SCHRS activity report, November 16, 2024
JC.Rouvès President of the SCHRS World Council

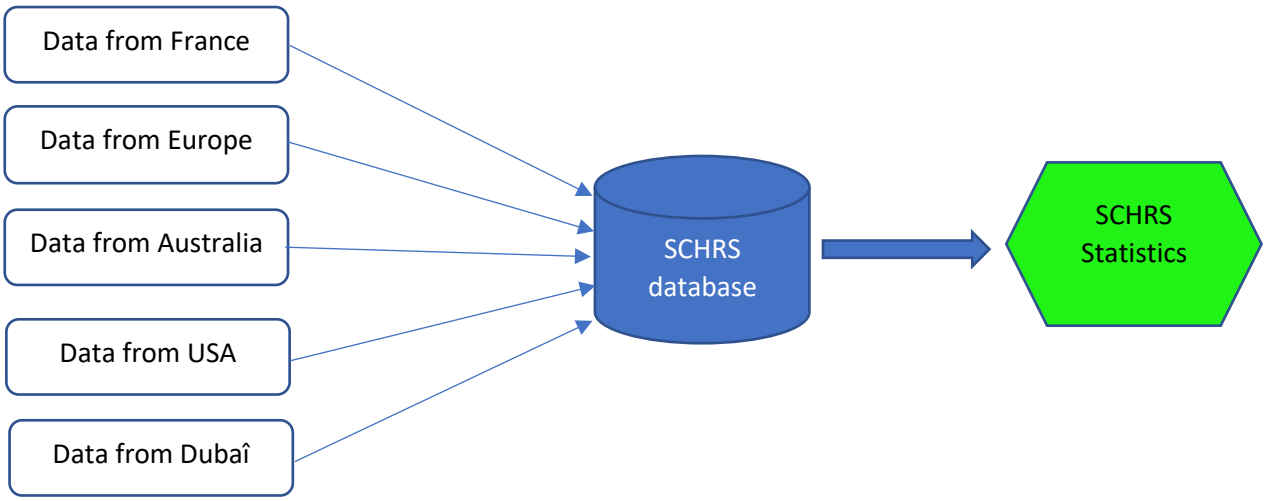
As every year at the same time, you will find below the statistical report of the past year.

This report, which covers 4 years, allows us to quantify the impact that technological developments in sports catamarans have had on the SCHRS ratings. As a reminder, I will remind you of the various key points of the report

• A collection of data from the results of regattas raced in several countries.
• A comparison of key figures over several years
• A global comparison and by type, of the participation of sports catamarans in inter-series regattas
• A global statistical analysis and by type of catamarans, intended to compare the SCHRS ratings with the performance ratings of the current year.
• Highlighting the impact that a modification of the parameters of the SCHRS calculation formula could have on the ratings, thanks to a dynamic simulation tool developed over several years.

1.Data sources -

Functional diagram



The functional diagram and the table below show the origin and distribution of the data that feed the SCHRS database, and consequently the statistics.

The agreement signed in July 2020 with the French Sailing Federation allows us to receive, using an automated procedure, a large volume of data concerning the results of inter-series regattas of sports catamarans contested in France, Guadeloupe, Martinique and Reunion Island.

The entry of results from other countries is done manually on targeted clubs and events. Despite the time-consuming aspect of this entry method, we need these data sources to take into account the diversity of fleets and bodies of water.

	2021		2022		2023		2024	
Data origin	**Nb races**	**%**	**Nb races**	**%**	**Nb races**	**%**	**Nb races**	**%**
France	746	64,76%	650	59,36%	944	67,00%	1358	77,96%
Europe (without France)	146	12,67%	173	15,80%	188	13,34%	136	7,81%
Australia	169	14,67%	82	7,49%	99	7,03%	153	8,67%
USA	59	5,12%	137	12,51%	117	8,30%	60	3,44%
Dubaï	32	2,78%	26	2,37%	47	3,34%	37	2,12%
7,81%								
Total	1152	100,00%	1095	100,00%	1409	100,00%	1742	100,00%

2.Key figures from dashboards 2021 – 2022 – 2023 - 2024

The comparison of the key figures over 4 years shows stability in the various items, which do not call for any particular comments, apart from the increase in the number of models presenting statistically exploitable data which goes from 41 to 50, and the number of new boats taken into account in the SCHRS list, which goes from 320 to 324.

Dashboard 2020 - 2021

Ratio SCHRS list / Number of multihull models having raced		
SCHRS list	320	
Multihull models that have raced	102	31,88%

Ratio SCHRS list / Nb of models with data stat. Exploitable		
Nb of models with data stat. exploitable	41	12,81%

Total number of multihulls registered	**8578**	
Total number of multihulls for statistics	**1568**	18,28%

Top five participation rates		
FORMULE 18	299	19,07%
HOBIE 16	102	6,51%
CLASSIC-A (DER.RAYON =)	98	6,25%
GOODALL VIPER DOUBLE	90	5,74%
SL16	68	4,34%
Total	**657**	**41,90%**

Diff.between ratings perf. and SCHRS ratings		
	Less advantage	Max advantage
Diff. between rating perf. and SCHRS rating	0,082006	-0,062349
Diff. In % between rating perf. and SCHRS rating	5,70%	-4,40%
Diff. between rating stat. SCHRS rating / hour	00:02:38	00:03:25

Standard deviation and variance	MAX	MIN
Standard deviation (Data dispersion)	0,10937498	0,00000000
Coefficient of variation	8,82%	0,00%

Dashboard 2022

Ratio SCHRS list / Number of multihull models having raced		
SCHRS list	320	
Multihull models that have raced	103	32,19%

Ratio SCHRS list / Nb of models with data stat. Exploitable		
Nb of models with data stat. exploitable	41	12,81%

