

Evaluation of IOF Event Maps 2004-2006

Presentation of project results and
suggestions for action

The Competition Field of Orienteering

- The terrain
- The map
- The course
- A **standardised competition field** is a basic requirement for fairness in sports
 - The IOF map specifications make up the basis for a standardised competition field
 - The terrain must be chosen so that it can be mapped using the relevant IOF map specification.
 - The courses are designed on the basis of the map.

Standardised maps is a basic requirement for orienteering as an international sport

International Championships Maps



Standardisation

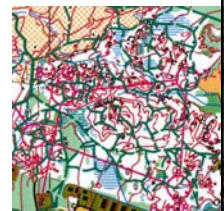
- before 1969: no IOF standards
- ISOM1969, ISOM1975, ISOM1982, ISOM1990, ISOM2000
- ISSOM2007
- ISSkiOM2002
- ISMBOM2004

Why Evaluate IOF Event Maps?

- **Observation:**
 - Increasing number of deviations
- **Consequence:**
 - Need for increased attention
 - Need for Action!
 - Stricter enforcement of the rules?
 - Change current procedures?
 - Change the rules?

What has been Evaluated

- World Championships, World Cup
- Paper maps (and digital files when made available)
 - Problem receiving maps!
- Map specification compliance (ISOM / ISSOM)
 - Symbols
 - Symbol dimensions (correct widths and patterns for lines, correct diameter for points, correct line widths for point symbols, correct rasters / textures for polygons)
 - Minimum graphical dimensions (lines, areas)
 - Unknown symbols
 - Printing - graphical quality
 - spatial resolution / sharpness
 - colours
 - overprinting effect
 - Level of generalisation / map readability
 - Overlapping symbols, cluttering, ...



Events Evaluated



- WOC (2005, 2006)
- WSkIOC (2005)
- WMTBOC (2005, 2006)
- JWOC (2005)
- WC (2004, 2005, 2006)
- WMOC (2005, 2006)

Findings



- Lots of deviations
 - Non-standard symbols
 - Wrong line widths
 - Non-spot colour printing of inferior quality
 - Wrong colours (4-colour printing)
 - Overly detailed maps
 - Graphical minimum dimensions not respected
 - Wrong map scales applied

Examples

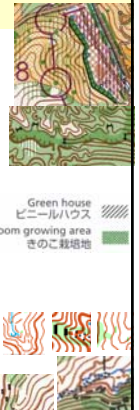
From top level IOF events



WOC 2005 Japan

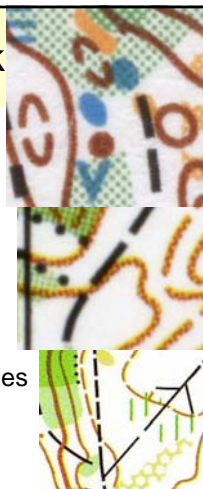


- Comments
 - "Creative" application of symbols for the sprint
 - Two non-standard symbols: Mushroom growing area and Green house
 - Some lines shorter and some areas smaller than the graphical minimum dimensions



WOC 2006 Denmark

- Comments
 - The printing
 - 4 colour printing
 - Not proper overprinting effect
 - Non-sharp contours
 - Symbols
 - Some non-standard symbol sizes
 - Some problems with dashed lines



WSki-OC 2005 Finland



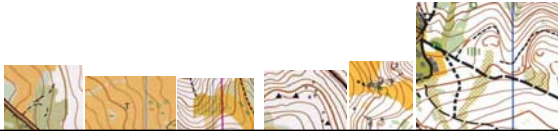
- Comments
 - Mapscale for long 1:12500 (should be 1:15000)
 - Too detailed "background" map
 - Wrong size of control circles for the sprint



WMTBOC 2005 Slovakia



- Comments
 - A local map specification was used
 - Not according to the IOF map specification!!!
 - No deviations were announced!



World Cup Germany 2004

- Comments
 - Non-ISSOM map used for sprint qualification
 - Lots of deviations from ISSOM for the sprint final
 - Lots of very strange symbol uses for the middle - overlapping symbols, ... (terrain not suitable?)
 - Horizontal green lines (long final)
 - Minimum graphical dimensions!!!



WC GB 2005



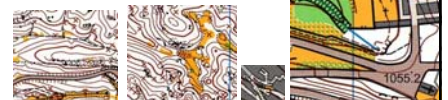
- Comments
 - none



WC 2005 Italy



- Comments
 - The sprint maps had several deviations
 - Different paper - different visual appearance
 - Some over-mapped areas



WC/EOC 2006 Estonia



- Comments
 - 4-colour printing
 - Not full ISSOM compliance



World Cup France 2006



- Comments
 - Map scale 1:10000 for the long distance
 - Map scale deviation for long was requested but denied twice
 - Poor generalisation or not suitable terrain?
 - 4-colour printing

JWOC 2005 Switzerland



- Comments
 - Symbol size deviations (contour lines, ...)
 - Several too small areas represented
 - Some over-mapping of black features
 - Horizontal green stripes for undergrowth
 - 4-colour printing (FM rasters)

WMOC 2005 Canada



- Comments
 - Non-ISOM 404 variant (green dots in the yellow) - misreading of the ISOM
 - Paper quality



WMOC 2006 Austria

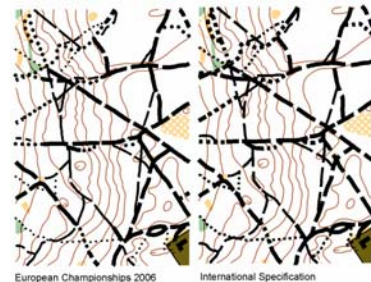


- Comments
 - **Symbol sizes wrong!**
 - Poor generalisation or unsuitable terrain?
 - Colours not perfect (yellow very pale)

