

# Orienteerumiskaartide valmistamise eripärad

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Eesti Orienteerumisliit

Kartograafikonverents  
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# ***Kelle sõna kasutame?***

Mõni kuu tagasi puhkes arvutiposti vahendusel vaidlus sõna *orienteerumine* päritolu üle. Diskussioon oli äge. Ekstreemsemaid seisukohti on avaldatud isegi *Orienteering World*'is.

Dexter Palmer (Austraalia) on veendunud sõna prantsuskeelses päritolus. Tema arvates on see seotud keskaegse traditsiooniga pidada metsas alasti võidujookse. Ta arvab, et niisuguseid võistlusi peeti juba Kristuse-eelsel ajal. Kristlased kasutasid neid jookse enesepiitsutamiseks oma pattude eest. Et kannatus oleks suurem, viidi jooksjad murakarabasse. Kui patustanule esmakordselt tegevust tutvustati, küsis ta, mida selga panna, ning sai vastuseks "*Oh, rien attirer!*". Osalejaid endid tunti *rien attireurs* ' nime all. Sellest arvabki DP sõna *orienteerumine* tulnud olevat.

**Ajakirjast *Orienteering World*  
(Esmatrükk ajakirjas  
*The Irish Orienteer*)**



# Vastseliina- Kährisoo

Võrumaa

1:10000

H 2,5m

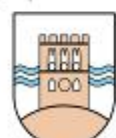
Eesti meistrivõistlused tavarajal  
ning noorte ja veteranide teates  
29.-30.08.2009

M14-16, N35-40, N18-20

| EMV N/V teade 2009 |     |              |     |
|--------------------|-----|--------------|-----|
|                    |     | 4,2 km       |     |
| ▷                  |     |              | ⊥   |
| 1                  | 38  |              | ○   |
| 2                  | 44  |              |     |
| 3                  | 45  |              |     |
| 4                  | 57  | ←            |     |
| 5                  | 71  |              |     |
| 6                  | 62  | ✓            | ○   |
| 7                  | 76  | ○            | ○   |
| 8                  | 77  |              |     |
| 9                  | 51  | ▲            | ○   |
| 10                 | 43  | ○            | ○   |
| 11                 | 31  |              | ⊗   |
| 12                 | 52  |              | ○   |
| 13                 | 32  | ∇            | 2x2 |
| 14                 | 75  | ◁            | ▷   |
| 15                 | 37  | ○            |     |
| 16                 | 100 |              |     |
|                    |     | ○ — 70 m — ⊗ |     |

2009022 EESTI ORIENTEERUMISLIIT  
 Orienteerumisklubi Võru  
 Väikisõ: Kalle Kalm 1:5000 2008.a  
 Joonis: Kalle Kalm OCAD 8/1037  
 Alusmaterjal: põhikaart 1:20 000,  
 orienteerumiskaart 0139C

