



	1	2	3	4	5	6	7
00	Z P W S F	Z W C P W S F	Z W C P W P W C S F	Z W C P C P C S F	Z W C P W P C P S F	Z W C P C P C P W S F	
01	Z P W C S F	Z P W P W S F	Z P W P W P W C S F	Z P W P C U S F	Z P C U P W P W S F	Z P W P W C U C U S F	Z W C U C U C U V H S F
02	Z P C S F	Z W C U C S F	Z P C U P C S F	Z W C U C U S F	Z W C U P W P W C U S F	Z W C U C U C U S F	Z W C U C U C U V H S F
03	Z W V C S F	Z P W U W S F	Z P W U W C V C S F	Z P W U W U W S F	Z P W U W U W C V S F	Z P W U W U W C V C V C S F	Z P W U W U C H C H S F
04	Z W C H S F	Z H W C H C V C S F	Z W C H C H S F	Z W C H W U W C S F	Z W C H C V C H C V C S F	Z W C H C V C H C V C V C S F	Z W C H W U C H C H C S F
05	Z W C V C S F	Z W C O S F	Z W C O I O S F	Z W C V C O W S F	Z W C O C O V S F	Z W C O I O C O S F	Z W C O W H W H C O S F
06	Z W C V C S F	Z W C O S F	Z W C O C S F	Z W C V C O C S F	Z W C O C O S F	Z W C O I O C O S F	Z W C O C O C O V S F
07	Z W C I C S F	Z W C O S F	Z W C O C I C S F	Z W C O I O V S F	Z W C O C O V S F	Z W C O C O C O S F	Z W C O C O C O V S F
08	Z V W V W V W S F	Z V W O W C I S F	Z V W O W V W S F	Z V W O W O C I S F	Z V W O W O C K S F	Z V W O W O C K C K S F	
09	Z V W C K S F	Z V W C K C S F	Z V W V W C K S F	Z V W G C K S F	Z V W G W V W C K S F	Z V W G W V W C K C I S F	
10	Z V W I V C S F	Z V W K V C S F	Z V W K W K Y S F	Z V W K W I W K Y S F	Z V W K C K C K C S F	Z V W K C K C K C K Y S F	
11	Z V W I W C S F	Z V W I W K Y S F	Z V W K W K Y S F	Z K V W K W K Y S F	Z V W K W K W C S F	Z V W K W K W I W C S F	
12	Z V W I V C S F	Z V W I W I V C S F	Z V W K W I V C S F	Z V W K W K V C S F	Z K V W K W K V C S F	Z K V W K W K W I V C S F	
13	Z V K V W S F	Z P I V W S F	Z P I P S F	Z V K P I V W S F	Z P I P I V W S F	Z V K P K P I V W S F	
14	Z V P S F	Z V P I P W S F	Z I P I P S F	Z I P V P V P S F	Z V P V P I P S F	Z I P V P V P I W S F	Z V P K P I P I W S F
15	Z I P S F	Z I W C I P S F	Z V P I W C W C S F	Z V P V P I V W C S F	Z V W C V P I P S F	Z I P I P V P I P S F	Z I P I P V P I P S F
16	Z V P S F	Z P C W C S F	Z V P C P S F	Z V P C P C W C S F	Z V P C V P I V W C S F	Z P C P C P C W C S F	Z V P C P C V P C P S F
17	Z I P C S F	Z V P C V W C S F	Z I P C P C S F	Z V P C P C I V S F	Z V P C P C P C S F	Z V P C P C P C I V I V S F	Z V P C P C V P C P S F
