

Map Evaluation Project 2010

Orienteering

World Orienteering Championship - Trondheim, Norway

General Considerations

Since the Championship took place in one of the top countries in Orienteering, it must to be assumed that the maps will be of the highest quality. However, some deviations from the specifications were observed.

Colours

Although the printing shop was the same for all maps, yellow varies a lot. In most of the maps yellow seems to be too dark (on the orange side).

Symbols

Lakes

Except in the Tulluan syd and Sprint maps, lakes were drawn with full blue and not 50%. This is not according to the specifications. In the Tulluan syd map only the small lakes were drawn with full blue. This is not according to the specifications.

Cultivation boundary

The application of symbol 414 as ski track borders was reasonable.

Brown symbols

The specifications clearly state that brown symbols should not touch each other. This specification was disregarded in all maps except the Sprint maps. It looks as if the mappers do not understand that an extremely narrow gap on the computer will disappear in a printed map, resulting in poor readability. The generalisation of contours, form lines and knolls seems to be lacking.

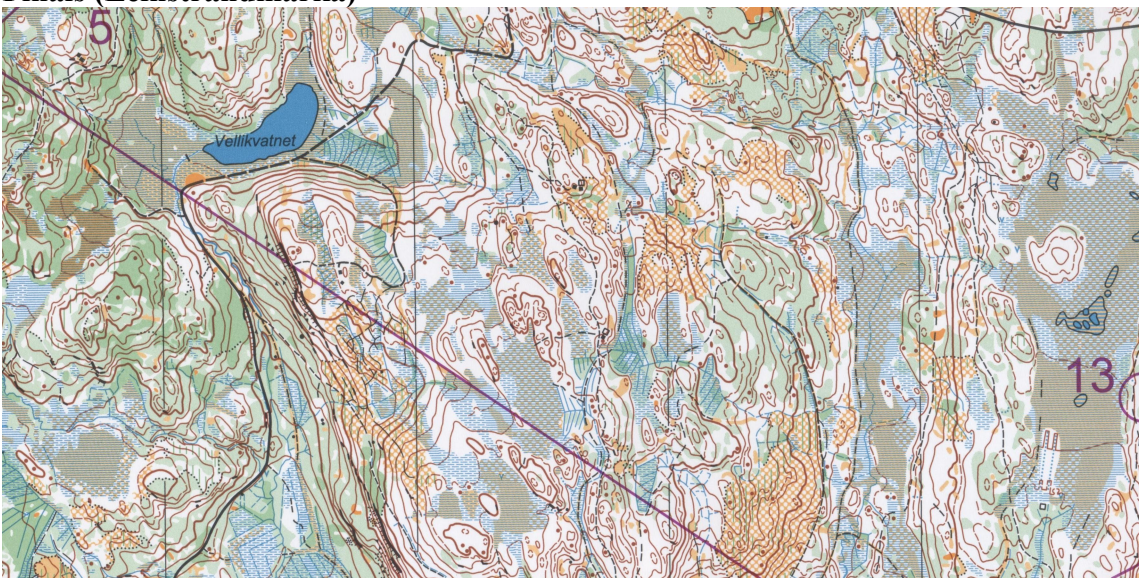
- knolls: it looks as if this symbol has been used to mark a hill top rather than a real knoll. Often this symbol is used in conjunction with form lines, messing up the map. In a great number of cases knolls touch each other, contours and form lines.
- Form lines: in the maps used for the finals, two form lines were used between two contours; although the second one was for a hill top it is not good practice. In many cases it seems as if the purpose of the form line is to indicate different elevation of adjacent knolls. However, if one knoll is close to the higher neighbouring contour and the other one to the lower neighbouring one it is obvious that the first is in higher position.

The conclusion is that the generalization of terrain features is insufficient and the result is poor readability when the terrain is complex.

Long Distance qualification (Tulluan Syd)



Finals (Leinstrandmarka)



European Orienteering Championship (World Cup), Bulgaria
General considerations
Printing and paper

Good offset spot colour printing on good paper

Colours

Brown is just a little light

Yellow and blue are good

Green has a good tone but is too strong on some maps

Symbols

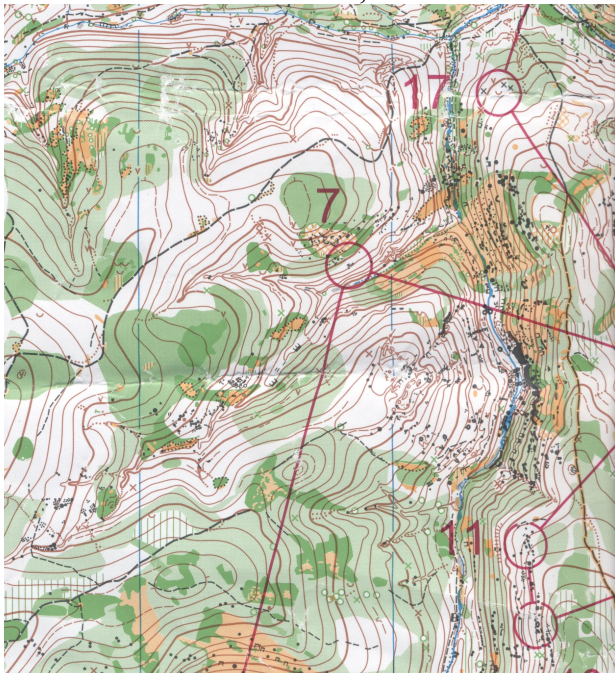
Many symbols are not according to the specifications (many are too small)

Long (1:15000)

Generalization

Lack of generalization, especially in the rock/cliff areas

In order to fit more features, the dimensions of symbols were reduced to much below the minimum.



An example of a new symbol is a black circle, much smaller than the symbol 539 shall be. It is probably drawn according to the real dimensions of the feature on the ground. The smallest is about 0.2mm!

Controls 7, 10 and 11 are all defined as “pillars” (respectively 4, 3, and 2/1 m), but the symbols are different: For 7 and 10 the new symbol (small black circle), but for 11 a normal boulder.

The dimension of the symbol boulder (206) is 0.3mm on the maps. It shall be 0.4 mm.

Some symbols, for instance green circle, are used in two dimensions, 1.0 and 0.6 mm.