Total number of multihulls registered	**11177**	
Total number of multihulls for statistics	**1936**	17,32%

Top five participation rates		
FORMULE 18	303	15,65%
HOBIE 16	154	7,95%
GOODALL VIPER DOUBLE	120	6,20%
CLASSIC-A (DER.RAYON =)	104	5,37%
NACRA 15	88	4,55%
Total	**769**	**39,72%**

Diff.between ratings perf. and SCHRS ratings		
	Less advantage	Max advantage
Diff. between rating perf. and SCHRS rating	0,051878	-0,017334
Diff. In % between rating perf. and SCHRS rating	4,68%	-1,55%
Diff. between rating stat. SCHRS rating / hour	00:02:48	00:00:55

Standard deviation and variance	MAX	MIN
Standard deviation (Data dispersion)	0,11373787	0,00000000
Coefficient of variation	10,20%	0,00%

Dashboard 2023

Ratio SCHRS list / Number of multihull models having raced		
SCHRS list	320	
Multihull models that have raced	122	38,13%

Ratio SCHRS list / Nb of models with data stat. Exploitable		
Nb of models with data stat. exploitable	48	15,00%

Total number of multihulls registered	**10717**	
Total number of multihulls for statistics	**1856**	17,32%

Top five participation rates		
FORMULE 18	216	11,64%
HOBIE 16	142	7,65%
NACRA 15	127	6,84%
GOODALL VIPER DOUBLE	106	5,71%
SL16	105	5,66%
Total	**696**	**37,50%**

Diff.between ratings perf. and SCHRS ratings		
	Less advantage	Max advantage
Diff. between rating perf. and SCHRS rating	0,093135	-0,024935
Diff. In % between rating perf. and SCHRS rating	8,13%	-2,38%
Diff. between rating stat. SCHRS rating / hour	00:01:25	00:04:52

Standard deviation and variance	MAX	MIN
Standard deviation (Data dispersion)	0,08562978	0,00000000
Coefficient of variation	8,10%	0,00%

Dashboard 2024

Ratio SCHRS list / Number of multihull models having raced		
SCHRS list	324	
Multihull models that have raced	113	34,88%

Ratio SCHRS list / Nb of models with data stat. Exploitable		
Nb of models with data stat. exploitable	50	15,43%

Total number of multihulls registered	12130	
Total number of multihulls for statistics	**1890**	**15,58%**

Top five participation rates		
FORMULE 18	1491	12,29%
NACRA 15	1429	11,78%
HOBIE 16	1063	8,76%
DART 18	544	4,48%
SL15.5	539	4,44%
Total	**5066**	**41,76%**

Diff.between ratings perf. and SCHRS ratings		
	Less advantage	Max advantage
Diff. between rating perf. and SCHRS rating	0,079556	-0,040872
Diff. In % between rating perf. and SCHRS rating	6,19%	-3,76%
Diff. between rating stat. SCHRS rating / hour	00:02:15	00:03:42

Standard deviation and variance	MAX	MIN
Standard deviation (Data dispersion)	0,12361197	0,00000000
Coefficient of variation	8,32%	0,00%

3. Evolution of the participation of the different groups of catamarans in the regattas

Overall attendance rate

Groups	2021	2022	2023	2024
Group C1 (Catamarans with daggerboards)	46,96%	46,20%	47,19%	46,52%
Group C3 (Catamarans without daggerboard)	37,49%	36,52%	38,66%	38,35%
Group FB (Flying catamarans)	2,39%	2,34%	1,36%	2,02%
Group C4 (Small catamarans < or = 4,38 m, without daggerboard)	12,80%	11,87%	12,24%	13,12%

Statistically exploitable rate

Groups	2021	2022	2023	2024
Group C1 (Catamarans with daggerboards)	62,78%	55,97%	54,85%	53,64%
Group C3 (Catamarans without daggerboard)	29,73%	32,66%	35,10%	35,34%
Group FB (Flying catamarans)	2,32%	3,59%	3,22%	3,31%
Group C4 (Small catamarans < or = 4,38 m, without daggerboard)	5,21%	7,79%	6,83%	7,66%

The first table represents the overall presence rate of catamarans at the regattas, and the second the participation rate of catamarans sufficiently represented to be statistically exploitable.The comparison of these two tables is interesting, because it highlights the stability of the rates in the two tables and informs us about the real activity of the practice of catamaran in each group of inter series.