18	Z I P C S F	Z V P W H S F	Z I U I U S F	Z V P W P W V S F	Z V P C I U I H S F	Z V P C I U I U S F	Z I U I U I V P W P C S F
19	Z I H S F	Z V P W P W S F	Z V U C U C S F	Z V U C U C V S F	Z V U C U C H S F	Z V U C U C U C V S F	
20	Z V U C I S F	Z V H C H C S F	Z V U C H C I S F	Z V U C U C I S F	Z V U C H V U C I S F	Z V U C U C U C S F	Z I U C U C U C I S F
21	Z I H C S F	Z I H C H C S F	Z V H C H C V C S F	Z V H C H C H C S F	Z V U W U W V H C S F	Z V H C H C H C H C S F	Z I U C U C C I S F
22	Z I H C S F	Z V U W U W S F	Z V H C V C U W S F	Z V U W U W U W S F	Z V H C V C U W U W S F	Z V H C H C U W U W S F	
23	Z V H W S F	Z V H W H W S F	Z V U W U W S F	Z V H C V C U W S F	Z V U C U C U C S F	Z V H C H C U W U W S F	Z V U W U W U W U W S F
24	Z V H W S F	Z V H W H W S F	Z V H W O C S F	Z V H W H W O S F	Z V H W O C O S F	Z V H W H W O C O S F	Z V H W H W O C O I S F
25	Z C G Y S F	Z I O W I C S F	Z I O W G Y S F	Z I O W G C S F	Z I O C G C G Y S F	Z I O W O W G C S F	Z I O W O W G C I C S F
26	Z C I C I C S F	Z C K C K Y S F	Z C G C G Y S F	Z C K C G C I C S F	Z C K C G C G C I C S F	Z C K C I C G C K C I C S F	
27	Z C K C S F	Z C V W V W V W S F	Z C K C K C S F	Z C K C O W S F	Z C O W O W S F	Z C G W K C K Y S F	Z C G W G W K C S F
28	Z C K W S F	Z C K C K I S F	Z C K W K C S F	Z C K C K C K I S F	Z C K W K W K I S F	Z C K W K C K W K I S F	
29	Z K W S F	Z K W K I S F	Z K W K I K I S F	Z C K W K I K I S F	Z C K W K W K I S F	Z C K W K W K W S F	Z C K W K W K W K I S F
30	Z C K W S F	Z C I W K W S F	Z C K W K W S F	Z C I W K W K W S F	Z C K W K W I W I W S F	Z C K W K W K W C I W S F	
31	Z C I P S F	Z C I P W C W C S F	Z C I P I P W S F	Z C I P I P W C W S F	Z C I P V P I P S F	Z C I P V P I P V P S F	
32	Z C I P S F	Z C I P W C W C S F	Z C I P I P S F	Z W C I P I P W C W C S F	Z C I P I P I P S F	Z C I P I P I P I V S F	
33	Z W C W C W C S F	Z C I P W C W C S F	Z C I P I P S F	Z W C I P I P W C W C S F	Z C I P I P I P S F	Z C I P I P I P I V S F	
34	Z W C P W C S F	Z C P C W C S F	Z W C P C P C W S F	Z W C P C P C P S F	Z W C P C P C P S F	Z W C P C P C P C P S F	
35	Z W C P W C S F	Z W C P W C W C S F	Z W C P C P S F	Z W C P C P C W S F	Z W C P C P C P S F	Z W C P C P C P C P S F	
40	Z W g L F	Z W g L Z L F	Z W g L Z L Z W g L F	Z W g L Z L Z W g L Z L F			