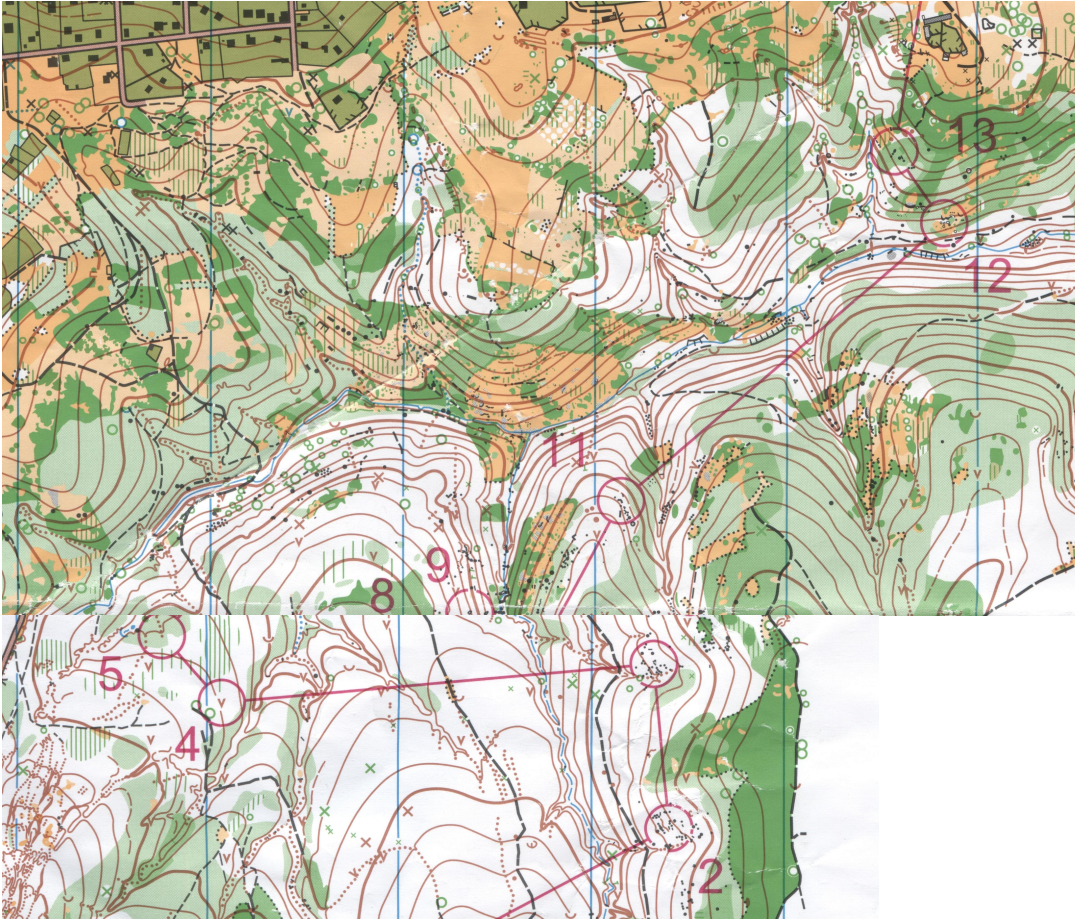
Green dots are reduced to 0.4 mm (shall be 0.5 mm).

Passable rock faces (203) are drawn with less than 0.3 mm length and 0.2 mm thickness (shall be minimum 0.6 mm long and 0.25 mm thick).

In areas crowded with black symbols, they very often touch each other.

Middle (1:10000)

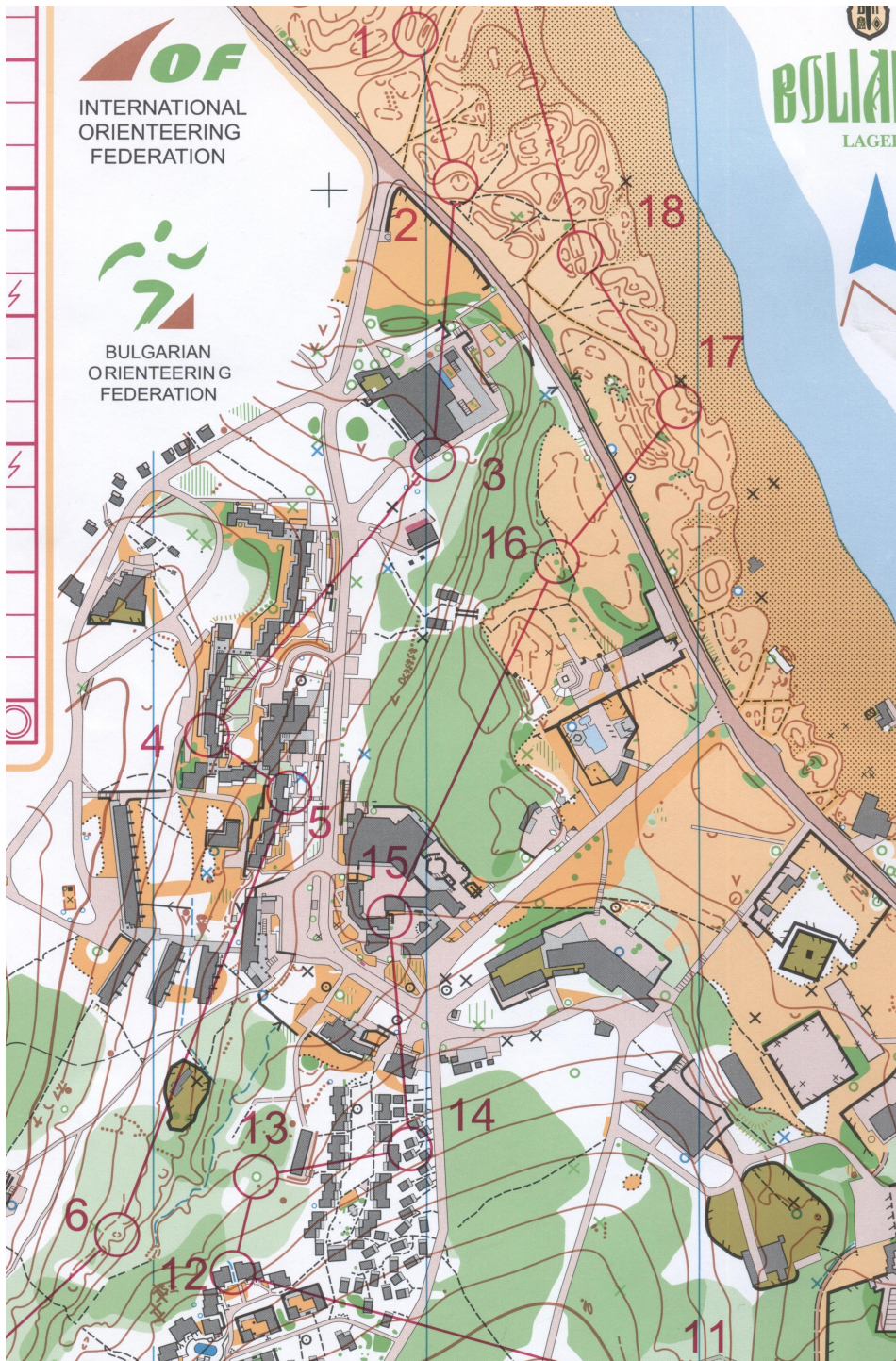
Some symbols were enlarged (according to the specifications), for instance green crosses, but most of the black symbols have the same dimensions as for the 1:15000 (not according to the specifications).