4. Overall statistical results SCHRS 2024

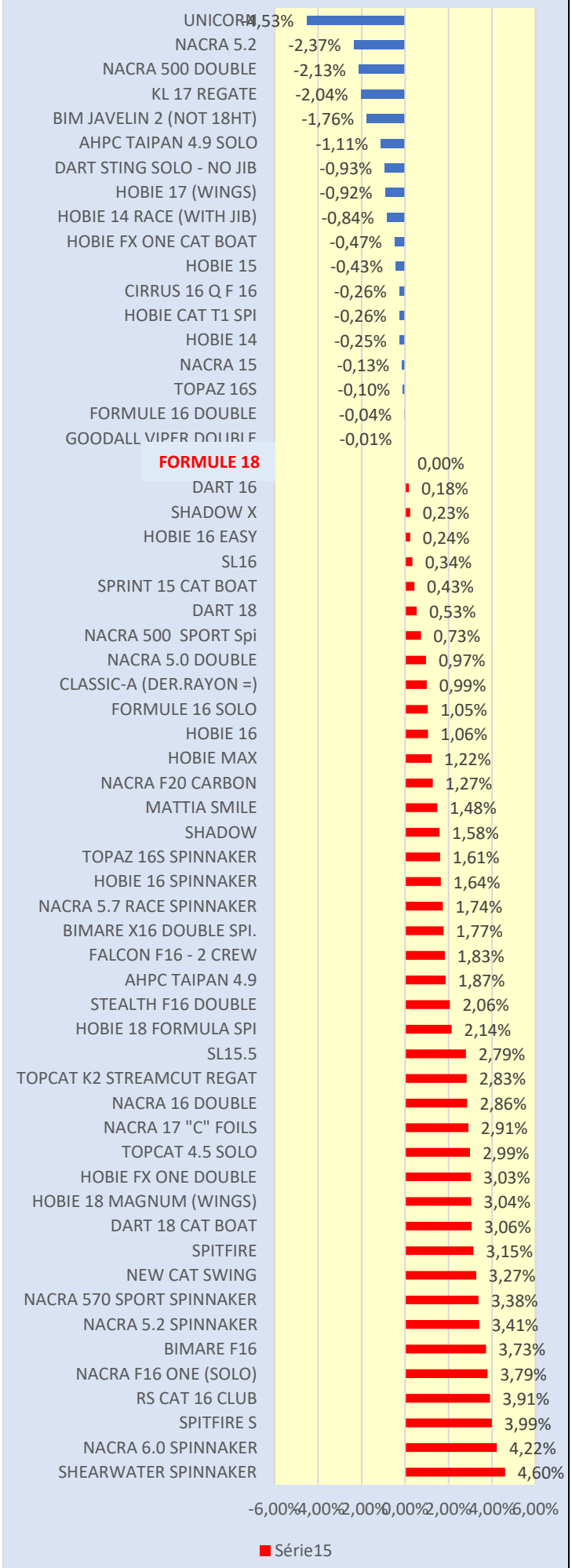
The table below aims to highlight the rating differences that may exist between those of the SCHRS list calculated from the "SCHRS FORMULA", and the performance ratings calculated from regatta results.
These comparisons allow us to identify abnormal rating differences, understand why these differences exist, and if necessary, adjust one or more parameters of the SCHRS Formula to adapt it to technological developments in sports catamarans.

Classes	Groups	Difference between rating perf. and SCHRS rating list	Difference in % between rating perf. and SCHRS rating list	Deviation rating stat./ hour **more** favorable than SCHRS rating	Deviation rating stat./ hour **less** favorable than SCHRS rating	Participation by model	Percentage of participation by type of boat
NACRA INTER 20 F20	C1	0,048	4,98%		00:02:59	18	0,95%
NACRA 16 DOUBLE	C1	0,049	4,64%		00:02:47	7	0,37%
MATTIA ESSE SPORT	C1	0,047	4,47%		00:02:41	8	0,42%
TORNADO (Big rig - Spi)	C1	0,040	4,16%		00:02:29	26	1,38%
TROPIC GTI - SPINNAKER	C1	0,036	3,27%		00:01:57	11	0,58%
HOBIE TWIXXY	C4	0,045	3,15%		00:01:53	7	0,37%
NACRA 5.0 DOUBLE	C3	0,037	3,11%		00:01:51	8	0,42%
NACRA 17 "C" FOILS	C1	0,030	3,04%		00:01:49	12	0,63%
HOBIE 16 SPINNAKER	C3	0,034	2,99%		00:01:47	35	1,85%
FORMULE 16 SOLO	C1	0,029	2,84%		00:01:42	8	0,42%
CLASSIC-A (Dér.rayon =)	C1	0,024	2,39%		00:01:25	97	5,13%
SL16	C3	0,020	1,78%		00:01:04	60	3,17%
TOPAZ 14C	C4	0,024	1,66%		00:00:59	14	0,74%
HOBIE 15	C3	0,022	1,65%		00:00:59	21	1,11%
BIMARE F16	C1	0,017	1,64%		00:00:59	30	1,59%
SL15.5	C3	0,020	1,61%		00:00:58	79	4,18%
NACRA 580 (WITHOUT SPI)	C1	0,017	1,55%		00:00:55	34	1,80%
TOPAZ 16S SPINNAKER	C3	0,020	1,52%		00:00:54	8	0,42%
SHADOW	C1	0,017	1,49%		00:00:53	6	0,32%
TOPAZ 16C	C3	0,020	1,47%		00:00:52	16	0,85%
HOBIE 17 (WINGS)	C1	0,016	1,27%		00:00:45	15	0,79%
HOBIE 14	C4	0,011	0,79%		00:00:28	13	0,69%
HOBIE 16 EASY	C3	0,010	0,78%		00:00:28	25	1,32%
SPITFIRE	C1	0,008	0,72%		00:00:25	14	0,74%
NACRA 500 SPORT SPI	C3	0,007	0,64%		00:00:23	19	1,01%
GOODALL VIPER DOUBLE	C1	0,006	0,60%		00:00:21	102	5,40%
DART 18 CAT BOAT	C3	0,006	0,48%		00:00:17	46	2,43%
FORMULE 16 DOUBLE	C1	0,004	0,38%		00:00:13	34	1,80%
DART 15 CAT BOAT	C3	0,005	0,34%		00:00:12	31	1,64%
HOBIE 16	C3	0,003	0,28%		00:00:10	137	7,25%
SHADOW X	C1	0,003	0,23%		00:00:08	10	0,53%
AHPC TAIPAN 4.9 SLOOP	C1	0,002	0,20%		00:00:07	31	1,64%
NEW CAT F1	C4	0,001	0,08%		00:00:03	15	0,79%
DART STING SOLO - NO JIB	C3	0,001	0,08%		00:00:02	23	1,22%
NACRA F20 CARBON	C1	0,000	0,04%		00:00:01	22	1,16%
FORMULE 18	C1	0,000	0,00%	00:00:00	00:00:00	244	12,91%
GOODALL VIPER DOUBLE DS !	C1	-0,001	-0,05%	00:00:01		27	1,43%
NACRA 16 Solo CURVED FOIL	C1	-0,001	-0,08%	00:00:02		9	0,48%
NACRA 15	C1	-0,001	-0,09%	00:00:03		114	6,03%
DART 18	C3	-0,004	-0,30%	00:00:10		99	5,24%
FALCON F16 - 2 CREW	C1	-0,003	-0,33%	00:00:11		15	0,79%
DART 16	C3	-0,005	-0,34%	00:00:12		10	0,53%
CLASSE A (Foils)	FB	-0,004	-0,38%	00:00:13		51	2,70%
NACRA 500 DOUBLE	C3	-0,007	-0,55%	00:00:19		14	0,74%
TYKA	C4	-0,008	-0,57%	00:00:20		36	1,90%
HOBIE CAT T1	C4	-0,009	-0,59%	00:00:21		8	0,42%
AHPC TAIPAN 4.9 Solo	C1	-0,007	-0,66%	00:00:23		68	3,60%
UNICORN	C1	-0,014	-1,17%	00:00:42		8	0,42%