**OK VÖRU**



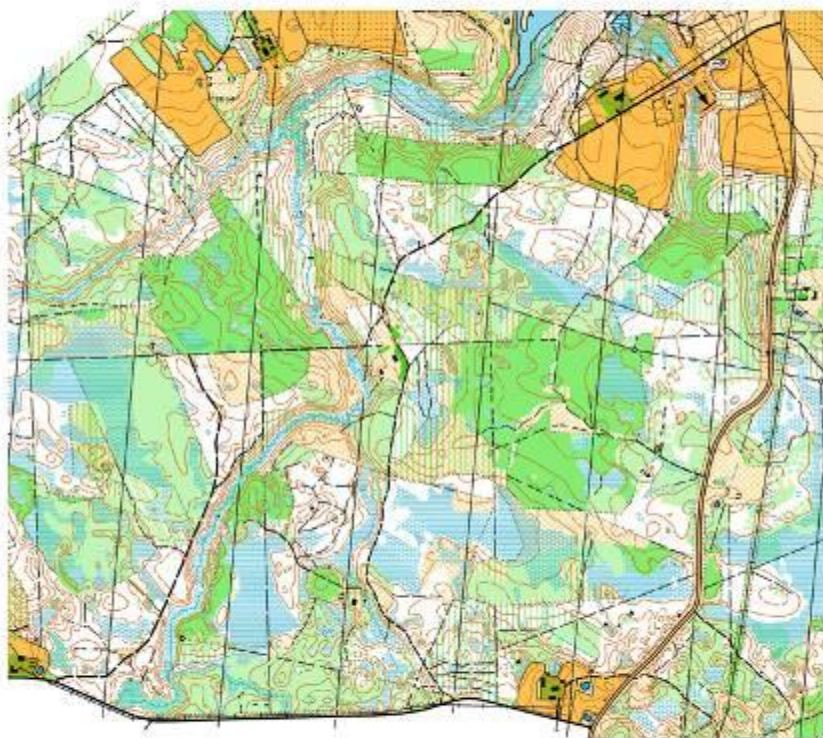
VASTSELIINA  
VALD

R R R  
**BCA**



# Milleks orienteerumiskaart, kui meil on põhikaart?

**Orienteerumiskaart 2009022**  
**Vastseliina-Kährisoo**



**1:10 000**

**Eesti Põhikaart**  
**Vastseliina**



**1:20 000**

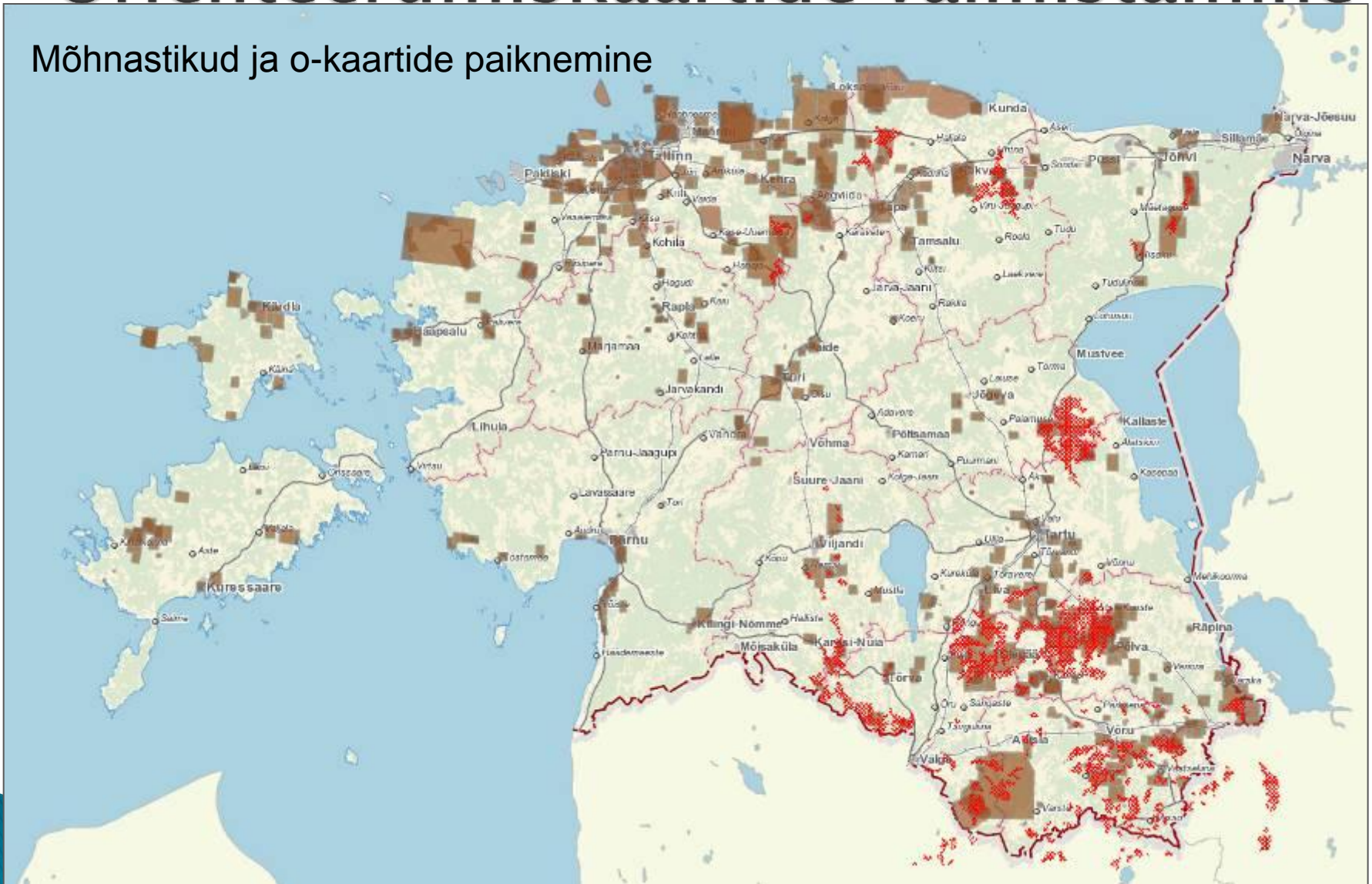
# Orienteerumiskaartide valmistamine

- ▶ Miks teha?
  - ▶ O-kaart on spordirajatis/spordivahend
  - ▶ Eestis on u 5000 orienteerujat



# Orienteerumiskaartide valmistamine

Mõhnastikud ja o-kaartide paiknemine



### Overprinting

With traditional spot colour printing inks are physically printed on top of each other. It is possible to simulate the same with four-colour printing technique, and this optimises legibility and gives a colour appearance as close to traditional spot colour printing as possible. To achieve this effect in four-colour offset printing, information underlying (in the spot colour printing order described in 3.5.1) a specific spot colour should not be blocked out (erased / printed white) completely, but should be blended in to produce a new colour for printing.

The use of overprinting effect with 4-color offset printing is recommended for the following solid colors:

- 100 % Violet
- 100 % Black
- 100 % Brown
- 100 % Blue
- 100 % Green



Illustration: Contours in dense vegetation printed in 4-colours. Overprinting effect in the right illustration.

### 3.5.3 Alternative printing methods

Colour copiers, printers and other digital printing equipment are not yet suitable for printing orienteering maps for high level competitions. It is very difficult to achieve the line quality, legibility and colour appearance of traditional spot colour printed maps using this kind of equipment.

It is expected that the continuing development of computer technology will lead to the possibility of using alternative printing methods with quality suitable for large competitions.

Most printing devices use a 4-color technique (CMYK). For such devices the same colour settings as recommended for 4-color offset printing may be suitable, but the colour appearance will vary slightly from one device to another and from one paper quality to another.

