

SKI ORIENTEERING



INTERNATIONAL ORIENTEERING FEDERATION



Contents



INTRODUCTION BY THE IOF PRESIDENT	5
FOREWORD FROM THE HEAD OF SKI ORIENTEERING COMMISSION	7
CERTIFICATE OF IOC RECOGNITION	8
COUNTRIES PRACTISING SKI ORIENTEERING	10
STRATEGY FOR DEVELOPMENT STRATEGY	50
SKI ORIENTEERING: ADVENTURE ON SNOW	52
HISTORY AND THE RECENT DEVELOPMENT OF SKI ORIENTEERING	53
Ski orienteering is an endurance winter sport combining navigation and skiing across rough terrain	
STRATEGY TO ENSURE THE FAVOURABLE DEVELOPMENT OF THE SPORT	56
Ski orienteering needs controlled international growth, quality events and concrete action to make the sport more attractive	
OLYMPIC PROJECT	62
Before Olympic Games we have to get basics right: In near future the emphasis will be on event quality and TV production	
SKI ORIENTEERING COMMISSION: Individual responsibilities	64
Clearly defined roles and responsibilities ensure efficient development of the sport	
PHOTOGRAPH ALBUM	66







The sport of orienteering has a very attractive and exciting winter discipline in Ski Orienteering. This brings together the mental challenges of navigation at high speed on snow with the physical demands of cross country skiing. The discipline is growing fast and is attracting participation from most traditional winter sports nations. The IOF is seeking to support expansion of its winter discipline in parallel with the summer versions of the sport. Technological innovation in the discipline in the form of GPS based tracking of competitors and touch free control points are making ski orienteering an exciting and attractive spectator and TV sport and we are sure that it has a very positive future indeed.

Brian Porteous
President IOF





Foreword

In your hands you now have a book containing a presentation of our sport, Ski Orienteering.

Ski Orienteering is a sport with high demands on physical and technical skills. As the athletes are finding their way between the control points at the same time as they are skiing, the sport challenges the participants at many levels. Finding the way in itself is not very difficult; finding the way at high speed and under pressure is another game altogether.

Our sport is an action sport on skis with special challenges. Athletes must find the fastest, safest and easiest way through the terrain. It can be described as skiing in a labyrinth of ski tracks. You need to know where you are and where to go, and there can be just a few seconds between each time you make a decision that can be crucial for your position on the results list. Our best Ski Orienteers are professional athletes training at the level it takes to be the best in the world.

Our sport has developed with the help of technological advances. For many years we have used GPS tracking live in our competitions. The new generation punching system at the controls makes our sport even faster and puts extra pressure on the athletes. And we have developed head-to-head racing that brings more excitement for spectators.

In the last 10 years we have expanded into new continents and also joined CISM World Winter Games. We have had international championships and World Cups in 3 continents; we have approximately 30 countries competing in Ski Orienteering at international level. We will continue the work to have our athletes able to compete in more Multi-Sport Games in the future.

I hope you will be able to appreciate what we offer to the sporting world. We are a sport with a lot of action and as we are competing 'out in the wild', we are teaching young people how much fun they can have outdoors.

Eivind Tonna
Chairman, IOF Ski Orienteering Commission



Certificate of IOC recognition

CERTIFICAT
CERTIFICATE

A l'occasion de la
On the occasion of the



79^e SESSION DU COMITÉ INTERNATIONAL OLYMPIQUE
A PRAGUE
*79th SESSION OF THE INTERNATIONAL OLYMPIC COMMITTEE IN
PRAGUE*

du 15 au 18 juin 1977
from 15th to 18th June 1977

**PINTERNATIONAL ORIENTEERING
FEDERATION (I.O.F.)**

A ÉTÉ RECONNUE, SELON L'ARTICLE 29 DE LA
CHARTRE, PAR LE COMITÉ INTERNATIONAL
OLYMPIQUE
*RECEIVED RECOGNITION, PURSUANT TO RULE 29 OF THE
CHARTER, FROM THE INTERNATIONAL OLYMPIC COMMITTEE*



JUAN ANTONIO SAMARANCH
PRÉSIDENT DU C.I.O.