The two cliffs of control 2 are 0.18 mm thick and the shortest is 0.3 mm long.

Sprint (1:4000)

There are two dimensions of green circles: 1.6 and 1.2 mm, blue circles 0.8 mm, etc.



**World Cup n° 11 September 2010 - Switzerland
Middle Distance (St. Cergue)**

Paper

The paper is a rather thick.

Print

Not spot colour printing. However readability is reasonable for the 1:10000 map.

Colours

Only minor deviations

Brown

Slightly too dark

Yellow

Intensity is ok, but the hue is slightly different from the specifications

Green

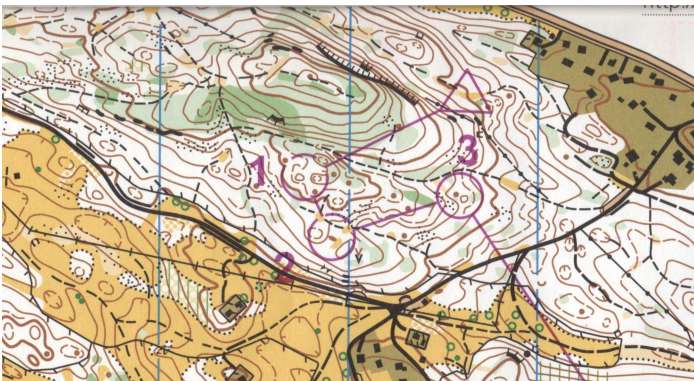
Intensity is ok, but the hue is slightly different from the specifications

Symbols

Symbol dimensions are according to the specifications, however it is not so easy to check them with non-spot colour printing.

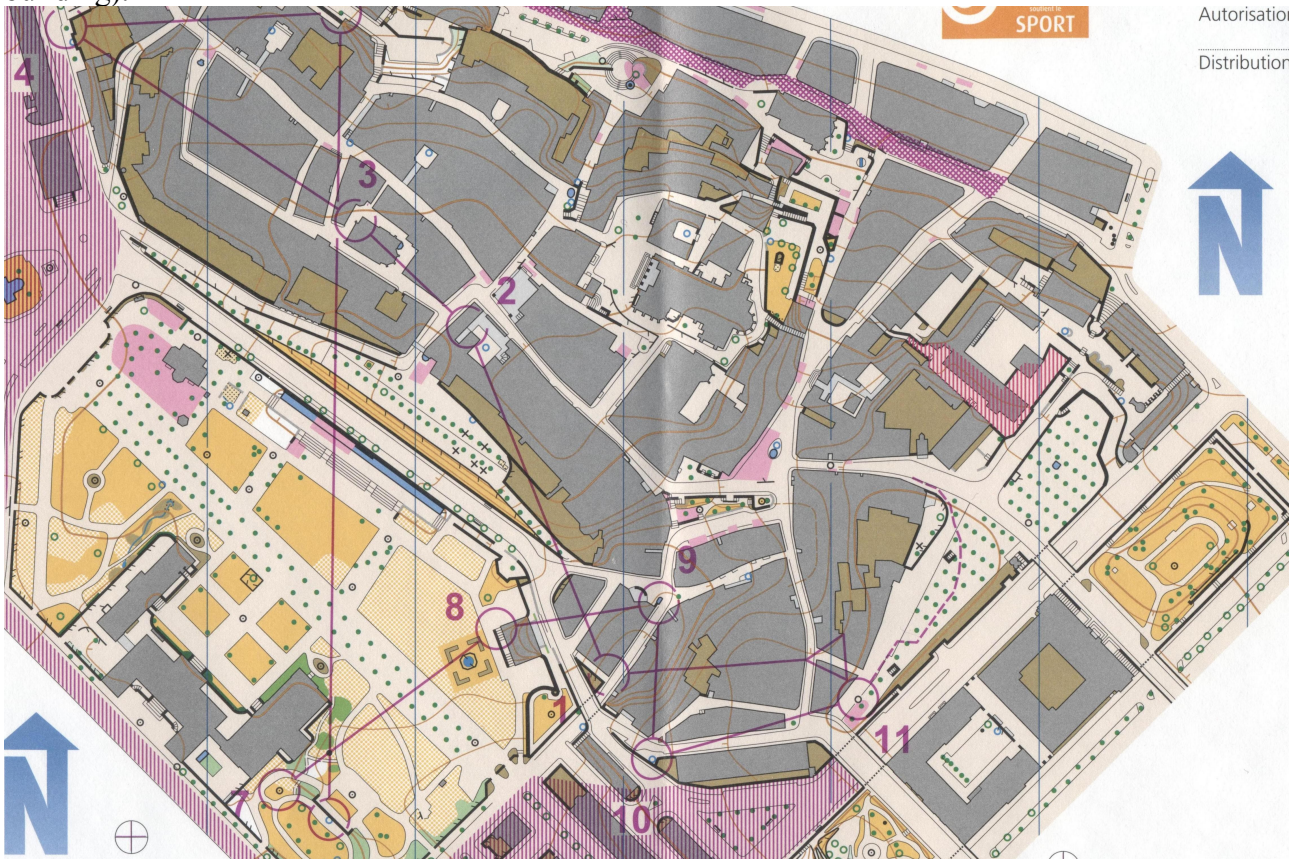
Form lines

Most form lines, except those used for knolls, are unnecessary, and do not give information to the runners. Instead, they disturb the readability of the map and the appreciation of the steepness of the terrain.



Sprint (Geneve Vieille Ville)

Private areas totally inside buildings must not be mapped (shall be mapped as a part of the building).



Junior World Orienteering Championship 2010 Denmark

General Consideration

This championship is a clear example of how poor printing can completely spoil a good field work.

Printing

Courses were printed with magenta instead of PMS Purple.

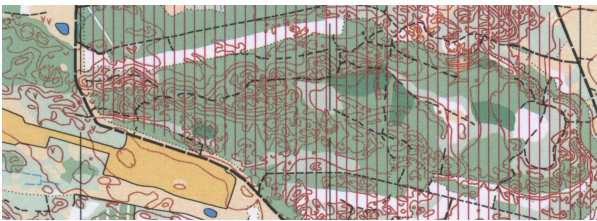
Long Distance (1:15000) Training camp

Colours

Brown on the red side

Yellow not enough orange

Green good tone but a little too strong



In areas with very detailed contours, the very poor four colour print makes the map hardly readable. The green with detailed contours are, because of the bad printing, not suitable for orienteering.

Long Distance (1:15000)

Colours

Brown too light and on the orange side

Green too much on the black side and too strong

Yellow about OK

Blue too much on the black side



In areas with very detailed contours, the very poor four colour print makes the map hardly readable. The green with detailed contours are, because of the bad printing, not suitable for orienteering.

