TYPES OF NAVIGATION

INTRODUCTORY & INTERMEDIATE EVENTS

HERO- ERA Route Information Formats
For Introductory (Green) & Intermediate (Blue) Events

These pages give a brief overview of the principles of how the route information will be presented on the Introductory and Intermediate HERO events. This covers the Base Route Book, Test Diagrams plus the Regularities. Not all the types of navigation are used on each event, so please take note if an event or category is specified.

Route Book

The Route Books will contain everything you need to complete the route, in order. The non-competitive "link" sections between the regularities, tests and halts, will take the form of a "tulip" route book. A tulip shows a simple aerial image of each junction with a ball from where you are travelling and an arrow for the direction to travel. These will usually be with instructions such as signposts or a description to help follow the correct route.

Tulips

Tulip diagram instructions will be presented in simple table formats. The instructions will show the section and Interval distance from the start and between each tulip. Not all the junctions will be shown in these instructions. If a junction is not included, then you should continue along the road that you are currently travelling – a simple rule is: "Unless you have been told to turn at a junction, don't!" Most dead-end roads (with a "No Through Road" sign) or restricted access roads (with a "No Entry", "No Access" or "No Vehicles" sign) are not included but should be avoided unless specified. To the right is a sample handout from the Summer Trial 2019.

	Interval miles	Section miles	Symbol	Information	To Go miles
				MTC 1/1 - Chesterfield Control Located in Hotel Reception	
1	0.00	**0.00**		Exit of Casa Car Park ZERO TRIP at Public Road	19.22
2	0.02	**0.02**		Use Left Lane	19.20
3	0.11	**0.13**		Esso Fuel	19.09
4	0.26	**0.39**		Into Highfield Lane	18.83

Regularities

Timing points will be located at unknown points along the correct route. In the UK there will be at least two miles between each timing point, on European events they will be located at least two kilometres apart. Unless the route ventures onto or starts on private land, in this scenario, timing points can be located less than two miles, or two kilometers, apart.

Tulip Jogularity

These instructions consist of a table of tulip diagrams which contains both the navigational instructions as well as the necessary average speed and time information.

The individual instructions relate to the specific landmarks/features passed on route and the Timing Points will only be located at one of the landmarks or junctions **(apart from some sections on certain events where Timing Points may NOT be located at the landmarks or junction, the notes at the top of each regularity page will explain whether this is the case or not)**.

Competitors should note that the total times and intermediate times do not always add up because of hidden fractions of a second. In these cases, the Total time is the correct one.

You do not need maps on green and blue events as the route information given is more detailed and you would struggle to plot this onto a map, often because there are small junctions and roads used that may not be on the map.

Leg 1: Regularity 1 - Knockin Heath

(Note - Not all junctions are shown below. If a junction is not included, remain on the principal road)
(Timing points will be located at a number of the landmarks shown below)

	Interval miles	Section miles	Symbol	Information	MPH	Inter Time (mm:ss)	Total Time (mm:ss)	For Comp. Use
1	0.00	0.00		Gateway on Left ZERO TRIP	29	00:00	00:00	
2	0.18	0.18				00:22	00:22	
3	0.10	0.28	Land Mark	Double Metal Gates Both Sides		00:12	00:35	
4	0.16	0.44	Land Mark	Bridge		00:20	00:55	
5	0.13	0.57	Land Mark	Concrete Road on Right		00:16	01:11	
6	0.41	0.98	Land Mark	Bend Warning Sign on Left		00:51	02:02	
7	0.08	1.06	Land Mark	Back of Metal Sign on Right		00:10	02:12	

Descriptive Jogularity

Same as a tulip Jogularity but instead of Tulip diagrams you are given descriptive text to navigate the correct route within the table showing speed and time.