EMTBOC 2006 Poland



- Comments
 - Too many deviations



Printing - Deviations

- WOC 2006 Denmark
 - 4 colour offset printing
 - Overprinting effect not implemented
 - Contour lines not sharp
- WC 2006 France
 - 4 colour printing
 - Overprinting effect not implemented
 - Contour lines not sharp
- WC/EOC 2006 Estonia
 - 4 colour offset printing
 - Contour lines not sharp
- WC 2005 Germany
 - Errors in overprinting
- WC 2002 Belgium
 - Laser printed maps of poor quality
- JWOC 2005 Switzerland
 - 4 colour printing - stochastic raster
 - Not perfect overprinting effect
 - Contour lines not perfectly sharp



Non-Standard Symbols



- WOC 2005 Japan
 - Greenhouse symbol
 - Mushroom plantation symbol
- WMOC 2005 Canada
 - 404 with green dots instead of white dots
- EMTBOC 2006 Poland
 - 5 track symbols out of 6 were not according to the ISMTBOM
- WMOC 2006 Austria
 - brown symbols not enlarged 150% for map scale 1:10000 (rather 120% ?)

What to do?

Is the Map Important?

- A standardised map is the basis for orienteering as an international sport
- A map with deviations = unfair competition

Unsuitable Terrain

Terrain that cannot be mapped according to the IOF mapping specification is not suitable for international orienteering events

Procedures for IOF Event Allocation

The terrain has to be chosen to fit the discipline / format

Therefore:

The terrain must be carefully checked and approved before an IOF event is allocated



National IOF

IOF Rules
Map Spec.

Application
Appointment

Local organizer

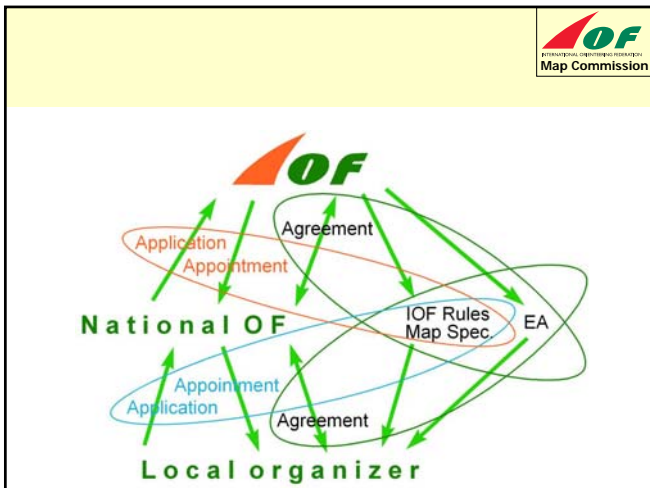
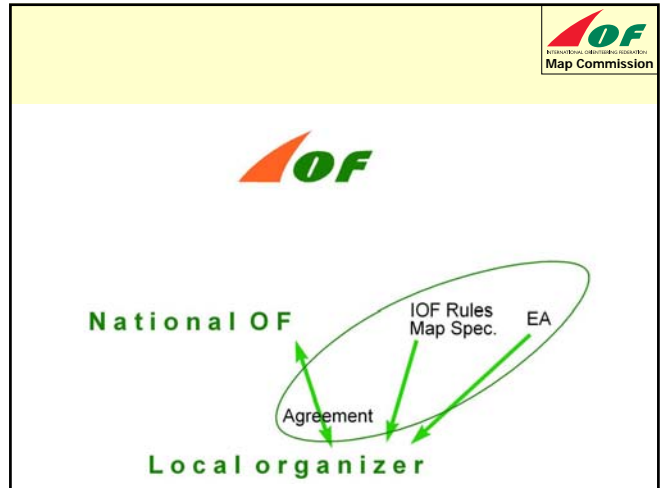
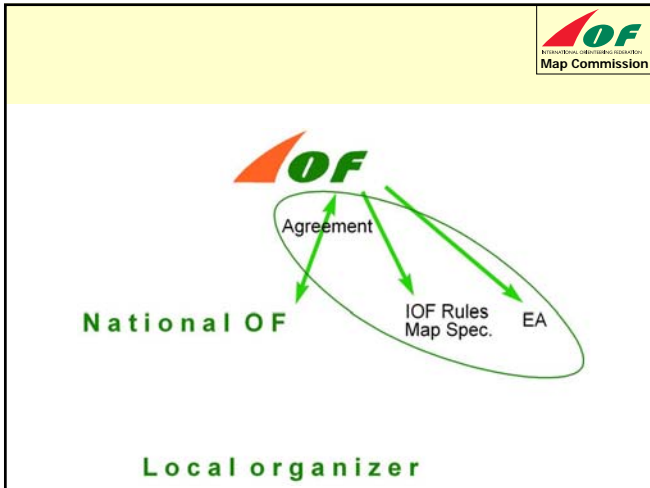


National IOF

IOF Rules
Map Spec.

Application
Appointment

Local organizer



Rules must be Followed!

- If the IOF does not take action, orienteering will remain a "happening" type of activity, not a recognised sport (with fixed rules).
- The rules concerning the competition field are extremely important in any sport: we have them, but it seems like we don't.
- Why is it in orienteering not possible that all people involved consider a rule to be a rule?

- ### Actions
- Improve the IOF Event allocation process
 - Suitable terrain for the events
 - Require high quality printing for top level IOF orienteering events
 - spot colour offset for Foot-O
 - spot colour offset or other high quality method for Ski-O, MTBO and Trail-O
 - Improve the level of map expertise in the quality assurance process