For both the two maps: almost no form lines. But the question is: would it not had been better with a 5 m equidistance and better generalization?

Middle Distance (1:10000)

Colours

Brown too light and on the orange side

Green too much on the black side and too strong

Yellow about OK

Blue too much on the black side



Due to the larger scale the poor printing is more tolerable. However, fine contour details on yellow and under green stripes are hardly readable (control16).

Sprint (1:4000)

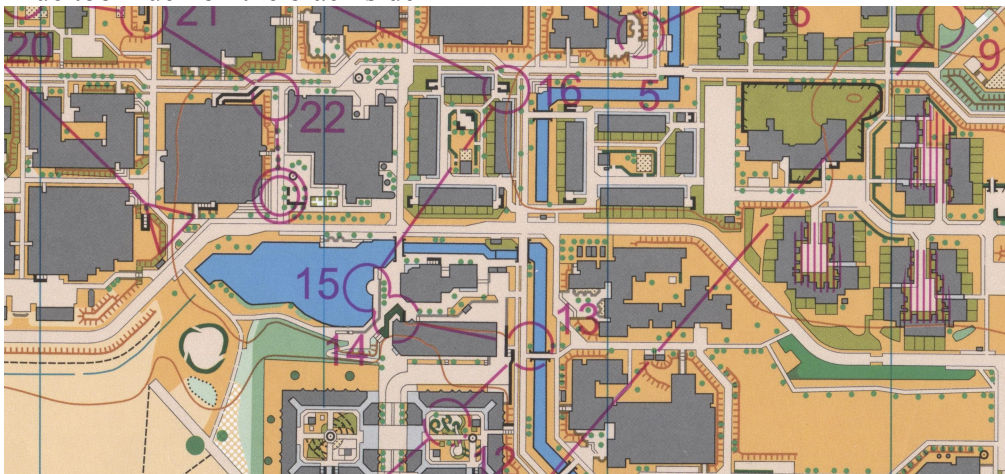
Colours

Brown too light and on the orange side

Green too much on the black side and too strong

Yellow about OK

Blue too much on the black side



There was a mistake on the map that influenced the competition. From control 13 to 14 staying right there are no contours but a short stair with two steps: in reality there are a few meters from control 14 to control 15. A containment wall on the south and east side of the impassable green is not on the map. One could understand the level difference only from the stairs and earth bank close to the number 14. Competitors taking right lost some time to understand the situation. The left choice,

from the map only slightly convenient, was in reality much better. Had overprinting effect been implemented for the map, it would have been easier to see the contours inside the buildings.

Asian Orienteering Championship 2010 – Japan

General Considerations

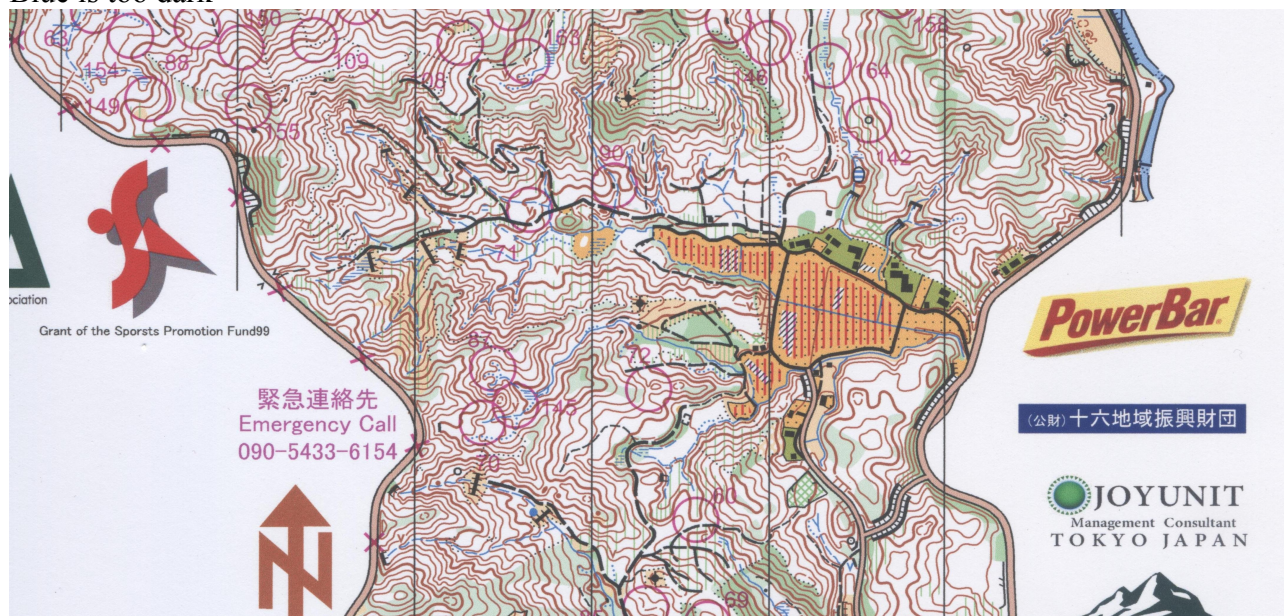
All the maps are non-spot colour printed (ink-jet). The colours differ from one map to the other. Symbols are according to the specifications. The black circle has been used to represent charcoal burning ground. Although this is not forbidden, brown special symbol (cross) is generally used for them. Charcoal platforms, although man-made are land forms (like earth walls, pits etc.).
Course setting: It is unfortunate to place controls in the middle of reentrants that are represented using several contours (this is normal in Japan). Control points should only be placed at the ends of a long sequence of reentrants.

Relay

Colours

Green, yellow and brown seem to be OK.

