



ORIENTEERING SPORT AND ORIENTEERING MAP

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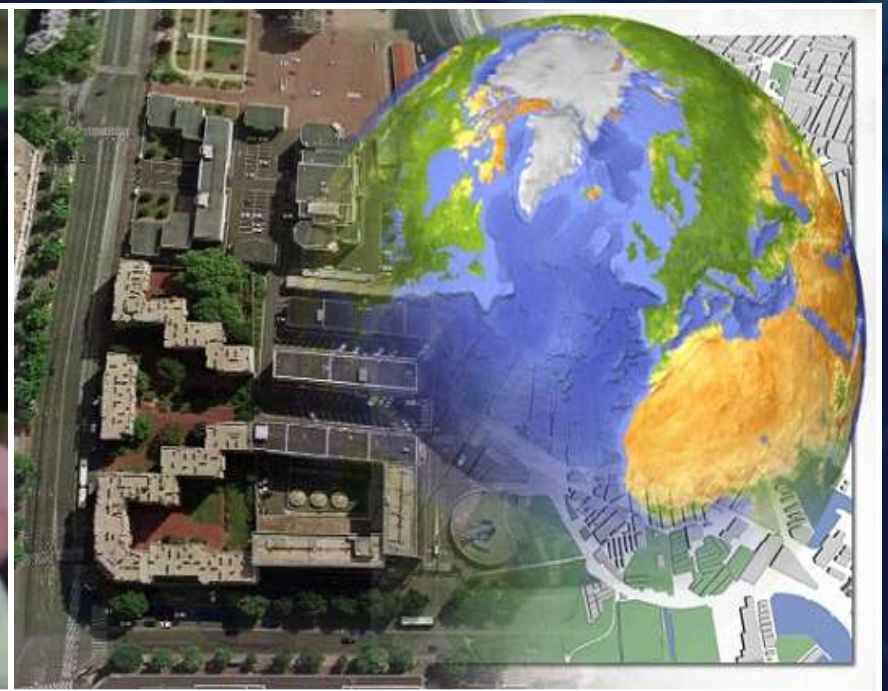
Orienteering sport is very interesting individual sport which allows all participants not only to improve their physical performance but also to improve their map reading and compass skills.

Orienteering sport disciplines:

- foot orienteering
- MTB orienteering
- trail orienteering
- ski orienteering



Terrain mapping - foundation for development of orienteering sport



IOF symbol collection for orienteering maps

	osnovna izohipsa (slojnica)
	glavna izohipsa (slojnica)
	pomoćna izohipsa (slojnica)
	vrtča (ponikva)
	nadomska visina izohipse
	pokos
	zemljani zid
	vododerina
	suhi jarak
	glavica
	uleknuće
	jama
	izlomljeno zemljište
	neprelazni kameni odron
	prelazni kameni odron
	kamena gromada (oblik)
	kamena jama
	spilja (ulaz)
	kamen
	kamena gromada
	polje kamenih gromada
	skupina kamenih gromada
	kamenito područje
	pješćanik
	golo kameno polje
	vodena površina
	obalna linija

	rupa ispunjena vodom
	prelazna rijeka
	potok
	povremeni vodotok
	močvarni trag
	neprelazna močvara
	močvarno područje
	malo močvarno područje
	povremena močvara
	bunar
	izvor
	specijalni mali vodeni objekt
	livada
	poluotvoreno područje
	zaraslo otvoreno područje
	šuma (bijela boja)
	šuma koja usporava trčanje
	šuma koja otežava trčanje
	neprohodna šuma
	voćnjak
	vinograd
	oranica
	uočljiva granica vegetacije
	uočljiva granica vegetacije
	panj
	markantno drvo
	markantni grm

	autocesta
	autocesta u izgradnji
	glavna asfaltirana cesta
	sporedna asfaltirana cesta
	asfaltirana cesta u izgradnji
	makadam
	kolski put
	staza
	uska staza
	teško uočljiva staza
	prosjeka
	pruga
	telefonski vod
	dalekovod
	tunel
	mali tunel
	prelazni kameni zid
	neprelazni kameni zid
	uništeni kameni zid
	prelazna ograda
	neprelazna ograda
	uništena ograda
	vrata (prolaz)
	građevina
	mala građevina
	ruševina
	mala ruševina