Extensive experimentation with different colour and halftone settings, different paper qualities and other variables will be necessary to achieve a quality as close to offset printing as possible. Such experimentation has to be done for a whole range of devices. This specification can therefore not give any general recommendations for the use of such alternative printing methods.

## 4 EXPLANATION OF SYMBOLS (FOOT-O)

Definitions of map features and specifications for the drawing of symbols are given in the following sections. Symbols are classified into 7 categories:

|                   |                |
|-------------------|----------------|
| Land forms        | (brown)        |
| Rock and boulders | (black+grey)   |
| Water and marsh   | (blue)         |
| Vegetation        | (green+yellow) |
| Man-made features | (black)        |
| Technical symbols | (black+blue)   |
| Course symbols    | (purple)       |

**Note: dimensions are specified in mm at the scale of 1:15 000.**  
All drawings are at 1:7 500 for clarity only.

- < gap or infill between two lines
- line thickness
- distance from centre to centre or length of line
- o diameter
- ↑ symbol orientated to north

### 4.1 Land forms

The shape of land is shown by means of very detailed contours, aided by the special symbols for small knolls, depressions, etc. This is complemented in black by the symbols for rock and cliffs. Orienteering terrain is normally best represented with a 5 m contour interval.

Excessive use of form lines should be avoided as this will complicate the map and give a wrong impression of height differences. If the representation of an area needs a large number of form lines, a smaller contour interval provides a more legible alternative.

The relative height difference between neighbouring features must be represented on the map as accurately as possible. Absolute height accuracy is of less importance. It is permissible to alter the height of a contour slightly if this will improve the representation of a feature. This deviation should not exceed 25% of the contour interval and attention must be paid to neighbouring features.