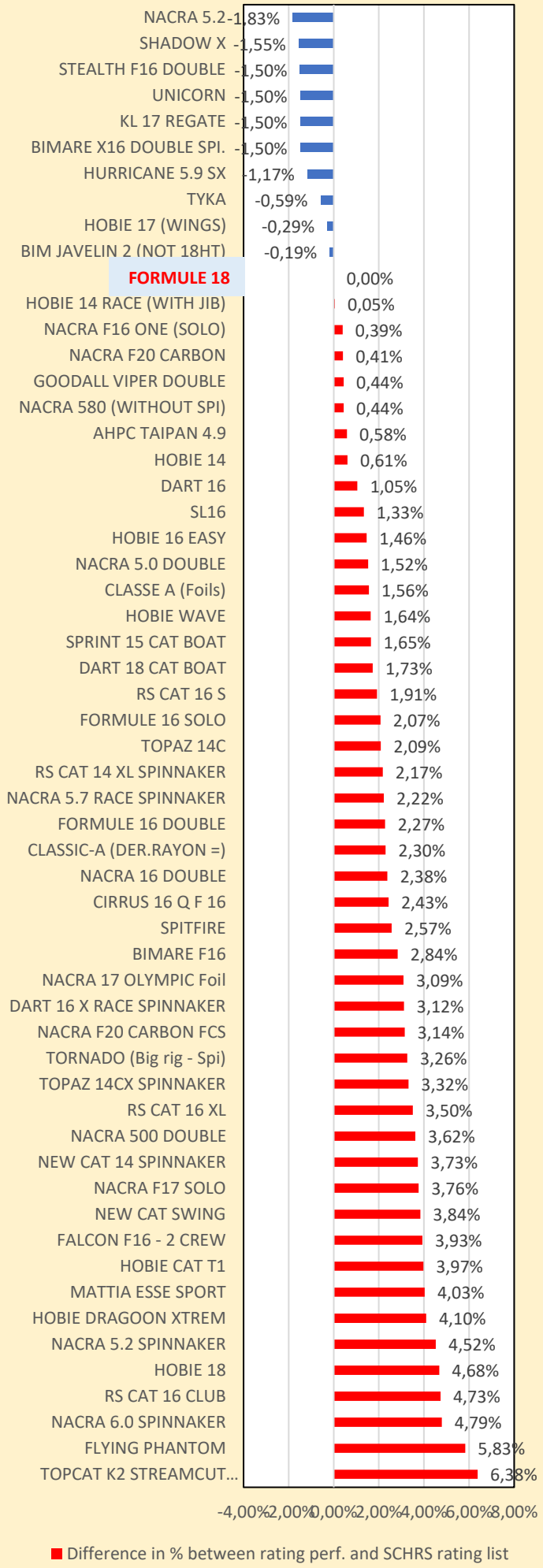
The table above shows that of the 50 catamaran models taken into account in the statistical calculations, the gap between the ratings calculated by the SCHRS Formula and the performance ratings is between -1.17% and +4.98%, while in 2023 the gap for the 48 models was between -2.38% and 4.70%.

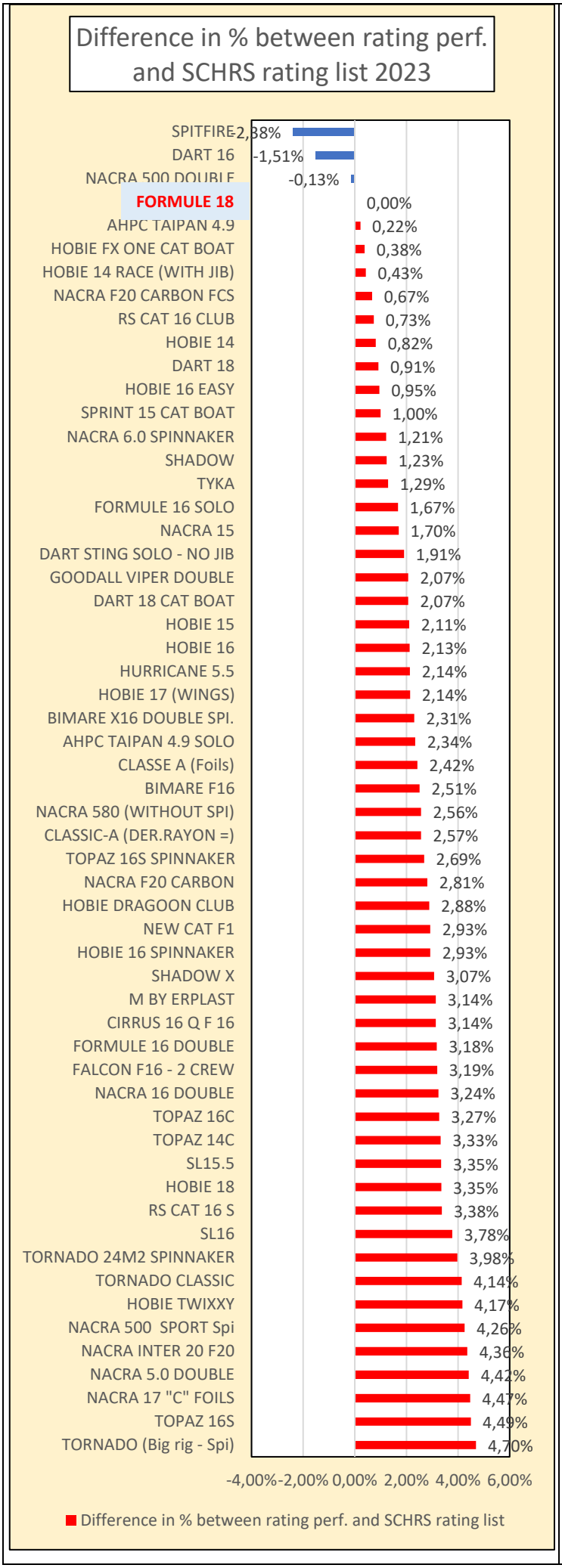
Graphical comparison of rating gaps from 2021 to 2024

