– It doesn't really cost anything to turn round. If a person has just fallen over, it doesn't take more than three seconds to make sure that they are alright, she adds.

Where do you draw the line as to whether or not to help others in the forest?

– If it is a serious injury, I would also stop at a major race such as a World Championships. But if it is something less serious, such as a broken arm, I would try to raise the alarm at the next control. In that way I would not really ruin my race. Helping others depends to a certain degree on how important the race is. If 50-year old men ask me where they are on the map, I normally tell them that they are old enough to find out for themselves. They should not really be asking. If, on the other hand, it is a youngster who is lost, I would help them although it depends on the level of the event. In a World Championships or a national championships, you don't encounter any young runners in the forest. It can happen at the Swedish 5-days or other multi-day events though. In such a case I might hope that other runners who are not running the elite class can help them, says Frauke.

German fair play trophy to Frauke

In May, the German Sports Journalists Association awarded two fair play trophies. The PSV Eindhoven manager Erik Geretz was awarded one of them, Frauke the other one. Orienteering is not a big sport in Germany, so it was



Frauke Schmitt Gran with her two children Olav (4) and Marieluise.

PHOTO: ERIK BORG

quite something that Frauke's effort was acknowledged.

Frauke comes from the small town of Lahr in the Black Forest. She grew up in a fantastically good orienteering environment, so it was not really a surprise that she became an orienteer.

In 1991 Frauke went to Norway in order to become a better orienteer; and she achieved her ambition. She won the bronze medal in the short distance race at the World Championships in Scotland in 1999.

She has now retired from competing at the very top level. She is married to Norwegian Bjørn Axel Gran and they have two children, Olav (4) and Marieluise, who arrived on 18 July this year. However, she is intending to resume her full-time job soon as a system developer in the computer industry.

– I have retired from the national team, but I hope to be able to run in Halden's first team in relays in the years ahead, she states.



Frauke Schmitt Gran has retired from top-level international orienteering, but is still aiming to run in Halden's first team in the major relays. This year she didn't run for the first team at Tiomila, but for one of the other teams as she was seven months pregnant.

PHOTO: ERIK BORG

The average injury frequency in orienteering is 3–4 injuries per 1 000 hours of activity. The comparative figure in football is as high as 20–35 injuries. Competing in orienteering races leads to a very low frequency of injuries and serious injury is very rare.

Christer Rolf is a Professor of Sports Medicine. He is currently working on establishing a Sports Medicine Centre for the whole of the UK, based in Sheffield. His previous experience in this area includes acting as the doctor to the Swedish national orienteering team from 1983 to 1997. At the same time as his medical role for the Swedish elite orienteers, he also carried out work to chart the type and frequency of injuries within orienteering, and he has contributed to obtaining information that indicates that orienteering activity is much less associated with injuries than is playing football.

The elite runners train smarter

Cecilia Rönnfjärd, who is currently one of the Swedish national team doctors, believes that the relatively low frequency of injuries among the very best runners is due to several different reasons.

– Training is much more than just running. The elite runners are also used to cross-training when they are maybe in the danger zone for contracting an injury. Running in the terrain is also less associated with injury than is running on roads (asphalt), she states.

On the other hand serious injury can occur. A girl in Norway once came between an elk cow and its calf with the result that the elk cow squashed the girl against a tree.

– Such events are extremely unusual. In general it is not dangerous at all to run in the forest, comments Christer Rolf.

– 80 per cent of all injuries within orienteering are only minor ones. The more serious injuries may be dislo-



Cecilia Rönnfjärd sewing a cut to the head of world champion Jørgen Rostrup. Injuries in orienteering are usually just minor ones.

PHOTO: ERIK BORG

Very few injuries in orienteering

BY ERIK BORG

cating a shoulder, a head wound or concussion as a result of a fall, states the orthopaedic surgeon. Ninety per cent of all injuries are, by the way, from the waist down. Contact injuries such as hitting a knee against a rock, overload injuries and ankle sprains are among the most common ones. As a

rule these injuries are soon healed and do not need to entail a long break from training.

"Hospital" in the forest

There are first-aid facilities at the finish area at most orienteering races, and in major races it is normal to

have first-aid stations out in the forest. This year's edition of the Swedish 5-day event with 15,000 participants had both doctors, nurses and physiotherapists in the five first-aid tents at the finish where it was possible to treat lots of minor injuries. At the start and several other places in the forest it was also possible to obtain medical assistance. The facilities at the start even included the opportunity to take an EKG test of the heart if you didn't feel well. The result was transferred via mobile phone to a cardiologist at the nearest hospital. Feedback was then received about whether or not the runner should be taken to hospital or would be able to travel home and rest. In order to get casualties out of the forest in the shortest possible time the organisers had four mini-tractors so that they could drive right into the heart of the terrain.

– When I was at one of the three first-aid stations in the forest on one of the race days, a boy ran up to us and said that a girl was lying injured at one of the controls. The tractor was then directed to the right location, says Agneta Tilly, Information Manager for the medical services at the Swedish 5-days.



Some orienteers use sports style glasses to protect themselves from eye injuries.

PHOTO: ERIK BORG

Skaraborg's hospital was responsible for the medical facilities at the 5-days. There were a total of 60 medical staff manning these facilities, including personnel from the military, during the 5-days week. During the course of the event, 760 people visited the medical facilities, which is slightly higher than the average figure for orienteer-

ing activities. The majority of the injuries were just minor injuries such as blisters, sprained ankles and wasp stings.

– There were no life-threatening injuries, but one injured elite runner will unfortunately not be able to run any more this year, comments Tilly.

Weather permitting, team doctors and physiotherapists sometimes treat the athletes outside in the open air.

PHOTO: PIIRJO VALIANEN

