

Table S2. Field performance means versus skill level (\pm 95% Confidence interval). Listed by skill level to show how turn performance positively correlates with skill level, while speeds positively correlated with mean session speed. Mean session speed follows wave power, i.e., the bigger the wave, the faster the speed. Results were used to for CFD simulation speeds and rotation rates shown in Table 1.

	Participant			
	1	2	3	4
Skill Level Ranking per [7]	6	7	8	9
Mean session speed (m/s)	4.6 \pm 0.03	6.2 \pm 0.1	5.9 \pm 0.1	5.9 \pm 0.1
BT initial speed (m/s)	6.2 \pm 0.1	8.8 \pm 0.1	7.7 \pm 0.1	7.4 \pm 0.1
CB speed (m/s)	5.7 \pm 0.1	7.4 \pm 0.3	6.8 \pm 0.1	6.9 \pm 0.2
Yaw rate (rad/s)	2.2 \pm 0.1	2.8 \pm 0.2	3.0 \pm 0.1	3.2 \pm 0.1
Roll rate (rad/s)	0.9 \pm 0.03	1.3 \pm 0.1	1.3 \pm 0.1	1.4 \pm 0.1
Pitch rate (rad/s)	0.6 \pm 0.03	0.8 \pm 0.1	0.8 \pm 0.04	0.9 \pm 0.1
Yaw power (W)	70 \pm 5	164 \pm 34	222 \pm 19	228 \pm 37
Roll power (W)	14 \pm 2	43 \pm 13	47 \pm 5	79 \pm 26
Pitch power (W)	7 \pm 1	18 \pm 6	23 \pm 4	31 \pm 9
Total CB power (W)	90 \pm 8	223 \pm 50	289 \pm 27	337 \pm 69
Total CB power/Inertia	4.4 \pm 0.4	7.8 \pm 1.8	9.4 \pm 0.9	12.9 \pm 3.0
Cp CB	0.09 \pm 0.01	0.09 \pm 0.02	0.13 \pm 0.01	0.15 \pm 0.02
Trace CB power	2.6 \pm 0.1	4.8 \pm 0.5	5.2 \pm 0.2	6.0 \pm 0.3