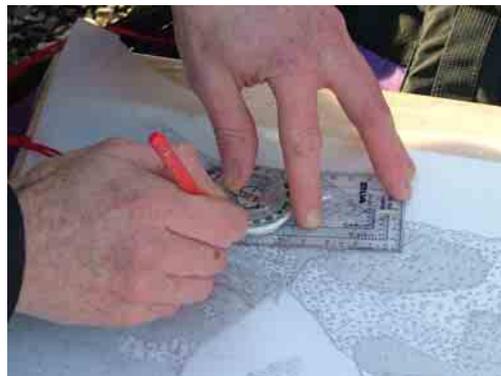


# IOA Mapping Course, November 2005

## Event Report

The Irish Orienteering Association organised a mapping course on the weekend of November 18-20<sup>th</sup> 2005 near Mullingar, County Westmeath. This document is a permanent record of that weekend so that future IOA mapping officers can see what was involved in organising the course, and so that IOA members can learn what happened over the weekend. The previous IOA mapping course was organised by Pat Healy in Avondale, County Wicklow, in February 2001 and in November 2002 Noel Donagh organised a GPS mapping seminar. The November 2005 course was organised by Marcus Geoghegan, the IOA mapping officer (email to [mapping at orienteering.ie](mailto:mapping@orienteering.ie))



*The Gazebo in Belvedere*

### Venue

The accommodation and classroom sessions were in Lilliput adventure centre (a.k.a Jonathon Swift Park), on the southern shore of Lough Ennell in County Westmeath ([www.lilliputadventure.com](http://www.lilliputadventure.com)). They provided accommodation, meals and packed lunches, and a dining hall that doubled as a lecture/class room.

Padraig Higgins arranged a superb survey area - Belvedere House ([www.belvedere-house.ie](http://www.belvedere-house.ie)) on the eastern shore of Lough Ennell, a 160 acre area of rolling parkland and deciduous woods. The IOA is extremely grateful to Bartle D'Arcy and his staff for giving us unfettered access to the estate.

### Map

Belvedere Estate has been registered as a Western Eagles/Galway Orienteers (WEGO) map. All students were asked to give their OCAD files to Padraig Higgins so that he can incorporate them into the final orienteering map. WEGO intend to run an event there, possibly the Irish Park-O Championships, in May 2006. The original 6":1-mile map of Ireland from the 1850's was used as a base-map for the course.

### Instructors

I am extremely grateful to the following six instructors who willingly gave their time to share their experience with the students. Without these six persons the course would not have happened.

- Sean Cotter, Bishopstown OC
- Pat Healy, Curragh/Naas OC
- Martin Flynn, Ajax OC
- Padraig Higgins, WEGO
- Val Jones, Fingal OC
- John O'Callaghan, Bishopstown OC



*Sean Cotter & Pat Healy showing how it's done*

In addition I am grateful to John Walshe (WEGO) and Paul Nolan (GEN) who volunteered to help but were unable to come due to illness, and to Brian Power of Setanta who also contributed.

## Students

There were 26 students from 11 clubs, representing all three IOA regions and the NIOA.

1	Brian Lawless	3ROC
2	Ed Niland	Ajax
3	Peter Kernan	Ajax
4	Petranka Pacheva	BOC
5	Bernie O'Boyle	CNOC
6	Niamh O'Boyle	CNOC
7	Ruairi Short	CNOC
8	Ruth Lynam	CNOC
9	Seamus O'Boyle	CNOC
10	Tom O'Keeffe	CNOC
11	Declan Gillen	DFO
12	Joseph Doherty	DFO
13	Karl Boyce	DFO

14	Michael Hannon	DFO
15	Pat Farrelly	DFO
16	Créidhe O'Sullivan	GEN
17	Sinéad Roche	GEN
18	Kieran Rocks	LVO
19	Deirdre Shorten	Set
20	Rudie Dorrepaal	Set
21	Terry Lawless	Set
22	Tony Doolin	Set
23	John Craddock	UCDO
24	Ted McCormack	UCDO
25	Sharon Lucey	ULO
26	Niall Farrelly	WEGO

### Friday November 18<sup>th</sup> - Evening

- *Introduction and logistics* *Marcus Geoghegan*
- *Introduction to Mapping* *Pat Healy*  
Pat took the students through the International Orienteering Federation's mapping instructor's presentation, which introduces the concepts and technologies involved. Samples of base-maps, aerial photographs, diapositives and photogrammetric plots were shown. A stereoscope was demonstrated.
- *OSI Trail Master* *Pat Healy*  
Pat demonstrated the OSI's latest digital product, Trail Master: (<http://www.osi.ie/mapping/other/newProducts.shtml>)
- *Preparation for Saturday*  
The students were shown how to prepare their mapping boards and base-maps for Saturday's survey instruction.