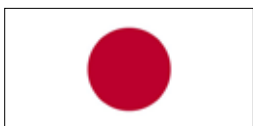
COUNTRIES PRACTISING SKI ORIENTEERING

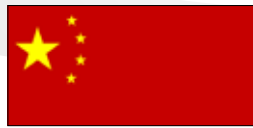






Flags of countries







Australia



IOF MEMBER SINCE 1971

President:
Blair Trewin

82 272 orienteers in the country

First Australian Ski Orienteering Championships

Lake Mountain, August 17, 1995

Clues			
Control Point No.	Clue	Control Point No.	Clue
1	SP 9	12	SP 21
2	Ski School	13	SP 49
	Area Sign	14	Slow Sign
3	Wooden Sign, Frame	15	SP 32
4	SP 42	16	Top of Clearing
5	SP 19 315°45m	17	The Gully
6	Bend in Trail	18	SP 72
7	Long Heath Sign	19	SP at edge of plain
8	SP 29 0°28m	20	SP at edge of plain
9	SP at edge of plain	21	SP at lookout
10	SP 32		
11	SP 58		

Austria

IOF MEMBER SINCE 1966

President:
Erik Adenstedt

6 773 orienteers in the country





Belarus



IOF MEMBER SINCE 1994

President:
Andrei Morozov

2 000 orienteers in the country



Bulgaria

IOF MEMBER SINCE 1961

President:
Prof. Atanas Georgiev, Ph.D.

820 orienteers in the country





Canada



OTTAWA

IOF MEMBER SINCE 1969

President:
Alison Price

10 000 orienteers in the country



IOF MEMBER SINCE 1992

President:
Li Zhengmei

600 orienteers in the country



China





Croatia



IOF MEMBER SINCE 1992

President:
Karlo Gobec

400 orienteers in the country



Czech Republic

IOF MEMBER SINCE 1993

President:
Radan Kamenicky

10 000 orienteers in the country





Estonia



IOF MEMBER SINCE 1992

President:
Urmas Klaas

2 607 orienteers in the country





Finland



IOF MEMBER SINCE 1961

President:
Kirre Palmi

13 500 orienteers in the country





France



President:
Michel EDIAR

27862 orienteers in the country



Great Britain

IOF MEMBER SINCE 1961

President:
Sir Chris Bonnington

80 000 orienteers in the country





Germany



IOF MEMBER SINCE 1990

President:
Joachim Bader

2 000 orienteers in the country



IOF MEMBER SINCE 1961

President:
Miklós Juhász

4 500 orienteers in the country



Hungary





Iran



Italy

IOF MEMBER SINCE 1979

President:
Mauro Gazzero

33 423 orienteers in the country





Japan



IOF MEMBER SINCE 1969

President:
Kashimada Koji



Kazakhstan

IOF MEMBER SINCE 1994

President:
Irina Chsheglova

1 200 orienteers in the country





Kyrgyzstan



IOF MEMBER SINCE 2007

President:
Ilshat Dautov

250 orienteers in the country



IOF MEMBER SINCE 1979

President:
Jaeyoung Lee

10 000 orienteers in the country



Korea





Latvia



IOF MEMBER SINCE 1992

President:
Peteris Apinis

2 400 orienteers in the country



IOF MEMBER SINCE 1992

President:
Donatas Kazlauskas

2 150 orienteers in the country



Lithuania





Moldova



IOF MEMBER SINCE 2001

President:
Victor Litvinov

1 200 orienteers in the country



IOF MEMBER SINCE 2005



Mongolia





Norway



IOF MEMBER SINCE 1961

President:
Einar Tommelstad

22 000 orienteers in the country



Poland

IOF MEMBER SINCE

President:
Jerzy Antonowicz

1059 orienteers in the country





Romania



BUCHAREST

IOF MEMBER SINCE 1990

President:
Constantin Alexandrescu

386 orienteers in the country



Russia

IOF MEMBER SINCE 1992

President:
Sergey Balyaev

220 000 orienteers in the country.
4 500 orienteering and 530 ski ori-
enteering events held in 2012