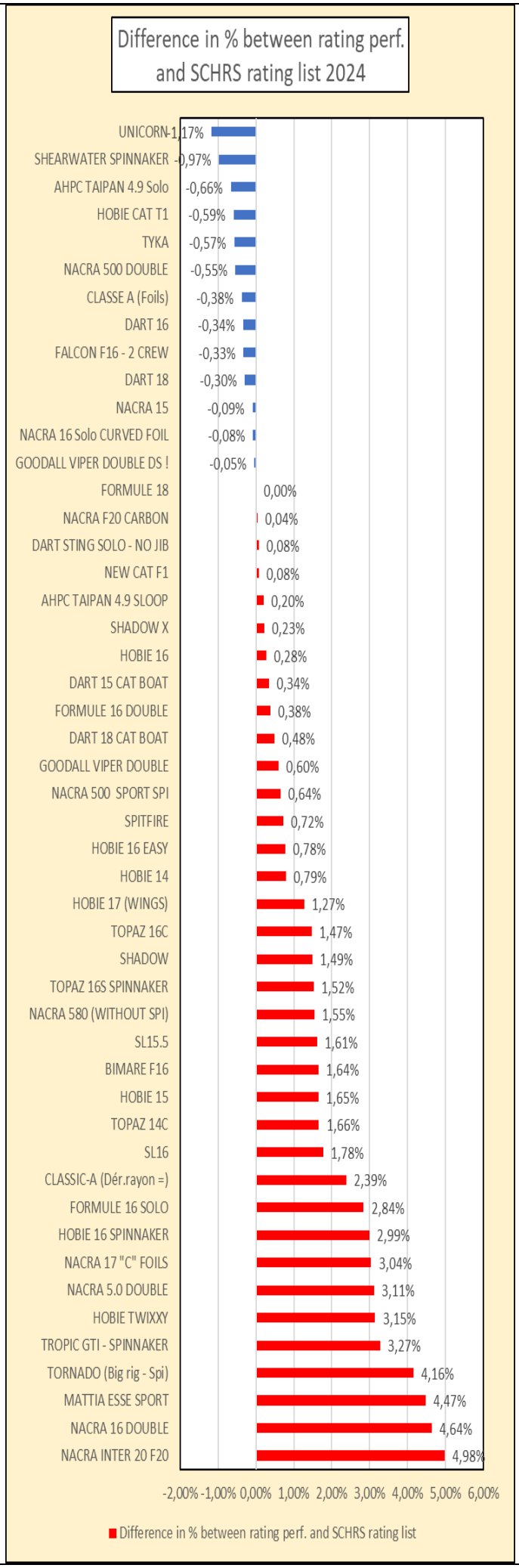
Difference in % between rating perf. and rating list SCHRS 2021