*Working out the pacing scale*

### Saturday November 19<sup>th</sup> - Morning & Afternoon

After assembling in Belvedere at 09:00 the students were shown two methods of creating an accurate pacing scale. They were then divided into four groups, each lead by one of Sean Cotter, Pat Healy, Pdraig Higgins and John O'Callaghan. The rest of the day was taken up with field surveying, covering:



*John O'Callaghan helping Bernie O'Boyle*

- Pacing confirmation
- Placing a Magnetic North line on the base-map
- Plotting a traverse
- Plotting point features
- Plotting an area
- Classification of features
- Continuation of survey

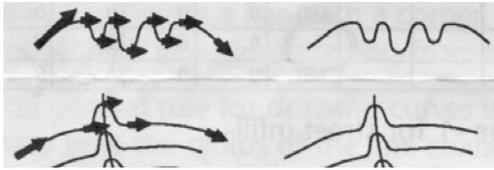


*Pdraig's hedge school*

The instruction followed the good-practice sequence of plotting the perimeter of an area, then triangulating spot features, plotting area features and finally adding landform (however contours were not covered on Saturday). The four groups met for lunch, swapped areas, swapped instructors and continued surveying until 4PM.

## Saturday November 19<sup>th</sup> - Evening

- *OCAD Introduction and Demonstration*



*Practicing Béziers*

*Pat Healy*

Pat demonstrated OCAD to the students, including setup, scales, templates and point, line & area features. Special emphasis was placed on the use of OCAD's Bézier function – mastery of this single OCAD feature is incredibly beneficial to an OCAD user. In order to teach the use of Béziers Pat used a template that was distributed in the early nineties by the OCAD authors but has never been officially included in the product documentation.

- *Drawing*

The students then drew their day's survey into OCAD under the tutelage of the course instructors.

- *Sprint Maps and ISSOM 2005*

*Val Jones*

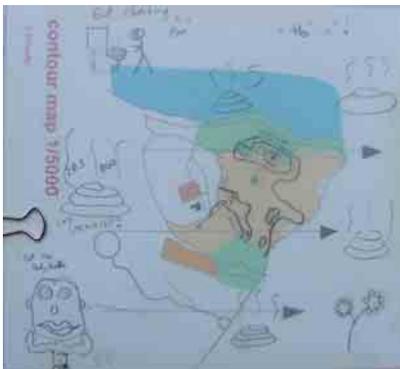
Val Jones gave a presentation that drew on his extensive experience of park maps. He covered the differences between normal orienteering maps which are drawn using the International Specification for Orienteering Maps (ISOM 2000) and Sprint/Park maps which are drawn using the sprint specification (ISSOM 2005). He used many map examples and discussed the mapping of schools, the use of freely available aerial photography and the special requirements of park and trail-O maps.



*Drawing up the day's work in OCAD*

- *De-Briefing*

A de-briefing session took place in the local pub.



*Everybody interprets contours differently*

## Sunday November 20<sup>th</sup> - Morning

*Contours Sean, Pat, Padraig and John*

The students spent Sunday morning learning how to survey contours in an area of Belvedere House for which Padraig had prepared a special base-map the night before. The students were shown how to measure and mark spot heights and how to interconnect them to create landform features.

## Sunday November 20<sup>th</sup> Afternoon

### *Map Printing*                      *Martin Flynn*

Martin gave a presentation entitled *printing maps from OCAD* that covered best practice in map printing, including: traditional spot offset; CMYK offset; laser; inkjet; photocopying and the problems associated with each technology. He also discussed colours, version control, paper and bagging. Martin included a number of electronic and printed map samples in his presentation.

### *Miscellaneous*                      *Marcus Geoghegan*

Marcus gave a short presentation covering mapping costs, club logos, IOA mapping grants, what life was like before OCAD, and OSI copyright permits.

### *Mapping Review*                      *Sean Cotter*

Sean gave a presentation that reviewed what had been learned over the weekend, emphasising the placement of magnetic north lines and re-scaling the base-map. Sean has given his permission for his mapping documentation to be published on the IOA website.

### *GPS*    *Marcus Geoghegan*

Marcus gave a presentation that outlined his experiments of Orienteering mapping using a consumer grade GPS. He discussed GPS and DGPS technology, reviewed the output of the 2002 GPS seminar, talked about directly entering symbols into OCAD, and discussed base-map augmentation using OziExplorer, both in the field and at home.

### *Close @ 17:20*                      *Marcus Geoghegan*

The instructors received the grateful thanks of all students and a small token of appreciation (windproof gloves).

## **Photographs**

Photos from the weekend can be viewed at: <http://www.flickr.com/photos/marcusgeoghegan/sets/1419916/> (best viewed as a slideshow).

