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In [1]: import os
import json
from cog_analysis import analyze_session
from report_fct import process_all_run

summary_path = "summary.json"

base_dir = "../Data_Sailnjord/Straight_lines"

# Scan de tous les dossiers de date
for date_folder in sorted(os.listdir(base_dir)):
    date_path = os.path.join(base_dir, date_folder)

    # Scan de tous les runs dans chaque dossier de date
    for run_folder in sorted(os.listdir(date_path)):
        run_path = os.path.join(date_path, run_folder)
        print("\n\nProcessing:", run_path)
        try:
            process_all_run(run_path, summary_path, tot=False)
        except ValueError as e:
            print(f"Error: {e}")
```

```
Processing: ../Data_Sailnjord/Straight_lines\06_06\06_06_Run1
Processing only reduced intervals for Gian Stragiotti vs Karl Maeder
Interval 1 summary:
{'SOG_variation_boat1': 0.9060069436977556,
 'SOG_variation_boat2': 0.6152285750161369,
 'avg_TWA_boat1': 48.330488649940264,
 'avg_TWA_boat2': 48.517377751196164,
 'avg_SOG_boat1': 20.437873357228195,
 'avg_SOG_boat2': 20.159856630824375,
 'boat1_name': 'Gian Stragiotti',
 'boat2_name': 'Karl Maeder',
 'duration': 83.59299993515015,
 'end_time': 1749217774.756,
 'stability_score': 0.9676324199379018,
 'start_time': 1749217691.163}

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Interval 1: Upwind from 2025-06-06 13:48:11 to 2025-06-06 13:49:34: Gian Stragiotti vs Karl Maeder
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MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.232	7.234	5.204	5.204	9.395	9.394	837	836	1.289	1.289			
TWD	171.5	171.5	169.5	169.5	173.5	173.5	837	836	1.226	1.226			
SOG	20.44	20.16	18.4	19.1	22.3	22.2	837	836	0.906	0.618	Gian Stragiotti	Karl Maeder	Tie
VMG	13.55	13.34	9.711	10.02	17.37	16.49	837	836	1.418	1.225	Gian Stragiotti	Karl Maeder	Tie
COG	123.2	123	109.9	112.5	137	135.2	837	836	4.509	3.813		Karl Maeder	Karl Maeder
TWA_Abs	48.33	48.52	35.49	37.76	60.84	58.91	837	836	4.59	3.85			
Heel_Lwd	54.96	53.39	37.6	34.4	72.4	76.1	837	836	6.097	5.86	Gian Stragiotti	Karl Maeder	Tie
Side_lines	12.92	13.47	2.2	4.9	23.7	25.5	837	836	3.817	3.677	Karl Maeder	Karl Maeder	Karl Maeder
Line_C	113.8	110.9	71.9	71.8	152	141	833	836	12.23	11.52	Gian Stragiotti	Karl Maeder	Tie
Total_lines	126.6	124.5	82.4	79.1	170.1	162.4	837	836	14.09	13.21	Gian Stragiotti	Karl Maeder	Tie

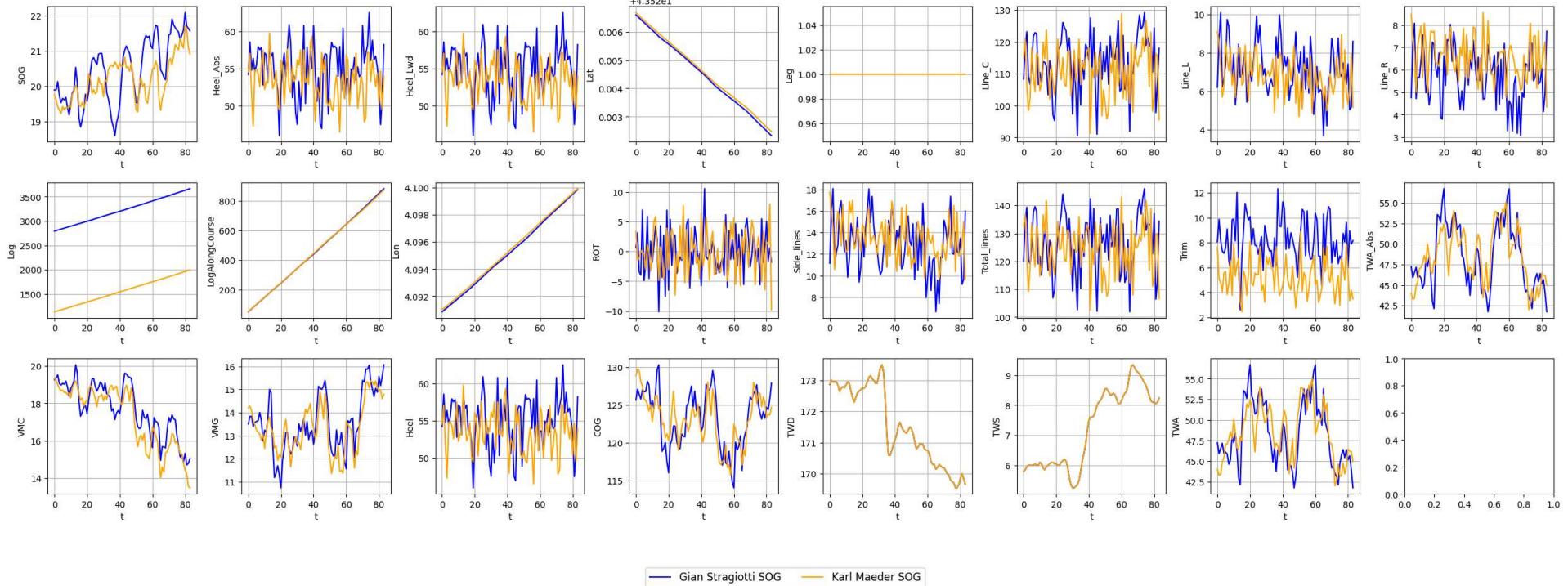
Distance Summary

	Gian Stragiotti	Karl Maeder
Distance [m]	881.134771	868.657991
Straight Line [m]	876.540039	864.963132
Distance as Percentage of Straight Line [%]	100.524190	100.427170

Gain of Gian Stragiotti with respect to Karl Maeder

	Forward	Lateral	VMG
Initial Deficit	7.158173	-15.104271	-6.523410
Final Deficit	-4.418934	-17.065085	-15.685142
Total Gain	-11.577107	-1.960814	-9.161732
Gain per Minute	-8.309624	-1.407401	-6.575956

Interval 1: Upwind from 2025-06-06 13:48:11 to 2025-06-06 13:49:34: Gian Stragiotti vs Karl Maeder - Parameters over time



— Gian Stragiotti SOG — Karl Maeder SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.9516972397395702,
'SOG_variation_boat2': 1.0361443403525072,
'avg TWA boat1': -127.84945833333335,
'avg TWA boat2': -123.79282664526484,
'avg_SOG_boat1': 26.308173076923076,
'avg_SOG_boat2': 25.258974358974363,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 62.29200005531311,
'end_time': 1749217961.048,
'stability_score': 0.9568326026425789,
'start_time': 1749217898.756}
```

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Interval 2: Downwind from 2025-06-06 13:51:38 to 2025-06-06 13:52:41: Gian Stragiotti vs Karl Maeder
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MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.552	7.553	6.8	6.8	8.624	8.624	624	623	0.4701	0.4699			
TWD	188.6	188.6	185.4	185.4	195.3	195.3	624	623	2.942	2.936			
SOG	26.31	25.26	24.2	22.6	28.3	27.4	624	623	0.9517	1.039	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	16.05	14.02	11.48	8.383	20.2	19.98	624	623	1.967	2.489	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	316.5	312.4	301.4	297	327.8	323.7	624	623	5.294	5.206	Karl Maeder	Karl Maeder	Karl Maeder
TWA_Abs	127.8	123.8	113.9	110.6	139.2	137.3	624	623	5.48	5.846			
Heel_Lwd	48.99	49.8	17.1	28.3	67.3	72	624	623	6.69	7.787	Karl Maeder	Gian Stragiotti	Tie
Side_lines	11.37	13.01	3.1	3.7	22.1	25.3	624	623	3.108	3.457	Karl Maeder	Gian Stragiotti	Tie
Line_C	93.2	90.84	55.6	54.2	129.1	131.5	621	623	11.76	13.85	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	104.5	104	61.9	59.7	151.1	153.5	624	623	12.79	15.9	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti

Distance Summary

Gian Stragiotti Karl Maeder

Distance [m] 843.849430 808.825731

Straight Line [m] 839.162531 804.354952

Distance as Percentage of Straight Line [%] 100.558521 100.555822

Gain of Gian Stragiotti with respect to Karl Maeder

Forward Lateral VMG

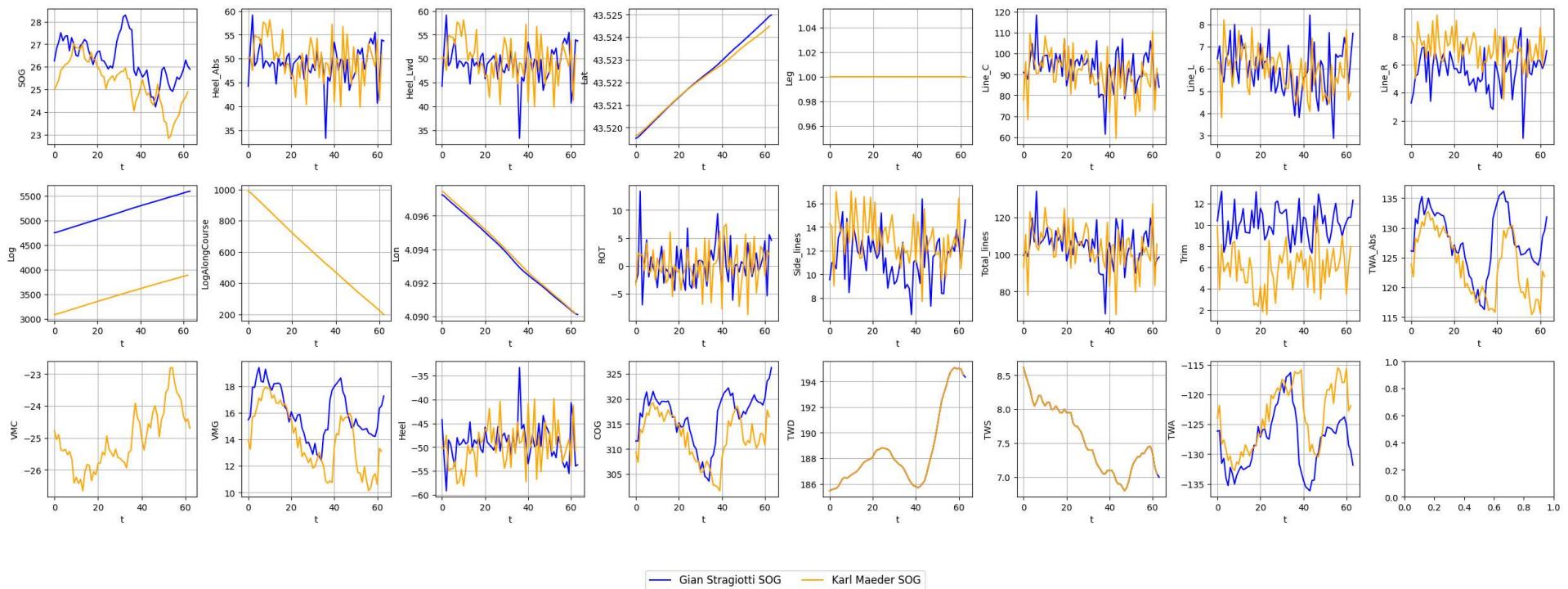
Initial Deficit -1.666479 -20.868159 -15.453600

Final Deficit -38.505938 33.816237 50.330283

Total Gain -36.839459 54.684396 65.783884

Gain per Minute -35.483971 52.672314 63.363402

Interval 2: Downwind from 2025-06-06 13:51:38 to 2025-06-06 13:52:41: Gian Stragiotti vs Karl Maeder - Parameters over time



Processing: ..\Data_Sailnjord\Straight_lines\06_06\06_06_Run2

Processing only reduced intervals for Gian Stragiotti vs Karl Maeder

Interval 1 summary:

```
{'SOG_variation_boat1': 0.9186044828922484,
'SOG_variation_boat2': 0.8717597316888797,
'avg_TWA_boat1': 58.89826233453671,
'avg_TWA_boat2': 60.07042340168877,
'avg_SOG_boat1': 20.580144404332128,
'avg_SOG_boat2': 19.964981949458487,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 82.98699998855591,
'end_time': 1749218497.944,
'stability_score': 0.9655042043463251,
'start_time': 1749218414.957}
```

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Interval 1: Upwind from 2025-06-06 14:00:14 to 2025-06-06 14:01:37: Gian Stragiotti vs Karl Maeder
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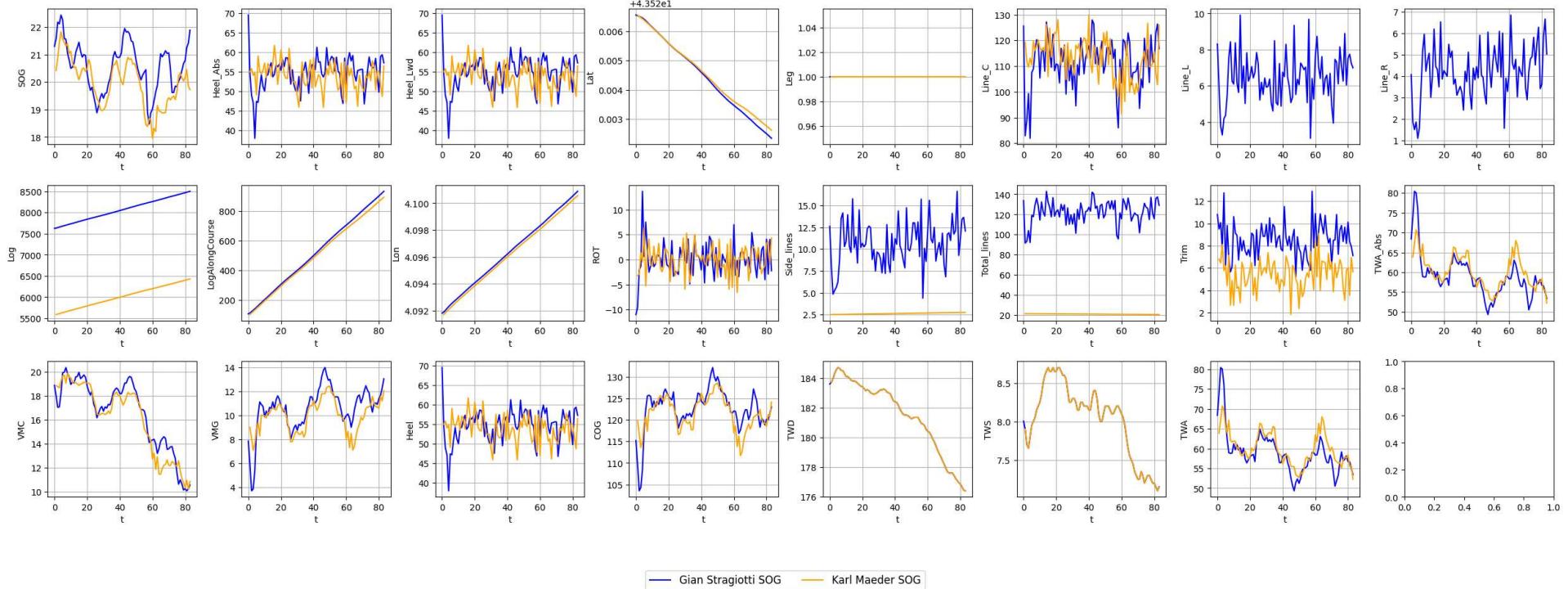
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.026	8.027	7.1	7.1	8.7	8.7	831	829	0.472	0.4717			
TWD	181.5	181.5	176.4	176.4	184.8	184.8	831	829	2.406	2.402			
SOG	20.58	19.97	17.9	17.8	22.7	22	831	829	0.9186	0.8723	Gian Stragiotti	Karl Maeder	Tie
VMG	10.57	9.936	2.002	5.209	15.39	13.17	831	829	1.908	1.438	Gian Stragiotti	Karl Maeder	Tie
COG	122.6	121.4	99.6	108.4	137.2	131	831	829	5.155	4.124	Karl Maeder	Karl Maeder	
TWA_Abs	58.9	60.07	44.3	49.7	84.8	75.84	831	829	5.748	4.415			
Heel_Lwd	54.62	53.87	29.5	34.5	69.9	73.9	831	829	6.067	5.794	Gian Stragiotti	Karl Maeder	Tie
Side_lines	10.62	2.63	1.8	2.506	24.1	2.754	831	829	3.707	0.07152	Gian Stragiotti	Karl Maeder	Tie
Line_C	111.5	113.1	61.8	81.7	162.3	146.3	826	829	13.32	10.84	Karl Maeder	Karl Maeder	Karl Maeder
Total_lines	122.3	20.92	64.2	20.46	176.8	21.39	831	829	14.73	0.2698	Gian Stragiotti	Karl Maeder	Tie

Distance Summary

	Gian Stragiotti	Karl Maeder
Distance [m]	881.637147	851.906469
Straight Line [m]	876.008669	847.703283
Distance as Percentage of Straight Line [%]	100.642514	100.495832
Gain of Gian Stragiotti with respect to Karl Maeder		
Forward	Lateral	VMG
Initial Deficit	-11.636441	5.025575
Final Deficit	-40.117615	-11.787467
Total Gain	-28.481173	-16.813042
Gain per Minute	-20.592025	-12.155910
		-21.047336

Interval 1: Upwind from 2025-06-06 14:00:14 to 2025-06-06 14:01:37: Gian Stragiotti vs Karl Maeder - Parameters over time



— Gian Stragiotti SOG — Karl Maeder SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.8062025534752273,
'SOG_variation_boat2': 0.6564624907211762,
'avg TWA boat1': -126.20847482993196,
'avg TWA boat2': -122.11107220708448,
'avg_SOG_boat1': 23.9421768707483,
'avg_SOG_boat2': 23.076734693877555,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 73.40499997138977,
'end_time': 1749218760.858,
'stability_score': 0.9693254072977828,
'start_time': 1749218687.453}
```

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Interval 2: Downwind from 2025-06-06 14:04:47 to 2025-06-06 14:06:00: Gian Stragiotti vs Karl Maeder
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MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	6.278	6.278	4.904	4.904	7.3	7.3	735	734	0.6592	0.6597			
TWD	182.2	182.2	172.6	172.7	184.4	184.4	735	734	2.771	2.751			
SOG	23.94	23.08	21.9	21.2	25.7	24.7	735	734	0.8062	0.6555	Gian Stragiotti	Karl Maeder	Tie
VMG	13.91	12.18	8.276	6.846	22.48	19.05	735	734	3.684	2.503	Gian Stragiotti	Karl Maeder	Tie
COG	308.4	304.3	293.9	290.8	329.4	322.2	735	734	8.776	5.25		Karl Maeder	Karl Maeder
TWA_Abs	126.2	122.1	110	107.6	154	144.5	735	734	11.05	7.338			
Heel_Lwd	48.52	48.22	25.6	29.4	69.4	70.4	735	734	6.962	7.099	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	11.49	3.429	2.2	3.32	20.1	3.539	735	734	2.821	0.06334	Gian Stragiotti	Karl Maeder	Tie
Line_C	90.41	86.71	41.6	61	127.3	119.8	731	734	12.56	11.41	Gian Stragiotti	Karl Maeder	Tie
Total_lines	101.9	17.91	45.6	17.49	138.4	18.32	735	734	13.82	0.239	Gian Stragiotti	Karl Maeder	Tie

Distance Summary

Gian Stragiotti Karl Maeder

Distance [m] 905.398644 871.345408

Straight Line [m] 893.191805 866.004356

Distance as Percentage of Straight Line [%] 101.366654 100.616747

Gain of Gian Stragiotti with respect to Karl Maeder

Forward Lateral VMG

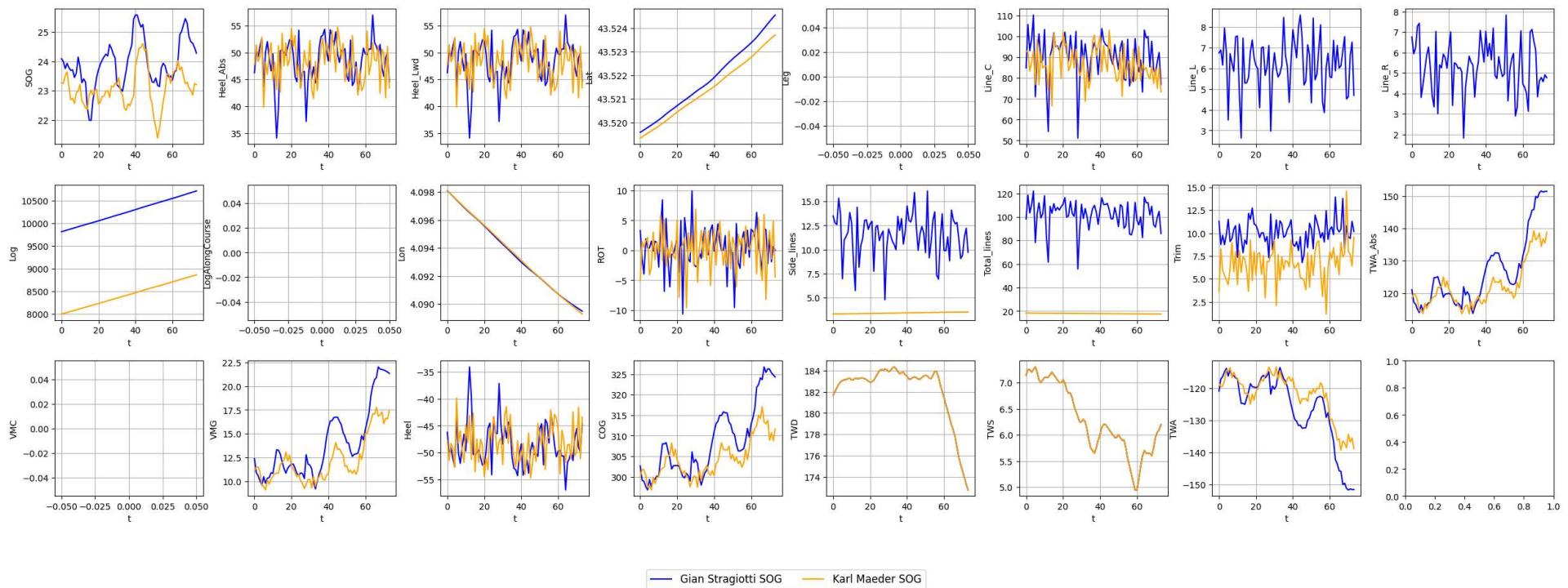
Initial Deficit -16.617785 21.629820 27.268773