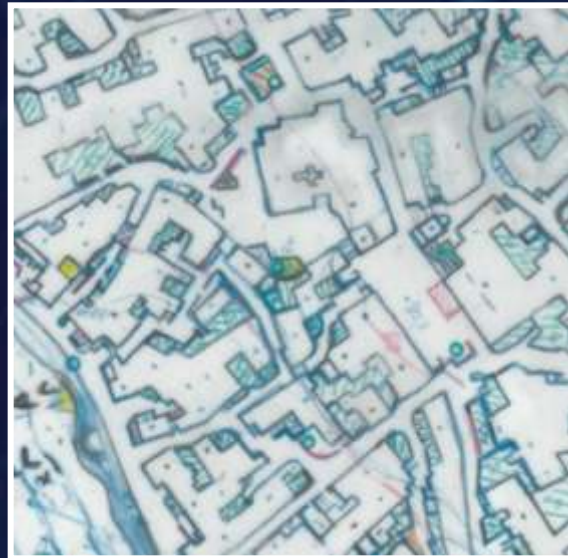
	privatni posjed
	zabranjeno područje
	asfaltirano područje
	streljana
	kapelica
	prelazni plinovod
	neprelazni plinovod
	visoki toranj
	čeka
	spomenik
	hranilica
	mali objekt
	sjevernica (plave boje)
	sjevernica (crne boje)
	1231 nadomska visina kote
	start
	kontrolna točka
	redni broj kontrolne točke
	markirani put
	linija
	cilj
	zabranjeno područje
	opasno područje
	zabranjena ruta
	prva pomoć
	osvježanje
	prolaz