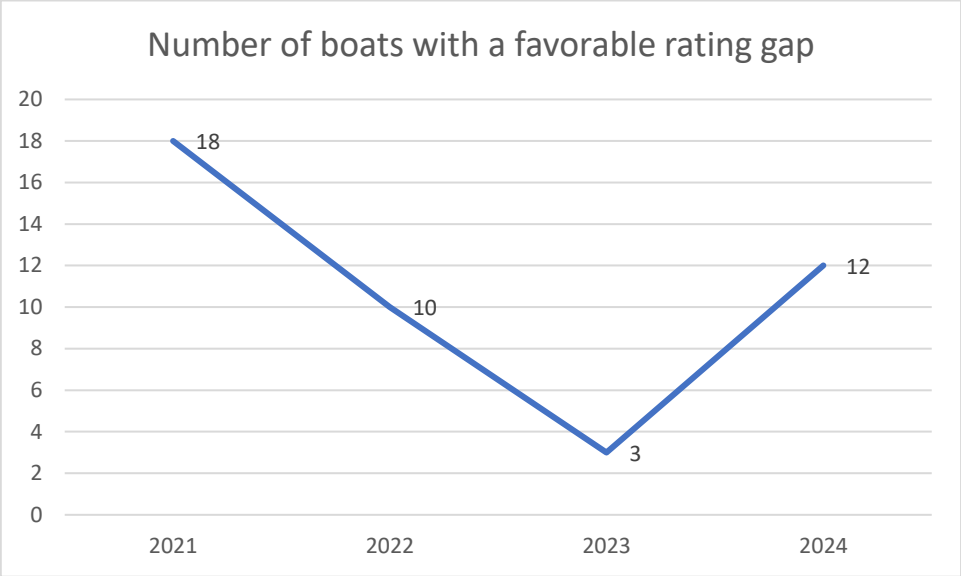


Difference in % between rating perf. and SCHRS rating list 2022




Difference in % between rating perf. and SCHRS rating list 2023
SPITFIRE -2,38%
DART 16 -1,51%
NACRA 500 DOUBLE -0,13%
FORMULE 18 0,00%
AHPC TAIPAN 4.9 0,22%
HOBIE FX ONE CAT BOAT 0,38%
HOBIE 14 RACE (WITH JIB) 0,43%
NACRA F20 CARBON FCS 0,67%
RS CAT 16 CLUB 0,73%
HOBIE 14 0,82%
DART 18 0,91%
HOBIE 16 EASY 0,95%
SPRINT 15 CAT BOAT 1,00%
NACRA 6.0 SPINNAKER 1,21%
SHADOW 1,23%
TYKA 1,29%
FORMULE 16 SOLO 1,67%
NACRA 15 1,70%
DART STING SOLO - NO JIB 1,91%
GOODALL VIPER DOUBLE 2,07%
DART 18 CAT BOAT 2,07%
HOBIE 15 2,11%
HOBIE 16 2,13%
HURRICANE 5.5 2,14%
HOBIE 17 (WINGS) 2,14%
BIMARE X16 DOUBLE SPI. 2,31%
AHPC TAIPAN 4.9 SOLO 2,34%
CLASSE A (Foils) 2,42%
BIMARE F16 2,51%
NACRA 580 (WITHOUT SPI) 2,56%
CLASSIC-A (DER.RAYON =) 2,57%
TOPAZ 16S SPINNAKER 2,69%
NACRA F20 CARBON 2,81%
HOBIE DRAGOON CLUB 2,88%
NEW CAT F1 2,93%
HOBIE 16 SPINNAKER 2,93%
SHADOW X 3,07%
M BY ERPLAST 3,14%
CIRRUS 16 Q F 16 3,14%
FORMULE 16 DOUBLE 3,18%
FALCON F16 - 2 CREW 3,19%
NACRA 16 DOUBLE 3,24%
TOPAZ 16C 3,27%
TOPAZ 14C 3,33%
SL15.5 3,35%
HOBIE 18 3,35%
RS CAT 16 S 3,38%
SL16 3,78%
TORNADO 24M2 SPINNAKER 3,98%
TORNADO CLASSIC 4,14%
HOBIE TWIXXY 4,17%
NACRA 500 SPORT Spi 4,26%
NACRA INTER 20 F20 4,36%
NACRA 5.0 DOUBLE 4,42%
NACRA 17 "C" FOILS 4,47%
TOPAZ 16S 4,49%
TORNADO (Big rig - Spi) 4,70%
-4,00% -2,00% 0,00% 2,00% 4,00% 6,00%
Difference in % between rating perf. and SCHRS rating list


Difference in % between rating perf. and SCHRS rating list 2024
UNICORN -1,17%
SHEARWATER SPINNAKER -0,97%
AHPC TAIPAN 4.9 Solo -0,66%
HOBIE CAT T1 -0,59%
TYKA -0,57%
NACRA 500 DOUBLE -0,55%
CLASSE A (Foils) -0,38%
DART 16 -0,34%
FALCON F16 - 2 CREW -0,33%
DART 18 -0,30%
NACRA 15 -0,09%
NACRA 16 Solo CURVED FOIL -0,08%
GOODALL VIPER DOUBLE DS ! -0,05%
FORMULE 18 0,00%
NACRA F20 CARBON 0,04%
DART STING SOLO - NO JIB 0,08%
NEW CAT F1 0,08%
AHPC TAIPAN 4.9 SLOOP 0,20%
SHADOW X 0,23%
HOBIE 16 0,28%
DART 15 CAT BOAT 0,34%
FORMULE 16 DOUBLE 0,38%
DART 18 CAT BOAT 0,48%
GOODALL VIPER DOUBLE 0,60%
NACRA 500 SPORT SPI 0,64%
SPITFIRE 0,72%
HOBIE 16 EASY 0,78%
HOBIE 14 0,79%
HOBIE 17 (WINGS) 1,27%
TOPAZ 16C 1,47%
SHADOW 1,49%
TOPAZ 16S SPINNAKER 1,52%
NACRA 580 (WITHOUT SPI) 1,55%
SL15.5 1,61%
BIMARE F16 1,64%
HOBIE 15 1,65%
TOPAZ 14C 1,66%
SL16 1,78%
CLASSIC-A (Dér.rayon =) 2,39%
FORMULE 16 SOLO 2,84%
HOBIE 16 SPINNAKER 2,99%
NACRA 17 "C" FOILS 3,04%
NACRA 5.0 DOUBLE 3,11%
HOBIE TWIXXY 3,15%
TROPIC GTI - SPINNAKER 3,27%
TORNADO (Big rig - Spi) 4,16%
MATTIA ESSE SPORT 4,47%
NACRA 16 DOUBLE 4,64%
NACRA INTER 20 F20 4,98%
-2,00% -1,00% 0,00% 1,00% 2,00% 3,00% 4,00% 5,00% 6,00%
Difference in % between rating perf. and SCHRS rating list



This curve is the translation of a situation, which between 2021 and 2023 contributed to moving the barycenter of the reference boat represented by FORMULA 18 in a negative way, then in a positive way in 2024

What explanations can be given for this inversion of the curve?

Firstly, after the adoption by the FORMULA 18 class in 2020 of "decksweeper sails", we have observed over the years a generalisation of this type of sail on this boat.

This was accompanied by two phenomena, the first is linked to better mastery of this type of sail by the crews, and the second is the fact of the manufacturers who have improved the performance of their boats while remaining compliant with the class rules.