Final Deficit -46.033620 85.197677 95.942798

Total Gain -29.415835 63.567857 68.674025

Gain per Minute -24.044004 51.959286 56.132981

Interval 2: Downwind from 2025-06-06 14:04:47 to 2025-06-06 14:06:00: Gian Stragiotti vs Karl Maeder - Parameters over time



Processing: ..\Data_Sailnjord\Straight_lines\06_06\06_06_Run3

Processing only reduced intervals for Gian Stragiotti vs Karl Maeder

Interval 1 summary:

```
{
'SOG_variation_boat1': 0.49000470059418433,
'SOG_variation_boat2': 0.6792614824590278,
'avg_TWA_boat1': 52.54139975845411,
'avg_TWA_boat2': 52.82867917675545,
'avg_SOG_boat1': 21.063164251207727,
'avg_SOG_boat2': 20.359541062801927,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 82.69000005722046,
'end_time': 1749219170.846,
'stability_score': 0.9702963955551277,
'start_time': 1749219088.156}
```

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Interval 1: Upwind from 2025-06-06 14:11:28 to 2025-06-06 14:12:50: Gian Stragiotti vs Karl Maeder
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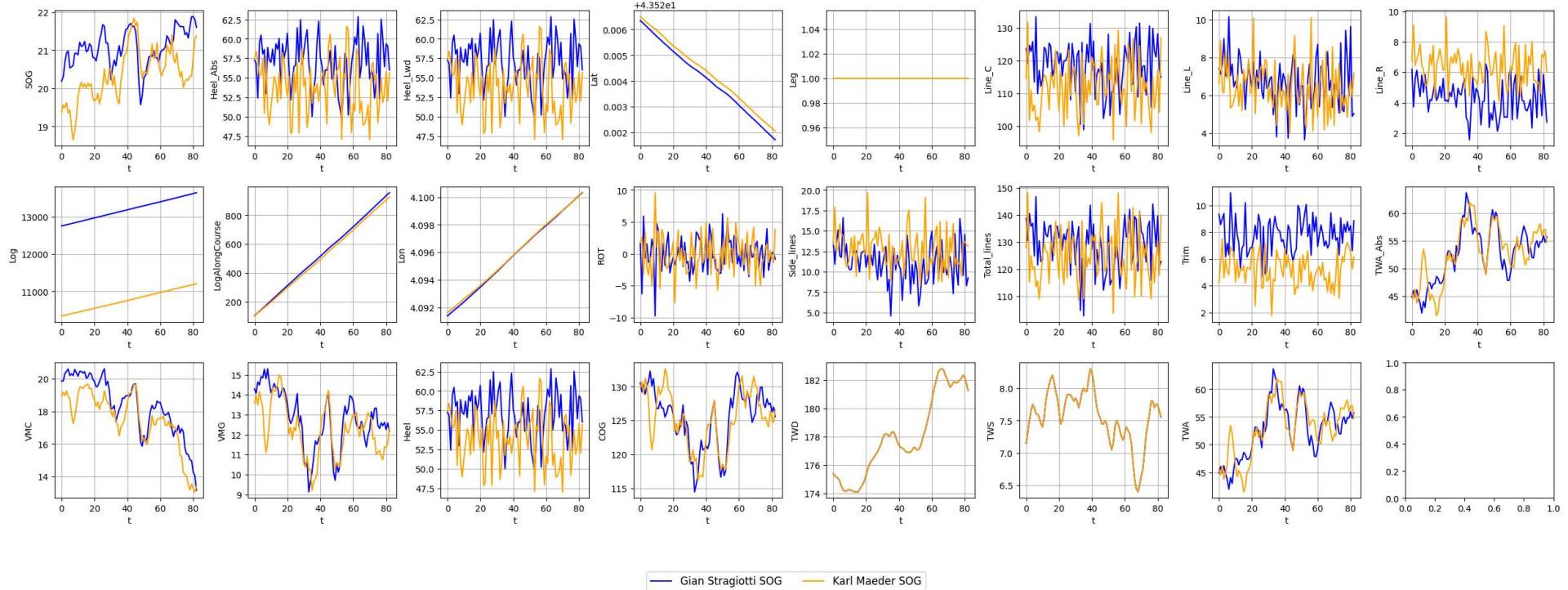
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.554	7.554	6.4	6.4	8.3	8.3	828	826	0.4124	0.4126			
TWD	178	178	174.1	174.1	182.9	182.9	828	826	2.827	2.827			
SOG	21.06	20.36	19.5	18.5	22	21.9	828	826	0.49	0.6784	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	12.76	12.24	7.939	8.308	16.57	15.3	828	826	1.499	1.409	Gian Stragiotti	Karl Maeder	Tie
COG	125.4	125.2	110.9	111.6	136.3	134.4	828	826	4.502	4.57		Gian Stragiotti	Gian Stragiotti
TWA_Abs	52.54	52.83	37.91	40.1	67.21	66.46	828	826	5.133	5.239			
Heel_Lwd	56.98	53.86	39.7	33.8	73.2	72.9	828	826	5.705	6.264	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	11.01	12.78	2.8	4.2	24	24.4	828	826	3.508	4.02	Karl Maeder	Gian Stragiotti	Tie
Line_C	118.4	111.9	76.6	76.9	154.9	152.2	821	826	10.9	12.97	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	129	124.8	82.1	82.4	165.5	171.3	828	826	12.03	15.28	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti

Distance Summary

	Gian Stragiotti	Karl Maeder
Distance [m]	898.997515	866.941594
Straight Line [m]	894.202707	862.221169
Distance as Percentage of Straight Line [%]	100.536210	100.547473
Gain of Gian Stragiotti with respect to Karl Maeder		
Forward	6.973123	-24.997293
Lateral	-25.011951	-29.788125
VMG	-38.857669	
Initial Deficit	-31.985074	-4.790833
Final Deficit	-23.257096	
Total Gain	-23.208422	-3.476236
Gain per Minute	-16.875387	

Interval 1: Upwind from 2025-06-06 14:11:28 to 2025-06-06 14:12:50: Gian Stragiotti vs Karl Maeder - Parameters over time



— Gian Stragiotti SOG — Karl Maeder SOG

Interval 2 summary:

```
{'SOG_variation_boat1': 0.9379808445806027,
'SOG_variation_boat2': 0.7911030825617474,
'avg TWA boat1': -143.14596038034864,
'avg TWA boat2': -139.84990634920635,
'avg_SOG_boat1': 25.69017432646593,
'avg_SOG_boat2': 24.954992076069733,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 62.99600005149841,
'end_time': 1749219357.356,
'stability_score': 0.9544882981127863,
'start_time': 1749219294.36}
```

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Interval 2: Downwind from 2025-06-06 14:14:54 to 2025-06-06 14:15:57: Gian Stragiotti vs Karl Maeder
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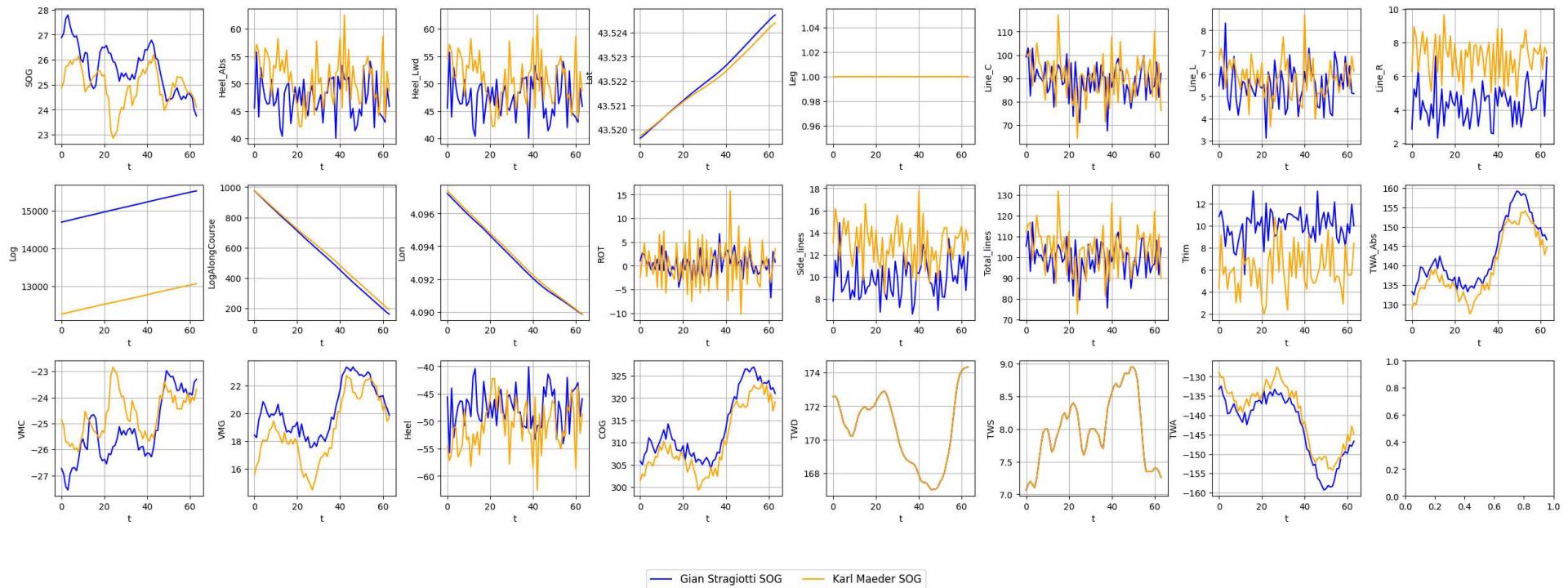
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.998	7.999	7.036	7.046	8.996	8.995	631	630	0.5283	0.5273			
TWD	170.5	170.5	167	167	174.4	174.4	631	630	2.146	2.146			
SOG	25.69	24.96	23.7	22.7	27.9	26.4	631	630	0.938	0.7909	Gian Stragiotti	Karl Maeder	Tie
VMG	20.28	18.88	15.9	12.73	23.89	23.37	631	630	1.857	2.417	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	313.6	310.3	299.9	294.7	330.1	326.5	631	630	7.688	7.694		Gian Stragiotti	Gian Stragiotti
TWA_Abs	143.1	139.8	129.1	122.6	162.3	158.3	631	630	8.523	8.429			
Heel_Lwd	47.47	50.82	27.3	31.6	71.2	73.4	631	630	6.729	7.672	Karl Maeder	Gian Stragiotti	Tie
Side_lines	9.826	12.95	1.6	2.8	18.7	24.5	631	630	2.727	3.279	Karl Maeder	Gian Stragiotti	Tie
Line_C	89.02	90.8	62.7	59.8	115.1	132.3	625	630	9.999	13.68	Karl Maeder	Gian Stragiotti	Tie
Total_lines	99.15	103.7	68.8	67.6	131.8	155.2	631	630	10.51	15.51	Karl Maeder	Gian Stragiotti	Tie

Distance Summary

	Gian Stragiotti	Karl Maeder
Distance [m]	833.036498	808.282584
Straight Line [m]	824.678256	799.868656
Distance as Percentage of Straight Line [%]	101.013516	101.051914
Gain of Gian Stragiotti with respect to Karl Maeder		
Forward	Lateral	VMG
Initial Deficit	-0.632561	-17.272746
Final Deficit	-26.766719	25.744438
Total Gain	-26.134157	43.017184
Gain per Minute	-24.891254	40.971348
		44.494595

Interval 2: Downwind from 2025-06-06 14:14:54 to 2025-06-06 14:15:57: Gian Stragiotti vs Karl Maeder - Parameters over time



— Gian Stragiotti SOG — Karl Maeder SOG

Processing: ./Data_Sailnjord/Straight_lines\06_06\06_06_Run4

Processing only reduced intervals for Gian Stragiotti vs Karl Maeder

Interval 1 summary:

```
{
'SOG_variation_boat1': 0.7122666523594098,
'SOG_variation_boat2': 0.7265832233472408,
'avg TWA boat1': 52.66727198917456,
'avg TWA boat2': 52.53241598915989,
'avg_SOG_boat1': 20.830446549391066,
'avg_SOG_boat2': 19.742625169147495,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 73.80799984931946,
'end_time': 1749219672.165,
'stability_score': 0.9631675127350817,
'start_time': 1749219598.357}
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Interval 1: Upwind from 2025-06-06 14:19:58 to 2025-06-06 14:21:12: Gian Stragiotti vs Karl Maeder
=====
```

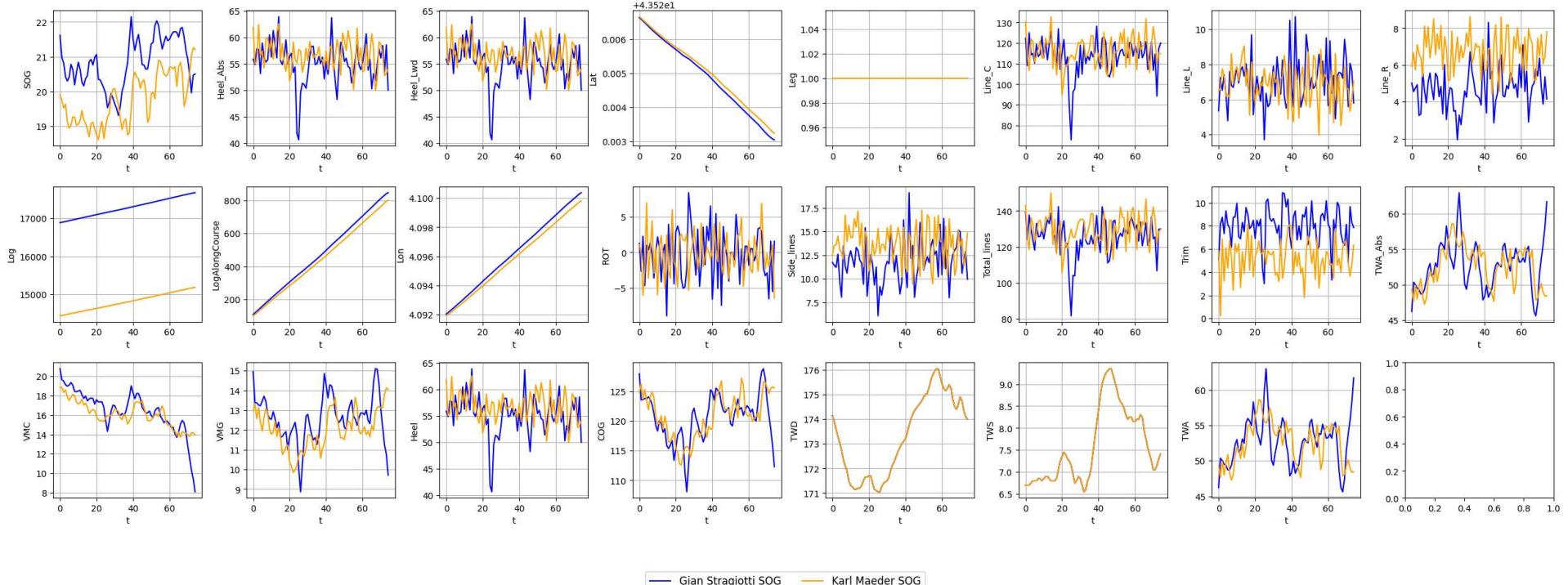
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.593	7.594	6.504	6.506	9.396	9.396	739	738	0.8486	0.8485			
TWD	173.3	173.3	171	171	176.1	176.1	739	738	1.637	1.638			
SOG	20.83	19.74	19.1	18.5	22.3	21.3	739	738	0.7123	0.7277	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	12.62	12	8.2	8.03	16.21	14.55	739	738	1.247	1.086	Gian Stragiotti	Karl Maeder	Tie
COG	120.6	120.8	106	107.3	131.6	129.5	739	738	4.214	4.064		Karl Maeder	Karl Maeder
TWA_Abs	52.67	52.53	42.8	44.5	65.03	64.28	739	738	3.662	3.353			
Heel_Lwd	55.19	56.73	31.3	40.4	74.6	74.8	739	738	6.276	5.752	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	11.82	13.62	2.2	5.6	26.1	25.5	739	738	3.608	3.51	Karl Maeder	Karl Maeder	Karl Maeder
Line_C	113.3	116	62.3	85.7	150.6	153.8	735	738	12.43	10.99	Karl Maeder	Karl Maeder	Karl Maeder
Total_lines	125.4	129.6	75.1	94.5	160.7	176	739	738	13.49	12.52	Karl Maeder	Karl Maeder	Karl Maeder

Distance Summary

	Gian Stragiotti	Karl Maeder
Distance [m]	792.398098	751.058332
Straight Line [m]	788.576683	747.458507
Distance as Percentage of Straight Line [%]	100.484597	100.481609
Gain of Gian Stragiotti with respect to Karl Maeder		
Forward	Forward	V MG
Initial Deficit	-9.232465	2.878838
Final Deficit	-50.321621	4.786736
Total Gain	-41.089155	1.907898
Gain per Minute	-33.402196	1.550968
		-19.024166

Interval 1: Upwind from 2025-06-06 14:19:58 to 2025-06-06 14:21:12: Gian Stragiotti vs Karl Maeder - Parameters over time



— Gian Stragiotti SOG — Karl Maeder SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 1.2440294837720993,
'SOG_variation_boat2': 0.9417567404996181,
'avg TWA boat1': -149.82159731543624,
'avg TWA boat2': -149.42426890756303,
'avg_SOG_boat1': 25.710234899328857,
'avg_SOG_boat2': 25.048657718120804,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 59.501999855041504,
'end_time': 1749219909.859,
'stability_score': 0.9548481156683271,
'start_time': 1749219850.357}
```

```
=====
Interval 2: Downwind from 2025-06-06 14:24:10 to 2025-06-06 14:25:09: Gian Stragiotti vs Karl Maeder
=====
```

MainReport

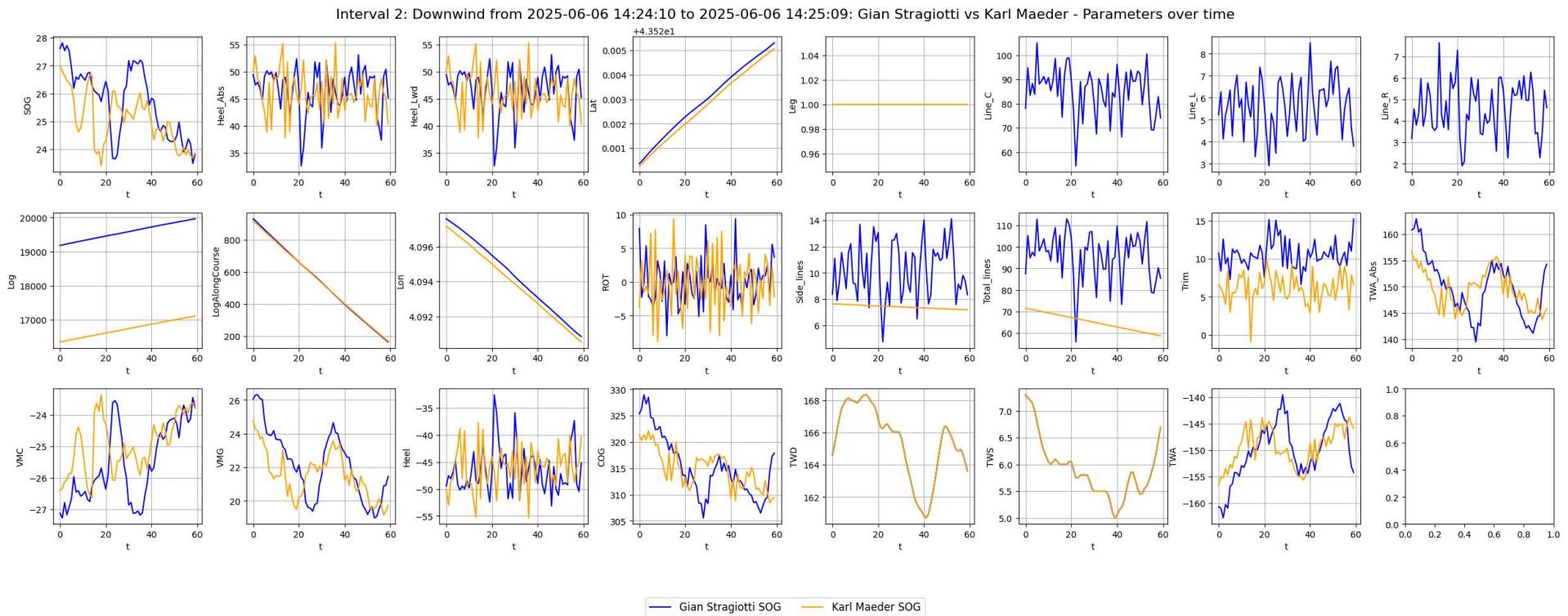
	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	5.891	5.888	5	5	7.3	7.3	596	595	0.5345	0.5319			
TWD	165.4	165.4	160.7	160.7	168.4	168.4	596	595	2.249	2.251			
SOG	25.71	25.04	23.3	22.5	27.9	27.2	596	595	1.244	0.9483	Gian Stragiotti	Karl Maeder	Tie
VMG	22.14	21.52	18.31	16.44	26.77	25.11	596	595	2.086	1.437	Gian Stragiotti	Karl Maeder	Tie
COG	315.3	314.9	304	301.8	330.9	325.1	596	595	6.088	4.14		Karl Maeder	Karl Maeder
TWA_Abs	149.8	149.4	137.9	137	165.1	160.3	596	595	5.835	4.081			
Heel_Lwd	46.54	46.07	24	30	63.7	63.5	596	595	7.04	7.043	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	10.25	7.405	0.2	7.177	19.6	7.633	596	595	2.859	0.1321	Gian Stragiotti	Karl Maeder	Tie
Line_C	85.12	nan	42.7	nan	129.5	nan	590	nan	12.49	nan			
Total_lines	95.69	65.02	45.5	58.52	148.9	71.51	596	595	13.93	3.76	Gian Stragiotti	Karl Maeder	Tie

Distance Summary

	Gian Stragiotti	Karl Maeder
Distance [m]	786.749720	764.950553
Straight Line [m]	781.230950	761.991076
Distance as Percentage of Straight Line [%]	100.706420	100.388387

Gain of Gian Stragiotti with respect to Karl Maeder

	Forward	Lateral	VMG
Initial Deficit	17.498028	31.346562	0.635020
Final Deficit	-1.768066	37.748184	20.507500
Total Gain	-19.266093	6.401622	19.872480
Gain per Minute	-19.427340	6.455201	20.038802



Processing: ..\Data_Sailnjord\Straight_lines\06_06\06_06_Run5

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{'SOG_variation_boat1': 0.5502890980942721,
'SOG_variation_boat2': 0.5485079840896449,
'avg TWA boat1': 48.68512300123002,
'avg TWA boat2': 48.25772996300863,
'avg_SOG_boat1': 21.45227552275523,
'avg_SOG_boat2': 21.483148831488318,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 81.19400000572205,
'end_time': 1749220811.654,
'stability_score': 0.9628159995384037,
'start_time': 1749220730.46}
```

```
=====
Interval 1: Upwind from 2025-06-06 14:38:50 to 2025-06-06 14:40:11: Karl Maeder vs SenseBoard
=====
```