	Interval miles (km)	Section miles (km)	Landmark/Information	MPH (kph)	Inter Time (mm:ss)	Total Time (mm:ss)	For Comp. Use
1	0.00 (0.00)	0.00 (0.00)	**Regularity 4/2** ZERO TRIP	30 (48.28)	00:00	00:00	
2	0.15 (0.24)	0.15 (0.24)	Junction: GIVE WAY Turn Right		00:18	00:18	
3	0.10 (0.16)	0.25 (0.40)	Road Bends Sign on Left		00:12	00:30	
4	0.17 (0.27)	0.42 (0.68)	Metal Gate on Left		00:20	00:50	

The descriptions may tell you which direction to turn at junctions or they may give you other information that you will require to navigate the correct route.
See instruction 1. of the example on the right.

	Interval miles (km)	Section miles (km)	Landmark/Information	MPH (km)	Inter Time (mm:ss)	Total Time (mm:ss)	For Comp. Use
1	0.35 (0.56)	3.19 (5.13)	Junction: GIVE WAY Do Not Follow Signs for Bristol	25 (40.23)	00:50	08:10	
2	0.18 (0.29)	3.37 (5.42)	Old Blue Gate on Left		00:26	08:36	
3	0.20 (0.32)	3.57 (5.75)	Public Bridleway Sign on Right		00:29	09:05	
4	0.36 (0.58)	3.93 (6.32)	Rusty Metal Gate on Right		00:52	09:57	
5	0.25 (0.40)	4.18 (6.73)	Corner of Stone Barn on Left		00:36	10:33	
6	0.02 (0.03)	4.20 (6.76)	"Widleys Farm" on Left		00:03	10:35	
7	0.37 (0.60)	4.57 (7.35)	Junction: Follow Black Truck Sign		00:53	11:29	

Blind Tulip Jogularity

Blind tulips will be used on Jogularities, they are essentially the same as tulips diagrams showing the junction with a ball showing where you are travelling from, however there will be no arrow to show the direction you should take. Instead an instruction will accompany the 'blind tulip' that will make sense when you reach the junction. See below as examples.

	Interval miles (km)	Section miles (km)	Symbol	Information	MPH (km)	Inter Time (mm:ss)	Total Time (mm:ss)	For Comp. Use
1	0.06 (0.10)	**6.16** (9.91)		Follow Sign post 'Banbury 9'	24 (38.62)	00:09	17:18	
2	0.14 (0.23)	**6.30** (10.14)		Pass Between 30 Signs		00:21	17:39	

1. Turn to follow sign post 'Banbury 9'

2. Only one direction will have 30 signs to pass between, if they aren't ahead of you on the current road then you will be turning left or right (at the specified distance).

Tulip Regularity

A tulip regularity works in the same way as a jogularity except the timing information and speeds will be given in a separate table (see Cumulative Speed Tables) on the adjoining page of the road book. The route will be depicted by Tulip diagrams and as with all Tulip sections, not all junctions will be shown, if a junction is not shown you should continue, on the principle road.

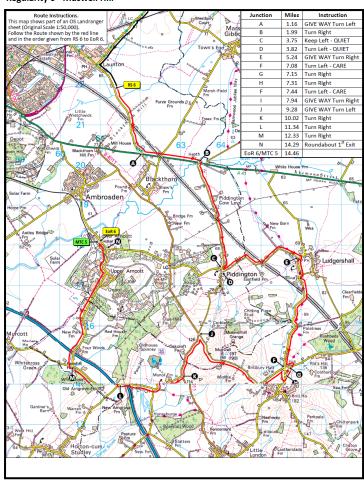|	Interval miles	Section miles	Symbol	Information	For Comp. Use
1	0.00	0.00		Regularity 3/3 ZERO TRIP	
2	1.54	1.54			
3	2.01	3.55			
4	1.13	4.68			
5	0.46	5.14			
6	0.19	5.33			
7	2.36	7.69			
8	1.10	8.79		End of Regularity 3/3	

Marked Maps (Blue events only)

With Marked Map regularities you will be provided the correct section of map in the Route Book from 1:50,000 Landranger Map.