- 101 Contour**  
A line joining points of equal height. The standard vertical interval between contours is 5 metres. The smallest bend in a contour is 0.25 mm from centre to centre of the lines.  
Colour: brown.
- 102 Index contour**  
Every fifth contour shall be drawn with a thicker line. This is an aid to the quick assessment of height difference and the overall shape of the terrain surface. Where an index contour coincides with an area of much detail, it may be shown with a normal contour line.  
Colour: brown.
- 103 Form line**  
An intermediate contour line. Form lines are used where more information can be given about the shape of the ground. They are used only where representation is not possible with ordinary contours. Only one form line may be used between neighbouring contours.  
Colour: brown.
- 104 Slope line**  
Slope lines may be drawn on the lower side of a contour line, e.g. along the line of a re-entrant or in a depression. They are used only where it is necessary to clarify the direction of slope.  
Colour: brown.



# ISOM



Tuderna, Põlvamaa

Vífilsstaðahlíð, Island

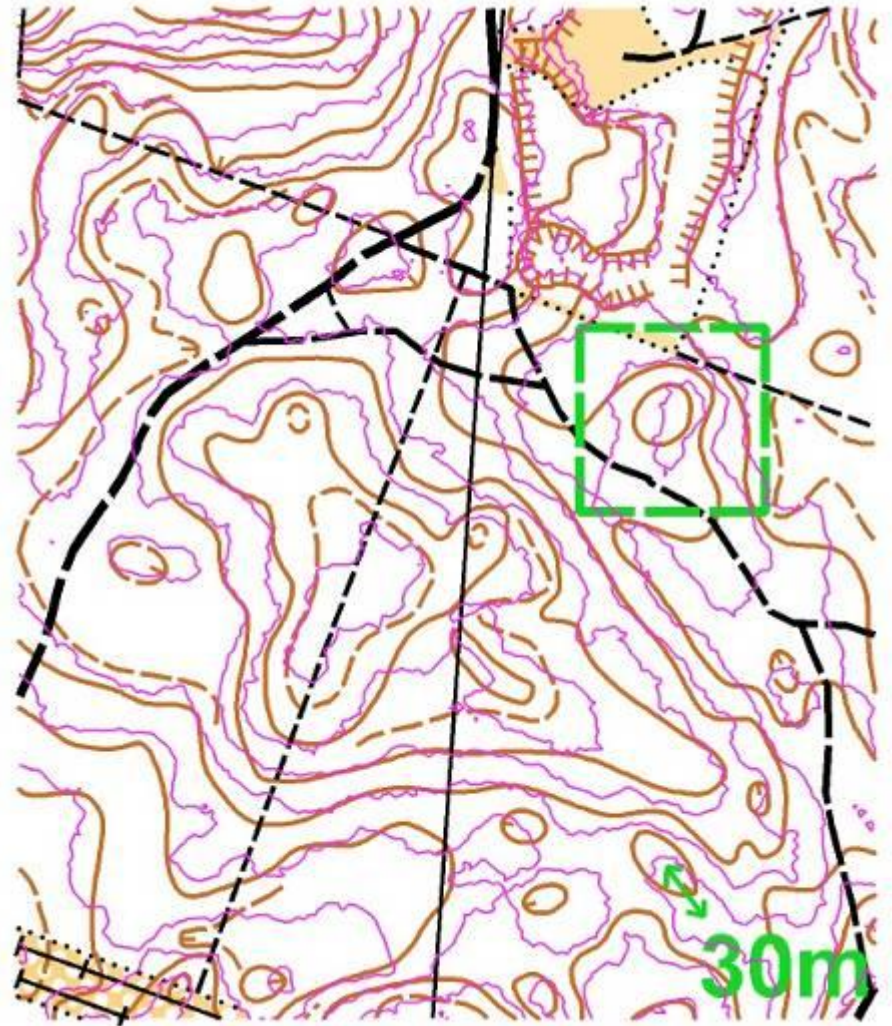




# Orienteerumiskaardi tegemine

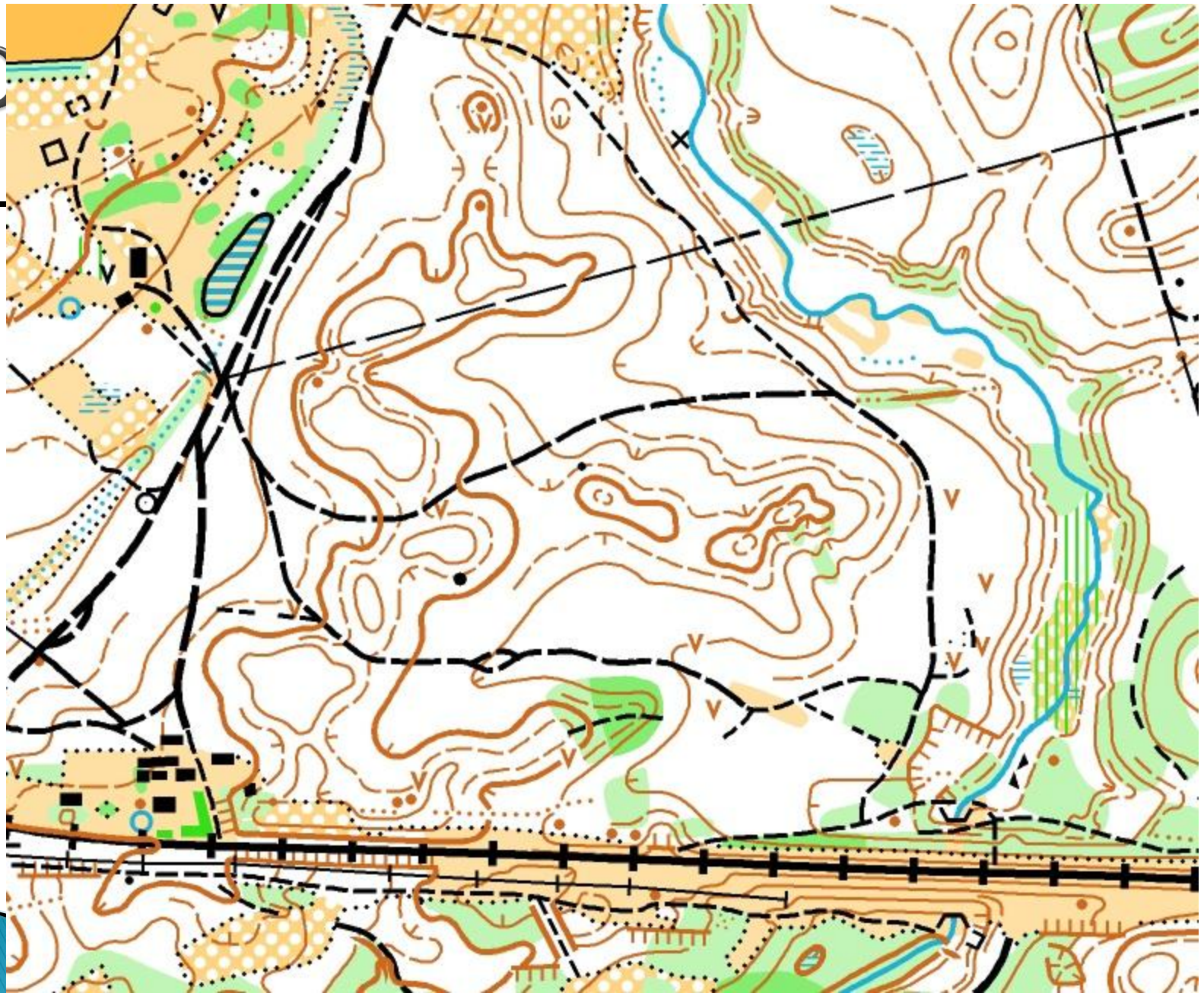
## Tähtsaim – reljeef

- ▶ NL topokaardid
  - ▶ Eesti põhikaart
  - ▶ Alates 2010 LIDAR
- 
- ▶ Välitööde käigus mõõdetakse kaitse kaardile kõik künkad jm reljeefidetailid, samuti teoreetiliselt