Blue is too dark



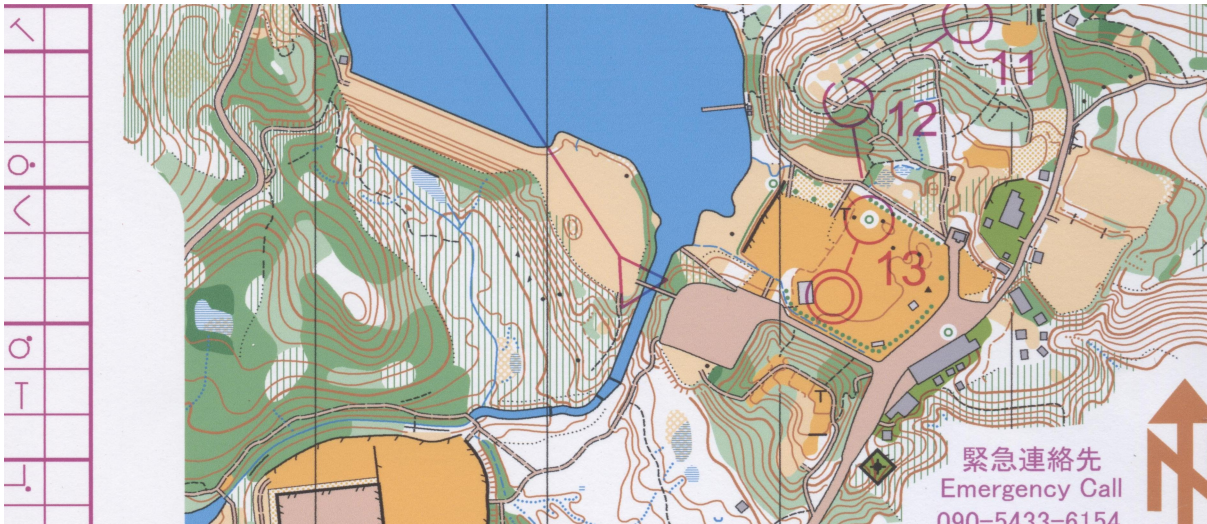
Sprint

Colours

Brown is too pale

Yellow and blue seem to be OK

Green is too intense



Middle

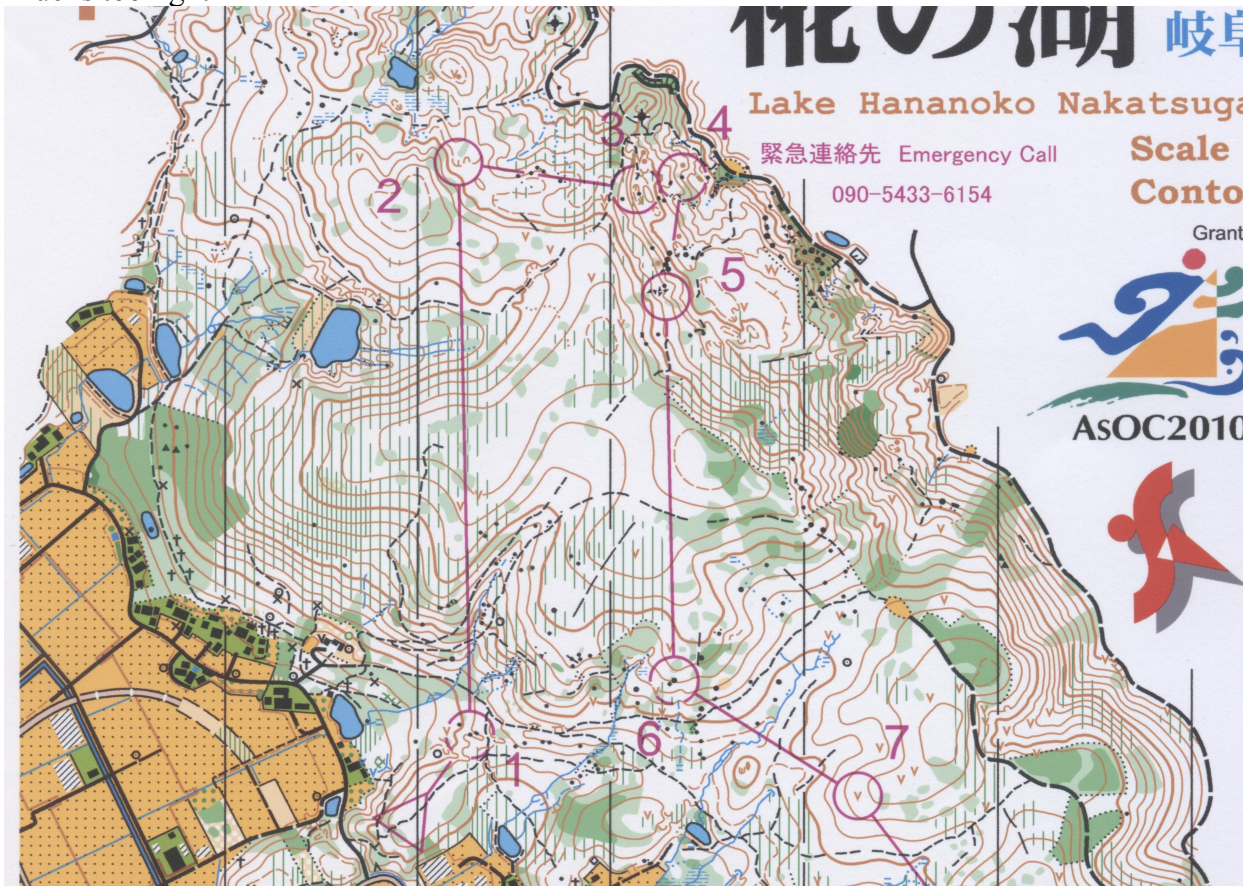
Colours

Brown is too light

Yellow seems to be slightly too strong

Green is too dark

Blue is too light



Long

Colours

Brown is too pale

Green is slightly too strong

Blue is too light

Yellow is about right



North American Orienteering Championship 2010, Canada

Print

All maps are non spot colour printed, including contours.

Long Distance (1:15000)

Colours

Brown too much on the red side

Yellow: Good tone but too strong

Green: Tone too much on the yellow side, strength OK



Due to the poor printing, areas with detailed contours and rocks have bad readability. Nevertheless they were used for controls (17 and 18 in the picture).

