

Tata Steel SC – Calculating the Club Portsmouth Numbers

Summary

In line with current RYA recommendations, Tata Steel SC Committee agreed to adopt Club Portsmouth Numbers (CPNs) for club racing. The purpose of this paper is to describe the process of generating the CPNs. The main aspects of this process are done via the PYOnline website, the RYA's website for collecting and analysing racing data to develop their consolidated National List (NL) and to assist clubs in preparing their own Club Portsmouth Number (CPN) list.

Uploading Club Data

Our club results are entered into Sailwave, probably the pre-eminent sailing results and scoring software available. Results are maintained by series in Sailwave and you can see the Sailwave output on the club's website under Sailing/Results. Sailwave has the facility to upload directly to PYOnline. The club has race data in PYOnline from 2013 onwards.

At present, the data is uploaded at the end of each series. However, prior to upload, the separate fleets' results (when we had multiple fleets) are merged. This allows PYOnline to generate a greater confidence level in the data and to minimise the ignoring of data. PYOnline ignores the data from races with less than 4 competitors

As part of the upload process, the class configuration has to be specified. This is simply whether dinghy, keelboat or multihull, the number of crew, the type of rig una or sloop, and type of spinnaker if any. This allows for multiple configurations of the same class e.g. the Mirror can be sailed solo or two-up and with or without a conventional spinnaker.

PYOnline Reports

We run reports on the PYOnline data. Although it is possible to focus in on particular date ranges and individual classes, for the purpose of generating the Club PNs we select all results. Below is sample data from the report:

Class	Configuration	Races	Appearances	Confidence	PY	Last PY
420	2 S C	85	87	0.09	1088	1110
Fireball	2 S C	86	87	0.09	975	952
ILCA 6 / Laser Radial	1 U 0	180	184	0.3	1128	1144
ILCA 7 / Laser	1 U 0	256	300	0.5	1085	1093
Mirror – S/H	1 S 0	110	141	0.23	1385	1369
Optimist	1 U 0	92	166	0.27	1661	1645
Osprey	2 S C	487	777	0.88	942	940
Phantom	1 U 0	77	79	0.07	1009	1002
RS Aero 7	1 U 0	147	151	0.2	1073	1063
RS Vaneo	1 U A	340	433	0.85	1079	1086
RS400	2 S A	156	170	0.3	972	949
Solo	1 U 0	676	1788	0.77	1134	1137

The report columns are:

- Class.
- Configuration (as described above).
- Races and Appearances – the number of results for boats of this class that are being used in the calculations and the number of races these results are from.
- Confidence is a figure between 0 and 1 and is the statistically calculated confidence in the observed PN.
- PY is the observed PN calculated from all the data, i.e. what the calculations suggest the PN should be.
- Last PY is the latest PN we were actually using in the races. This information is ignored in the calculations.

Using the Report

We take the data in the report into an Excel workbook, adding columns to show the current RYA National List (RYA 24 PN), the calculated difference (Shift) between the RYA PN, and the observed PN. If there isn't a current RYA PN for a class sailed at our club, we substitute the best estimate of a PN we can get, first from the historical RYA PN data and failing that, from other clubs or manufacturer's data.

Class	Configuration	Races	Appearances	Confidence	PY	Last PY	RYA 24 PN	Shift	Club PN
420	2 S C	85	87	0.09	1088	1110	1100	-1	1099
Fireball	2 S C	86	87	0.09	975	952	955	2	957
ILCA 6 / Laser Radial	1 U 0	180	184	0.3	1128	1144	1146	-5	1141
ILCA 7 / Laser	1 U 0	256	300	0.5	1085	1093	1093	-4	1089
Mirror – S/H	1 S 0	110	141	0.23	1385	1369	1373	3	1376
Optimist	1 U 0	92	166	0.27	1661	1645	1628	9	1637
Osprey	2 S C	487	777	0.88	942	940	937	4	941
Phantom	1 U 0	77	79	0.07	1009	1002	1000	1	1001
RS Aero 7	1 U 0	147	151	0.2	1073	1063	1061	2	1063
RS Vario	1 U A	340	433	0.85	1079	1086	1093	-12	1081
RS400	2 S A	156	170	0.3	972	949	939	10	949
Solo	1 U 0	676	1788	0.77	1134	1137	1142	-6	1136

The Adjustment (Shift) for any class is calculated by multiplying the difference between the observed PN (PY) and the RYA PN by the Confidence and then applying that to the RYA PN to create the Club PN. We do not apply a change where we identify that the data is for an individual as that would be a personal handicap and that is not club policy.

So, for example, the Osprey has a Confidence of 0.88, an observed PN of 942 and an RYA PN of 937. Subtracting the RYA PN from the observed PN gives 5 and multiplying that by 0.88 gives us 4.4 which rounds to a Shift of 4, (PNs are always whole numbers) and added to the RYA PN gives a Club PN of 941. The RS400 has a Confidence of 0.3, an observed PN of 972, and an RYA PN of 939. The above calculation gives a Club PN of 949.

The upshot of this is that adopting the RYA's preferred method of generating Club PN's based on just our club's data will provide fairer racing.