

SPEED AND DISTANCE CHARTS FOR THE YOUTH CLASSES

CLASSES

[420 Trapezoid](#)

[420 OX Trapezoid](#)

[29er Windward - Leeward](#)

[FEVA Trapezoid](#)

[FEVA IX&OX Trapezoid](#)

[FEVA Windward - Leeward](#)

[Laser 4.7 Trapezoid](#)

[Laser 4.7 IX & OX Trapezoid](#)

[Laser Radial Trapezoid](#)

[Laser Radial IX & OX Trapezoid](#)

[Laser Trapezoid](#)

[Laser IX & OX Trapezoid](#)

[Mirror Trapezoid](#)

[Mirror IX & OX Trapezoid](#)

[Optimist Trapezoid](#)

[Optimist IX & OX Trapezoid](#)

[RSX 8.5 Windward - Leeward](#)

[Spitfire Trap](#)

[Spitfire Windward - Leeward](#)

[Spitfire IX Trapezoid](#)

[Topper Trapezoid](#)

[Topper IX & OX Trapezoid](#)

[Topper 4.2 Trapezoid](#)

[Topper 4.2 IX & OX Trapezoid](#)

COURSE CONFIGURATIONS (All except 420 IX&OX are standard Olympic courses in nautical miles)

Windward / Leeward (L2, L3, L4)

Trapezoid, (O2 is 1, 2, 3 gate, 2, 3, Finish)

Trapezoid IX & OX (Finish at rear of Start Boat OX2 is 1, 2, 3, 2, 3, 5, Finish)

DATA COLLECTION SHEETS

[Windward / Leeward - Landscape](#)

[Trapezoid - Landscape](#)

[Windward/Leeward - Portrait](#)

[Trapezoid - Portrait](#)

These charts have been developed to assist Race Officers in setting courses of the correct length to achieve target times as accurately as possible. However, they are only a guide and do not take account of tide or difficult sea conditions. It is assumed that the standard Olympic courses are used and set up using the "reference point" system with the reach leg at two thirds of the windward leg length and the final reach of 0.15 nm.

Charts for an IX/OX course are included for some classes (A Trapezoid with a Mark 5 and a start boat finish). When using these charts for a gennaker or spinnaker class, internal angles for the course would be between 60 and 70°, whereas for most singlehanders an internal angle of 80° would be used. To finish at the start boat and an internal angle of 60-70°, Mark3 and Mark4 will need to be set high of their normal position to maintain the reaching angle into Mark 5 placed beneath the start line. The Charts show either an increased offset required (above the standard reference position) for Gate 4 to be used so that the beats for both Inner and Outer legs of the Trapezoid are kept equal, or the length of a shorter outer loop leg, such that the Inner and Outer loops would be at different lengths.

These charts will be particularly helpful to Race Officers who are unused to running races for a particular class as can happen when medal races are required. Race Officers experienced

This revision has added the Laser full Rig to the other classes previously covered. The speeds used for this class are the same as the within the Olympic Speed Charts. You may find that race durations are slightly longer than expected depending upon the capability of the Youth sailors.

The difficulties of producing these charts is increased for classes such as the 29ers and RSX, where the hull moves into more of a planing mode between 8 and 10 knots with the corresponding increase in speed.

Each chart has a highlighted time and distance to emphasise the target time + and - 5%, these will adjust automatically if the target time is changed. Included in the pack are four data collection sheets which can be used to check or adjust speeds included in the charts. By going to the overall speeds page any amendment of speed, measured in minutes per mile, will automatically update the relevant speed chart. If you have good speed data on a particular chart please let me know so that we can update the master sheets.

I would like to thank Peter Baldwin for his help in collecting and verifying much of the data and producing these charts.

Please contact me if you have queries, comments or any update information.

David Campbell James

[Email \[campbelljames@btinternet.com\]\(mailto:campbelljames@btinternet.com\)](mailto:campbelljames@btinternet.com)

version 6 dated March 2017