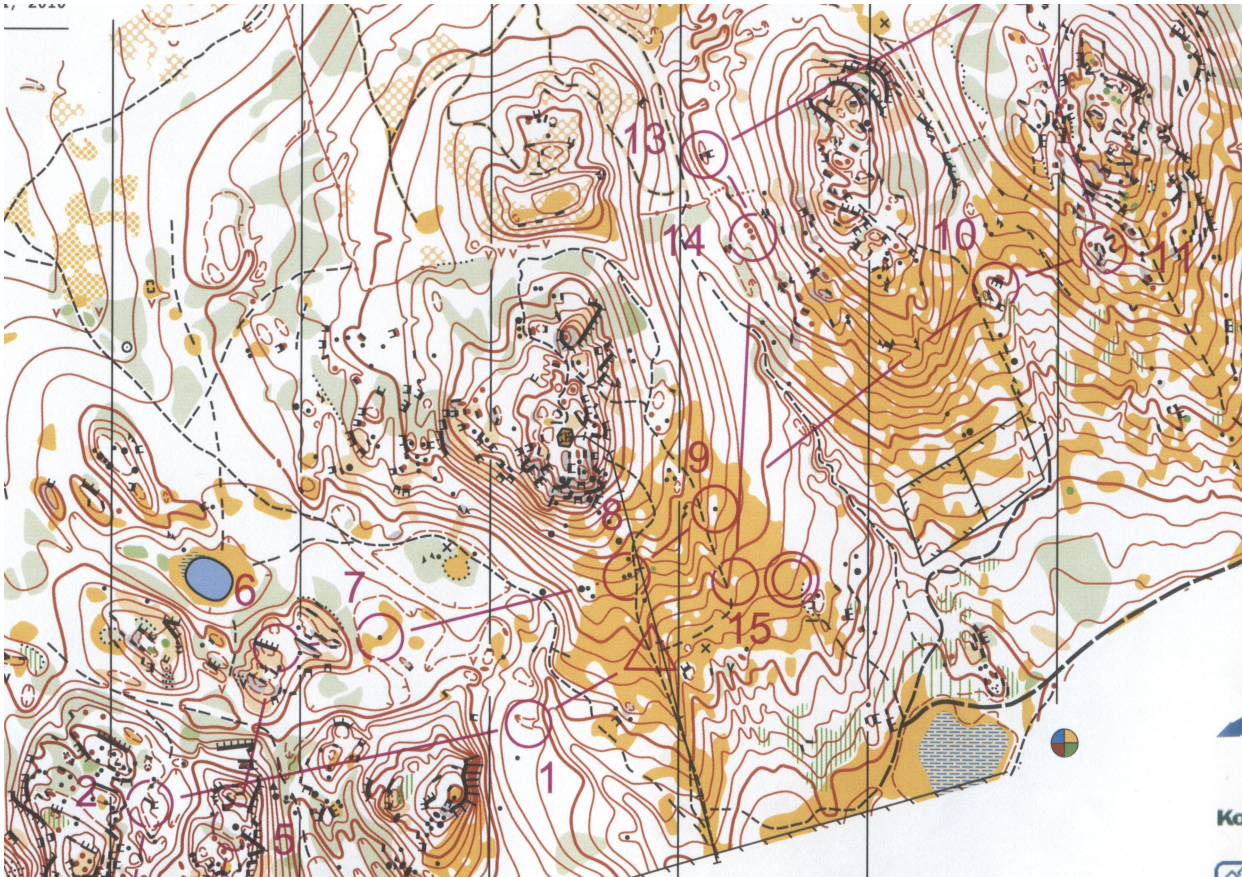
In our copy of the map the four colours are not perfectly registered.

Middle Distance (1:10000)

It is a part of the long distance map. Due to the enlarged scale the map is better readable.

Colours

Yellow is better than in the 1:15000 map.



Colours are better registered than on the 1:15000 map.

Sprint (1:5000)

Print and colours as for the 1:10000 map.



World Master Orienteering Championship - Switzerland

Paper

The paper is rather thick.

Print

Not spot colour printing. However readability is reasonable for the 1:10000 map.

Colours

Brown

Too dark

Yellow

Too dark

Green

Intensity is ok, but the hue is slightly different from the specifications

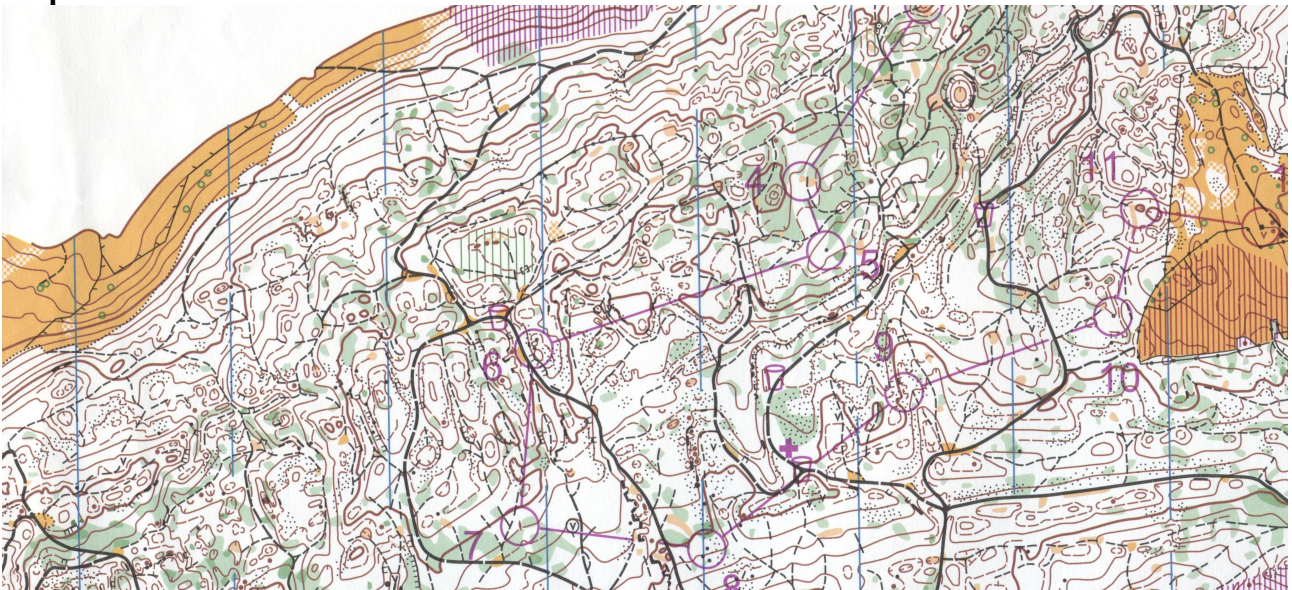
Symbols

Symbol dimensions are according to the specifications, however it is not so easy to check them with non-spot colour printing.

Form lines

Most form lines, except knolls, are unnecessary. They disturb the readability of the map and the appreciation of the steepness of the terrain.

Map 1:10000



Sprint

Paper

The paper is a rather thick.

Colours

Yellow

Too light

Green

Intensity is ok, but the hue is slightly different from the specifications

Symbols

Symbol dimensions are according to specifications, however it is not so easy to check them with non-spot colour printing. A hedge has been represented with light green, and is nearly invisible on the map.



European Youth Orienteering Championship 2010, Spain

General Considerations

Non spot colour map printing. The two maps (long and relay) are very different in printing. Very poor overlapping of the colours on both maps make the contours difficult to read in the dense rock areas.

Long (1:10000)

Even if this is a Youth Championship, the map scale 1:15000 should be used for the long distance. The map scale 1:10000 was used, and the symbols seem to be too small.