Making of orienteering map using base map made with Orthophotography

Time required to make 1km² of map in urban area – 80-100 h



Orthophoto 1 : 5 000
Map sample Omišalj



Mapmaker's sketch of terrain -
Omišalj

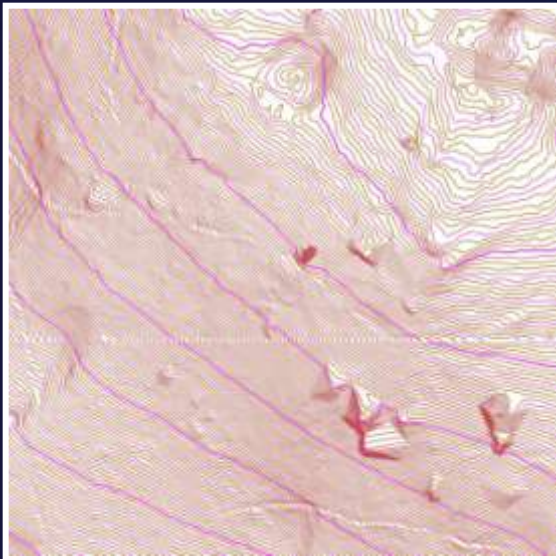


Orienteering map Omišalj,
1 : 4 000, e - 5 m, 2014

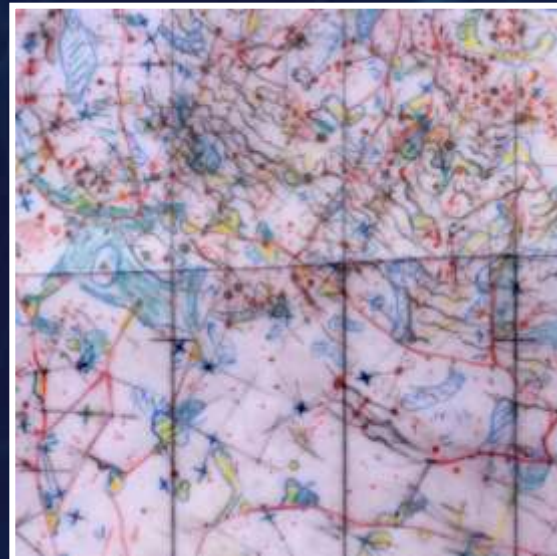
Mapmakers:
Robert Miček, Zdeněk Sokolář

Making of orienteering map using base map made with LiDAR

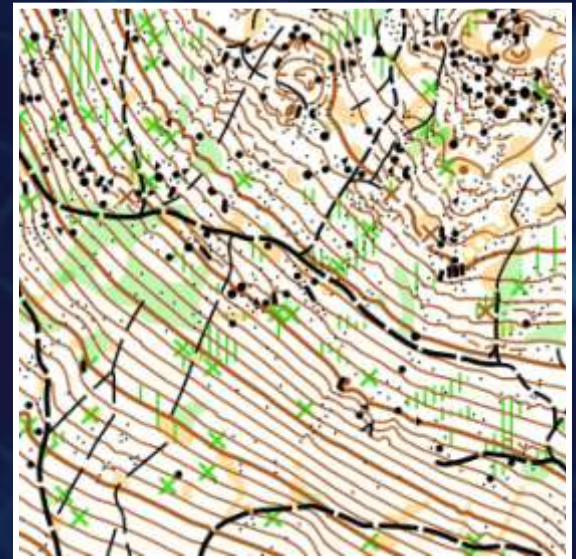
Time required to make 1km² of map on karst terrain – 120-150 h



LiDAR Sungerski lug



Mapmaker's sketch of terrain -
Sungerski lug



Orienteering map Sungerski lug,
1 : 10 000, e - 5 m, 2012

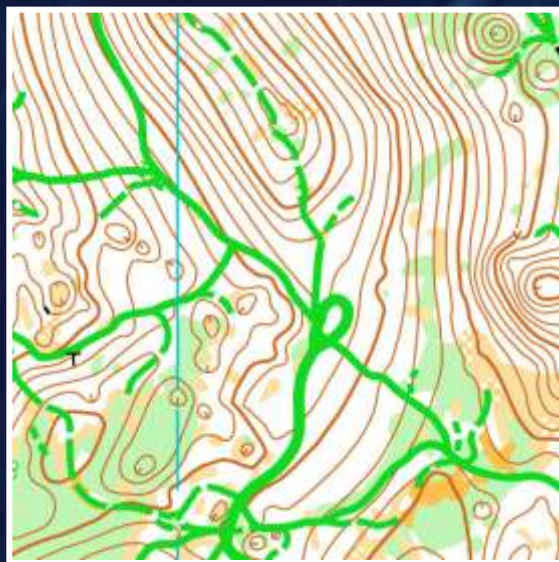
Mapmaker: Robert Miček

Examples of IOF standard:

Delnice,
1 : 15 000, e -5 m, 1996
Mapmakers:
Bohdan Stramyk, Orest Kotylo



ISOM standard
(International Specification
for Orienteering Maps, 2000)



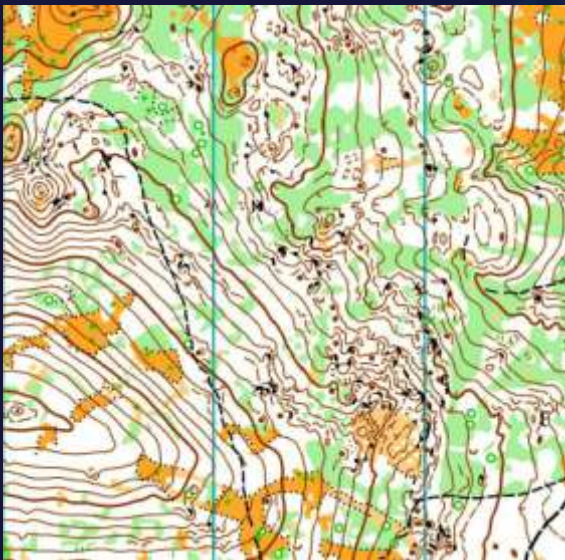
ISSKIOM standard
(International Specification
for SKI Orienteering Maps, 2002)