The route to be followed may be highlighted by a coloured or black line, red in this example, or tramlines (a solid black or coloured line either side of the road to take). Alternatively, the maps may show other instructions, such as a series of lettered points that should be passed through in the specified order (sometimes with the approach / departure directions also specified) known as "London Maps".
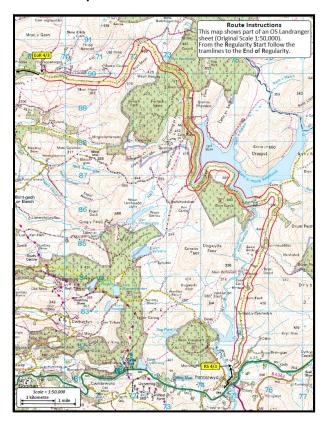
For Assisted Marked Maps you will also be provided with the distances and instructions for junctions. This is to help you get used to reading maps and should be used as a guide. When distances are not provided it is up to you whether you attempt to measure the route but be aware that it will only be a rough guide and may not be accurate.
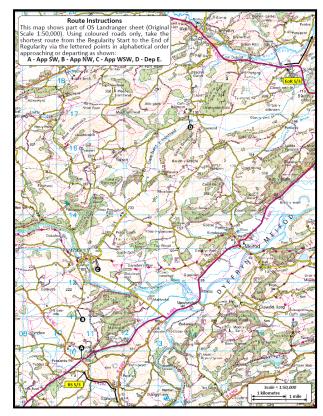
Marked Map -Route in red with distances

Regularity 6 - Muswell Hill

Junction	Miles	Instruction
A	1.16	GIVE WAY Turn Left
B	1.99	Turn Right
C	3.75	Keep Left - QUIET
D	3.82	Turn Left - QUIET
E	5.24	GIVE WAY Turn Right
F	7.08	Turn Left - CARE
G	7.15	Turn Right
H	7.31	Turn Right
F	7.44	Turn Left - CARE
I	7.94	GIVE WAY Turn Right
J	9.28	GIVE WAY Turn Left
K	10.02	Turn Right
L	11.34	Turn Right
M	12.33	Turn Right
N	14.29	Roundabout 1st Exit
EoR 6/MTC 5	14.46	

Marked Map – With tramlines

Marked Map – Approach and Depart

Cumulative Speed Tables

A table showing the timing and speeds for a regularity section, they are cumulative which means that the maths of all the different speed changes has been done for you and you can leave the stop watch running throughout the regularity section.

Timing points can be located anywhere on the correct route, which means invariably they are not at an exact distance depicted in the speed tables.

The Speed Table on the right was taken from the Novice Trial 2019

Cumulative speed tables are used with marked maps and tulip regularities and will be shown on the adjoining page of the route instructions for that regularity.

Distance (mi)	Time (mm:ss)	Speed (mph)	Distance (mi)	Time (mm:ss)	Speed (mph)	Distance (mi)	Time (mm:ss)	Speed (mph)
0.00	00:00	25	8.40	22:06	24	16.80	40:28	
0.20	00:29		8.60	22:36		17.00	40:54	
0.40	00:58		8.80	23:06		17.20	41:19	
0.60	01:26		9.00	23:36		17.40	41:45	
0.80	01:55		9.20	24:06		17.60	42:11	
1.00	02:24		9.40	24:36	28	17.80	42:36	
1.20	02:53	22	9.60	25:02		18.00	43:02	30
1.40	03:26		9.80	25:28		18.20	43:26	
1.60	03:58		10.00	25:54		18.40	43:50	
1.80	04:31	27	10.20	26:19		18.60	44:14	
2.00	04:58		10.40	26:45		18.80	44:38	
2.20	05:24		10.60	27:11		19.00	45:02	
2.40	05:51		10.80	27:36		19.20	45:26	
2.60	06:18		11.00	28:02		19.40	45:50	
2.80	06:44	22	11.20	28:28		19.60	46:14	
3.00	07:17		11.40	28:54		19.80	46:38	
3.20	07:50		11.60	29:19		20.00	47:02	
3.40	08:22		11.80	29:45		20.20	47:26	
3.60	08:55	27	12.00	30:11		20.40	47:50	
3.80	09:22		12.20	30:36		20.60	48:14	
4.00	09:49	22	12.40	31:02		20.80	48:38	
4.20	10:21		12.60	31:28		21.00	49:02	

Cumulative Speed Table Regularity

When the speed table contains the descriptive route instructions as shown in the example on the right.