C  
T  
▶





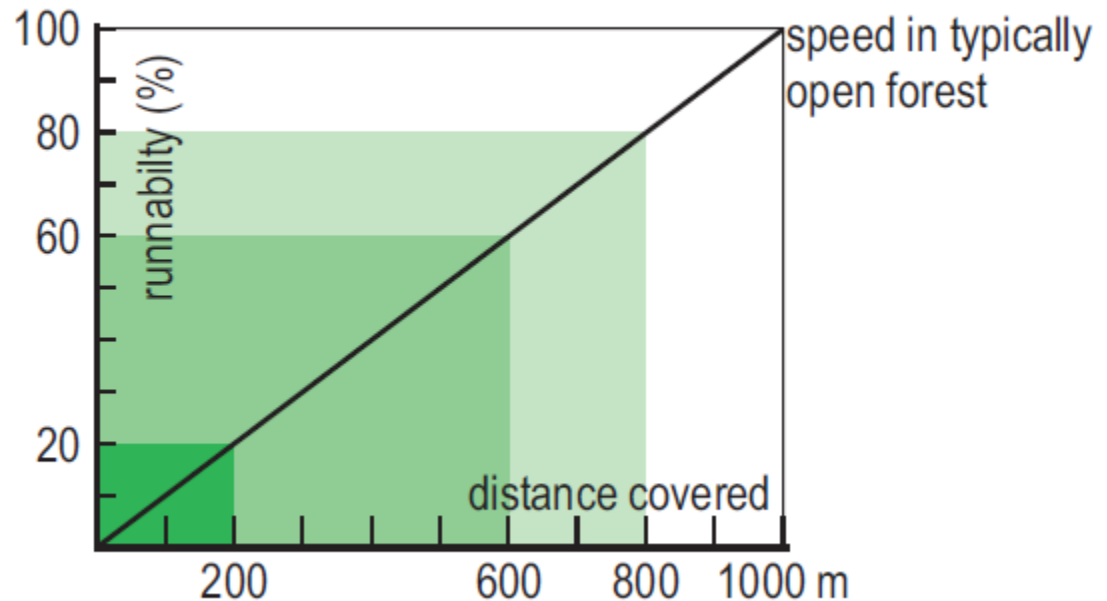
# Orienteerumiskaardi tegemine

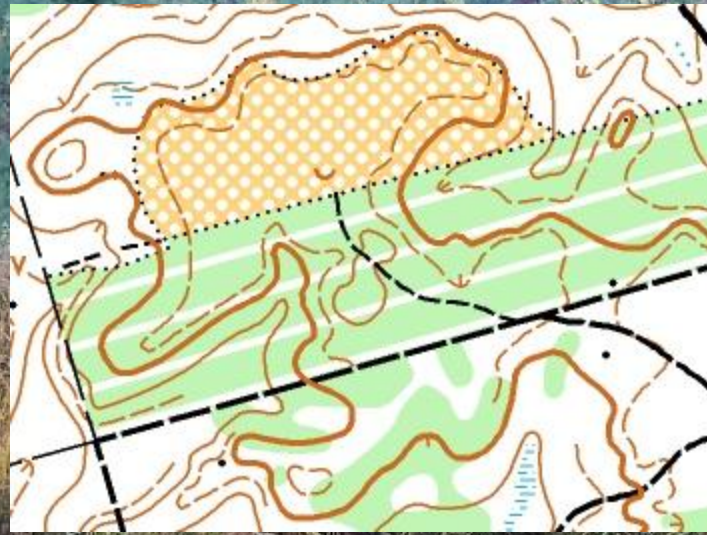
Muud objektid- rajad, kivid, pisidetailid

- ▶ Enamasti välitööd

Läbitavus

- ▶ Puhtalt välitöö







# (orienteerumis)kaardid on subjektiivsed ehk umbes täpsed

- ▶ Parima orienteerumiskaardi valmistab kogenud orienteeruja, mitte parim kartograaf
- ▶ kaardistaja — rajameister  
    võistleja
- ▶ Igal kaardistajal oma “käekiri”

