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, currently General Handicap and Solo, are merged. We can do this because the fleets are sailing the same courses and we are recording times for the Solos, therefore with elapsed times it is as if they are competing in the same race to allow the Solo fleet data to be analysed alongside the General Handicap fleet. This also 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. By combining the fleets we significantly cut down the number of results that are excluded. From 2023, the Solos are now included in the General Handicap fleet.

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. One other selection option is to choose whether or not to include "Linked" clubs. Though we have included data from other similar clubs in the past, for 2023 we are only TSSC using data. Below is sample data from the report

Class	Configuration	Races	Appearances	Confidence	PY	Last PY
ILCA 6	1|U|0	167	169	0.26	1126	1142
Laser	1|U|0	239	282	0.46	1084	1101
Optimist	1|U|0	92	166	0.27	1661	1645
Osprey	2|S|C	412	614	0.88	941	934
RS Vareo	1|U|A	178	214	0.39	1075	1093
RS400	2|S|A	137	151	0.25	974	946
Solo	1|U|0	592	1658	0.76	1135	1142

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 23 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. So far this year we have not needed to do the last of these.

Class	Configuration	Races	Appearances	Confidence	PY	Last PY	RYA 23	Shift	Club
ILCA 6	1|U|0	167	169	0.26	1126	1142	1150	-6	1144
Laser	1|U|0	239	282	0.46	1084	1101	1101	-8	1093
Optimist	1|U|0	92	166	0.27	1661	1645	1635	7	1642
Osprey	2|S|C	412	614	0.88	941	934	934	6	940
RS Vareo	1|U|A	178	214	0.39	1075	1093	1093	-7	1086
RS400	2|S|A	137	151	0.25	974	946	940	9	949
Solo	1|U|0	592	1658	0.76	1135	1142	1142	-5	1137

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. However if the Shift is less than 2 we don't apply it as the change is not significant. Nor do we 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 941 and an RYA PN of 934. Subtracting the RYA PN from the observed PN gives 7 and multiplying that by 0.88 gives us 6.16 which rounds to a Shift of 6, (PNs are always whole numbers) and added to the RYA PN gives a Club PN of 940. The RS400 has a Confidence of 0.25, an observed PN of 974, and an RYA PN of 946. The above calculation gives a Club PN of 949.

The upshot of this is that adopting the RYA's preferred method of generating Club PNs where appropriate will provide fairer racing.

JR280323