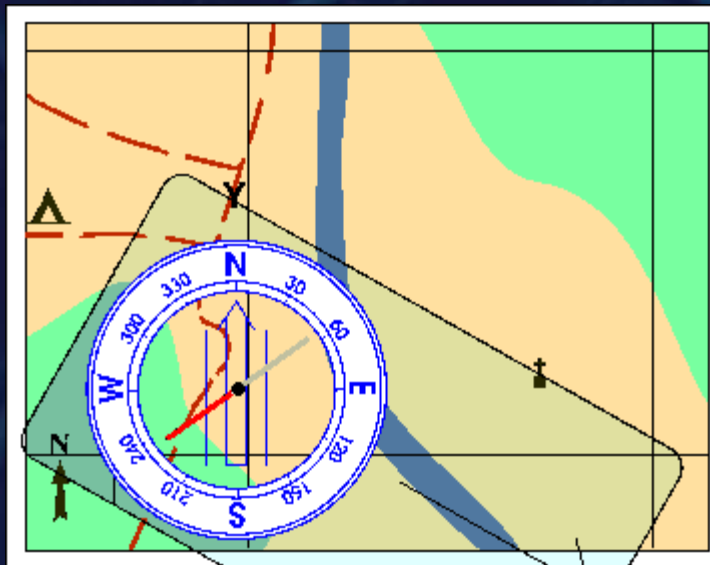
ISMTBOM standard
(International Specification
for MTB Orienteering Maps, 2007)

The compass is any magnetically sensitive device capable of indicating the direction of the magnetic north used to determine the four cardinal directions or cardinal points.

It is unknown who invented the compass but it is known that it was first used by the Chinese.



Map Petehovac,
1 : 10 000, e - 5 m, 2014



Mapmakers: Robert Miček, Zdeněk Sokolář

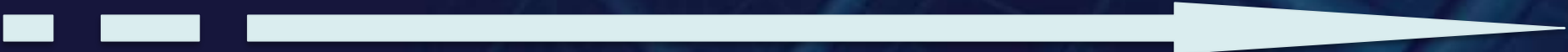


Control point

- pole
- prismatic flag
- code number
- electronic control station
- backup, manual system



Sport development through punching system evolution



1950 – '60

'65

'96 – '99

'99 >

Series	1	2	3	4	5	6	7	8	9	0
A	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯
B	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯
C	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯
A2	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯
B2	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯
C2	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯
R	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯
R	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯	⋯



SPORTident
Make the most of your sport!

SPORTident

1	2	3
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Croatia open 2012 - 28th July 2012 - see you there!
 Any kind of copying or use of this map without knowledge of OK "Ris" is STRICTLY FORBIDDEN!

HRVATSKA KARTA ZA ORIJENTACIJSKO TRČANJE

Sungerski lug II

M = 1 : 10 000
 e = 2,5 m



Croatia open 2012 - 5th day					
M21E		5,7 km		20 m	
1	31	∩	∩	Y	
2	32	⊖	∩		
3	33	≡	⊖	⊖	
4	34	→	⊖		⊖
5	35	≡	10x3	⊖	
6	36	←	⊖	≡	⊖
7	37	⊖	≡		⊖
8	38	∩	2x2		
9	39	≡	∩		⊖
10	40	⊖	∩		⊖
11	41	⊖	∩	5x3	
12	42	↘	∩		
13	43	≡	⊖		⊖
14	44	↗	⊖		⊖
15	45	↑	⊖		∩
16	46	⊖	≡		⊖
17	47	⊖	≡		⊖
18	48	∩			
19	49	•	1:2	⊖	
20	50	•	∩	2x2	∩
21	51	↙	∩	2x2	
22	52	∩			
23	53	⊖	∩		⊖
24	54	∩	∩		
25	100	↙			∩