Marks coloured red to be left to port; green to starboard.

Racing Marks 2005 (Approximate)

NAVIGATION MARKS AND OBSTRUCTIONS

The Navigation Marks in and around Howth Sound shall be left as follows-

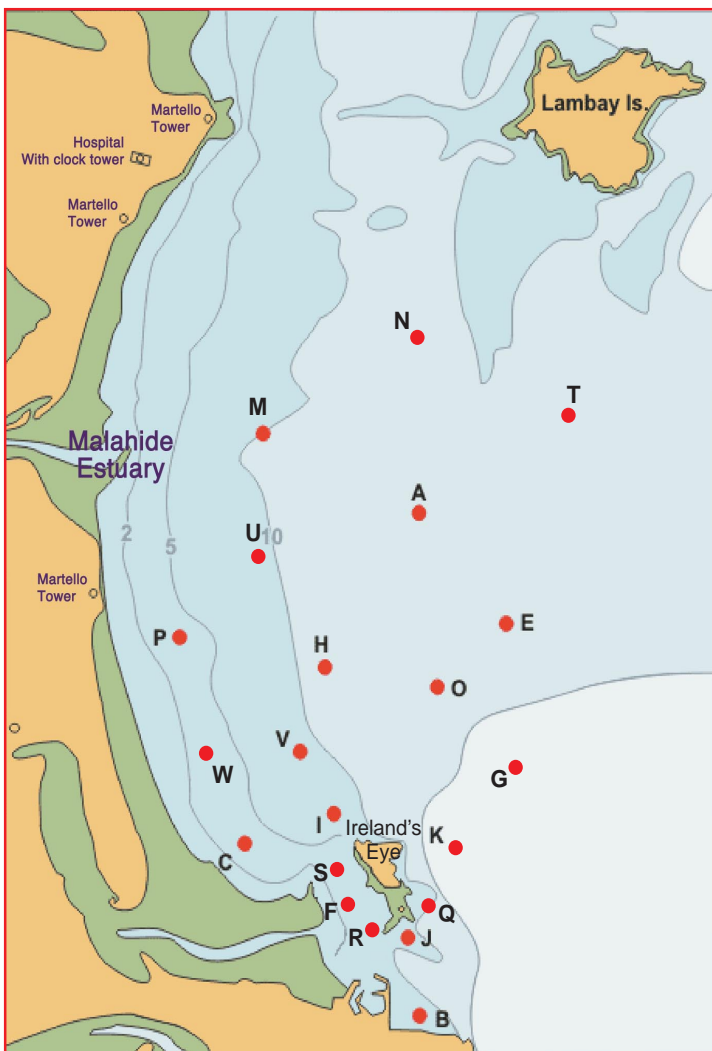
South Rowan: to be passed to the West and South

Rowan Rocks: to be passed to the East and South

Any part of Ireland's Eye capable of being touched by a boat while racing is designated as an obstruction to sea room.

Competitors are reminded of a trawler wreck in Howth Sound, south of the Carrgran Rocks on Ireland's Eye, which is submerged at most stages of the tide.

Boats racing in the vicinity of Baldoyle Spit shall sail North and East of the Spit Mark (S).



ID	Name	Shape	Colour	Latitude (N)		Longitude (W)	
				Deg	Min	Deg	Min
A	Apex	Conical	Black	53	26.76	06	03.26
B	Balscadden	Conical	Yellow	53	23.30	06	03.26
C	Cush	Conical	Black	53	24.50	06	05.44
E	East	Conical	Black	53	26.00	06	02.20
F	Pier Finish	Cylindrical	Yellow	53	23.70	06	03.78
G	Garbh	Conical	Black	53	25.00	06	02.32
H	Hub	Conical	Black	53	25.71	06	04.43
I	Island	Conical	Black	53	24.70	06	04.36
J	Thulla	Conical	Black	53	23.80	06	03.40
K	Stack	Conical	Black	53	24.60	06	03.11
M	Malahide	Conical	Black	53	27.23	06	05.59
N	North	Conical	Black	53	27.99	06	03.40
O	Osprey	Conical	Orange	53	25.57	06	03.06
P	Portmarnock	Conical	Black	53	25.89	06	06.30
Q	Rowan Rocks	IALA	Black	53	23.88	06	03.22
R	South Rowan	IALA	Green	53	23.78	06	03.88
S	Spit	Conical	Black	53	24.35	06	04.48
T	Talbot	Conical	Black	53	27.31	06	01.30
U	Ulysses	Conical	Orange	53	26.22	06	04.97
V	Viceroy	Conical	Orange	53	25.12	06	04.78
W	West	Conical	Black	53	24.96	06	06.07
Y	Ireland's Eye						
Z	Zepher	Spherical	Yellow	(approx upwind of start line)			

COURSE SELECTION

- 1). Courses will be designated by three numeral boards.
- 2). The first two boards will indicate the beat. ie 07 = 070°
- 3). The third board indicates the column number across the top of the page.
Therefore Course 073 is the third course in from the left on line 07.