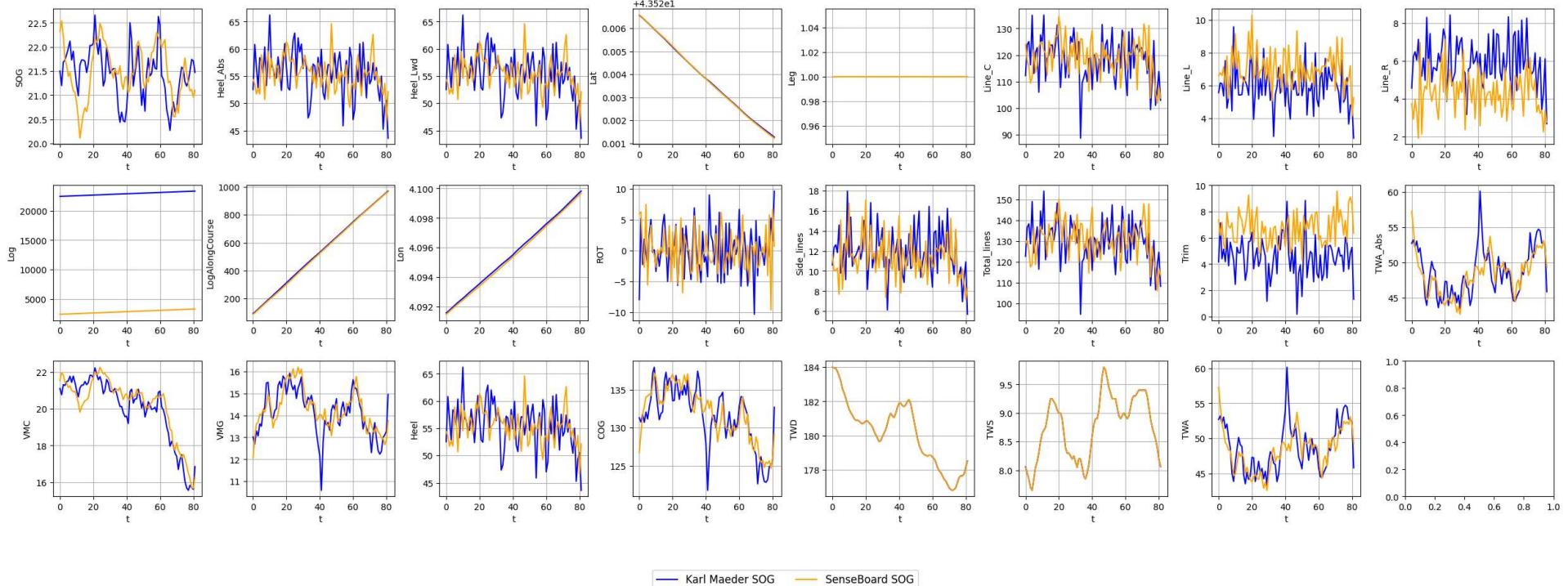
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.762	8.763	7.607	7.605	9.8	9.8	813	811	0.5466	0.5461			
TWD	180.1	180.1	176.8	176.8	184	184	813	811	1.892	1.888			
SOG	21.45	21.48	20	20	22.9	23.6	813	811	0.5503	0.5546	SenseBoard	Karl Maeder	Tie
VMG	14.13	14.28	9.293	11.62	17.47	17.12	813	811	1.188	1.024	SenseBoard	SenseBoard	SenseBoard
COG	131.4	131.9	118	121.3	141.2	141.3	813	811	4.385	3.887		SenseBoard	SenseBoard
TWA_Abs	48.69	48.26	39.52	39.53	63.87	58.89	813	811	3.947	3.323			
Heel_Lwd	55.55	55.45	32.8	38	74.8	74.5	813	811	6.328	5.439	Karl Maeder	SenseBoard	Tie
Side_lines	11.84	11.4	3.5	2.8	26	24.9	813	811	3.934	3.757	Karl Maeder	SenseBoard	Tie
Line_C	118.3	119.2	75.9	85	162.8	150.5	813	811	13.8	11.69	SenseBoard	SenseBoard	SenseBoard
Total_lines	130	130.4	80.3	90.7	177.2	174.7	813	811	15.68	13.42	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard	
Distance [m]	898.225740	896.927903	
Straight Line [m]	894.110145	893.224327	
Distance as Percentage of Straight Line [%]	100.460301	100.414630	
Gain of Karl Maeder with respect to SenseBoard			
Forward	Forward	Lateral	
Initial Deficit	-5.636834	3.981248	-0.731392
Final Deficit	-6.534813	11.708492	4.479425
Total Gain	-0.897979	7.727244	5.210817
Gain per Minute	-0.663580	5.710208	3.850642

Interval 1: Upwind from 2025-06-06 14:38:50 to 2025-06-06 14:40:11: Karl Maeder vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
'SOG_variation_boat1': 0.5526799602831597,
'SOG_variation_boat2': 0.7248894980165709,
'avg TWA boat1': -152.95215094339622,
'avg TWA boat2': -152.49173459715638,
'avg_SOG_boat1': 26.419575471698113,
'avg_SOG_boat2': 26.722169811320757,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 42.29100012779236,
'end_time': 1749220975.854,
'stability_score': 0.962807102252274,
'start_time': 1749220933.563}
```

```
=====
Interval 2: Downwind from 2025-06-06 14:42:13 to 2025-06-06 14:42:55: Karl Maeder vs SenseBoard
=====
```

MainReport

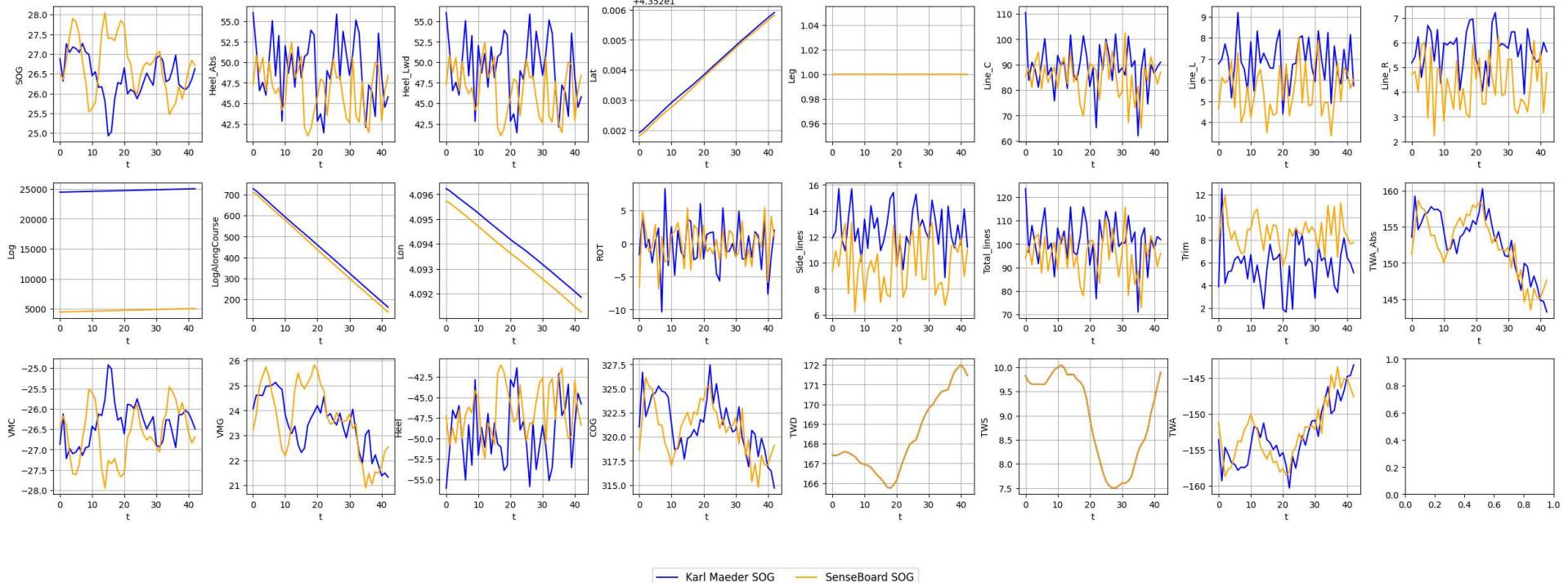
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.946	8.941	7.5	7.5	10.1	10.1	424	422	0.9215	0.9213			
TWD	168.4	168.3	165.7	165.7	172	172	424	422	1.935	1.934			
SOG	26.42	26.72	24.7	25.4	27.6	28.1	424	422	0.5527	0.727	SenseBoard	Karl Maeder	Tie
VMG	23.45	23.64	20.51	20.51	25.71	26.27	424	422	1.149	1.453	SenseBoard	Karl Maeder	Tie
COG	321.3	320.8	313.1	312.8	330.3	328.2	424	422	3.544	3.164	SenseBoard	SenseBoard	
TWA_Abs	153	152.5	141.8	141.4	163.5	160.9	424	422	4.645	4.494			
Heel_Lwd	49.14	46.65	31.6	31	72.7	65.6	424	422	7.347	6.249	Karl Maeder	SenseBoard	Tie
Side_lines	12.59	9.848	3.3	1.7	21.7	20.7	424	422	3.433	3.125	Karl Maeder	SenseBoard	Tie
Line_C	88.83	85.19	56.1	60.5	127.2	113.6	424	418	12.72	10.76	Karl Maeder	SenseBoard	Tie
Total_lines	101.4	95.15	65.6	68.1	145.9	134.3	424	422	14.42	11.76	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	574.781617	579.833110
Straight Line [m]	573.073401	578.283949
Distance as Percentage of Straight Line [%]	100.298080	100.267889
Gain of Karl Maeder with respect to SenseBoard		
Forward	16.406014	38.570295
Lateral	2.927514	
VMG		
Initial Deficit	21.598824	42.684510
Final Deficit	0.173519	
Total Gain	5.192811	4.114215
Gain per Minute	-2.753995	
	7.367256	5.837008
		-3.907207

Interval 2: Downwind from 2025-06-06 14:42:13 to 2025-06-06 14:42:55: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Processing: ..\Data_Sailnjord\Straight_lines\06_06\06_06_Run6

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{'SOG_variation_boat1': 0.6024771486351213,
 'SOG_variation_boat2': 0.5333213508461789,
 'avg TWA boat1': 46.085745090803922,
 'avg TWA boat2': 45.63624157303371,
 'avg_SOG_boat1': 21.702941176470592,
 'avg_SOG_boat2': 22.300560224089637,
 'boat1_name': 'Karl Maeder',
 'boat2_name': 'SenseBoard',
 'duration': 71.2940001487732,
 'end_time': 1749221423.255,
 'stability_score': 0.9690295257499035,
 'start_time': 1749221351.961}
```

```
=====
Interval 1: Upwind from 2025-06-06 14:49:11 to 2025-06-06 14:50:23: Karl Maeder vs SenseBoard
=====
```

MainReport

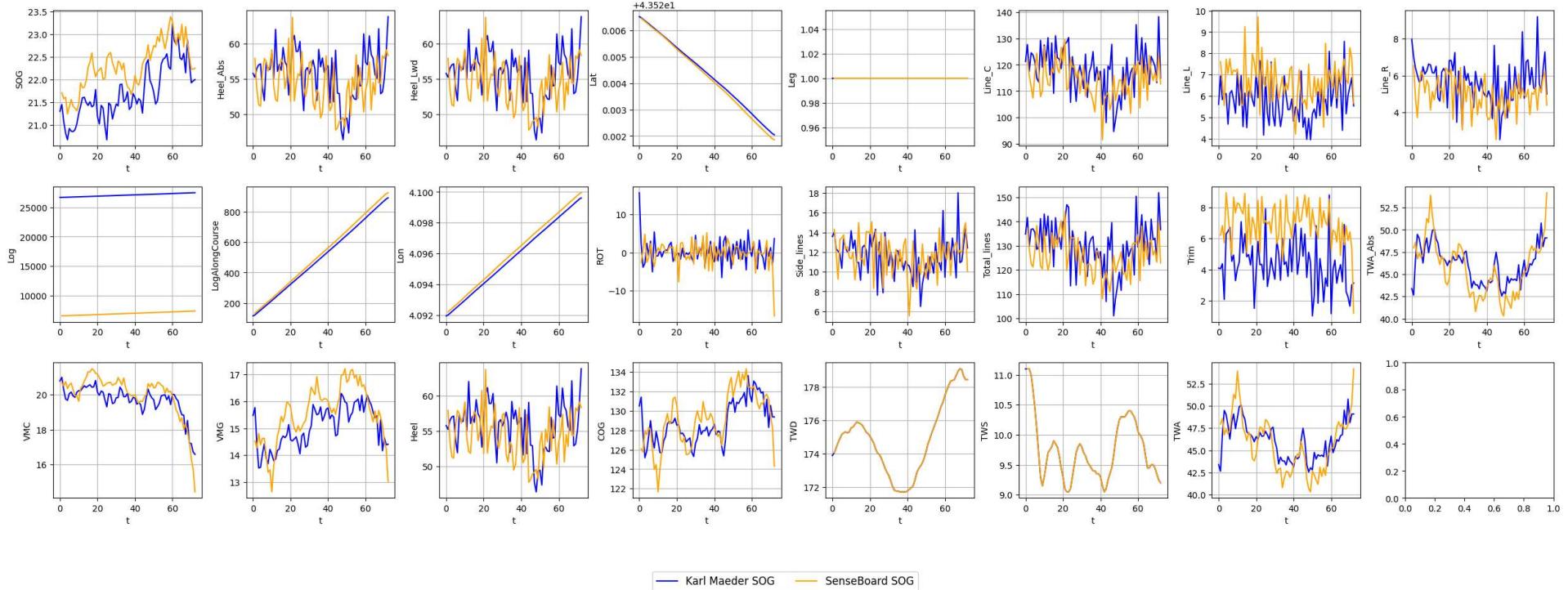
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.734	9.733	9.004	9.004	11.1	11.1	714	712	0.4974	0.4951			
TWD	174.9	174.9	171.7	171.7	179.2	179.2	714	712	2.181	2.179			
SOG	21.7	22.3	20.5	21.1	23.5	23.5	714	712	0.6025	0.5335	SenseBoard	SenseBoard	SenseBoard
VMG	15.04	15.57	12.69	11.81	17.19	18.17	714	712	0.8833	1.105	SenseBoard	Karl Maeder	Tie
COG	128.8	129.2	120.7	119.2	135.5	137.6	714	712	2.662	3.157	Karl Maeder	Karl Maeder	
TWA_Abs	46.09	45.64	38.26	36.84	54.05	56.34	714	712	2.616	3.38			
Heel_Lwd	55.76	54.28	38.7	38.6	71.3	70.4	714	712	5.598	5.642	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	11.54	11.68	4.2	3.1	25.8	25.6	714	712	3.497	3.634	SenseBoard	Karl Maeder	Tie
Line_C	118.3	114.2	71.2	69.8	154.9	149.3	714	710	13.28	12.2	Karl Maeder	SenseBoard	Tie
Total_lines	130.1	125.9	76.4	88.1	170.5	159.4	714	712	14.77	12.26	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	798.352828	817.920069
Straight Line [m]	795.949532	815.143704
Distance as Percentage of Straight Line [%]	100.301941	100.340598
Gain of Karl Maeder with respect to SenseBoard		
Forward	15.024341	-7.073479
Lateral	5.325020	
VMG		
Initial Deficit	34.195665	-0.828412
Final Deficit	23.120702	
Total Gain	19.171324	6.245068
Gain per Minute	17.795683	
Gain per Minute	16.134309	5.255759
Gain per Minute	14.976589	

Interval 1: Upwind from 2025-06-06 14:49:11 to 2025-06-06 14:50:23: Karl Maeder vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
'SOG_variation_boat1': 1.1345469133779522,
'SOG_variation_boat2': 0.95609938547161,
'avg TWA boat1': -144.59948473967685,
'avg TWA boat2': -145.07276936936935,
'avg_SOG_boat1': 26.98312387791741,
'avg_SOG_boat2': 27.60682226211849,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 55.58399987220764,
'end_time': 1749221601.952,
'stability_score': 0.9421958135106284,
'start_time': 1749221546.368}
```

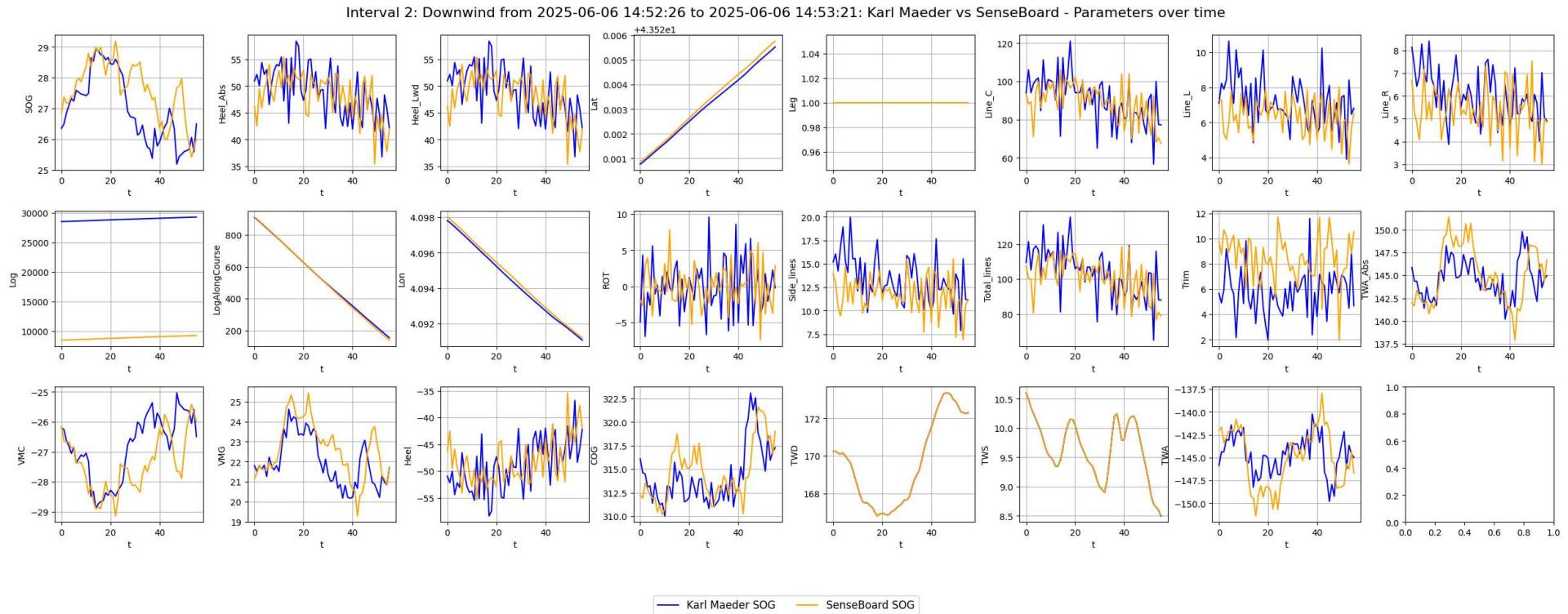
```
=====
Interval 2: Downwind from 2025-06-06 14:52:26 to 2025-06-06 14:53:21: Karl Maeder vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.639	9.64	8.41	8.428	10.6	10.6	557	555	0.5047	0.5012			
TWD	169.6	169.6	166.8	166.8	173.4	173.4	557	555	2.253	2.253			
SOG	26.98	27.62	24.5	24.8	29.7	29.3	557	555	1.135	0.9536	SenseBoard	SenseBoard	SenseBoard
VMG	21.97	22.61	17.62	16.9	25.11	26.3	557	555	1.325	1.489	SenseBoard	Karl Maeder	Tie
COG	314.2	314.7	305.8	305.4	326.8	326.5	557	555	3.588	3.522	SenseBoard	SenseBoard	SenseBoard
TWA_Abs	144.6	145.1	136	133	153.4	154.2	557	555	2.859	3.652			
Heel_Lwd	48.88	48.27	30.8	24.8	69.1	65.2	557	555	7.224	7.28	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	13.4	11.73	4.8	3.5	24	22.4	557	555	3.682	3.28	Karl Maeder	SenseBoard	Tie
Line_C	90.71	88.98	48.5	61.3	138.3	124.4	557	554	16.44	12.43	Karl Maeder	SenseBoard	Tie
Total_lines	103.5	100.7	57.8	67	146.9	146.8	557	555	18.08	13.7	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard	
Distance [m]	772.982590	787.418331	
Straight Line [m]	770.630723	785.099539	
Distance as Percentage of Straight Line [%]	100.305187	100.295350	
Gain of Karl Maeder with respect to SenseBoard			
	Forward	Lateral	VMG
Initial Deficit	-4.096900	-18.742353	-7.518175
Final Deficit	10.360741	-25.891446	-23.444251
Total Gain	14.457640	-7.149093	-15.926076
Gain per Minute	15.606261	-7.717069	-17.191360