Serbia



BELGRADE

IOF MEMBER SINCE 2003

President:
Djordje Zagorac

500 orienteers in the country



Spain

IOF MEMBER SINCE 1961

President:
Victor M. Garcia Berenguer

12 000 orienteers in the country.





Switzerland



BERN

IOF MEMBER SINCE 1961

President:
Marcel Schiess

8 380 orienteers in the country



Sweden



IOF MEMBER SINCE 1961

President:
Lena Larsson

75 579 orienteers in the country.



STOCKHOLM





Slovakia



BRATISLAVA

IOF MEMBER SINCE 1993

President:
Juraj Neměc

2 000 orienteers in the country



Turkey

IOF MEMBER SINCE 2001

President:
Tekin Colakoglu

5000 orienteers in the country.



• ANKARA





Ukraine



IOF MEMBER SINCE 1992

President:
Tetyana Bozhko

7 410 orienteers in the country



USA

IOF MEMBER SINCE 1973

President:
Peter Goodwin

60 000 orienteers in the country.



STRATEGY FOR DEVELOPMENT STRATEGY







Ski Orienteering: Adventure on Snow



History and the recent development of ski orienteering

Ski orienteering is an endurance winter sport combining navigation and skiing across rough terrain

Ski orienteering in a nutshell

- Ski orienteering events are designed to test both the physical strength and navigation skills of the athletes
- Athletes use a map to navigate a dense ski track network in order to visit a number of control points in the right order and in the shortest possible time
- The track network is printed on a map and there is no marked route on the terrain. The map gives all the information the athletes needs to decide which route is the fastest
- Ski orienteering is time-measured and objective. The clock is the judge and the fastest time wins.
- Ski orienteering is a true TV sport: GPS tracking and head cameras document the decisive moments of the race and transmit them to TV viewers and spectators



Extra long relays have changed to fast and exciting sprint competitions

■ Until the late 1960's ski orienteering competitions were usually long relays sometimes held even at night time.

■ Athletes used mainly snow-covered roads or skied through unbroken snow from control to control.

■ Maps were based largely on black-and-white military maps and had a scale of 1:40,000 -1:100,000

■ Snow mobiles changed Ski Orienteering in the early 70's. Narrow tracks prepared with snowmobiles increased the technical challenge and speed of ski orienteering.

1900-1960

>

1970

>

1980

>

Ski orienteering has grown to a global sport practiced on three continents

First ski orienteering competitions held in Sundsvall, Sweden
1897

■ **1897**

First National Ski Orienteering competitions in Finland, **1945**

■ **1900-1960**

First National Ski Orienteering Championships in Finland, **1966**

■ **1970**

First official World Ski Orienteering Championships in Hyvinkää, Finland, **1975**

■ **1980**



■ Also maps developed. The common scale decreased to 1:20,000 in the 70's and to 1:15,000 during the 80's. Green became the official symbol colour for ski tracks.

■ In the late 80's the skating style was adopted also to ski orienteering.

■ Nowadays ski orienteering events have moved from deep forests to modern ski stadiums. Wide skating tracks have become a backbone of the track network.

■ Individual sprint and sprint relay have been introduced as official distances to World Championships. Inclusion of these two distances has increased both the physical and mental challenge to a totally new level.