## **Prize**

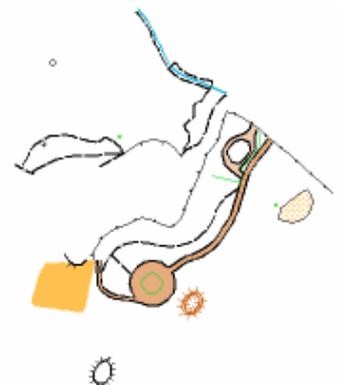
Congratulations to **Créidhe O'Sullivan** of GEN who won the instructors' prize of a Silva sighting compass for the best field survey.



*Padraig Higgins*



*Top of the class  
Créidhe & her map*



## Reference Material

Each student was given a CD containing the course documentation and presentations, various pieces of reference material, students' OCAD files and photos of the weekend.

## Equipment

The students and organisers brought the following equipment. Items in italics were probably not necessary and could be omitted for a future course.

### *Students*

- Computer, mouse, mouse-mat, plugboard
- *30m reel measuring tape (one per club or group of three)*
- Baseplate or sighting compass with rotating bezel
- Warm clothes- rain jacket, fleece, hat, gloves, umbrella
- Waterproof boots or Wellingtons.
- Small rucksac, flask, snacks, fruit, drinks
- Two H4 Pencils, two H6 Pencils, eraser, sharpener
- Coloured pencils (green, yellow, blue, orange)
- Notebook, biros, Ruler, *Protractor and set square*
- A3 sized board made of perspex or light plywood (*maybe A4 next time?*)
- *Masking tape and electrical insulating tape*
- *Rubber bands, string*
- Any orienteering map or survey that you would like to scan and practice drawing in OCAD

### *Organisers*

- Barco Projector & Screen
- *Overhead Projector and acetates*
- four-way surge-protected plugboards
- Photogrammetry sample and misc. basemap samples
- Sighting poles
- Permatrace, razor blades, steel ruler, cutting mat
- CD writer & CDs
- USB Hub
- A4 Printer/Copier/Scanner
- A4 100gm paper
- *A3 Printer*
- *A3 80gm paper*
- Map samples
- Measuring wheel
- memory stick

## Budget

An itemised account is being prepared for the IOA treasurer and this document will be updated when it is complete.

## Feedback

All of the instruction and presentations were extremely well received and no negative comments were heard. The most frequent comment from the students was that they could really see the years of practical experience that each of the instructors had to share with everyone.

### Some students emailed the following suggestions:

*The course was a great experience and many thanks to everyone who provided their time to share their knowledge with us. The guys did a great job with their presentations and showing us the stuff out on the field in the time that we had... I know there was limited time to get through what we covered but combining the techniques with the practical work was a little difficult to follow – It may have helped to have had the CD with the Mapping Kit beforehand with some instructions on what specific areas would be covered on the course so we could get the theory in our heads before we went out into the field... Maybe have a basic technique for everyone to follow first and then introduce the variations afterwards rather than learning various techniques all at once while out in the field... The stuff Pdraig did with us on contours was very good in that the demonstration was set up first, the technique shown on paper and then going out into the field to go through it and then reviewing it afterwards...*  
Sinéad Roche, GEN

*perhaps before a course is run clubs might provide the organiser with maps in progress or areas planned for mapping. Some of the students might be interested in putting skills learned to use straight away- matching up might give some clubs some immediate benefit.*  
Pat Farrelly, DFO

*It was good that the groups for the surveying were relatively small, found it good that there were a few instructors. Sean Cotter's summary was particularly good - would be a good thing to have on the Friday night as a general intro.*  
Niamh O'Boyle, CNOC

*I suggest emphasis on warm, waterproof clothing for such a weekend. Wellingtons provide wet free feet but the cold seeps in, even with layers of socks. I suggest boots and gaiters. Also, layers of clothing (thermal under-layering would be recommended) would keep the cold at bay. As well as a backpack of flask, snacks etc, a frontal bag of pencils-compass, protractor ect would be convenient to surveying on the field. We were lucky with weather - full rainproof gear would be advisable in the event of bad weather*  
Deirdre Shorten, Setanta

## Organiser's Comments

- I am extremely grateful to each of the six instructors for being such a pleasure to work with and I am especially grateful to Pdraig Higgins for his numerous excellent suggestions.
- The next course should probably be in the summer, not the winter. We had fantastic weather (cold, still and clear), but that was just luck; bad weather could have destroyed the course.
- Lilliput is a good facility, but a school or university campus lecture theatre with a nearby B&B or hostel would have been much more suitable (possibly Athlone or Limerick?)
- One scanner is not sufficient for a course of this size – it was by luck that more were available. Next time ask some students to bring scanners.
- Incompatibility amongst memory sticks caused problems. Next time buy two standard memory sticks for the course and ask each student to get them working with their laptop at the start of the course.
- Ask each student to study the IOF mapping instructors' course and course notes in detail beforehand.



*IOA 2005 Mapping Course*

*Marcus Geoghegan  
November 22nd, 2005*