Processing: ..\Data_Sailnjord\Straight_lines\06_06\06_06_Run7

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{'SOG_variation_boat1': 0.8433990042082609,
'SOG_variation_boat2': 0.7266066949019068,
'avg_TWA_boat1': 48.42436351875809,
'avg_TWA_boat2': 47.25475518134715,
'avg_SOG_boat1': 21.420957309184995,
'avg_SOG_boat2': 21.57464424320828,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 77.19599986076355,
'end_time': 1749221950.56,
'stability_score': 0.9643827859484259,
'start_time': 1749221873.364}
```

```
=====
Interval 1: Upwind from 2025-06-06 14:57:53 to 2025-06-06 14:59:10: Karl Maeder vs SenseBoard
=====
```

MainReport

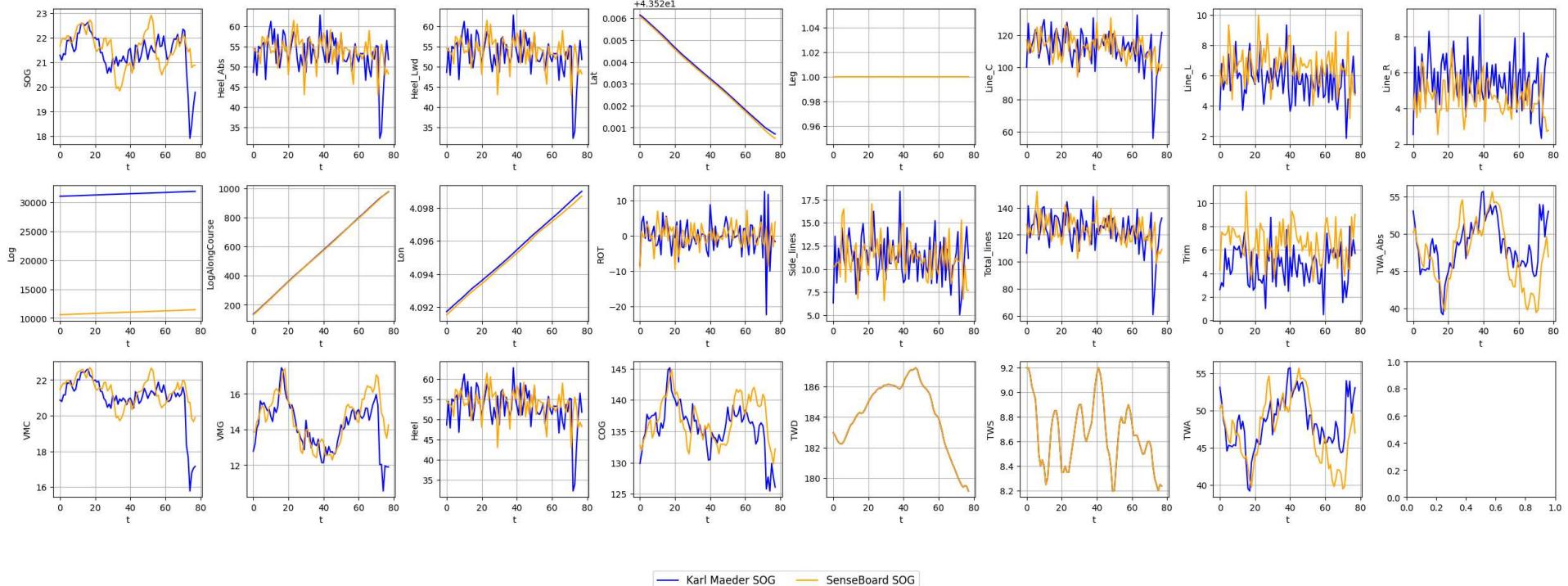
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.654	8.653	8.108	8.109	9.2	9.2	773	772	0.2658	0.2653			
TWD	184.2	184.2	179	179	187.3	187.3	773	772	2.234	2.236			
SOG	21.42	21.57	17.7	19.8	22.8	23	773	772	0.8434	0.7324	SenseBoard	SenseBoard	SenseBoard
VMG	14.2	14.6	9.275	11.03	18.08	18.22	773	772	1.47	1.471	SenseBoard	Karl Maeder	Tie
COG	135.8	136.9	117.2	126.9	148.4	149.2	773	772	4.293	4.003	SenseBoard	SenseBoard	SenseBoard
TWA_Abs	48.42	47.25	34.81	35.07	62.59	58.8	773	772	4.159	4.78			
Heel_Lwd	53.07	53.88	23.3	30.9	75.7	68.3	773	772	6.961	5.867	SenseBoard	SenseBoard	SenseBoard
Side_lines	11.19	11.22	2.7	2.7	28.1	24.2	773	772	3.817	3.818	SenseBoard	Karl Maeder	Tie
Line_C	112	112.2	41.7	65	152.8	147.4	773	771	16.63	13.04	SenseBoard	SenseBoard	SenseBoard
Total_lines	123	123.5	45	82	171.1	164.1	773	772	18.01	14.64	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	852.057212	857.088102
Straight Line [m]	848.266453	853.420647
Distance as Percentage of Straight Line [%]	100.446883	100.429736
Gain of Karl Maeder with respect to SenseBoard		
Forward	Initial Deficit	Final Deficit
	-5.003085	15.786889
	8.489243	-0.002812
Lateral	Total Gain	Gain per Minute
	5.000273	3.886424
	16.680985	12.965168
VMG		12.277838

Interval 1: Upwind from 2025-06-06 14:57:53 to 2025-06-06 14:59:10: Karl Maeder vs SenseBoard - Parameters over time



Legend: Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.6062525372636404,
'SOG_variation_boat2': 0.6829045058127635,
'avg TWA boat1': -149.69734541062803,
'avg TWA boat2': -148.5991231884058,
'avg_SOG_boat1': 27.19396135265701,
'avg_SOG_boat2': 28.07246376811594,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 41.30900001525879,
'end_time': 1749222107.762,
'stability_score': 0.9661079805234971,
'start_time': 1749222066.453}
```

```
=====
Interval 2: Downwind from 2025-06-06 15:01:06 to 2025-06-06 15:01:47: Karl Maeder vs SenseBoard
=====
```

MainReport

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.546	9.546	8.412	8.413	10.73	10.73	414	414	0.4883	0.4883			
TWD	172.1	172.1	170.2	170.2	173.7	173.7	414	414	0.9087	0.9086			
SOG	27.19	28.07	25.8	26	28.9	29.4	414	414	0.6063	0.6783	SenseBoard	Karl Maeder	Tie
VMG	23.41	23.94	20.58	21.18	25.78	26.01	414	414	0.9546	0.9684	SenseBoard	Karl Maeder	Tie
COG	321.8	320.7	311.9	313.8	331.5	331.5	414	414	3.516	2.845	SenseBoard	SenseBoard	
TWA_Abs	149.7	148.6	138.8	141.4	160.7	157.8	414	414	4.103	2.783			
Heel_Lwd	48.72	46.89	29.8	28.7	68.9	65.1	414	414	6.888	6.582	Karl Maeder	SenseBoard	Tie
Side_lines	12.85	13.01	4.3	5.5	24.2	20.8	414	414	3.22	2.809	SenseBoard	SenseBoard	SenseBoard
Line_C	88.82	89.44	52	61.6	134.5	122.7	414	413	16.26	11.12	SenseBoard	SenseBoard	SenseBoard
Total_lines	102	102.7	61.7	70.4	154.3	139.4	414	414	17.49	11.89	SenseBoard	SenseBoard	SenseBoard

Distance Summary

Karl Maeder SenseBoard

Distance [m] 578.401681 596.844633

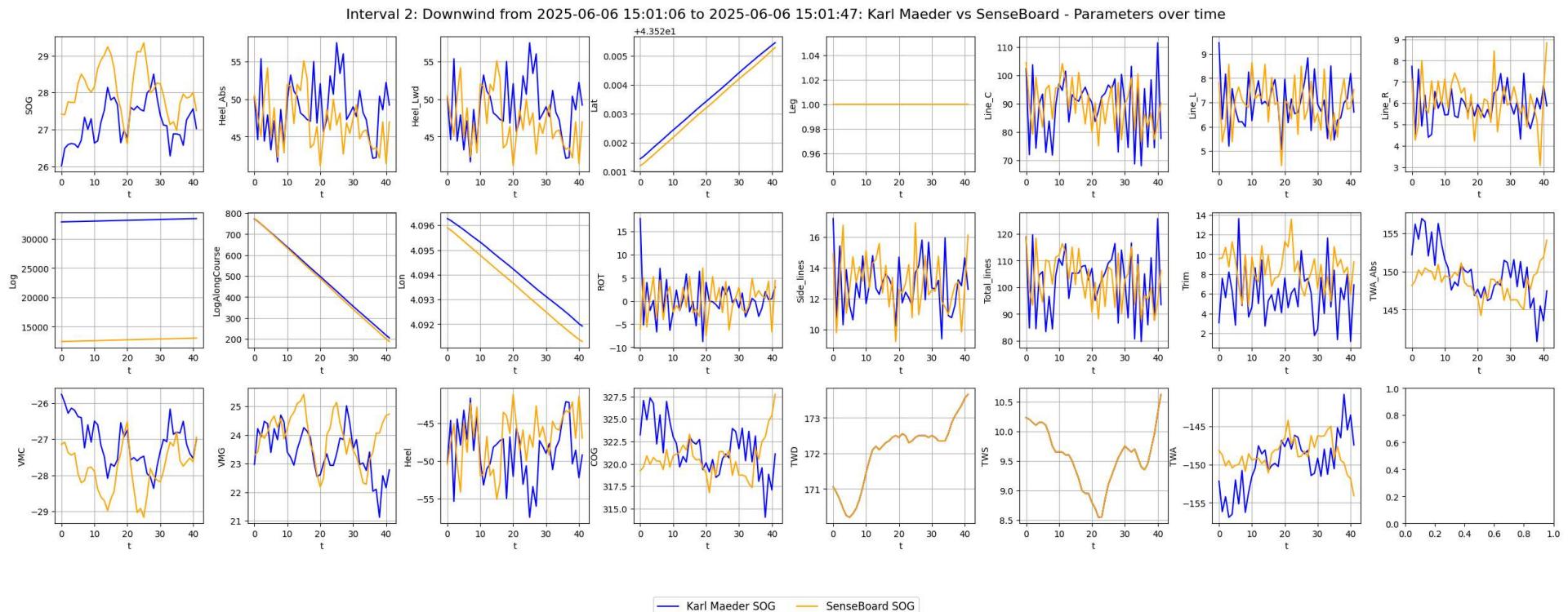
Straight Line [m] 576.755970 595.530310

Distance as Percentage of Straight Line [%] 100.285339 100.220698

Gain of Karl Maeder with respect to SenseBoard

Forward Lateral VMG

Initial Deficit	-2.578480	39.886937	22.351829
Final Deficit	16.088603	50.693632	11.687887
Total Gain	18.667084	10.806695	-10.663942
Gain per Minute	27.113341	15.696378	-15.489034



Processing: ..\Data_Sailnjord\Straight_lines\06_06\06_06_Run8

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{
  'SOG_variation_boat1': 0.5939859207419921,
  'SOG_variation_boat2': 0.7305042739030235,
  'avg_TWA_boat1': 51.7811052631579,
  'avg_TWA_boat2': 51.41245709570957,
  'avg_SOG_boat1': 22.20378289473684,
  'avg_SOG_boat2': 22.531743421052635,
  'boat1_name': 'Karl Maeder',
  'boat2_name': 'SenseBoard',
  'duration': 60.69099998474121,
  'end_time': 1749222433.253,
  'stability_score': 0.9676355493012209,
  'start_time': 1749222372.562
}
```

```
=====
Interval 1: Upwind from 2025-06-06 15:06:12 to 2025-06-06 15:07:13: Karl Maeder vs SenseBoard
=====
```

MainReport

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	10.71	10.71	9.515	9.513	11.9	11.9	608	606	0.6756	0.6764			
TWD	177.6	177.6	174.7	174.7	179.7	179.7	608	606	1.479	1.475			
SOG	22.2	22.53	19.8	20.4	23.5	23.7	608	606	0.594	0.7301	SenseBoard	Karl Maeder	Tie
VMG	13.71	14.03	10.26	9.408	17.37	17.63	608	606	1.139	1.551	SenseBoard	Karl Maeder	Tie
COG	125.8	126.2	115.4	114.2	135.8	136.2	608	606	3.191	3.803		Karl Maeder	Karl Maeder
TWA_Abs	51.78	51.41	39.17	40.7	62	65.28	608	606	3.531	4.195			
Heel_Lwd	54.98	53.67	31.7	32.1	75.9	75.7	608	606	5.885	6.196	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	11.58	10.43	4.2	1.7	24	27.5	608	606	3.565	3.923	Karl Maeder	Karl Maeder	Karl Maeder
Line_C	115.4	112.7	75.9	55	151.2	152.8	608	602	14.06	14.79	Karl Maeder	Karl Maeder	Karl Maeder
Total_lines	126.9	123.4	83.9	58.6	164.3	177	608	606	15.02	16.56	Karl Maeder	Karl Maeder	Karl Maeder

Distance Summary

Karl Maeder SenseBoard

Distance [m] 694.299581 702.801188

Straight Line [m] 692.053828 700.120839

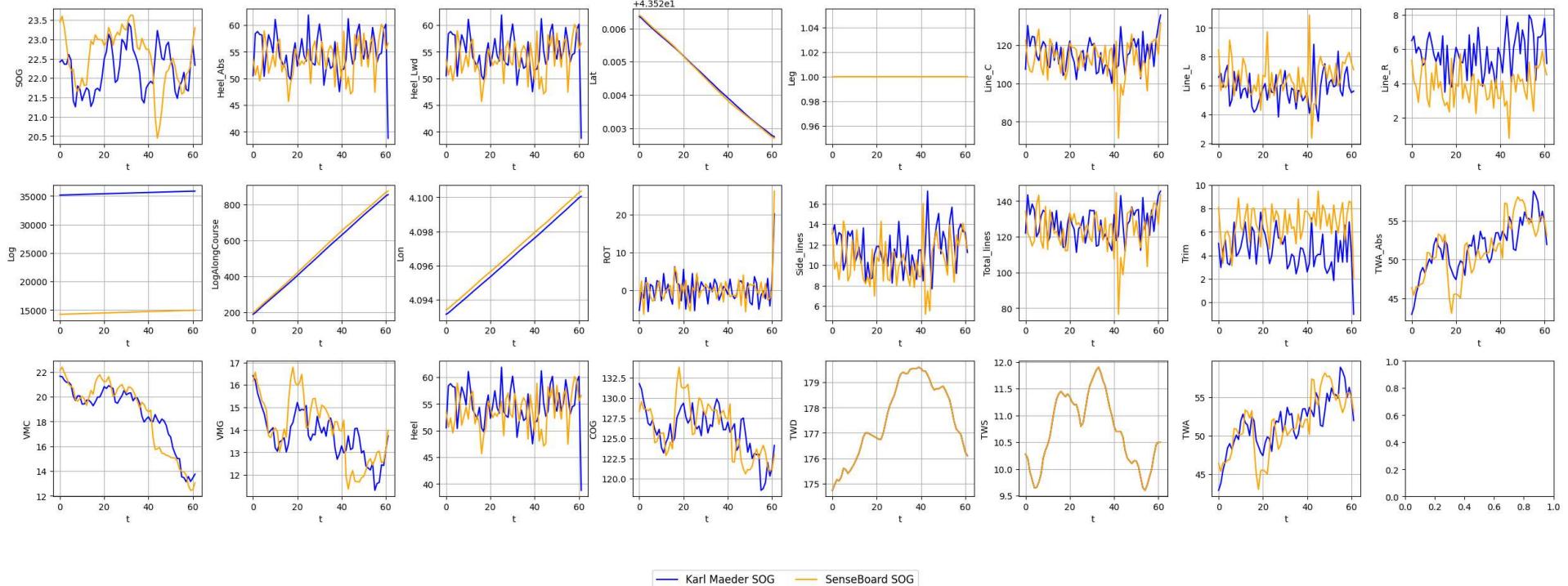
Distance as Percentage of Straight Line [%] 100.324506 100.382841

Gain of Karl Maeder with respect to SenseBoard

Forward Lateral VMG

Initial Deficit 14.404626 -15.897269 -3.577845**Final Deficit** 22.458790 -10.729028 5.465480**Total Gain** 8.054164 5.168241 9.043325**Gain per Minute** 7.962463 5.109397 8.940362

Interval 1: Upwind from 2025-06-06 15:06:12 to 2025-06-06 15:07:13: Karl Maeder vs SenseBoard - Parameters over time



Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.9550264111740758,
'SOG_variation_boat2': 0.7404229243755341,
'avg TWA boat1': -156.70291927083335,
'avg TWA boat2': -155.94574083769635,
'avg_SOG_boat1': 27.988020833333337,
'avg_SOG_boat2': 28.154947916666668,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 38.29299998283386,
'end_time': 1749222589.053,
'stability_score': 0.9486132309964281,
'start_time': 1749222550.76}
```

```
=====
Interval 2: Downwind from 2025-06-06 15:09:10 to 2025-06-06 15:09:49: Karl Maeder vs SenseBoard
=====
```

MainReport

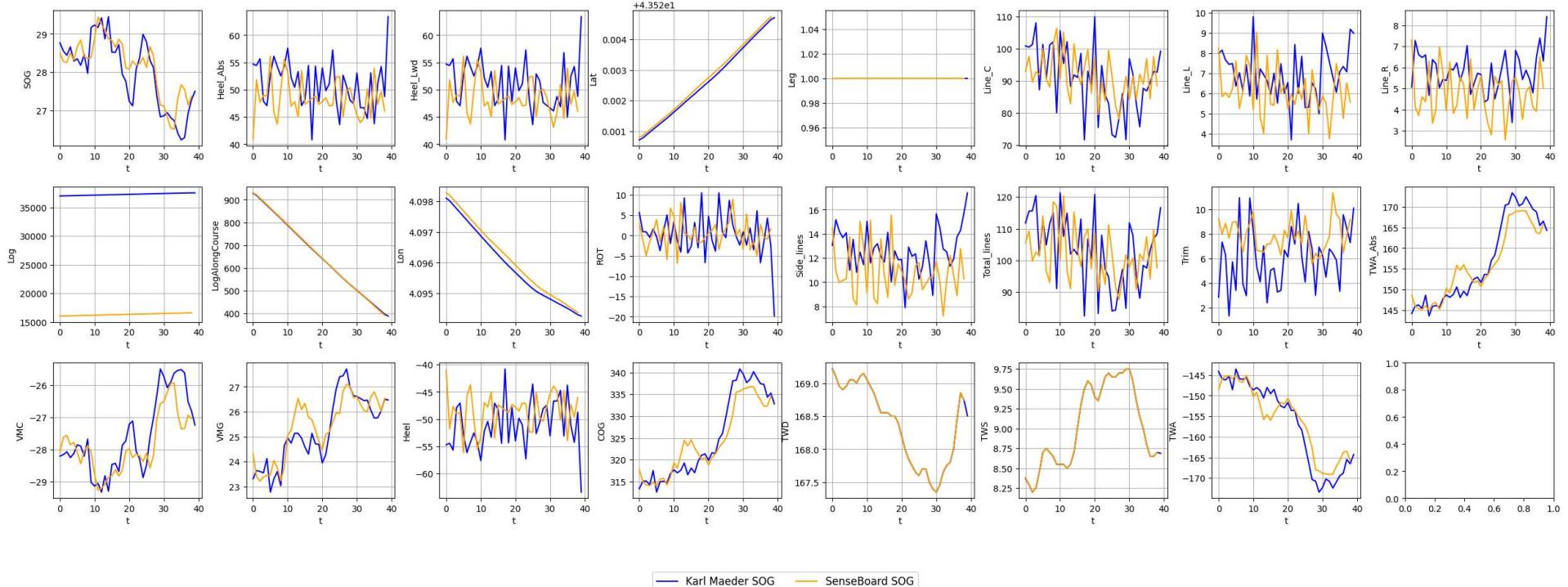
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.048	9.05	8.2	8.2	9.796	9.796	384	382	0.5084	0.5082			
TWD	168.4	168.4	167.3	167.3	169.2	169.2	384	382	0.598	0.5978			
SOG	27.99	28.16	26.1	26.3	30	29.6	384	382	0.955	0.7433	SenseBoard	SenseBoard	SenseBoard
VMG	25.24	25.4	20.66	21.94	27.94	27.7	384	382	1.415	1.262	SenseBoard	SenseBoard	SenseBoard
COG	325	324.3	307.5	309.5	344.4	340.9	384	382	9.97	7.992			
TWA_Abs	156.7	155.9	138.5	140.3	176.7	173.3	384	382	10.43	8.429			
Heel_Lwd	51.3	48.72	33.9	32.9	68.3	70.9	313	366	6.519	6.308	Karl Maeder	SenseBoard	Tie
Side_lines	12.56	10.72	5.2	2.6	21.9	19.6	384	382	3.17	3.073	Karl Maeder	SenseBoard	Tie
Line_C	90.27	91.5	57.6	66.2	132.2	128.8	384	379	14.21	10.43	SenseBoard	SenseBoard	SenseBoard
Total_lines	102.9	101.9	67.7	72.5	145.1	143.2	384	382	15.58	11.88	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	551.312824	552.292913
Straight Line [m]	542.647379	546.427517
Distance as Percentage of Straight Line [%]	101.596883	101.073408
Gain of Karl Maeder with respect to SenseBoard		
Forward	Lateral	VMG
Initial Deficit	0.493470	-17.089213
Final Deficit	4.211536	-10.489430
Total Gain	3.718066	6.599783
Gain per Minute	5.825711	-1.256804