1990

>

2000

>

2010

>

2013

International Olympic Committee recognised the IOF in **1977**

Ski Orienteering Championships in France Italy Norway and Sweden during **1990's**

Ski Orienteering World Cup finals in Kazakhstan **2008** and World Championships in Japan **2009**

CISM Championships in Italy **2010** and World Cup in the USA **2012**

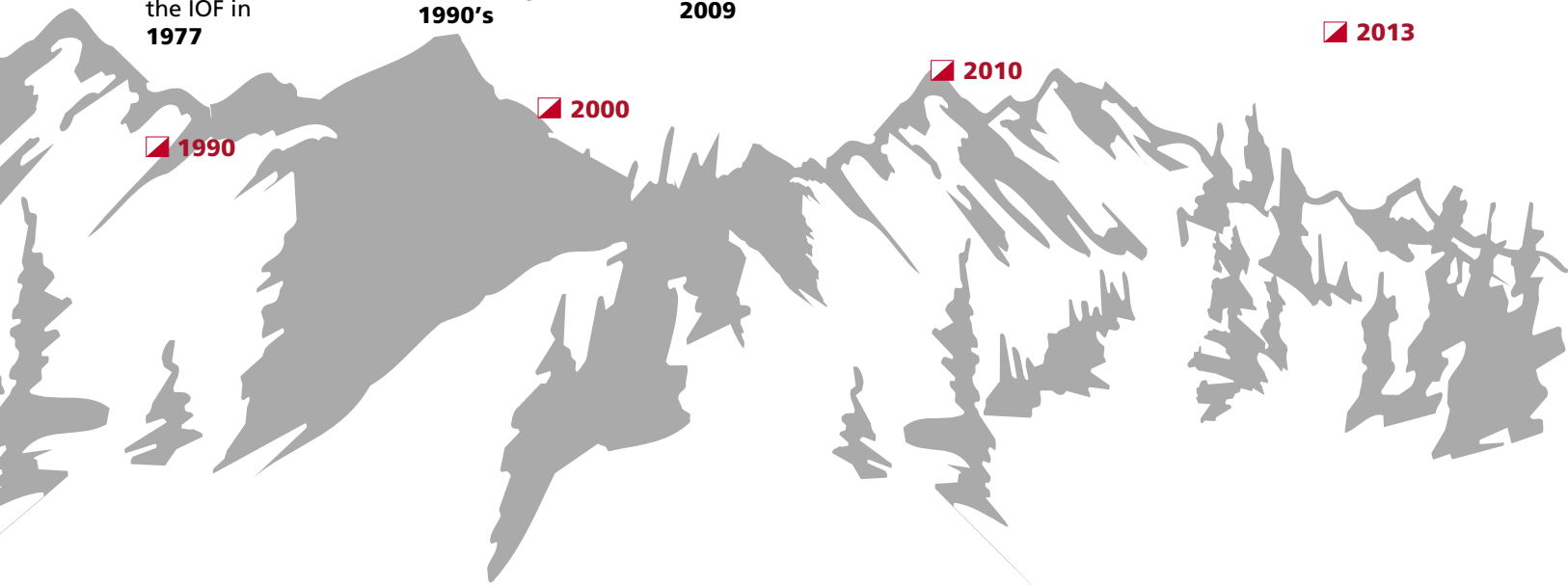
CISM **2013** in Annecy World Championships in Kazakhstan

■ **2013**

■ **1990**

■ **2000**

■ **2010**





Strategy to ensure the favourable development of the sport

During the last couple of years ski orienteering has spread rapidly to new countries and continents. To support the development, IOF, Ski Orienteering Commission has defined three areas that it is concentrating on.

What will the future of ski orienteering look like? What is the role of national federations and how will ski orienteering benefit the whole orienteering family?