Czech O-map Workshop 2000

*Aleš Hejna*



assembled by olles.cz

Czech O-map Workshop 2000

*Zdeněk Lenhart*



assembled by olles.cz

Czech O-map Workshop 2000

*Martin Telecký*



assembled by olles.cz

Czech O-map Workshop 2000

*Bob Háj*



assembled by olles.cz

Czech O-map Workshop 2000

*Jan Langr*



assembled by olles.cz

Czech O-map Workshop 2000

*Tom Novák*



assembled by olles.cz

Czech O-map Workshop 2000

*Milan Bílý*



Czech O-map Workshop 2000

*Miloš Broulík*



Czech O-map Workshop 2000

*Boris Dvorský*



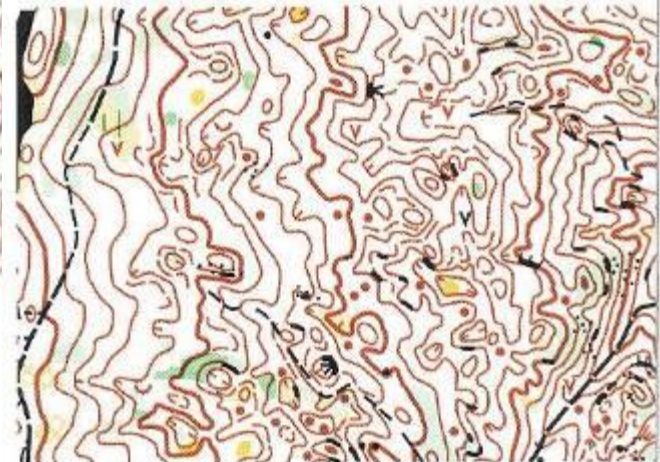
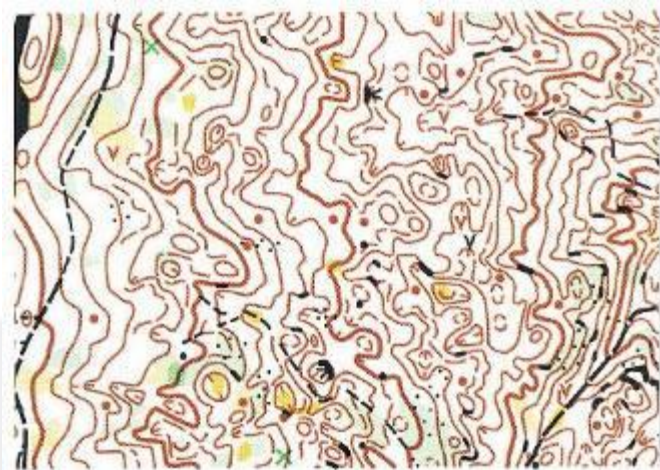


# MM 2011

## Prantsusmaal

16:24:13 LIVE  
8:00

KAR 28 Kärner Olle  
BOS 29 Bostrom Olle



# Eesti Orienteerumiskaardid

- ▶ Kõik värvikaardid (alates 1962) on Eesti Orienteerumiski
- Igal kaardil on n
- aasta ja järjekor
- kaardinäidised

**EESTI ORIENTEERUMISLIIT**

Kaardid O-kalender Foorum Registreeri vätstlustele EOLi kood

### Orienteerumiskaardid

#### Mõujärve

|                            |                                       |
|----------------------------|---------------------------------------|
| Kaardi nimi                | <b>Mõujärve</b>                       |
| Kood                       | <b>2011072LK</b>                      |
| Aasta                      | <b>2011</b>                           |
| (L-EST)                    | <b>2011072</b>                        |
| Maakond                    | <b>Põlvamaa</b>                       |
| Kaardi tüüp                | <b>OJ</b>                             |
| Mõõtkava                   | <b>1:10 000</b>                       |
| Kõrgusjoonte vahe          | <b>2,5m</b>                           |
| Kaardi suurus              | <b>A4</b>                             |
| Kaardi tellija             | <b>OK Põlva Kobras</b>                |
| Varaline autoriõigus       | <b>OK Põlva Kobras</b>                |
| Kaardistajad               | <b>Kalle Ojasoo</b>                   |
| Välitöö aeg                | <b>2009-2011</b>                      |
| Eelmine kaart              | <a href="#">2009007</a>               |
| Kaardi pindala             | <b>3.66km<sup>2</sup></b>             |
| Esmakaardistatud ala osa   | <b>50%</b>                            |
| Joonis                     | <b>Martin Ojasoo</b>                  |
| Faili tüüp                 | <b>OCAD 7.0</b>                       |
| Kaardi trükkimeetod        | <b>Värvipaljundus</b>                 |
| Esmamärituse nimi          | <b>Põlva Maakonna MV</b>              |
| Fail trükkimiseks          | <a href="#">Lae fail (300DPI gif)</a> |
| Täiendav info kaardi kohta | <a href="#">teisipäevakute kaart</a>  |

#### Kaardi näidis

#### Kaardi asukoht



# Kohtumiseni orienteerumisradadel

[www.orienteerumine.ee](http://www.orienteerumine.ee)