TIDES

HW

Sunday, September 18th	12.38
Sunday, September 25th	17.36
Sunday, October 2nd	11.34
Sunday, October 9th	15.58
Sunday, October 16th	11.35
Saturday, October 22nd	15.14

Olympic Style Courses - Row 40				Note for Row 40 Mark F is positioned upwind of Last mark. Mark L positioned downwind of D
ID	NAME	SHAPE	COLOUR	
D	Distance	Round	Orange	
Z	Windward	Spherical	Yellow	
Wg	Wing	Round	Yellow	
L	Leeward	Round	Orange	

2005 Race Marks - Relative Bearings Table - Magnetic (Approx)

	A	B	C	E	G	H	I	M	N	O	P	Q	S	K	J	U	V	W	T
A		186°	216°	146°	168°	220°	204°	295°	002°	180°	250°	186°	203°	184°	188°	249°	215°	229°	071°
B	006°		319°	019°	024°	350°	341°	347°	005°	009°	331°	008°	331°	010°	357°	346°	340°	321°	022°
C	036°	139°		058°	081°	032°	079°	004°	025°	059°	346°	121°	111°	092°	126°	014°	038°	327°	047°
E	326°	199°	238°		190°	264°	231°	307°	346°	236°	273°	202°	225°	207°	204°	283°	246°	252°	028°
G	348°	204°	261°	010°		305°	262°	325°	354°	328°	297°	212°	249°	236°	214°	313°	281°	275°	021°
H	040°	170°	212°	084°	125°		184°	342°	021°	106°	285°	164°	187°	151°	168°	332°	205°	238°	055°
I	024°	161°	259°	051°	082°	004°		350°	016°	048°	322°	146°	198°	104°	154°	352°	335°	290°	041°
M	115°	167°	184°	127°	145°	162°	170°		066°	144°	204°	163°	173°	157°	165°	167°	173°	193°	094°
N	182°	185°	205°	166°	174°	201°	196°	246°		181°	225°	185°	196°	183°	186°	214°	202°	214°	125°
O	000°	189°	239°	056°	148°	286°	228°	324°	001°		285°	189°	221°	188°	193°	305°	252°	257°	037°
P	070°	151°	166°	093°	117°	105°	142°	024°	045°	105°		144°	151°	130°	146°	073°	136°	178°	071°
Q	006°	188°	301°	022°	032°	344°	326°	343°	005°	009°	324°		308°	011°	239°	341°	329°	308°	024°
S	023°	151°	291°	045°	069°	007°	018°	353°	016°	041°	331°	128°		079°	137°	356°	353°	309°	039°
K	004°	190°	272°	027°	056°	331°	284°	337°	003°	008°	310°	191°	259°		198°	331°	304°	288°	028°
J	008°	177°	306°	024°	034°	348°	334°	345°	006°	013°	326°	059°	317°	018°		344°	334°	312°	026°
U	069°	166°	194°	103°	133°	152°	172°	347°	034°	125°	253°	161°	176°	151°	164°		179°	213°	070°
V	035°	160°	218°	066°	101°	025°	155°	353°	022°	072°	316°	149°	173°	124°	154°	359°		264°	049°
W	049°	141°	147°	072°	095°	058°	110°	013°	034°	077°	358°	128°	129°	108°	132°	033°	084°		056°
T	251°	202°	227°	208°	201°	235°	221°	274°	305°	217°	251°	204°	219°	208°	206°	250°	229°	236°	