In 2023, the SCHRS carried out a refocusing of all boats equipped with decksweeper sails. This action, which was effective on the 2024 ratings table, has made it possible to reverse the curve.

But on a broader level, what is valid for the Formula 18 class, is producing the same effects for the boats entering the F16 Class and more generally for all boats using "decksweeper" sails.

4.1 Analysis by group

4.1.1 FB group

The catamarans of the Flying boat group represent 2.70% of the models used in the statistics

Classes	Groups	Difference between rating perf. and SCHRS rating list	Difference in % between rating perf. and SCHRS rating list	Deviation rating stat./ hour more favorable than SCHRS rating	Deviation rating stat./ hour less favorable than SCHRS rating	Participation by model	Percentage of participation by type of boat
CLASSE A (Foils)	FB	-0,004	-0,38%	00:00:13		51	2,70%

CLASS A (Foils) is, as in 2024, the only Flying Boat sufficiently represented to be included in this statistical analysis.

The low presence of Flying boats in the regattas can be explained by their high cost, and the high technical level required by the crews, to successfully pilot these boats.

It should be noted that the Nacra 17 Olympic full foiling are not present in the inter-series events.

4.1.2 C1 Group

Catamarans of group C1 (Boats with daggerboards) represent 53.64% of the models used in the statistics

This table shows that out of the 26 catamaran models taken into account in the statistical calculations, 6 do not fall within the tolerance range of plus or minus 3% difference between the performance ratings and the SCHRS ratings.

This deviation of more than 1%, which concerned 12 boats in 2023, was reduced in 2024 to 6 boats in group C1.

Classes	Groups	Difference between rating perf. and SCHRS rating list	Difference in % between rating perf. and SCHRS rating list	Deviation rating stat./ hour **more** favorable than SCHRS rating	Deviation rating stat./ hour **less** favorable than SCHRS rating	Participation by model	Percentage of participation by type of boat
NACRA INTER 20 F20	C1	0,048	4,98%		00:02:59	18	0,95%
NACRA 16 DOUBLE	C1	0,049	4,64%		00:02:47	7	0,37%
MATTIA ESSE SPORT	C1	0,047	4,47%		00:02:41	8	0,42%
TORNADO (Big rig - Spi)	C1	0,040	4,16%		00:02:29	26	1,38%
TROPIC GTI - SPINNAKER	C1	0,036	3,27%		00:01:57	11	0,58%
NACRA 17 "C" FOILS	C1	0,030	3,04%		00:01:49	12	0,63%
FORMULE 16 SOLO	C1	0,029	2,84%		00:01:42	8	0,42%
CLASSIC-A (Dér.rayon =)	C1	0,024	2,39%		00:01:25	97	5,13%
BIMARE F16	C1	0,017	1,64%		00:00:59	30	1,59%
NACRA 580 (WITHOUT SPI)	C1	0,017	1,55%		00:00:55	34	1,80%
SHADOW	C1	0,017	1,49%		00:00:53	6	0,32%
HOBIE 17 (WINGS)	C1	0,016	1,27%		00:00:45	15	0,79%
SPITFIRE	C1	0,008	0,72%		00:00:25	14	0,74%
GOODALL VIPER DOUBLE	C1	0,006	0,60%		00:00:21	102	5,40%
FORMULE 16 DOUBLE	C1	0,004	0,38%		00:00:13	34	1,80%
SHADOW X	C1	0,003	0,23%		00:00:08	10	0,53%
AHPC TAIPAN 4.9 SLOOP	C1	0,002	0,20%		00:00:07	31	1,64%
NACRA F20 CARBON	C1	0,000	0,04%		00:00:01	22	1,16%
FORMULE 18	C1	0,000	0,00%	00:00:00	00:00:00	244	12,91%
GOODALL VIPER DOUBLE DS !	C1	-0,001	-0,05%	00:00:01		27	1,43%
NACRA 16 Solo CURVED FOIL	C1	-0,001	-0,08%	00:00:02		9	0,48%
NACRA 15	C1	-0,001	-0,09%	00:00:03		114	6,03%
FALCON F16 - 2 CREW	C1	-0,003	-0,33%	00:00:11		15	0,79%
AHPC TAIPAN 4.9 Solo	C1	-0,007	-0,66%	00:00:23		68	3,60%
UNICORN	C1	-0,014	-1,17%	00:00:42		8	0,42%
SPITFIRE SOLO WITHOUT JIB	C1	-0,041	-3,76%	00:02:15		9	0,48%

4.1.3 C3 Group

Catamarans without daggerboards represent 35.34% of the models used in the statistics

This table shows that of the 16 models of catamarans in the C3 group taken into account in the statistical calculations, the gaps between the performance ratings and the SCHRS ratings are between -0.55% and +3.11%, and all but one (3.11%) fall within the tolerance range of plus or minus 3%.

Note that in 2003 six boats in the C3 group did not fall within the plus or minus 3% gap.