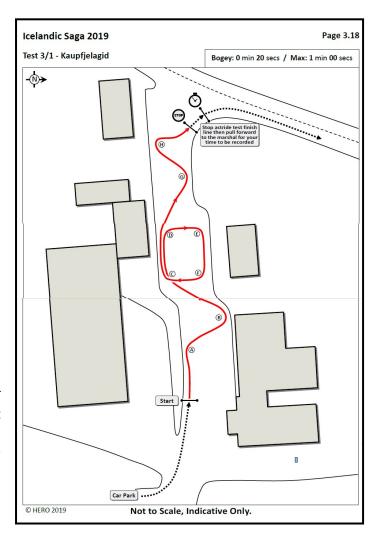| Distance (mi)	Time (mm:ss)	Speed (mph)	Distance (mi)	Time (mm:ss)	Speed (mph)
0.00	00:00	25	6.70	17:27	18
0.20	00:29	25	6.80	17:47	18
0.40	00:58	25	7.00	18:27	25
0.50	01:12	18	7.20	18:55	25
0.60	01:32	18	7.40	19:24	25
0.80	02:12	18	7.60	19:53	25
0.88	Turn Right		7.80	20:22	25
1.00	02:52	18	8.00	20:51	29
1.20	03:32	25	8.06	GIVE WAY Straight On	
1.40	04:01	25	8.20	21:16	29
1.60	04:30	25	8.40	21:40	29
1.63	GIVE WAY Straight On		8.50	21:53	18
1.80	04:58	25	8.60	22:13	18
2.00	05:27	25	8.77	Turn Left	
2.20	05:56	25	8.80	22:53	18
2.40	06:25	18	9.00	23:33	28
2.60	07:05	18	9.20	23:58	28
2.73	GIVE WAY Turn Left		9.40	24:24	28
2.80	07:45	18	9.60	24:50	28
3.00	08:25	18	9.80	25:16	28
3.20	09:05	18	10.00	25:41	28
3.30	09:25	28	10.20	26:07	28
3.40	09:38	28	10.40	26:33	28
3.60	10:03	28	10.44	Turn Left **Care!**	
3.78	Turn Right		10.60	26:58	28
3.80	10:29	25	10.80	27:24	28
4.00	10:58	25	11.00	27:50	28
4.20	11:27	25	11.20	28:16	28
4.40	11:55	25	11.40	28:41	28
4.60	12:24	25	11.60	29:07	28
4.80	12:53	25	11.80	29:33	18
5.00	13:22	25	12.00	30:13	18
5.20	13:51	25	12.20	30:53	18
5.40	14:19	25	12.32	GIVE WAY Turn Right	
5.59	GIVE WAY Turn Left		12.40	31:33	18
5.60	14:48	25	12.48	GIVE WAY Turn Left	
5.80	15:17	25		**End of Regularity**	

Test Diagrams

These are self-explanatory and will show the Bogey and Maximum Times plus any additional notes needed to clarify the manoeuvres to be performed.

Bogey: the minimum time possible to complete the test, on the rare occasion a competitor beats this time, the bogey time will be given

Maximum: The maximum possible time you can take, without incurring a 'wrong test' penalty.

You should pull up to the start line but do not start the test until the start marshal counts you down. Follow the test route depicted then stop astride the finish line (two front wheels over the line, two rear behind the line). The clock will stop point but you must then pull forward to the Marshals so that the finish is kept clear for the next car.

To the right is an example from the 2019 Icelandic Saga.

Icelandic Saga 2019 — Page 3.18
Test 3/1 - Kaupfjelagid
Bogey: 0 min 20 secs / Max: 1 min 00 secs
Stop astride test finish line then pull forward to the marshal for your time to be recorded
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Other Notes

At any time, where appropriate, the route may be defined by orange "HERO-ERA" arrows which must be followed.