Interval 2: Downwind from 2025-06-06 15:09:10 to 2025-06-06 15:09:49: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run1
Processing only reduced intervals for Gian Stragiotti vs Karl Maeder

Interval 1 summary:

```
{'SOG_variation_boat1': 0.8742758384554244,
 'SOG_variation_boat2': 1.0122411358441399,
 'avg TWA boat1': 49.980738931297715,
 'avg TWA boat2': 50.378325688073396,
 'avg_SOG_boat1': 21.907786259541986,
 'avg_SOG_boat2': 21.809618320610685,
 'boat1_name': 'Gian Stragiotti',
 'boat2_name': 'Karl Maeder',
 'duration': 65.39900016784668,
 'end_time': 1749297042.555,
 'stability_score': 0.9599531391568393,
 'start_time': 1749296977.156}
```

```
=====
Interval 1: Upwind from 2025-06-07 11:49:37 to 2025-06-07 11:50:42: Gian Stragiotti vs Karl Maeder
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.802	8.801	8.2	8.2	9.7	9.7	655	654	0.4428	0.4423			
TWD	192.5	192.5	190.8	190.8	194.7	194.7	655	654	1.199	1.199			
SOG	21.91	21.8	20	19.7	23.4	23.9	655	654	0.8743	1.009	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	14.03	13.85	10.76	10.18	18.27	17.85	655	654	1.584	1.349	Gian Stragiotti	Karl Maeder	Tie
COG	142.5	142.2	132.1	131.1	158	155.1	655	654	4.993	4.141		Karl Maeder	Karl Maeder
TWA_Abs	49.98	50.38	33.21	35.79	59.83	60.07	655	654	5.19	4.501			
Heel_Lwd	57.27	53.74	37.9	31.9	74	71.6	655	654	5.79	5.725	Gian Stragiotti	Karl Maeder	Tie
Side_lines	12.49	13.85	3.3	4.9	23.4	27.5	655	654	3.57	4.002	Karl Maeder	Gian Stragiotti	Tie
Line_C	119.3	116.9	78	79	150.5	157.6	654	654	11.79	14.14	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	131.9	130.9	97.3	87.9	164.1	175.8	655	654	12.4	15.86	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti

Distance Summary

Gian Stragiotti Karl Maeder

Distance [m] 738.910933 734.400747

Straight Line [m] 734.946462 731.514654

Distance as Percentage of Straight Line [%] 100.539423 100.394537

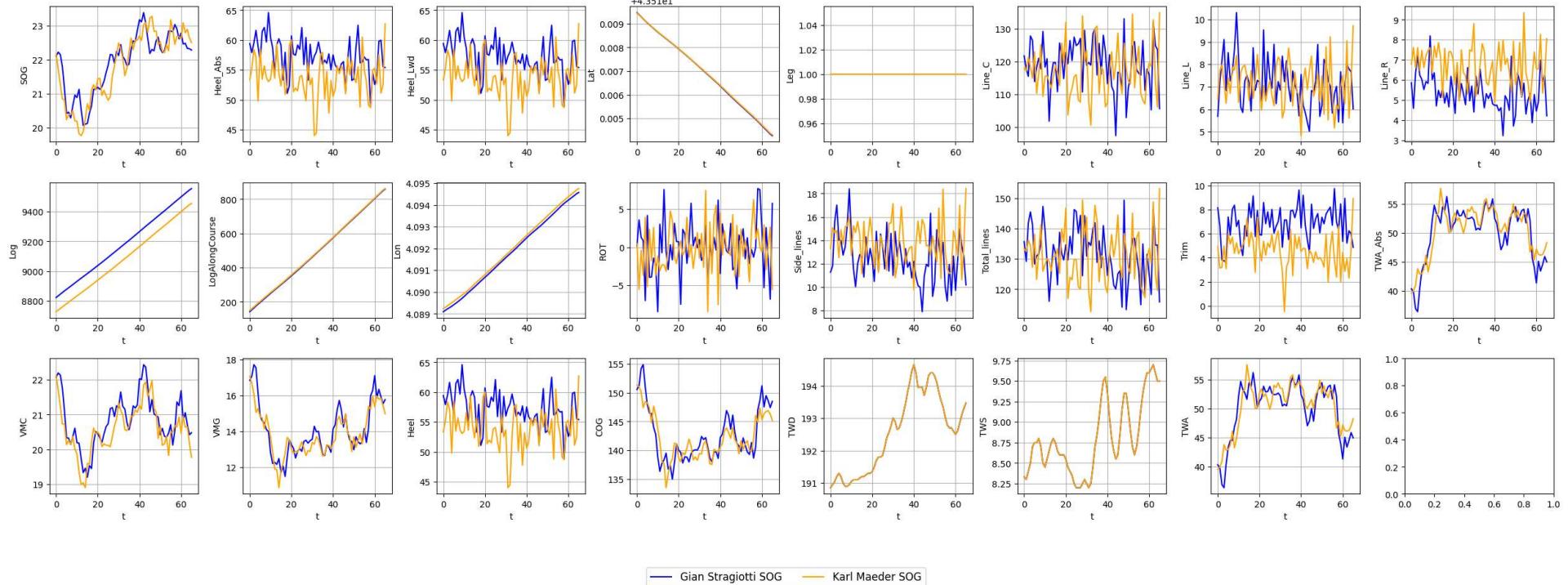
Gain of Gian Stragiotti with respect to Karl Maeder

Forward Lateral VMG

Initial Deficit 8.359746 -8.167670 -0.880186**Final Deficit** 4.893300 -13.710734 -7.354368**Total Gain** -3.466446 -5.543065 -6.474183**Gain per Minute** -3.180274 -5.085458 -5.939708

MainReport

Interval 1: Upwind from 2025-06-07 11:49:37 to 2025-06-07 11:50:42: Gian Stragiotti vs Karl Maeder - Parameters over time



— Gian Stragiotti SOG — Karl Maeder SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.4785025112578562,
'SOG_variation_boat2': 0.44908609081104717,
'avg TWA boat1': -143.7616779661017,
'avg TWA boat2': -143.34568008474577,
'avg_SOG_boat1': 27.995974576271188,
'avg_SOG_boat2': 27.388771186440678,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 47.1029999256134,
'end_time': 1749297201.36,
'stability_score': 0.9647004339495513,
'start_time': 1749297154.257}
```

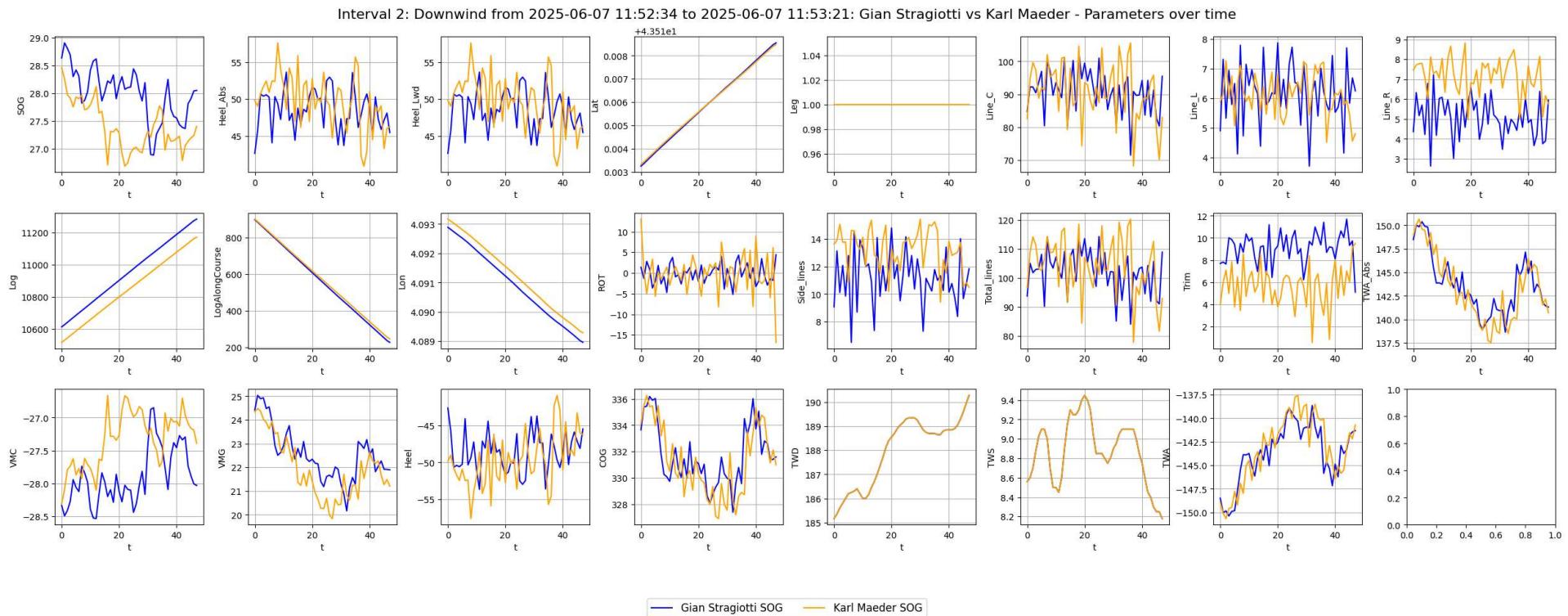
```
=====
Interval 2: Downwind from 2025-06-07 11:52:34 to 2025-06-07 11:53:21: Gian Stragiotti vs Karl Maeder
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.881	8.881	8.164	8.164	9.493	9.493	472	472	0.3236	0.3235			
TWD	188	188	185.1	185.1	190.3	190.3	472	472	1.402	1.402			
SOG	28	27.39	26.7	26.6	29	28.5	472	472	0.4785	0.4476	Gian Stragiotti	Karl Maeder	Tie
VMG	22.54	21.92	19.39	17.45	25.82	25.38	472	472	1.216	1.419	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	331.7	331.3	324.6	319.3	340.2	340.6	472	472	2.938	3.592		Gian Stragiotti	Gian Stragiotti
TWA_Abs	143.8	143.3	135.9	129.9	154.1	154.3	472	472	3.605	4.311			
Heel_Lwd	48.57	49.73	35.1	27.2	68	70.9	472	472	5.874	6.606	Karl Maeder	Gian Stragiotti	Tie
Side_lines	11.22	13.26	3.8	4.8	17.8	23.3	472	472	2.788	3.047	Karl Maeder	Gian Stragiotti	Tie
Line_C	90.87	91.1	64.4	62.9	115.2	121.7	466	472	9.783	12.31	Karl Maeder	Gian Stragiotti	Tie
Total_lines	102	104.3	73.5	71.5	125.5	140.9	472	472	10.49	13.88	Karl Maeder	Gian Stragiotti	Tie

Distance Summary

	Gian Stragiotti	Karl Maeder	
Distance [m]	678.715526	663.363464	
Straight Line [m]	677.104721	661.464887	
Distance as Percentage of Straight Line [%]	100.237896	100.287026	
Gain of Gian Stragiotti with respect to Karl Maeder			
Forward	Forward	Lateral	
		VMG	
Initial Deficit	-3.526085	-23.772207	-11.208944
Final Deficit	-19.203190	-19.617418	3.891708
Total Gain	-15.677105	4.154789	15.100653
Gain per Minute	-19.969563	5.292387	19.235275



Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run10
Error: No or insufficient intervals for run: 07_06_Run10

Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run2
Processing only reduced intervals for Gian Stragiotti vs Karl Maeder
Interval 1 summary:
{'SOG_variation_boat1': 0.6087969219394326,
'SOG_variation_boat2': 0.517104764402101,
'avg TWA boat1': 48.030664167916036,
'avg TWA boat2': 48.998265765765765,
'avg_SOG_boat1': 22.735232383808096,
'avg_SOG_boat2': 22.480509745127435,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 66.59899997711182,
'end_time': 1749297579.456,
'stability_score': 0.9718302241349652,
'start_time': 1749297512.857}

=====
Interval 1: Upwind from 2025-06-07 11:58:32 to 2025-06-07 11:59:39: Gian Stragiotti vs Karl Maeder
=====

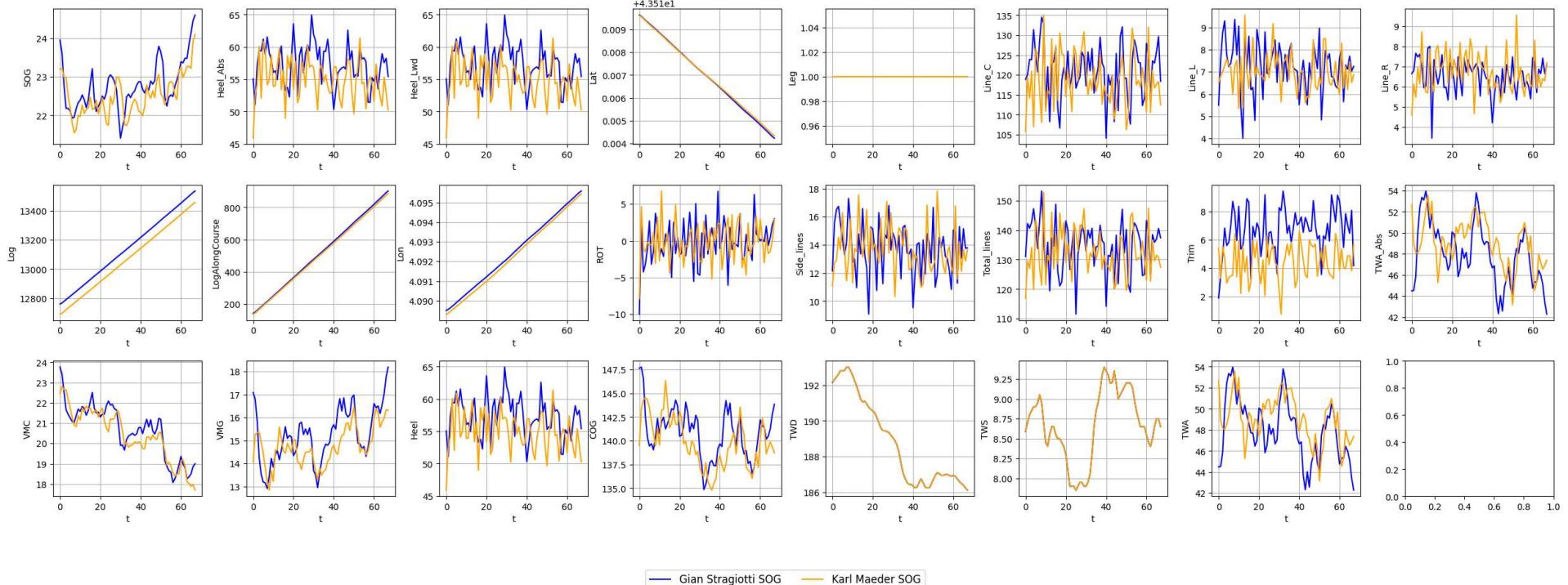
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.67	8.67	7.806	7.807	9.4	9.4	667	666	0.4441	0.4444			
TWD	188.8	188.8	186.1	186.1	193.1	193.1	667	666	2.384	2.383			
SOG	22.74	22.48	21.3	21.4	24.6	24.2	667	666	0.6088	0.516	Gian Stragiotti	Karl Maeder	Tie
VMG	15.19	14.74	11.89	12.01	18.96	17.55	667	666	1.249	0.9356	Gian Stragiotti	Karl Maeder	Tie
COG	140.8	139.8	133.2	131.9	152.2	150	667	666	2.994	2.999		Gian Stragiotti	Gian Stragiotti
TWA_Abs	48.03	49	39.56	38.75	57.45	56.21	667	666	3.261	2.589			
Heel_Lwd	57.32	55.08	41.6	37.9	73.8	70	667	666	5.687	5.043	Gian Stragiotti	Karl Maeder	Tie
Side_lines	13.78	13.73	5.6	5.8	26.6	26.4	667	666	3.459	3.413	Gian Stragiotti	Karl Maeder	Tie
Line_C	121.1	119.1	84	77.8	161.5	159.9	665	666	10.91	12.07	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	134.7	132.8	100	92.7	170.8	180.2	667	666	12.08	13.37	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti

Distance Summary

	Gian Stragiotti	Karl Maeder
Distance [m]	780.217541	770.272138
Straight Line [m]	777.931026	768.013464
Distance as Percentage of Straight Line [%]	100.293923	100.294093
Gain of Gian Stragiotti with respect to Karl Maeder		
Forward	13.993113	5.648021
Initial Deficit	-7.111750	
Final Deficit	-17.172246	1.091471 -10.672167
Total Gain	-10.060496 -12.901642 -16.320187	
Gain per Minute	-9.063646 -11.623275 -14.703092	

Interval 1: Upwind from 2025-06-07 11:58:32 to 2025-06-07 11:59:39: Gian Stragiotti vs Karl Maeder - Parameters over time



— Gian Stragiotti SOG — Karl Maeder SOG

Interval 2 summary:

```
{'SOG_variation_boat1': 0.7945210106979272,
'SOG_variation_boat2': 1.1674746323131255,
'avg TWA boat1': -151.40243531827517,
'avg TWA boat2': -151.13577572016462,
'avg_SOG_boat1': 27.1694045174538,
'avg_SOG_boat2': 26.0905544147844,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'Karl Maeder',
'duration': 48.6010000705719,
'end_time': 1749297745.558,
'stability_score': 0.9547757384676734,
'start_time': 1749297696.957}
```

```
=====
Interval 2: Downwind from 2025-06-07 12:01:36 to 2025-06-07 12:02:25: Gian Stragiotti vs Karl Maeder
=====
```

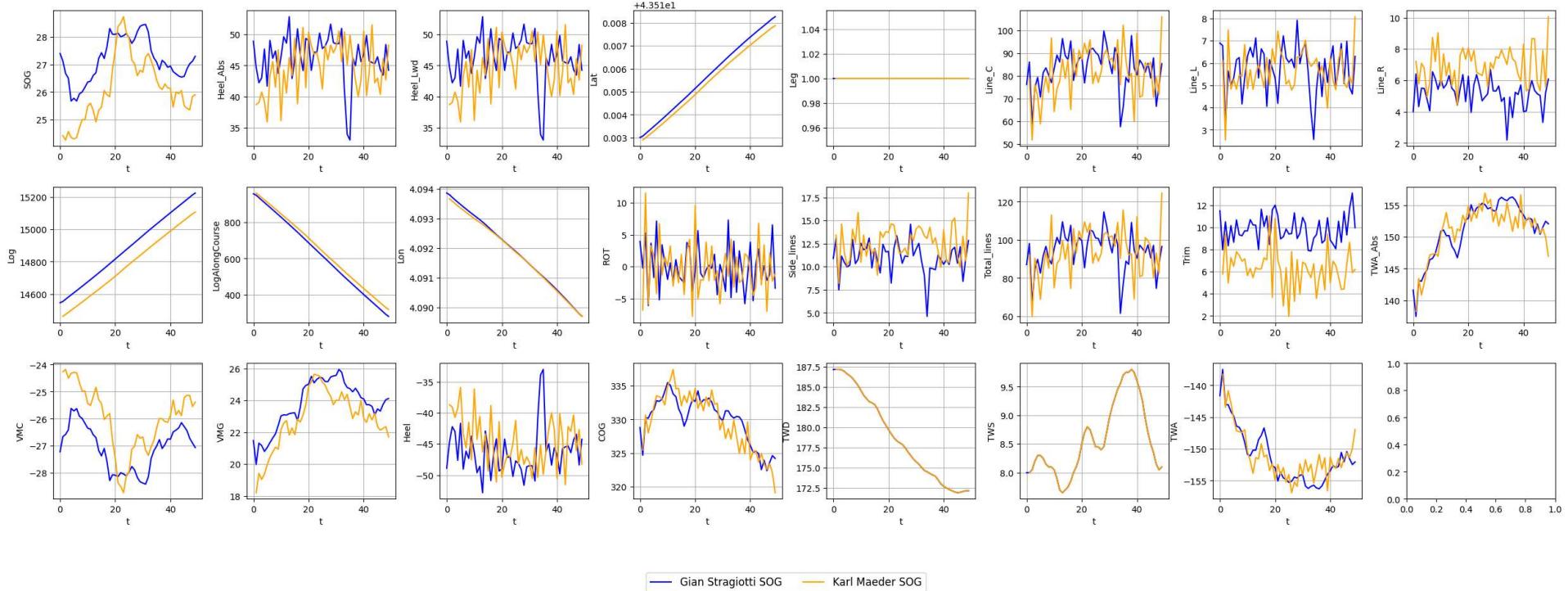
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (Karl Maeder)	Min (Gian Stragiotti)	Min (Karl Maeder)	Max (Gian Stragiotti)	Max (Karl Maeder)	Count (Gian Stragiotti)	Count (Karl Maeder)	StdDev (Gian Stragiotti)	StdDev (Karl Maeder)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.583	8.585	7.605	7.606	9.8	9.8	487	486	0.6359	0.6359			
TWD	178.6	178.6	171.9	171.9	187.2	187.2	487	486	5.263	5.254			
SOG	27.17	26.09	25.5	24.1	28.6	28.9	487	486	0.7945	1.165	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	23.8	22.81	19.1	17.19	26.55	26.32	487	486	1.558	1.814	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	330	329.8	319.1	316.7	337.7	340.6	487	486	3.939	4.672		Gian Stragiotti	Gian Stragiotti
TWA_Abs	151.4	151.1	134.6	134.8	161.2	160.4	487	486	4.581	4.407			
Heel_Lwd	46.28	44.61	27.3	27.1	65.2	61.5	487	486	6.573	6.251	Gian Stragiotti	Karl Maeder	Tie
Side_lines	10.95	12.59	1.4	4.2	17.1	25.1	487	486	2.549	3.313	Karl Maeder	Gian Stragiotti	Tie
Line_C	83.36	81.11	42.9	39.1	107.7	122.5	487	486	11.19	15.8	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	94.5	93.72	46.8	45.2	123.9	138.4	487	486	12.53	18.04	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti

Distance Summary

	Gian Stragiotti	Karl Maeder
Distance [m]	679.699272	651.814482
Straight Line [m]	677.500446	649.001386
Distance as Percentage of Straight Line [%]	100.324550	100.433450
Gain of Gian Stragiotti with respect to Karl Maeder		
Forward	19.202149	17.151217
Lateral	-9.066958	
VMG	22.447526	43.764970
Initial Deficit	-37.608592	
Total Gain	-28.541634	3.245377
Final Deficit	32.613753	
Gain per Minute	-35.235860	4.006555
		32.855809

Interval 2: Downwind from 2025-06-07 12:01:36 to 2025-06-07 12:02:25: Gian Stragiotti vs Karl Maeder - Parameters over time



— Gian Stragiotti SOG — Karl Maeder SOG

Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run3

Processing only reduced intervals for Gian Stragiotti vs SenseBoard

Interval 1 summary:

```
{
'SOG_variation_boat1': 0.8131639589427351,
'SOG_variation_boat2': 0.5512421454915069,
'avg_TWA_boat1': 43.432024154589364,
'avg_TWA_boat2': 44.034191935483875,
'avg_SOG_boat1': 22.3768115942029,
'avg_SOG_boat2': 22.30998389694042,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 62.003000020980835,
'end_time': 1749298544.164,
'stability_score': 0.9617234182036005,
'start_time': 1749298482.161}
```

```
=====
Interval 1: Upwind from 2025-06-07 12:14:42 to 2025-06-07 12:15:44: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.364	9.364	8.806	8.806	9.894	9.894	621	620	0.2553	0.2555			
TWD	180.6	180.6	178.3	178.3	183.8	183.8	621	620	2.044	2.044			
SOG	22.38	22.31	21.1	21.2	24.4	23.7	621	620	0.8132	0.5508	Gian Stragiotti	SenseBoard	Tie
VMG	16.21	16	14.08	12.12	18.4	18.28	621	620	0.8443	0.983	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	137.2	136.6	130.4	127.6	146.3	145	621	620	2.524	2.755		Gian Stragiotti	Gian Stragiotti
TWA_Abs	43.43	44.03	32.01	36.2	52.72	55.68	621	620	3.436	3.586			
Heel_Lwd	57.38	53.6	42	35.5	71.4	69.3	621	620	5.484	5.727	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	14.41	nan	6.5	nan	24.2	nan	621	nan	3.353	nan			
Line_C	122	118.2	78.4	82.8	146.9	149.4	617	620	10.75	12.97	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	136.4	nan	101.8	nan	163.6	nan	621	nan	10.66	nan			

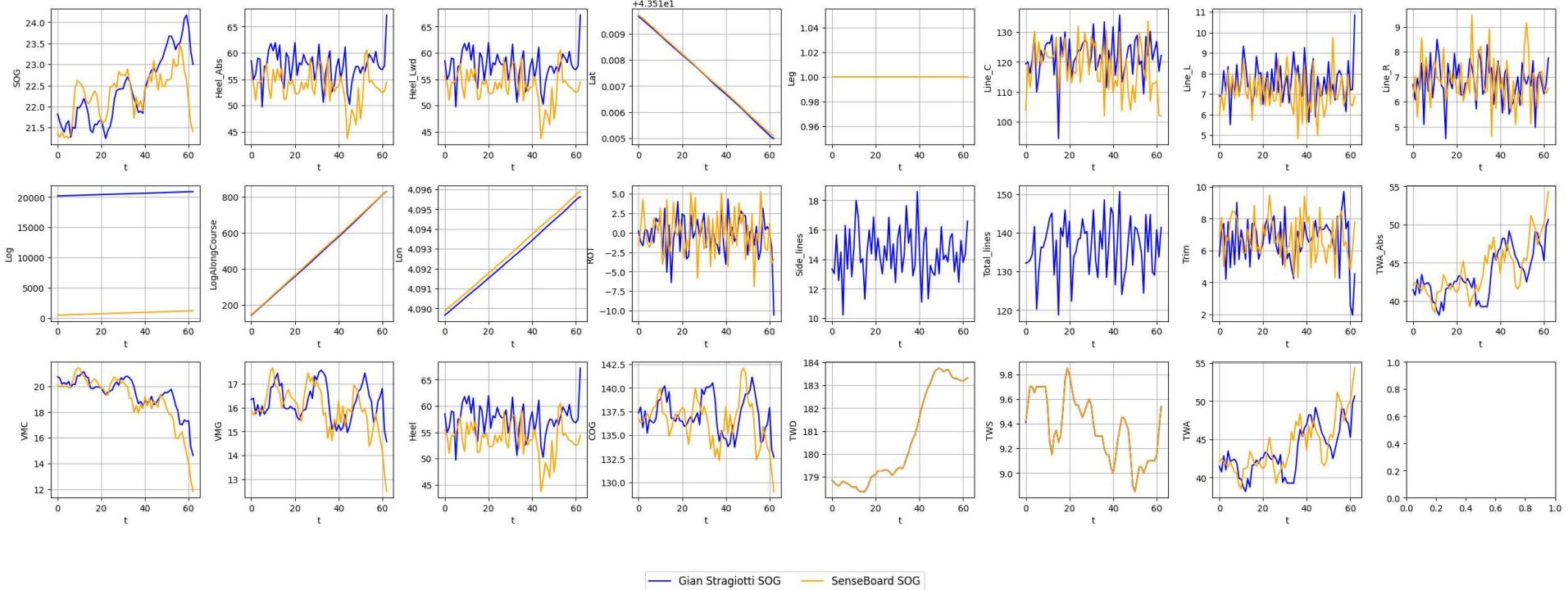
Distance Summary

	Gian Stragiotti	SenseBoard
Distance [m]	715.657192	711.819478
Straight Line [m]	713.574304	709.646617
Distance as Percentage of Straight Line [%]	100.291895	100.306189

Gain of Gian Stragiotti with respect to SenseBoard

	Forward	Lateral	VMG
Initial Deficit	8.816908	-16.594343	-5.005735
Final Deficit	4.835579	-23.777097	-12.835034
Total Gain	-3.981329	-7.182754	-7.829299
Gain per Minute	-3.852713	-6.950716	-7.576374

Interval 1: Upwind from 2025-06-07 12:14:42 to 2025-06-07 12:15:44: Gian Stragiotti vs SenseBoard - Parameters over time



— Gian Stragiotti SOG — SenseBoard SOG

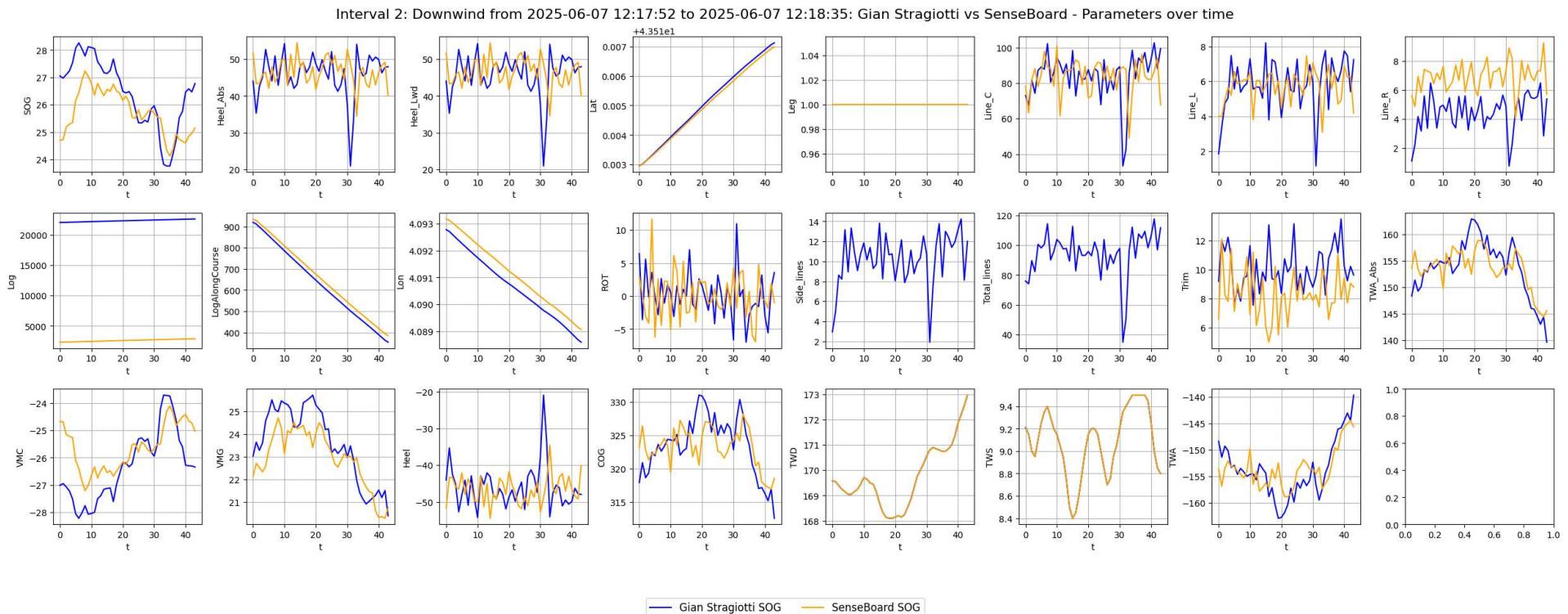
Interval 2 summary:

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{
'SOG_variation_boat1': 1.272584780791708,
'SOG_variation_boat2': 0.8302888435095636,
'avg TWA boat1': -154.05993896713616,
'avg TWA boat2': -153.6456282352941,
'avg_SOG_boat1': 26.421361502347416,
'avg_SOG_boat2': 25.72840375586854,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 42.50600004196167,
'end_time': 1749298715.364,
'stability_score': 0.948748627453864,
'start_time': 1749298672.858}
```

```
=====
Interval 2: Downwind from 2025-06-07 12:17:52 to 2025-06-07 12:18:35: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics														
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)		
TWS	9.088	9.088	8.4	8.4	9.5	9.5	426	425	0.3008	0.3011					
TWD	169.7	169.7	168.1	168.1	173.1	173.1	426	425	1.207	1.209					
SOG	26.42	25.73	23.6	24.1	28.3	27.3	426	425	1.273	0.828	Gian Stragiotti	SenseBoard	Tie		
VMG	23.66	23	19.53	19.4	26.21	25.43	426	425	1.626	1.291	Gian Stragiotti	SenseBoard	Tie		
COG	323.8	323.4	310.1	313.8	335.1	332.1	426	425	4.585	3.538		SenseBoard	SenseBoard		
TWA_Abs	154.1	153.6	137.3	141.2	167	163.8	426	425	5.375	4.158					
Heel_Lwd	45.86	46.53	13.8	26.5	70.4	71.2	426	425	8.111	7.663	SenseBoard	SenseBoard	SenseBoard		
Side_lines	10.32	nan	1.2	nan	19.5	nan	426	nan	3.124	nan					
Line_C	84.06	83.89	21.5	43.8	115.8	120.1	425	425	15.3	12.96	Gian Stragiotti	SenseBoard	Tie		
Total_lines	94.45	nan	23.3	nan	133.3	nan	426	nan	17.13	nan					
Distance Summary															
			Gian Stragiotti	SenseBoard											
	Distance [m]		578.146150	561.576450											
	Straight Line [m]		575.735115	559.979014											
	Distance as Percentage of Straight Line [%]		100.418775	100.285267											
Gain of Gian Stragiotti with respect to SenseBoard															
			Forward	Lateral	VMG										
	Initial Deficit		-18.915155	-25.503286	5.854326										
	Final Deficit		-34.702661	-21.945035	21.607851										
	Total Gain		-15.787505	3.558250	15.753525										
	Gain per Minute		-22.285097	5.022703	22.237131										



Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run4
Error: No or insufficient intervals for run: 07_06_Run4

Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run5
Processing only reduced intervals for Gian Stragiotti vs SenseBoard
Interval 1 summary:
{'SOG_variation_boat1': 0.8300439451975229,
'SOG_variation_boat2': 0.7481384336369988,
'avg TWA boat1': 37.394044484304933,
'avg TWA boat2': 37.37355455904335,
'avg_SOG_boat1': 21.772496263079223,
'avg_SOG_boat2': 22.079073243647233,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 66.80599999427795,
'end_time': 1749299823.864,
'stability_score': 0.9534171638142162,
'start_time': 1749299757.058}

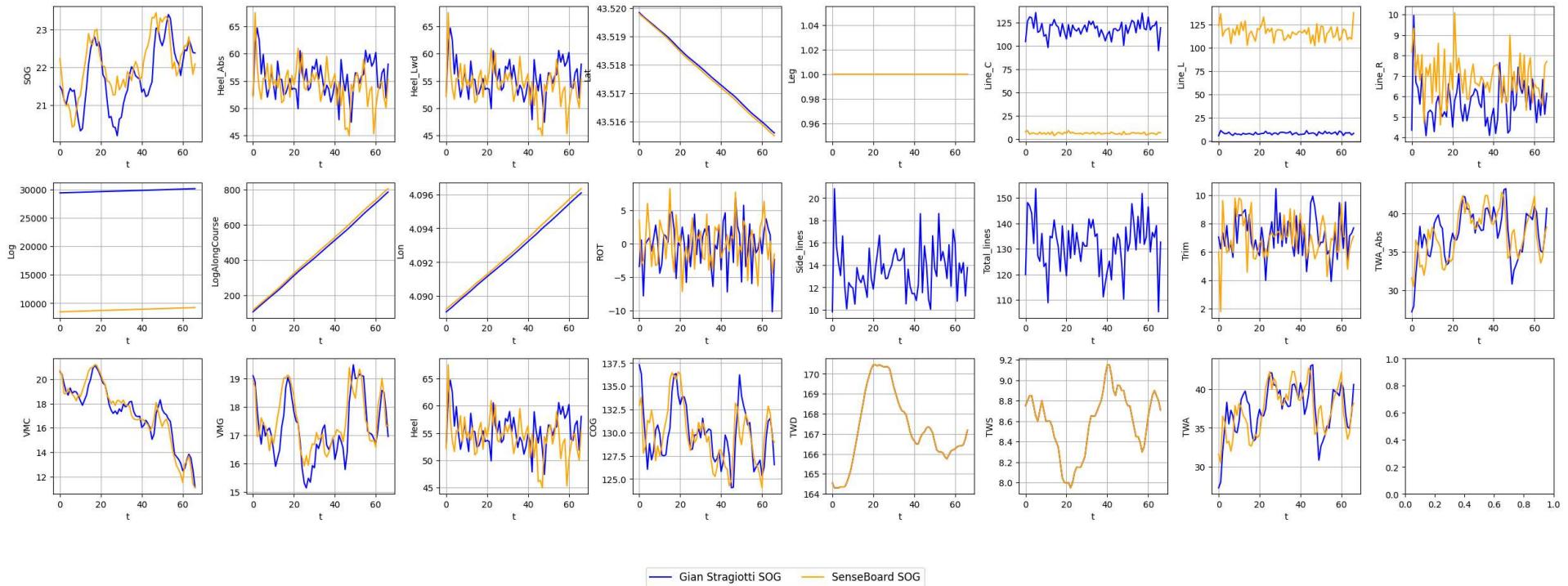
=====
Interval 1: Upwind from 2025-06-07 12:35:57 to 2025-06-07 12:37:03: Gian Stragiotti vs SenseBoard
=====

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.59	8.59	7.904	7.905	9.196	9.195	669	669	0.3084	0.3084			
TWD	167.3	167.3	164.3	164.3	170.5	170.5	669	669	1.873	1.873			
SOG	21.77	22.08	20.1	20.2	23.5	23.6	669	669	0.83	0.7493	SenseBoard	SenseBoard	SenseBoard
VMG	17.27	17.52	14.5	15.14	20.04	20.05	669	669	1.176	1.039	SenseBoard	SenseBoard	SenseBoard
COG	129.9	129.9	121.5	120.8	140.1	139.8	669	669	3.56	3.481		SenseBoard	SenseBoard
TWA_Abs	37.39	37.37	24.3	26.6	45.75	46.74	669	669	3.651	3.481			
Heel_Lwd	55.45	54.24	37.3	36.5	72.4	75.9	669	669	6.017	6.248	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	13.58	nan	5.1	nan	25.4	nan	669	nan	3.712	nan			
Line_C	118.5	6.452	73.9	2.7	150.7	11.7	668	669	12.2	1.722	Gian Stragiotti	SenseBoard	Tie
Total_lines	131.7	nan	84.1	nan	173.2	nan	669	nan	13.75	nan			

Distance Summary

	Gian Stragiotti	SenseBoard
Distance [m]	750.221172	760.399316
Straight Line [m]	747.261983	757.657655
Distance as Percentage of Straight Line [%]	100.396004	100.361860
Gain of Gian Stragiotti with respect to SenseBoard		
Forward	Lateral	VMG
Initial Deficit	12.147286	-4.345344
Final Deficit	22.541280	-4.078457
Total Gain	10.393993	0.266887
Gain per Minute	9.335084	0.239698
		7.562014

Interval 1: Upwind from 2025-06-07 12:35:57 to 2025-06-07 12:37:03: Gian Stragiotti vs SenseBoard - Parameters over time



— Gian Stragiotti SOG — SenseBoard SOG

Interval 2 summary:

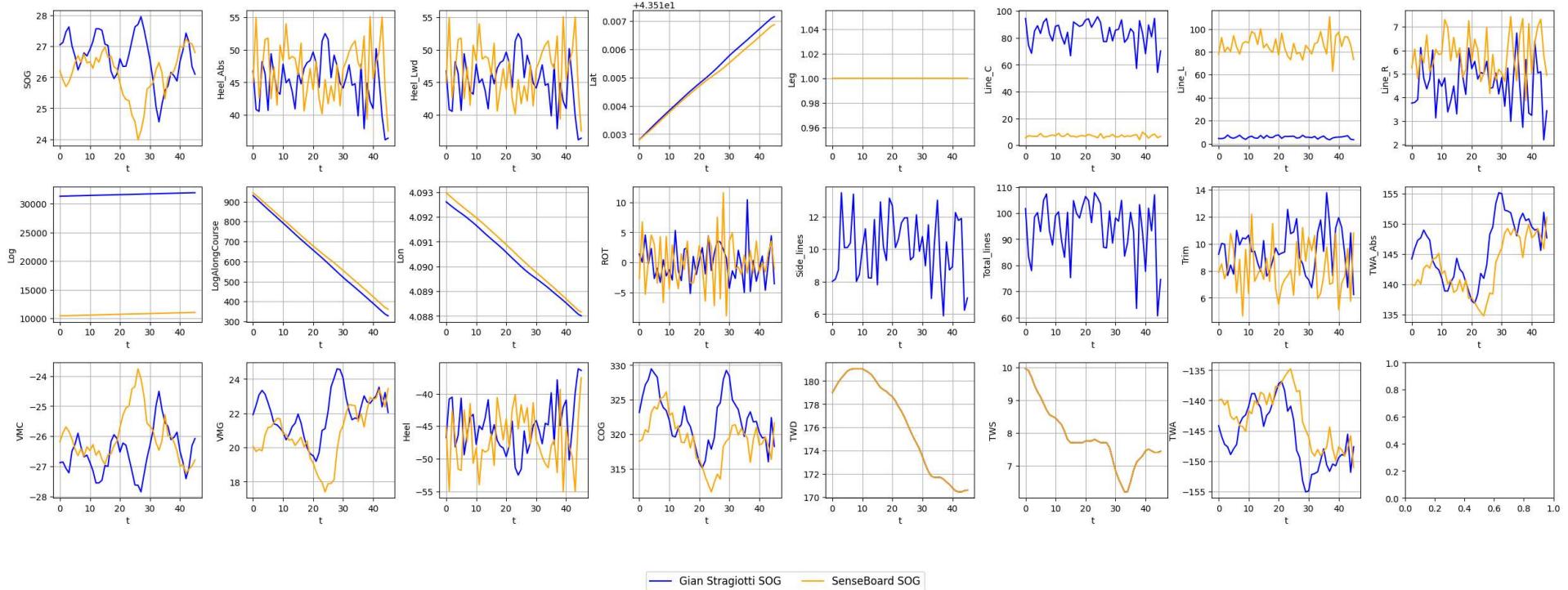
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{
'SOG_variation_boat1': 0.7701955440236677,
'SOG_variation_boat2': 0.778771773625049,
'avg TWA boat1': -145.96590286975717,
'avg TWA boat2': -142.77557522123894,
'avg_SOG_boat1': 26.671302428256066,
'avg_SOG_boat2': 26.09359823399559,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 45.187000036239624,
'end_time': 174930002.263,
'stability_score': 0.9616737321092284,
'start_time': 1749299957.076}
```

```
=====
Interval 2: Downwind from 2025-06-07 12:39:17 to 2025-06-07 12:40:02: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics														
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)		
TWS	7.829	7.83	6.109	6.109	9.996	9.995	453	452	0.9118	0.9128					
TWD	176.4	176.4	170.4	170.4	181.1	181.1	453	452	3.959	3.954					
SOG	26.67	26.09	24.5	23.8	28.1	27.3	453	452	0.7702	0.778	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti		
VMG	22	20.72	17.8	15.29	25.31	23.84	453	452	1.398	1.669	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti		
COG	322.4	319.2	310.6	305.1	332.6	329.3	453	452	4.148	4.008		SenseBoard	SenseBoard		
TWA_Abs	146	142.8	132.2	129.2	158	152.9	453	452	5.327	4.891					
Heel_Lwd	45.28	47.08	26.7	23.7	65.4	69.2	453	452	6.766	7.146	SenseBoard	Gian Stragiotti	Tie		
Side_lines	10.15	nan	2.8	nan	20.1	nan	453	nan	2.776	nan					
Line_C	83.83	6.971	48.6	2.5	115	12.1	451	451	12.93	1.752	Gian Stragiotti	SenseBoard	Tie		
Total_lines	94.41	nan	53.1	nan	134	nan	453	nan	14.66	nan					
Distance Summary															
			Gian Stragiotti		SenseBoard										
	Distance [m]		619.950591		606.233191										
	Straight Line [m]		617.650654		604.034223										
	Distance as Percentage of Straight Line [%]		100.372369		100.364047										
Gain of Gian Stragiotti with respect to SenseBoard															
	Forward	Lateral	VMG												
Initial Deficit	-18.451919	-23.665023	2.045503												
Final Deficit	-33.016967	9.125786	32.468634												
Total Gain	-14.565048	32.790810	30.423131												
Gain per Minute	-19.339697	43.540146	40.396306												