I think the improvement observed in 2024 is linked to the penalty on spinnakers which increased from 12 to 14, and to the refocusing of boats equipped with decksweeper sails

Classes	Groups	Difference between rating perf. and SCHRS rating list	Difference in % between rating perf. and SCHRS rating list	Deviation rating stat./ hour more favorable than SCHRS rating	Deviation rating stat./ hour less favorable than SCHRS rating	Alert threshold regarding to sample size	Participation by model	Percentage of participation by type of boat
NACRA 5.0 DOUBLE	C3	0,037	3,11%		00:01:51		8	0,42%
HOBIE 16 SPINNAKER	C3	0,034	2,99%		00:01:47		35	1,85%
SL16	C3	0,020	1,78%		00:01:04		60	3,17%
HOBIE 15	C3	0,022	1,65%		00:00:59		21	1,11%
SL15.5	C3	0,020	1,61%		00:00:58		79	4,18%
TOPAZ 16S SPINNAKER	C3	0,020	1,52%		00:00:54		8	0,42%
TOPAZ 16C	C3	0,020	1,47%		00:00:52		16	0,85%
HOBIE 16 EASY	C3	0,010	0,78%		00:00:28		25	1,32%
NACRA 500 SPORT SPI	C3	0,007	0,64%		00:00:23		19	1,01%
DART 18 CAT BOAT	C3	0,006	0,48%		00:00:17		46	2,43%
DART 15 CAT BOAT	C3	0,005	0,34%		00:00:12		31	1,64%
HOBIE 16	C3	0,003	0,28%		00:00:10		137	7,25%
DART STING SOLO - NO JIB	C3	0,001	0,08%		00:00:02		23	1,22%
DART 18	C3	-0,004	-0,30%	00:00:10			99	5,24%
DART 16	C3	-0,005	-0,34%	00:00:12			10	0,53%
NACRA 500 DOUBLE	C3	-0,007	-0,55%	00:00:19			14	0,74%

4.1.4 C4 Group

Small catamarans without daggerboards (< or = 4.38 m) represent 6.52% of the models used in the statistics

Classes	Groups	Difference between rating perf. and SCHRS rating list	Difference in % between rating perf. and SCHRS rating list	Deviation rating stat./ hour more favorable than SCHRS rating	Deviation rating stat./ hour less favorable than SCHRS rating	Alert threshold regarding to sample size	Participation by model	Percentage of participation by type of boat
HOBIE TWIXXY	C4	0,045	3,15%		00:01:53		7	0,37%
TOPAZ 14C	C4	0,024	1,66%		00:00:59		14	0,74%
HOBIE 14	C4	0,011	0,79%		00:00:28		13	0,69%
NEW CAT F1	C4	0,001	0,08%		00:00:03		15	0,79%
TYKA	C4	-0,008	-0,57%	00:00:20			36	1,90%
HOBIE CAT T1	C4	-0,009	-0,59%	00:00:21			8	0,42%

This table shows that for the 6 models of catamarans of the C4 group taken into account in the statistical calculations, the gaps between the performance ratings and the SCHRS ratings are between -0.59% and +3.15%, and all but one (3.15%) fall within the tolerance range of plus or minus 3%.
This is a positive situation, but one that must be tempered, because these are boats intended for a very young and often inexperienced public.

5. What lessons can be learned from this statistical analysis?

Comparing the figures over 4 years highlighted two elements:

The first shows that the modification of the parameter concerning the spinnakers of the SCHRS Formula, whose value increased from 12 to 14, led to a positive refocusing of the rating gaps of boats not equipped with spinnakers.

The second concerns the refocusing of boats equipped with "decksweeper sails" which resulted in 2024 in an increasing number of catamarans falling within the range of plus or minus 3% difference between the performance ratings and the SCHRS ratings.

This inversion of the curve revealed by the 2024 statistical study shows that we had identified the causes of the deviations observed and that we were able to remedy them, but with a one-year delay. This one-year delay is linked to the fact that the SCHRS only publishes its rating table once a year.

6. Proposal for 2025

The Formula 18 Class authorised the decksweeper sail in 2020, and the Formula 16 Class modified its class rules in 2023 to accept the use of decksweeper sails. This resulted in an extension of the "Vertical luff of mainsail", which went from 8.100 m to 8.500 m, which was taken into account in the calculation of the SCHRS 2024 ratings.

Today, and after having had discussions with referees, it appears that the presence of decksweeper sails is becoming widespread on a certain number of models in inter-series races. Consequently and to avoid any confusion, I propose that, as **Article G3 Adustments** of the SCHRS Class rules allows, and as Texel has just done, we generalise this modification of VLM length to all the boats on the 2025 list below.

G.3 Adjustments

When dimensions of a design are found to differ substantially form the original measurements, World Sailing can decide to alter the original rating to a more penalising one.
Deviation from the maximum and minimum dimensions in one or other direction from the data given on the official lists will never lead to a change to a less penalising rating
If a class has a rule change or any development which may influence the SCHRS rating then its rating is to be recalculated on the new basis and the number published as appropriate.

	Schrs 2024		Texel 2024	Schrs 2025
Class	**VLM**		**VLM**	**VLM corrected**
Bimare F16	8,100		8,480	8,500
Cirrus 16 Q F 16	8,100		Not registered	8,500
Cirrus 16 Q Solo F16	8,100		Not registered	8,500
Falcon F16 Double	8,100		8,480	8,500
Falcon F16 Cat Boat	8,100		8,480	8,500
Formula 16 Double (VLM OK)	8,500		8,480	8,500
Formula 16 Solo (VLM OK)	8,500		8,480	8,500
Goodall Viper Double	8,100		8,480	8,500
Goodall Viper Solo	8,100		8,480	8,500
Nacra F16 One - curved foil	8,090		8,480	8,500
Nacra F16 double - curved foil	8,090		8,480	8,500
Nacra F16 One	8,090		8,480	8,500
Nacra F16 double	8,090		8,480	8,500
Raptor F16	8,100		Not registered	8,500
Stealth F16 Double	8,100		8,480	8,500
Stealth F16 Solo	8,100		8,480	8,500

In conclusion

I wish my successor as much pleasure as I had in chairing the SCHRS, and would like to thank each of its members for having contributed voluntarily to the development and preservation of a "SCHRS Formula" allowing to have a reliable and balanced ratings table.

Thank you all, and never forget that:

The SCHRS FORMULA IS THE RULE, and the statistics are there to alert us to the gaps observed between the SCHRS ratings and the ratings on the performance of the target boats