Ski orienteering needs controlled international growth, quality events and concrete action to make the sport more attractive

Increase the attractiveness

A clear strategy for the future development of the sport is needed:

- Active conversation with athletes and national federations
- More emphasises on youth
- Xtreme skiing and interesting competition formats
- Good quality local competitions

More quality competitions

In order to ensure the quality of the international ski orienteering events, IOF Ski Orienteering Commission has undertaken the following actions:

- Organizer's handbook for clubs (2012)
- Touch-free punching system and a professional time keeping group for all international competitions (from season 2012-1013 onwards)
- Ski orienteering clinics twice a year (Since 2002)
- In addition to event advisers, the possibility of having an IT adviser has been reviewed (implementation 2013)

Controlled international presence

CISM – Conseil International du Sport Militaire:

- Permanent sport in the CISM
- Winter Military World Games since 2010;
- FISU
- надо Application for inclusion to the Winter Universiades in 2011; objective to be included in to the programme in 2017 Almaty or 2019 Krasnoyarsk
- Olympic Council of Asia: Asian Winter Games
- included Asian Winter Games – Almaty, Kazakhstan 2011



Ski orienteering is also a true television sport....

Advantages of ski orienteering

- Athletes move extremely fast on narrow tracks, make sharp turns and ski down steep hills
- Camera positioning is easy and the most exciting spots on courses can be recognized easily
- Head cams and GPS trackers allow spectators to see athletes where ever they are
- Mistakes can be seen immediately on large screens
- Electronic time keeping shows real-time placing on every control