Interval 2: Downwind from 2025-06-07 12:39:17 to 2025-06-07 12:40:02: Gian Stragiotti vs SenseBoard - Parameters over time



Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run6

Processing only reduced intervals for Gian Stragiotti vs SenseBoard

Interval 1 summary:

```
{
'SOG_variation_boat1': 0.6888301361886973,
'SOG_variation_boat2': 0.7760294705295894,
'avg TWA boat1': 53.60065277777778,
'avg TWA boat2': 53.41760173913043,
'avg_SOG_boat1': 23.1958333333333333,
'avg_SOG_boat2': 22.9604166666666667,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 57.48900008201599,
'end_time': 1749300463.756,
'stability_score': 0.9581830675524912,
'start_time': 1749300406.267}
```

```
=====
Interval 1: Upwind from 2025-06-07 12:46:46 to 2025-06-07 12:47:43: Gian Stragiotti vs SenseBoard
=====
```

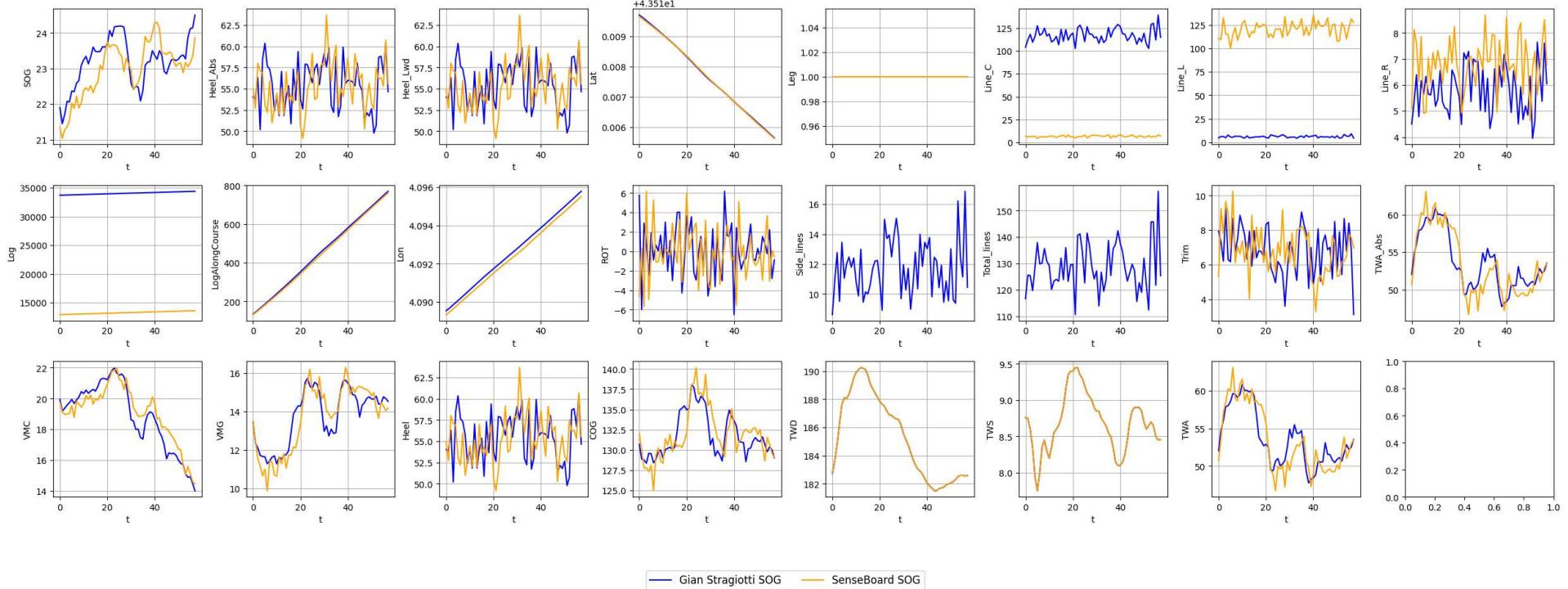
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.683	8.683	7.705	7.706	9.496	9.495	576	575	0.4027	0.403			
TWD	185.3	185.3	181.4	181.4	190.3	190.3	576	575	2.968	2.968			
SOG	23.2	22.96	21.3	20.9	24.6	24.5	576	575	0.6888	0.7719	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	13.75	13.67	10.09	8.73	16.84	16.9	576	575	1.507	1.8	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	131.7	131.9	124.9	121.5	140.6	143.3	576	575	3.069	3.474		Gian Stragiotti	Gian Stragiotti
TWA_Abs	53.6	53.42	44.48	43.23	64.45	66.51	576	575	3.983	4.64			
Heel_Lwd	55.44	55.33	37.9	38	69.7	71.2	576	575	5.33	5.235	Gian Stragiotti	SenseBoard	Tie
Side_lines	11.76	nan	3.3	nan	25.8	nan	576	nan	3.636	nan			
Line_C	117.2	6.702	86.9	2.5	157.6	14.1	576	575	12.7	1.77	Gian Stragiotti	SenseBoard	Tie
Total_lines	128.9	nan	93.1	nan	179.6	nan	576	nan	13.94	nan			

Distance Summary

	Gian Stragiotti	SenseBoard
Distance [m]	687.894782	680.278016
Straight Line [m]	685.924733	677.896358
Distance as Percentage of Straight Line [%]	100.287211	100.351331
Gain of Gian Stragiotti with respect to SenseBoard		
Forward	Initial Deficit	Final Deficit
14.728960	-7.589717	-15.618874
7.351632	14.728960	16.651850
	-8.029157	1.922890
	-3.216796	4.134837
VMG	Total Gain	Gain per Minute
	-8.029157	-8.379854
	1.922890	2.006878
	-3.216796	-3.357299

Interval 1: Upwind from 2025-06-07 12:46:46 to 2025-06-07 12:47:43: Gian Stragiotti vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
  'SOG_variation_boat1': 0.5685403267056057,
  'SOG_variation_boat2': 0.7157496418777685,
  'avg TWA boat1': -141.94490314136124,
  'avg TWA boat2': -142.37469473684212,
  'avg_SOG_boat1': 28.251832460732984,
  'avg_SOG_boat2': 26.881937172774872,
  'boat1_name': 'Gian Stragiotti',
  'boat2_name': 'SenseBoard',
  'duration': 38.1029999256134,
  'end_time': 1749300632.26,
  'stability_score': 0.9717130279723044,
  'start_time': 1749300594.157
}
```

```
=====
Interval 2: Downwind from 2025-06-07 12:49:54 to 2025-06-07 12:50:32: Gian Stragiotti vs SenseBoard
=====
```

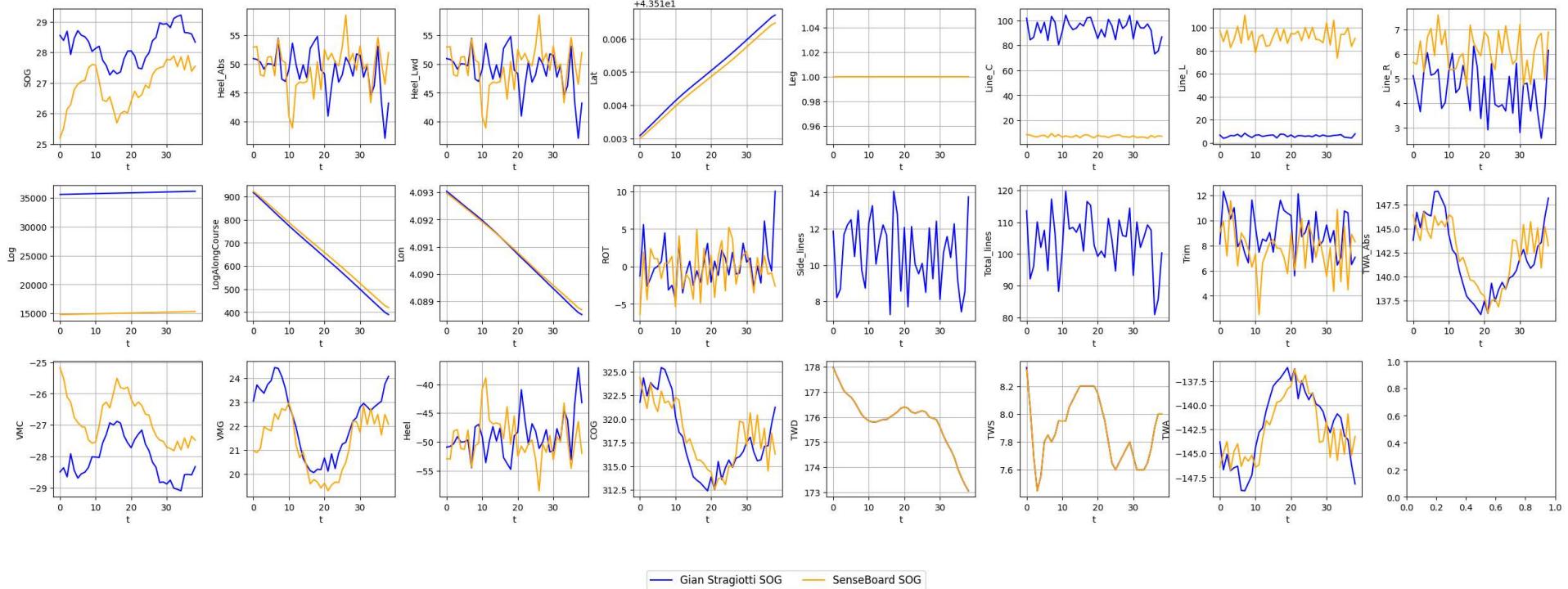
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.88	7.878	7.405	7.405	8.453	8.422	382	380	0.2291	0.2277			
TWD	175.9	175.9	173	173.1	178.1	178.1	382	380	0.9957	0.9805			
SOG	28.25	26.89	27.1	25.1	29.4	28	382	380	0.5685	0.7111	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	22.2	21.26	19.29	18.35	25.1	23.84	382	380	1.442	1.283	Gian Stragiotti	SenseBoard	Tie
COG	317.9	318.3	309.7	309.8	328	327	382	380	4.162	3.716	SenseBoard	SenseBoard	
TWA_Abs	141.9	142.4	133.3	133.5	151	149.7	382	380	4.02	3.616			
Heel_Lwd	48.96	49.4	30.2	23.6	62.9	69.4	382	380	5.743	7.015	SenseBoard	Gian Stragiotti	Tie
Side_lines	10.61	nan	2.2	nan	18.6	nan	382	nan	3.239	nan			
Line_C	93.25	7.269	66.7	2.6	115.5	12.2	381	380	10.04	1.69	Gian Stragiotti	SenseBoard	Tie
Total_lines	104	nan	73.5	nan	131.1	nan	382	nan	11.22	nan			

Distance Summary

	Gian Stragiotti	SenseBoard
Distance [m]	554.517463	524.901041
Straight Line [m]	552.509493	523.324458
Distance as Percentage of Straight Line [%]	100.363427	100.301263
Gain of Gian Stragiotti with respect to SenseBoard		
Forward	Lateral	VMG
Initial Deficit	-0.996259	11.059991
Final Deficit	-30.199945	7.556306
Total Gain	-29.203686	-3.503685
Gain per Minute	-45.986435	-5.517180
		32.808648

Interval 2: Downwind from 2025-06-07 12:49:54 to 2025-06-07 12:50:32: Gian Stragiotti vs SenseBoard - Parameters over time



Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run7

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{
'SOG_variation_boat1': 1.0445256316356346,
'SOG_variation_boat2': 0.7177630459613766,
'avg_TWA_boat1': 48.16938733431517,
'avg_TWA_boat2': 47.540169616519165,
'avg_SOG_boat1': 21.933873343151696,
'avg_SOG_boat2': 21.935493372606775,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 67.80399990081787,
'end_time': 1749301276.356,
'stability_score': 0.9623063604159979,
'start_time': 1749301208.552}
```

```
=====
Interval 1: Upwind from 2025-06-07 13:00:08 to 2025-06-07 13:01:16: Karl Maeder vs SenseBoard
=====
```

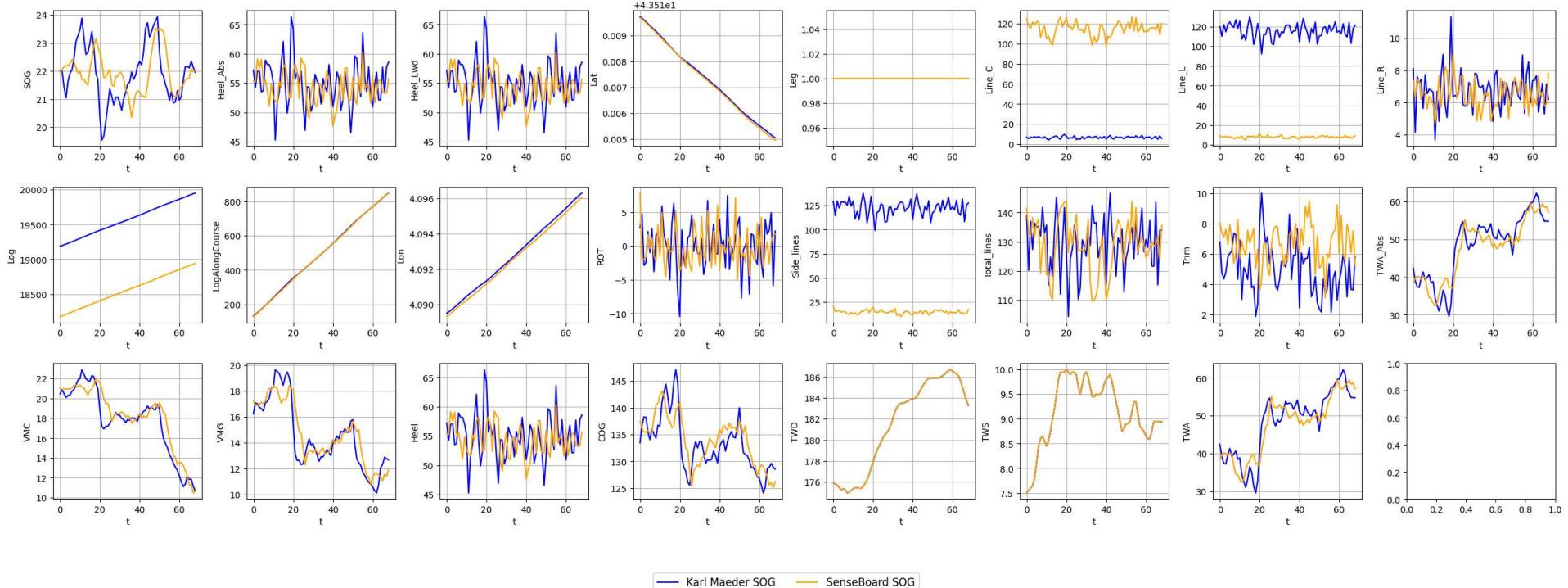
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.164	9.164	7.5	7.5	10	10	679	678	0.644	0.6443			
TWD	181.5	181.5	174.9	174.9	186.7	186.7	679	678	4.269	4.271			
SOG	21.93	21.94	18.6	20.2	24.2	23.6	679	678	1.045	0.7182	SenseBoard	SenseBoard	SenseBoard
VMG	14.49	14.69	9.382	10.25	20.41	19.25	679	678	2.678	2.352	SenseBoard	SenseBoard	SenseBoard
COG	133.3	134	121.7	123.1	149.6	146.6	679	678	5.434	4.783		SenseBoard	SenseBoard
TWA_Abs	48.17	47.54	26.8	28.83	64.51	61.16	679	678	8.667	7.913			
Heel_Lwd	54.89	54.34	36	37.9	79.1	68	679	678	6.077	5.317	Karl Maeder	SenseBoard	Tie
Side_lines	122.3	14.26	78.9	6.5	170.3	25.4	679	678	12.86	3.336	Karl Maeder	SenseBoard	Tie
Line_C	6.705	114.4	3	83	13.5	144.1	679	676	1.917	10.67	SenseBoard	Karl Maeder	Tie
Total_lines	129.5	128.6	85.1	92.6	175.7	168.1	679	678	13.62	12.21	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	767.001752	766.075156
Straight Line [m]	762.111677	761.957156
Distance as Percentage of Straight Line [%]	100.641648	100.540450
Gain of Karl Maeder with respect to SenseBoard		
Forward	Initial Deficit	4.474049
Lateral	Final Deficit	-8.155162
VMG	Total Gain	7.832036
	Gain per Minute	5.709313
		-0.190541
		6.930597
		5.052191
		-0.168611

Interval 1: Upwind from 2025-06-07 13:00:08 to 2025-06-07 13:01:16: Karl Maeder vs SenseBoard - Parameters over time



Legend: — Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.6994768334928197,
'SOG_variation_boat2': 0.8057898398385431,
'avg TWA boat1': -143.46581009615386,
'avg TWA boat2': -142.24757004830917,
'avg_SOG_boat1': 26.33076923076923,
'avg_SOG_boat2': 26.25721153846154,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 41.49900007247925,
'end_time': 1749301457.157,
'stability_score': 0.9490600930144912,
'start_time': 1749301415.658}
```

```
=====
Interval 2: Downwind from 2025-06-07 13:03:35 to 2025-06-07 13:04:17: Karl Maeder vs SenseBoard
=====
```

MainReport

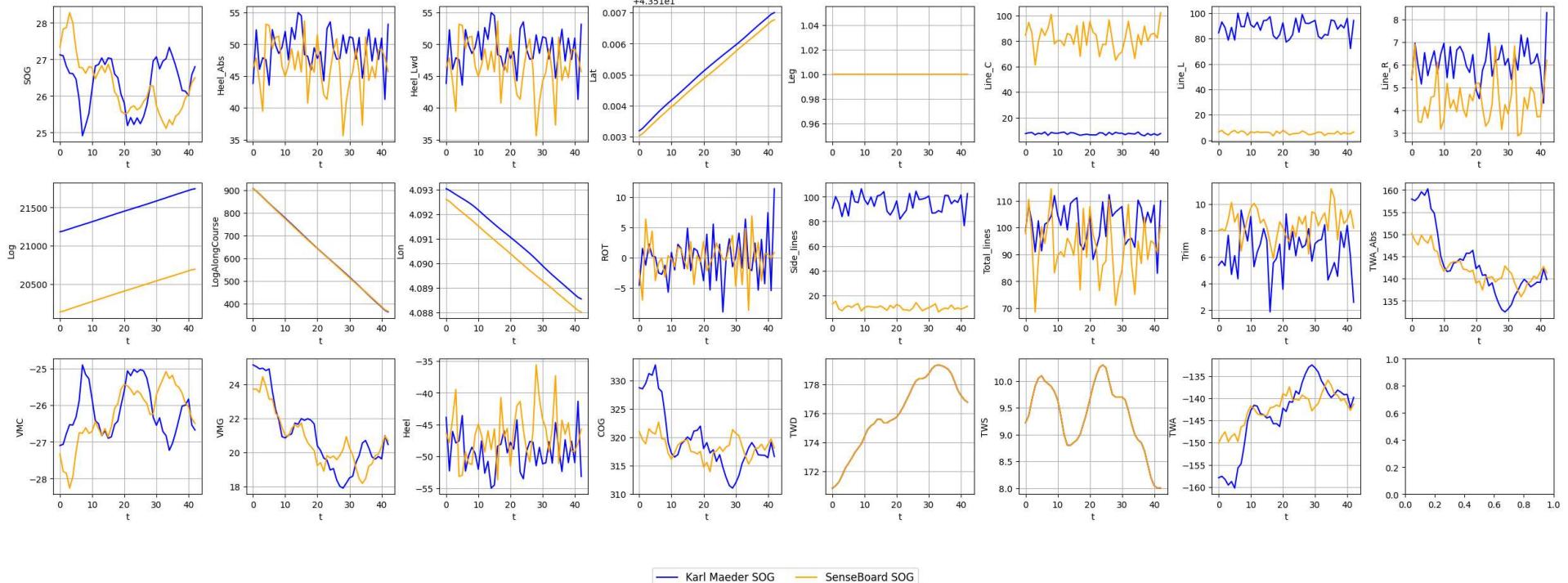
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.391	9.395	8	8	10.3	10.3	416	414	0.6166	0.6143			
TWD	176.1	176.1	170.8	170.8	179.4	179.4	416	414	2.469	2.461			
SOG	26.33	26.25	24.5	25.1	27.5	29.3	416	414	0.6995	0.8072	Karl Maeder	Karl Maeder	Karl Maeder
VMG	20.95	20.73	16.83	17.26	25.44	25.66	416	414	2.067	1.631	Karl Maeder	SenseBoard	Tie
COG	319.6	318.4	308.7	310.5	335.3	326.6	416	414	5.781	2.46	SenseBoard	SenseBoard	
TWA_Abs	143.5	142.2	130.1	132.6	162.7	154.3	416	414	7.922	3.89			
Heel_Lwd	49.2	46.53	34.5	28	64	69.7	416	414	5.317	6.858	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	94.58	10.22	62.8	2.9	133.5	17.8	416	414	12.29	2.609	Karl Maeder	SenseBoard	Tie
Line_C	7.246	82.29	3	57.1	14	117.5	416	412	1.75	11.46	SenseBoard	Karl Maeder	Tie
Total_lines	101.5	92.38	68.2	62.4	145.9	129.3	416	414	12.78	12.93	Karl Maeder	Karl Maeder	Karl Maeder

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	562.551935	557.987325
Straight Line [m]	559.011743	556.693566
Distance as Percentage of Straight Line [%]	100.633295	100.232401
Gain of Karl Maeder with respect to SenseBoard		
Forward	9.734838	38.017379
Lateral	14.814789	
VMG		
Initial Deficit	7.270406	49.145837
Final Deficit	23.420772	
Total Gain	-2.464431	11.128458
Gain per Minute	8.605983	
Gain per Minute	-3.563119	16.089725
		12.442685

Interval 2: Downwind from 2025-06-07 13:03:35 to 2025-06-07 13:04:17: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Processing: ./Data_Sailnjord/Straight_lines\07_06\07_06_Run8

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{
'SOG_variation_boat1': 0.5330671829582392,
'SOG_variation_boat2': 0.5809299769964135,
'avg TWA boat1': 41.97196784565916,
'avg TWA boat2': 41.890666129032255,
'avg_SOG_boat1': 22.524919614147908,
'avg_SOG_boat2': 22.74951768488746,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 62.0789999961853,
'end_time': 1749301801.155,
'stability_score': 0.9655864159321811,
'start_time': 1749301739.076}
```

```
=====
Interval 1: Upwind from 2025-06-07 13:08:59 to 2025-06-07 13:10:01: Karl Maeder vs SenseBoard
=====
```