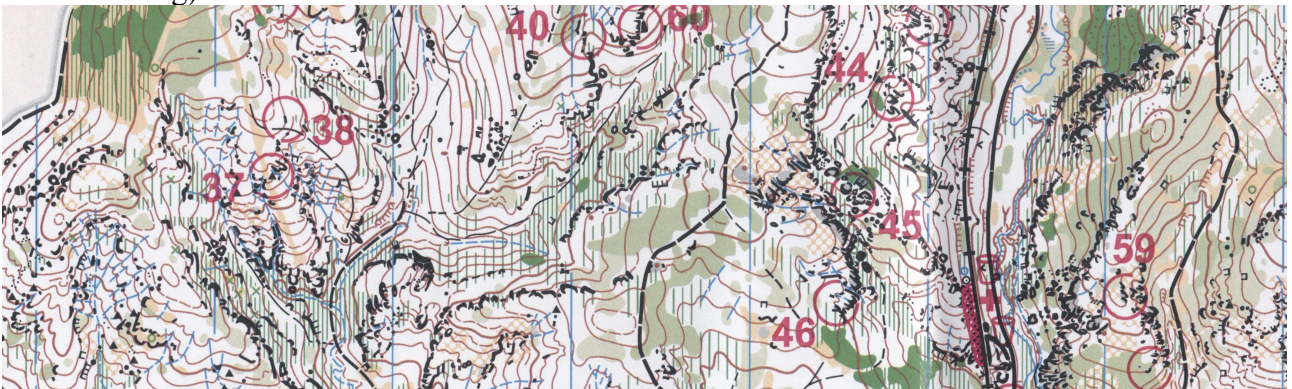
No generalization of rocky areas was attempted. What is worse is that passages between cliffs and boulders are so narrow that they can only be read with a magnifying glass. Conclusion: an overwhelming effort that has turned out to be totally useless. It is nonsense to spend hours (and money) to draw each single cliff and boulder with its precise shape if it cannot be used for controls and if the valuable information (pass - no pass) is hidden.

Not adequate for a Youth Championship.

Colours

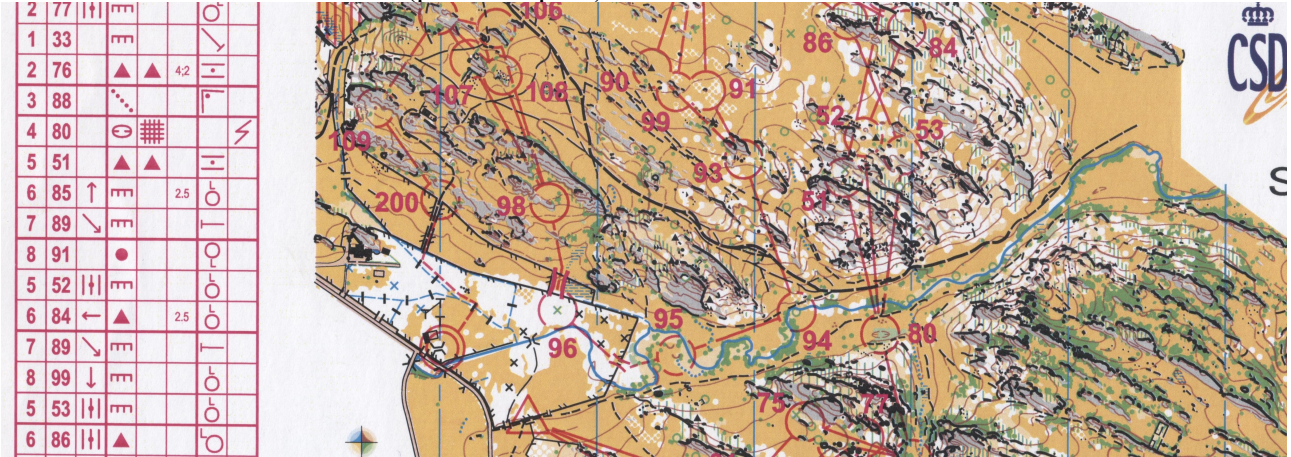
Yellow too pale

Green: Wrong tone, and the different greens (406, 408 and 410) are not on scale (408 is too pale, 410 too strong)



Relay (1:10000)

No generalization of rocky areas was attempted. What is worse is that passages between cliffs and boulders are so narrow that they can only be read with a magnifying glass. Conclusion: an overwhelming effort that has turned out to be totally useless. It is nonsense to spend hours (and money) to draw each single cliff and boulder with its precise shape if it cannot be used for controls and if the valuable information (pass - no pass) is hidden.



Rock symbols (boulders, cliffs) touch each other: Control 86 is defined as “boulder”, but is part of an undistinguishable black area.

Not adequate for a Youth Championship

World Ranking Event – Switzerland 2010, map 1:15000

Paper

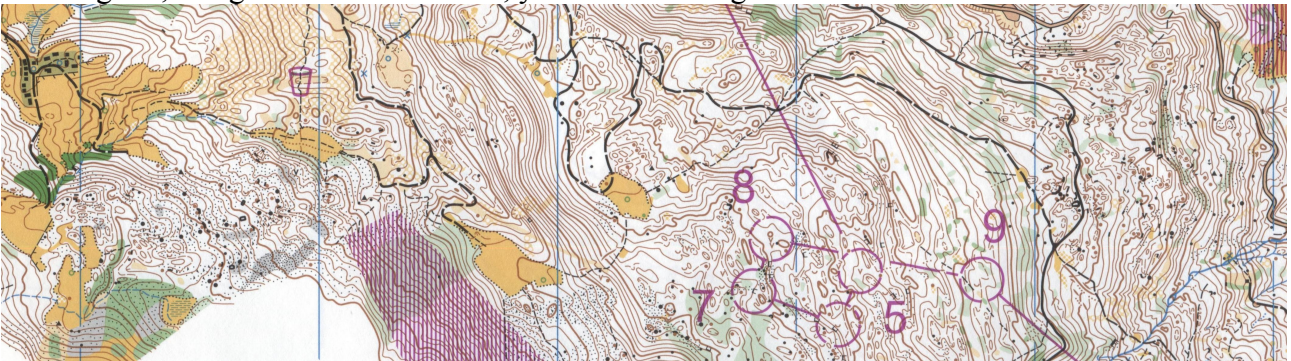
Rather thick paper, yellowish colour.

Printing

Offset: Brown spot colour; yellow, blue and green non spot.

Colours

Brown good, full green a little too dark, yellow and blue good



In the map there is an inset with map scale 1:10000. Seems unnecessary.

The drawing is nice and readable, moderate use of form lines and still most of them are unnecessary.

Ski Orienteering 2010

Ski Orienteering World Cup event, Russia, Leningrad Region

Middle distance, January 15, 2010

Map: Roschino-Tsvlodubovo, 1:7500/5 m

The quality of the printer was not evaluated, because the maps were copies.

The line raster of the indistinct marsh was not according to the international specification for ski orienteering maps. That was totally unnecessary error.

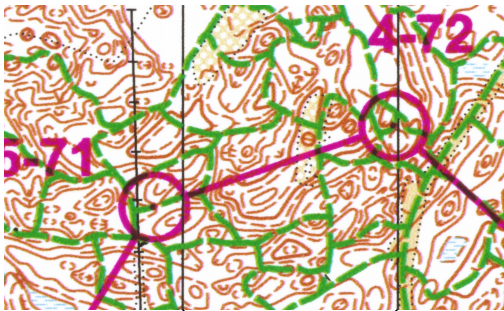
General appearance of the all maps were clear and readable. Almost every symbols were drawn carefully (correct line widths, nice track crossings etc.).