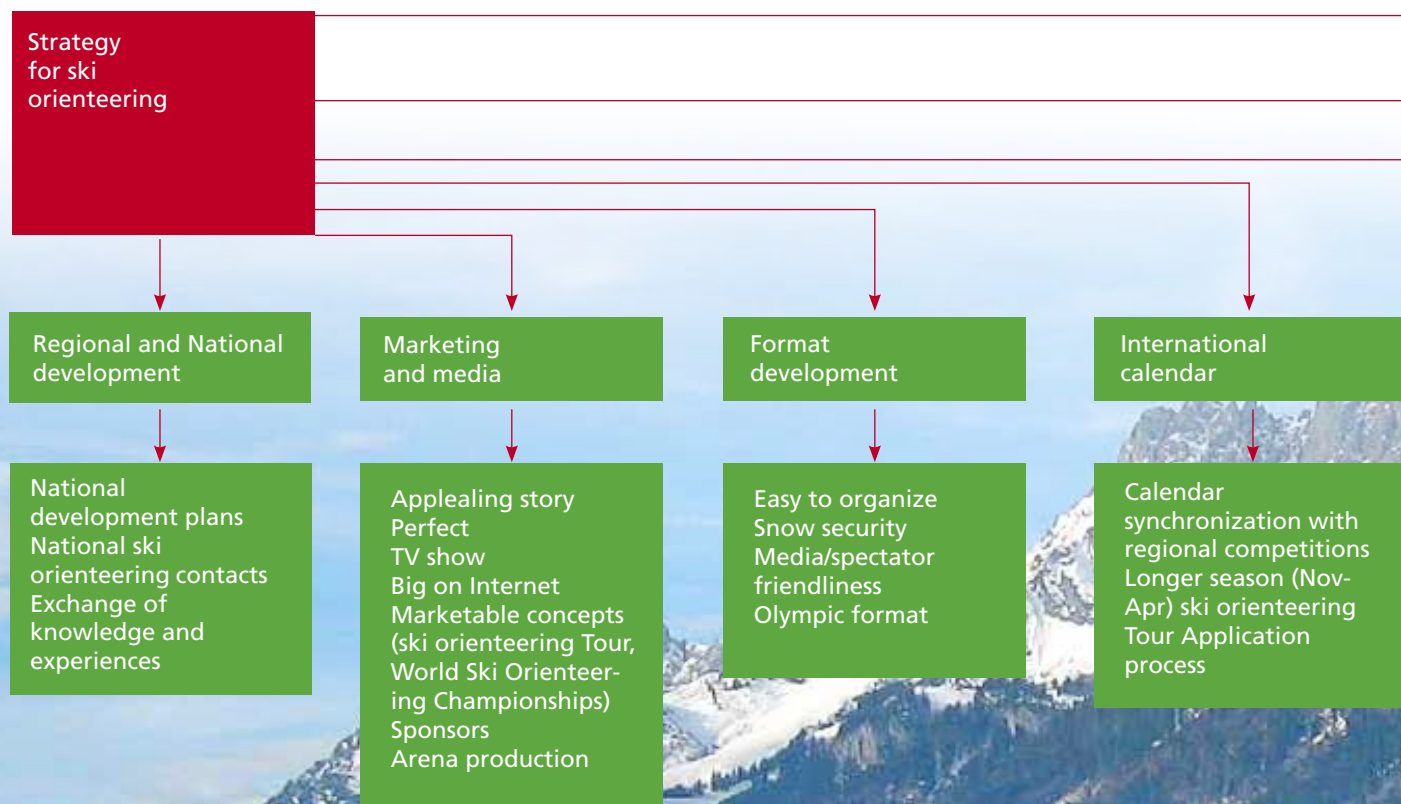


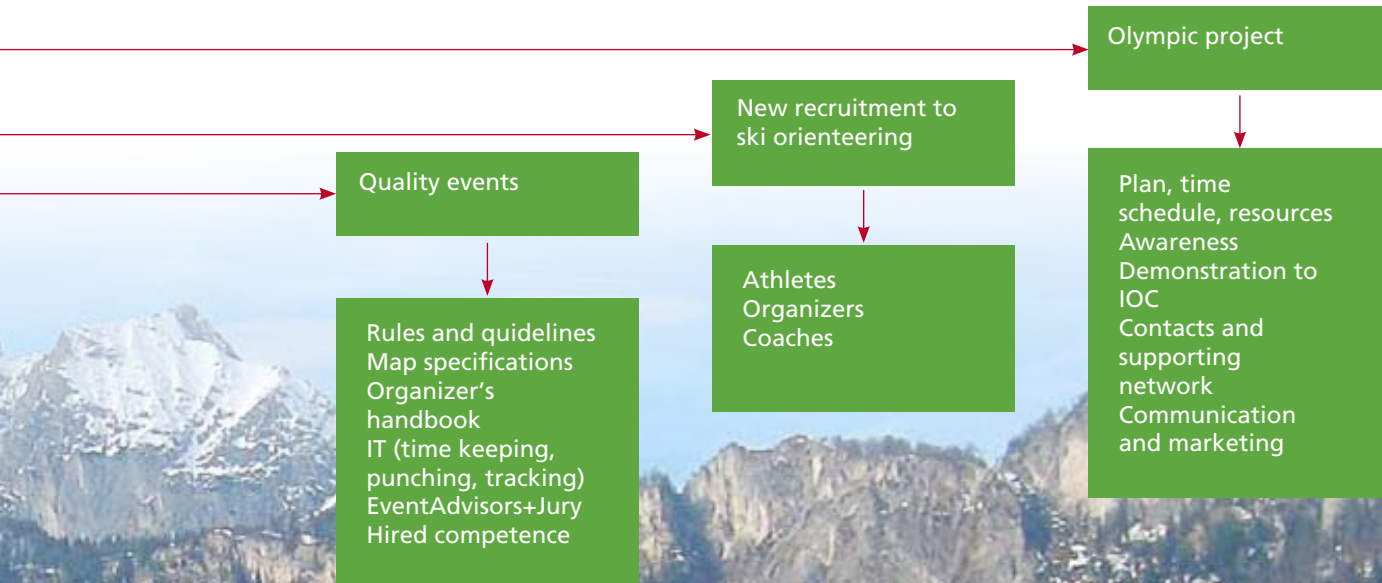
Venue requirements

- Cross-country skiing stadium, biathlon stadium or an open field with temporary spectator stands
- Cross-country skiing track network with ski orienteering map, control points, punching and time-keeping system
- 1-2 Large TV screens to show TV pictures, GPS tracking, course animations and intermediate/final results from the competition; Professional commentators
- TV and media facilities: TV production with 3-5 TV cameras in the stadium and at the course