70 m

ZAJEDNICA ŠPORTOVA
 PRIMORSKO-GORANSKE ŽUPANIJE

Grad Delnice

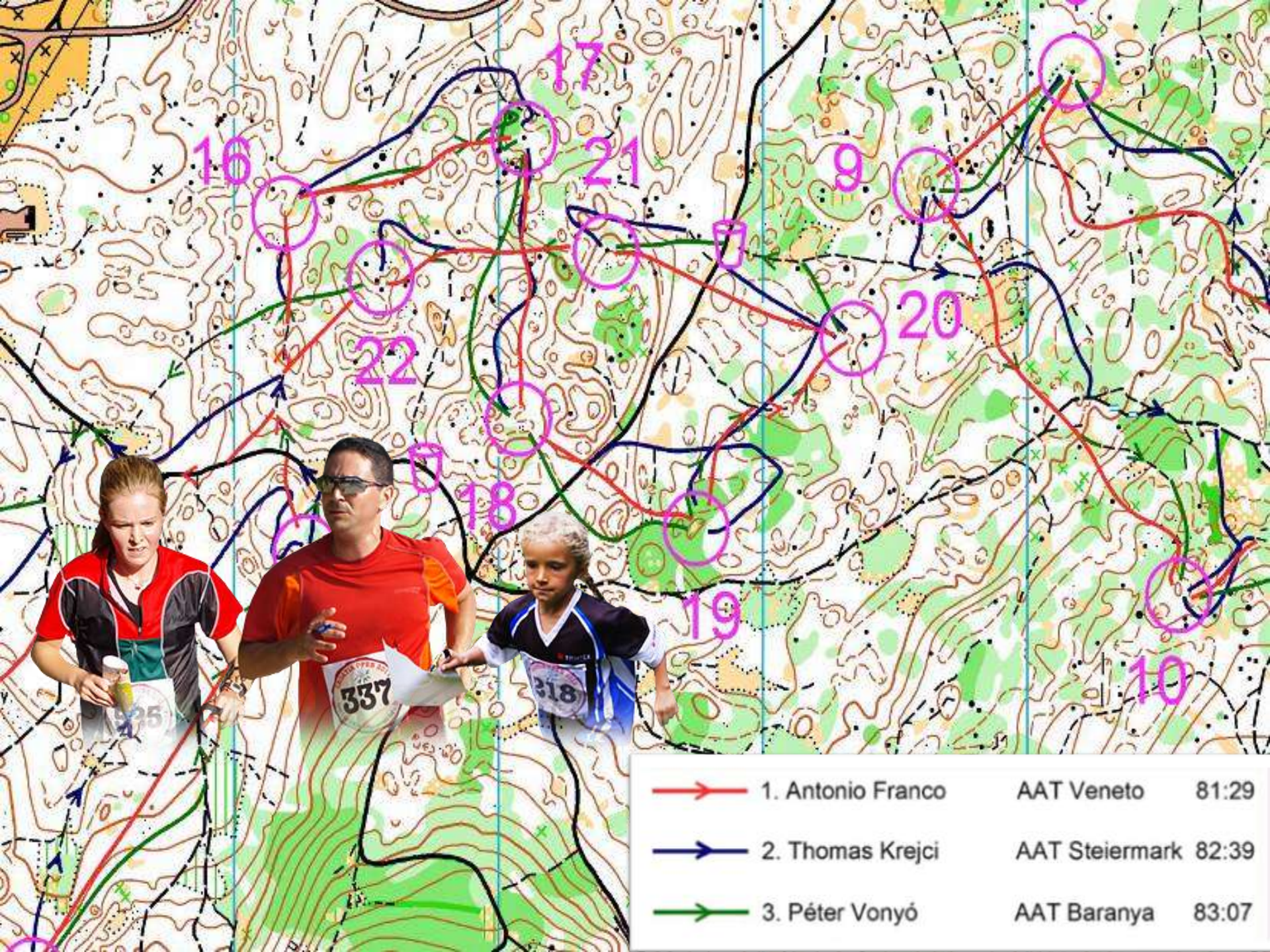


Priroda

SPORTident



tehnički rad: Daniel Lebar
 stanje: 2012.
 podloge: LIDAR, ortofoto
 info: www.croatiaopen.net
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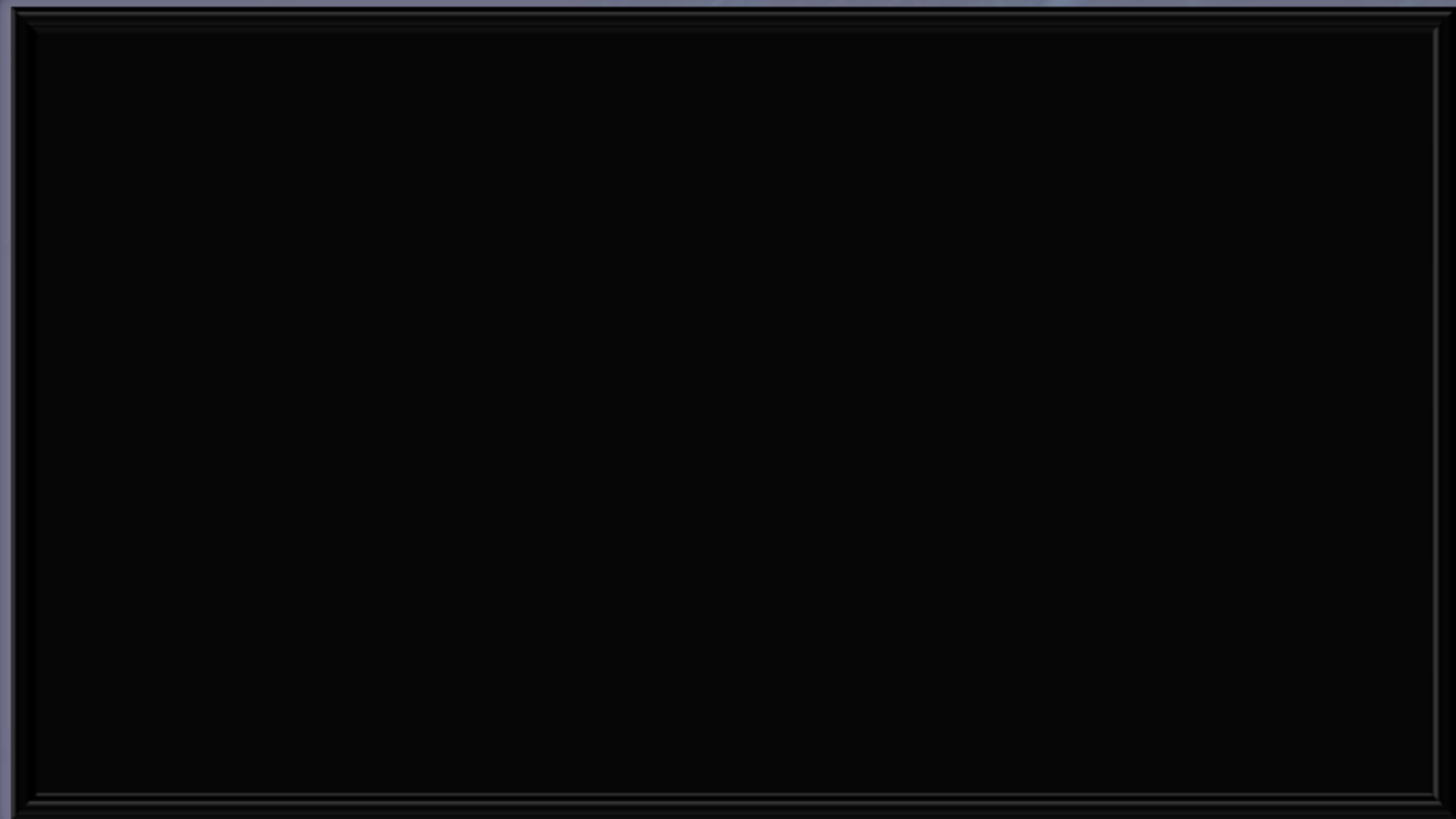


- | | | | |
|--|-------------------|----------------|-------|
|  | 1. Antonio Franco | AAT Veneto | 81:29 |
|  | 2. Thomas Krejci | AAT Steiermark | 82:39 |
|  | 3. Péter Vonyó | AAT Baranya | 83:07 |



Croatia Open
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THANK YOU FOR YOUR ATTENTION

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