Terrain was quite detailed and the track network was dense. So the scale 1:7500 was a good choice.

Long distance, January 18, 2010

Map: Roschino-Tsvlodubovo, 1:12 500/5 m

The same comments as before for middle distance map.



20 mm/250 m

Terrain was quite detailed and the track network was dense. Because of the scale 1:12 500 and a huge amount of small depressions, the map was not readable enough.

Sprint and Sprint relay, January 16, 2010

Map: Roschino-Tsvlodubovo, 1:5000/5 m

The same comments as before for middle distance map.

The line raster of the indistinct marsh was according to the international specification for ski orienteering maps.

Ski Orienteering World Cup, JWOC, EYOC, WMOC, Romania, Miercurea Ciuc-Csikszereda

Middle distance, February 10, 2010

Map: Pasul Tolvajos-tető, 1:10 000/5 m

Long, February 11, 2010

Map: Pasul Tolvajos-tető, 1:15 000/5 m

Sprint, February 13, 2010

Map: Bradet-Fenyőke, 1:5000/5m

All maps were 4-colour offset printed. The quality was very good. Generally the colours were much better than in other maps that are evaluated in this evaluation.

General appearance of the all maps were clear and readable. Almost every symbols were drawn carefully (correct line widths, nice track crossings etc.).

The courses were printed very clear and there were also overprint effect.

1st CISM Winter Military World Games, Cogne, Italy

March 23, 2010

Map: Cogne, Valle d'Aosta, 1:10 000/5 m

(Maybe) all maps were printed with colour laser printer. The quality of the printer was sufficient, but not perfect. The contours in west-east direction were fuzzy and at some places almost broken, because of the resolution of the printer.

The colours were quite right and the paper was good (laser printer paper). The colour of the course overprint was not transparent, so there was not overprint effect.

General appearance of all the maps were clear and readable. Almost all symbols were drawn carefully (correct line widths, nice track crossings etc.).

One track symbol (804 Track, slow 0.8-1 m) was drawn with a wrong symbol. The dots were too big and the gap between dots were too small.

All the form lines in the map were unnecessary. The height difference in terrain was so big, that small terrain forms are not necessary to be in a map.

The new international specification for ski orienteering map has been valid for November 15, 2009. The colour of the 301.2 Uncrossable waterbody (forbidden to cross) is 100 % blue. There were two rivers on the map, which colour was light blue, about 50 %. The rivers were not meant to be skied, so this was an error. Was it dangerous error for the competitors?

Ski Orienteering World Cup Final, Sweden

Sprint, March 13, 2010

Map: Ånn, 1:5000/5 m

Middle distance, March 14, 2010

Map: Ånn, 1:10 000/5 m

Relay, March 16, 2010

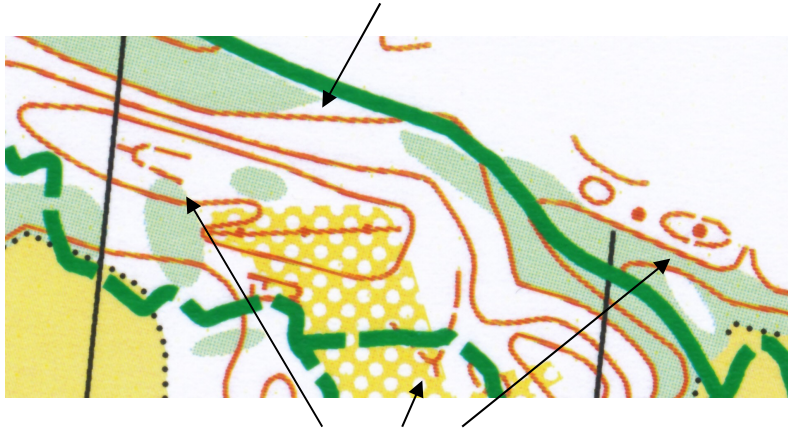
Map: Ånn, 1:10 000/5 m

Ultra long distance, March 17, 2010

Map: Ånn, 1:10 000/5 m

All maps were printed with colour laser printer Konica Minolta 2400W. The quality of the printer was good. The colours were quite right and the paper was good (normal laser printer paper). The colour of the course overprint was not transparent, so there was not overprint effect.

General appearance of the all maps were clear and readable. Almost every symbols were drawn carefully (correct line widths, nice track crossings etc.). The contours in west-east direction were fuzzy, because of the resolution of the printer.



There were only some form lines (so called Swedish style) on the map and those all were unnecessary.

The index contours were not used. However, the height difference was not big.

The new international specification for ski orienteering maps has been valid for November 15, 2009. The colour of the marshes was 100 % blue, so it was not according to the new specification (50 % blue).

Mountain bike orienteering, 2010

World Cup, Hungary

Sprint, April 23

Map: Nagymező, 1:10000/5 m

Middle, April 24, 2010

Map: Recsek-hegy, 1:15000/5 m

Long, April 25, 2010

Map: Siske-Tető, 1:20000/5 m

About 80 % of the map area is green. Because of that, the contours are not very readable. Also the line width of the contours are too narrow. Maybe they are correct in a OCAD file, but the printing has not been good enough (brown lines in green areas).

World Championships and Junior World Championships, July 9-18, 2010, Portugal, Montalegre

All maps:

Good colours, good paper.

All the tracks and paths has been drawn very carefully, also the intersections and crossings.

Sprint Final, July 11, 2010

Map: Chaves 1:7500/5 m

The map has been drawn according to the ISSOM. The scale 1:7500 is suitable for MTBO, but the Foot-O sprint symbols make the map too detailed for MTBO. There are a lot of unnecessary very tiny symbols in the map, which are not readable even in low speed. For instance trees. Maybe it was a good and interesting competition in an urban area.

Middle Distance Final, July 13, 2010

Map: South Montalegre 1:15 000/5 m

Relay, July 17, 2010

Map: North Montalegre 1:15 000/5 m

No comments.

Long Distance Qualification, July 14, 2010

Map: Avelas-Chaves 1:20 000/5 m

The terrain is very hilly. Maybe the 10 m contour interval could have been better. However, nice to see that the map is very readable in the scale 1:20 000.

Long Distance Final, July 16, 2010

Map: Morgade 1:20 000/5 m

Same comments as above.

Trail orienteering, 2010

European Championships, August 4-6, Sweden, Bollnäs

All maps: 1:5000/5 m

Easy terrain, generally only contours and yellow area, some marshes. However, the courses were challenging.

World Championships, August, Norway, Trondheim

Sprint orienteering maps with excellent quality.