Deep dive to ski orienteering strategy





Quality events

Rules and guidelines
Map specifications
Organizer's handbook
IT (time keeping, punching, tracking)
EventAdvisors+Jury
Hired competence

New recruitment to
ski orienteering

Athletes
Organizers
Coaches

Olympic project

Plan, time
schedule, resources
Awareness
Demonstration to
IOC
Contacts and
supporting
network
Communication
and marketing



Olympic project

**Before Olympic Games we have to get basics right:
In near future the emphasis will be on event quality and TV production**

Emphasis on event quality

Setting clear targets for the success of international events

Setting up a programme to ensure flawless and rigorous execution

Ensuring sufficient training of organizers

Dual leadership: Event Director and IOF Event Adviser
National federation: responsible for overall organization

IOF Technical Support team: Technical aspects of the competition at a low cost

Efficient 360° feedback to both organizers and IOF

Ensuring the future willingness to organize the events with the international learning opportunities

Marketing the product to new athletes and other interest groups

Olympic Proposal includes two individual events, an individual sprint and a sprint relay

Olympic disciplines

The overarching goal for Ski Orienteering is to be included into the Olympic Winter Games in 2022 or in 2026

Events proposed for inclusion in the Olympic Games: two individual events: Sprint Competition (men, women) and one team event: Mixed Sprint Relay (women and men in the same team)

Competition formats:

– 3 days of competition (Qualifying events for individual Sprint Finals + individual Sprint Finals and Mixed sprint relay)

- ❑ **Day 1** Individual Sprint Qualification event (Women and Men), 12-15 min race
- ❑ **Day 2** Individual Sprint Final event (Women and Men), 12-15 min race
- ❑ **Day 3** Mixed Sprint Relay, 45 min race



Ski Orienteering Commission: Individual responsibilities

Clearly defined roles and responsibilities ensure efficient development of the sport

Commission member	Functional responsibilities	Geographic responsibilities
Chairman Eivind Tonna (NOR)	Olympic project; TV production and broadcasting; communication with Athletes' Commission; web strategy and presence; education of trainers.	Asia and Oceania
Vice Chairman Antti Myllarinen (FIN)	Organisers' Handbook; organiser training; tracking and GPS track system making	Finland, Estonia, Latvia, Lithuania, USA and Canada.
Aleksandr Bliznevskiy (RUS)	FISU – Winter Universiades.	Russia, Belarus, Ukraine, Moldova, Kazakhstan, Kyrgyzstan.
Nicolo Corradini (ITA)	SkiO Tour; CISM World Championships and Winter Games	Italy, Spain, Slovenia.



Commission member	Functional responsibilities	Geographic responsibilities
Valentin Garkov (BUL)	timing and punching systems; map specifications for ski orienteering; mapping and printing	Bulgaria, Serbia, Macedonia, Montenegro, Croatia.
Roland Hellberg (SWE)	ski orienteering rules and guidelines; marketing and promotional materials	Sweden, Norway, Denmark, Great Britain, Ireland, Netherlands.
Thierry Jeanneret (SUI)	promotion and coordination of the international ski orienteering calendar.	Switzerland, Lichtenstein, France, Belgium, Germany, Austria.
Juraj Nemeč (SVK)	Event Adviser Handbook; Event Adviser related matters; jury assignments	Slovakia, Czech Republic, Hungary, Poland, Romania.

PHOTOGRAPH ALBUM















































































































This book has been compiled and written by Alexander Bliznevsky, Professor at the Siberian Federal University, Russia, member (from 2010) of the IOF Ski Orienteering Commission.

The IOF hopes that the matter contained in this book will serve to inform and thus promote the further development of the ski orienteering discipline.

The IOF would like to thank everyone who has participated in creating this publication by sending photographs and information and in other ways.

The book can be ordered from the IOF Office (iof@orienteering.org).
www.orienteering.org