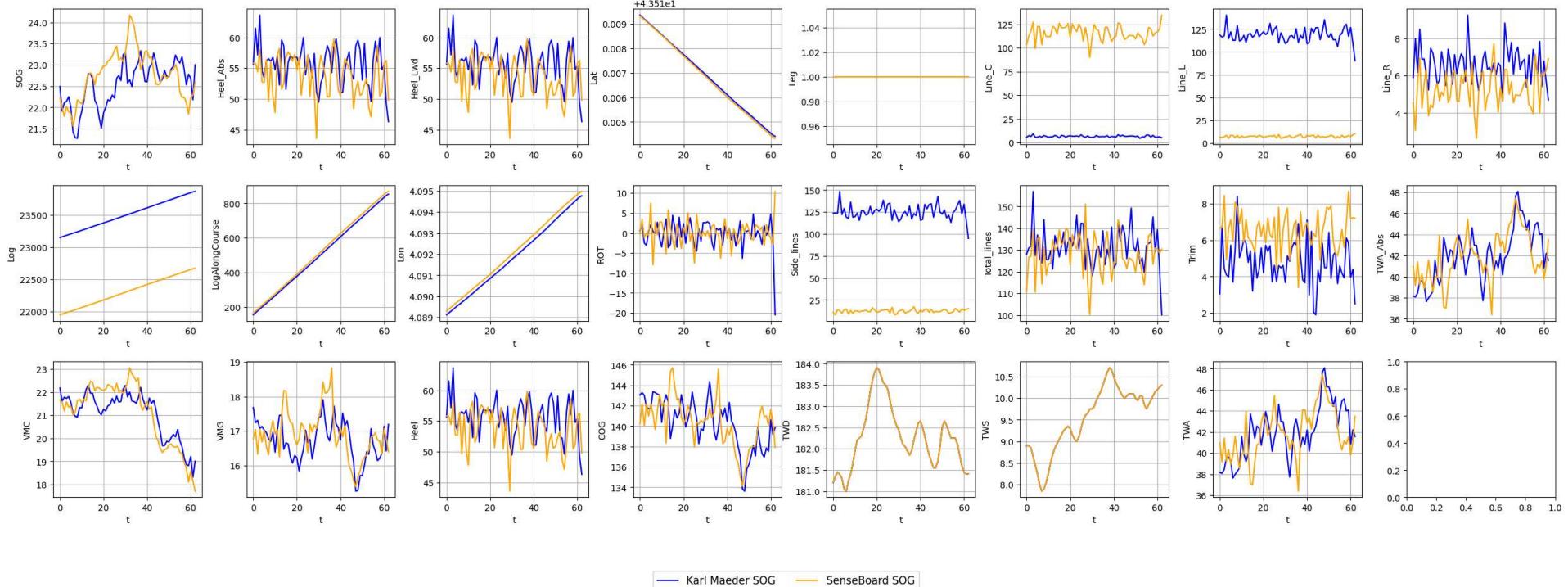
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.53	9.53	7.805	7.804	10.7	10.7	622	620	0.7422	0.7424			
TWD	182.3	182.3	180.8	180.8	183.9	183.9	622	620	0.7442	0.7432			
SOG	22.52	22.75	21	21.4	23.5	24.3	622	620	0.5331	0.5829	SenseBoard	Karl Maeder	Tie
VMG	16.72	16.91	14.62	14.68	18.46	19.5	622	620	0.6988	0.8005	SenseBoard	Karl Maeder	Tie
COG	140.3	140.4	131.4	131.8	147.2	148.2	622	620	2.816	2.79	SenseBoard	SenseBoard	
TWA_Abs	41.97	41.89	34.66	33.77	50.31	49.72	622	620	2.875	2.821			
Heel_Lwd	55.8	53.69	42.4	34.3	71.9	70.7	622	620	5.214	5.444	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	125.5	12.34	82.7	4.7	167.3	23.1	622	620	13.51	3.254	Karl Maeder	SenseBoard	Tie
Line_C	6.526	115.4	2.5	81.8	12.6	150.3	622	618	1.802	11.81	SenseBoard	Karl Maeder	Tie
Total_lines	131.9	128	86.3	88.1	173.2	168.4	622	620	14	12.95	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	721.473547	725.583603
Straight Line [m]	719.574316	723.745011
Distance as Percentage of Straight Line [%]	100.263938	100.254039
Gain of Karl Maeder with respect to SenseBoard		
Forward	Initial Deficit	Final Deficit
	13.248162	-8.410445
	4.225114	17.422699
Lateral	Total Gain	Gain per Minute
	4.174537	4.018317
	1.367671	4.034734
VMG		1.321868
		3.883745

Interval 1: Upwind from 2025-06-07 13:08:59 to 2025-06-07 13:10:01: Karl Maeder vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
'SOG_variation_boat1': 0.8091860497107752,
'SOG_variation_boat2': 0.8184785351654248,
'avg TWA boat1': -148.05330720338983,
'avg TWA boat2': -147.50978510638302,
'avg_SOG_boat1': 27.379025423728816,
'avg_SOG_boat2': 27.6625,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 47.09400010108948,
'end_time': 1749301961.953,
'stability_score': 0.9616375431561365,
'start_time': 1749301914.859}
```

```
=====
Interval 2: Downwind from 2025-06-07 13:11:54 to 2025-06-07 13:12:41: Karl Maeder vs SenseBoard
=====
```

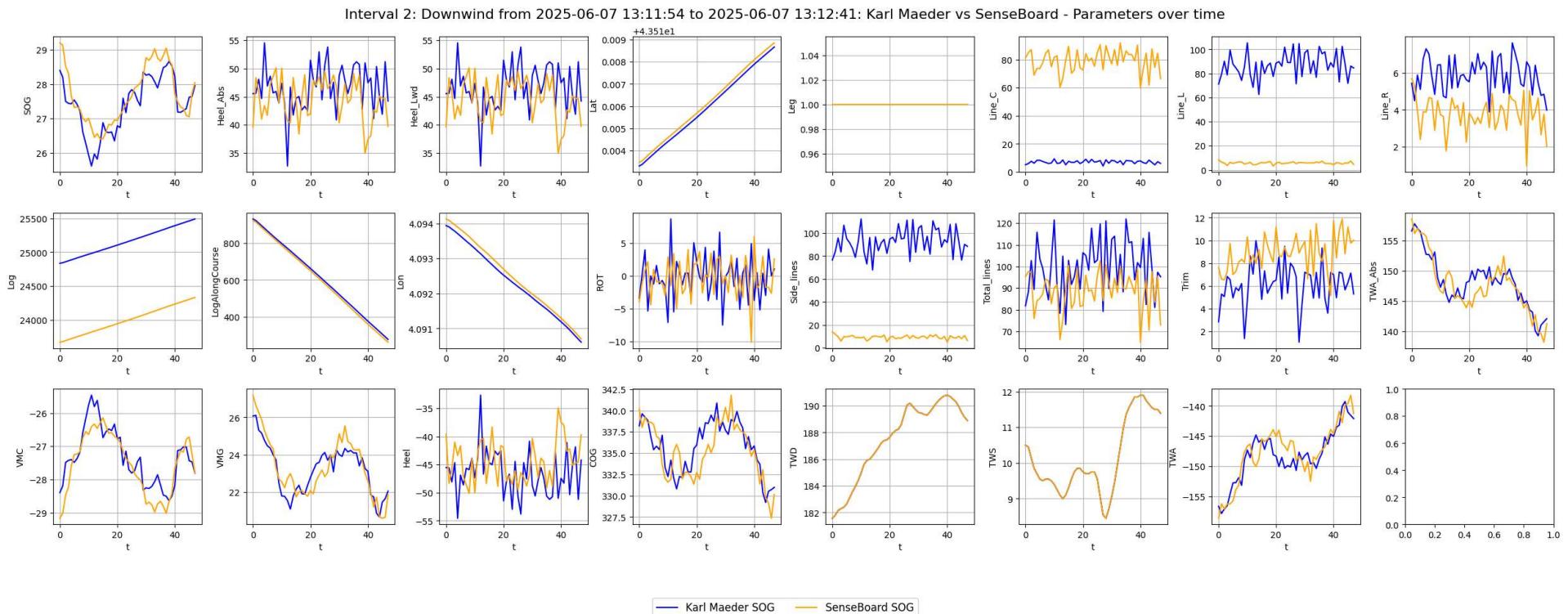
MainReport

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	10.13	10.13	8.406	8.405	11.99	11.99	472	470	1.041	1.042			
TWD	187.6	187.6	181.6	181.6	190.8	190.8	472	470	2.774	2.765			
SOG	27.38	27.66	25.5	26.3	28.8	29.3	472	470	0.8092	0.8159	SenseBoard	Karl Maeder	Tie
VMG	23.16	23.26	19.73	19.76	26.55	27.22	472	470	1.368	1.568	SenseBoard	Karl Maeder	Tie
COG	335.7	335.1	326.5	324.4	344.5	343.3	472	470	3.593	3.716	Karl Maeder	Karl Maeder	
TWA_Abs	148.1	147.5	136.3	135.3	159.8	159.7	472	470	4.56	4.849			
Heel_Lwd	46.63	44.61	20.1	25.2	67.2	65.9	472	470	6.259	6.746	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	92.91	9.291	48.9	2.1	151.5	16.5	472	470	16.51	2.501	Karl Maeder	SenseBoard	Tie
Line_C	7.14	79.07	2.8	53.2	11.9	105.7	472	468	1.908	10.41	SenseBoard	Karl Maeder	Tie
Total_lines	100	88.45	57.6	58.5	163.4	113.4	472	470	17.68	11.34	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard	
Distance [m]	663.296113	667.682968	
Straight Line [m]	661.525287	665.732089	
Distance as Percentage of Straight Line [%]	100.267688	100.293043	
Gain of Karl Maeder with respect to SenseBoard			
	Forward	Lateral	VMG
Initial Deficit	10.917205	-21.327895	-20.548943
Final Deficit	15.097650	-15.244194	-20.877140
Total Gain	4.180445	6.083700	-0.328197
Gain per Minute	5.326086	7.750924	-0.418139



— Karl Maeder SOG — SenseBoard SOG

Processing: ..\Data_Sailnjord\Straight_lines\07_06\07_06_Run9

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{'SOG_variation_boat1': 0.6218267494031011,
 'SOG_variation_boat2': 0.4460205841525167,
 'avg_TWA_boat1': 37.2340906200318,
 'avg_TWA_boat2': 37.22738155802862,
 'avg_SOG_boat1': 22.486645468998407,
 'avg_SOG_boat2': 22.53608903020668,
 'boat1_name': 'Karl Maeder',
 'boat2_name': 'SenseBoard',
 'duration': 62.80200004577637,
 'end_time': 1749302292.46,
 'stability_score': 0.9670551969484428,
 'start_time': 1749302229.658}
```

```
=====
Interval 1: Upwind from 2025-06-07 13:17:09 to 2025-06-07 13:18:12: Karl Maeder vs SenseBoard
=====
```

MainReport

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	10.46	10.46	9.006	9.007	11.2	11.2	629	629	0.551	0.551			
TWD	181.4	181.4	178.9	178.9	183.9	183.9	629	629	1.344	1.344			
SOG	22.49	22.53	20.8	21.3	24.4	23.6	629	629	0.6218	0.4474	SenseBoard	SenseBoard	SenseBoard
VMG	17.86	17.92	14.82	15.43	20.4	20.06	629	629	0.9519	0.9083	SenseBoard	SenseBoard	SenseBoard
COG	144.2	144.2	136.6	138.5	151.7	151.5	629	629	2.784	2.64			
TWA_Abs	37.23	37.23	28.3	28.63	46.2	45.37	629	629	3.679	3.3			
Heel_Lwd	55.59	54.04	39.2	38	71.7	67.6	629	629	5.5	4.984	Karl Maeder	SenseBoard	Tie
Side_lines	124.4	12.99	81.5	4.6	159.5	27.2	629	629	14.1	3.918	Karl Maeder	SenseBoard	Tie
Line_C	6.319	118.4	2.9	83.5	12.7	156.1	629	627	1.858	11.86	SenseBoard	Karl Maeder	Tie
Total_lines	130.6	131.2	85.6	95.8	170.6	179.5	629	629	14.84	13.17	SenseBoard	SenseBoard	SenseBoard

Distance Summary

Karl Maeder SenseBoard

Distance [m] 726.770398 729.140682

Straight Line [m] 724.998072 727.514281

Distance as Percentage of Straight Line [%] 100.244459 100.223556

Gain of Karl Maeder with respect to SenseBoard

Forward Lateral VMG

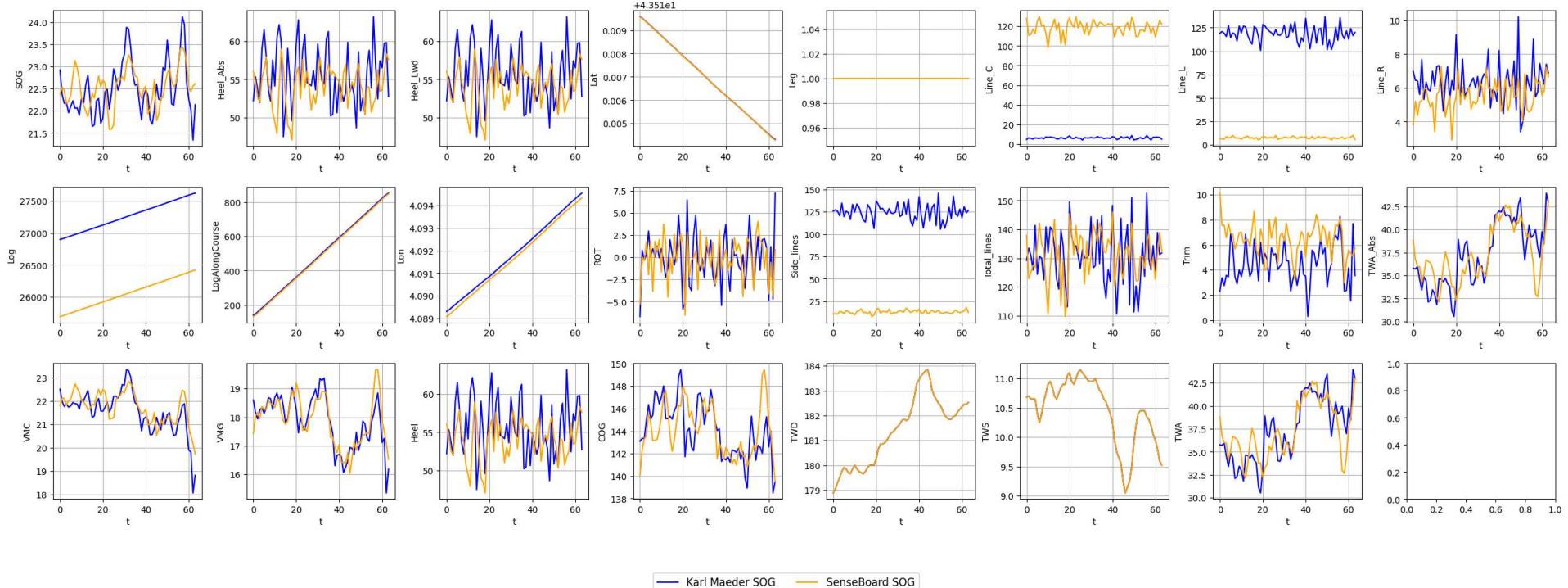
Initial Deficit -9.739649 15.708549 1.750382

Final Deficit -7.221112 16.024072 3.946482

Total Gain 2.518537 0.315523 2.196100

Gain per Minute 2.406169 0.301446 2.098118

Interval 1: Upwind from 2025-06-07 13:17:09 to 2025-06-07 13:18:12: Karl Maeder vs SenseBoard - Parameters over time



Legend: — Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
  'SOG_variation_boat1': 0.6630842211928816,
  'SOG_variation_boat2': 0.7550342961025506,
  'avg TWA boat1': -147.36239002267575,
  'avg TWA boat2': -146.5883696145125,
  'avg_SOG_boat1': 28.447392290249432,
  'avg_SOG_boat2': 28.581179138321993,
  'boat1_name': 'Karl Maeder',
  'boat2_name': 'SenseBoard',
  'duration': 44.01100015640259,
  'end_time': 1749302440.459,
  'stability_score': 0.9651754089517661,
  'start_time': 1749302396.448}
```

```
=====
Interval 2: Downwind from 2025-06-07 13:19:56 to 2025-06-07 13:20:40: Karl Maeder vs SenseBoard
=====
```

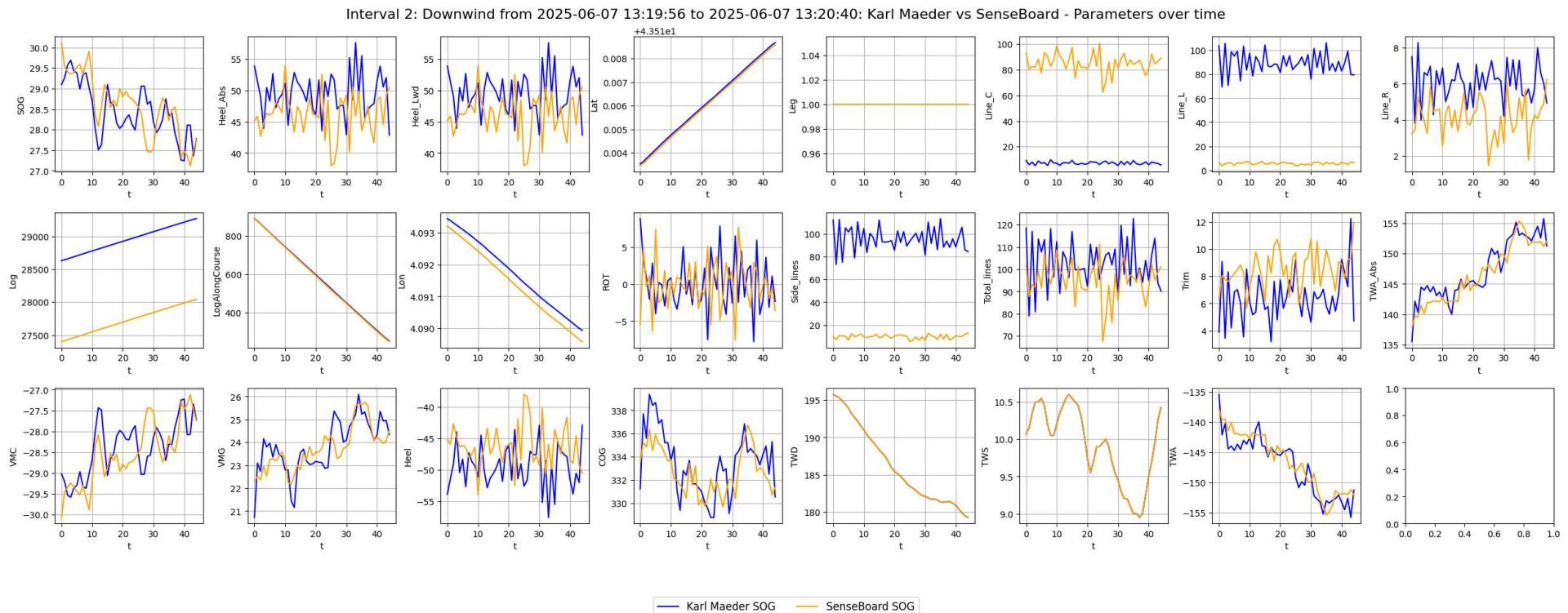
MainReport

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.905	9.905	8.906	8.905	10.6	10.6	441	441	0.5114	0.5115			
TWD	186.2	186.2	179.3	179.3	195.8	195.8	441	441	5.045	5.045			
SOG	28.45	28.58	27	26.9	29.8	30.2	441	441	0.6631	0.7518	SenseBoard	Karl Maeder	Tie
VMG	23.85	23.74	19.63	21.36	26.5	26.27	441	441	1.215	1.027	Karl Maeder	SenseBoard	Tie
COG	333.5	332.8	323.8	325.4	343	339.5	441	441	3.237	2.55		SenseBoard	SenseBoard
TWA_Abs	147.4	146.6	132.4	136	158.8	158.1	441	441	5.028	4.971			
Heel_Lwd	49.54	46.13	32.4	26.7	65.7	66.8	441	441	5.904	5.844	Karl Maeder	SenseBoard	Tie
Side_lines	95.58	9.726	62.7	1.1	135.8	19.9	441	441	13.38	2.958	Karl Maeder	SenseBoard	Tie
Line_C	7.23	84.97	2.7	47.8	12.2	115	441	439	1.933	10.86	SenseBoard	Karl Maeder	Tie
Total_lines	102.7	94.78	66.1	51.6	146.5	130.1	441	441	13.94	11.77	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	643.871252	645.818158
Straight Line [m]	642.292491	644.671553
Distance as Percentage of Straight Line [%]	100.245801	100.177859
Gain of Karl Maeder with respect to SenseBoard		
Forward	0.656779	21.313905
Lateral	2.968152	30.533484
VMG	10.940993	13.966421
Initial Deficit	2.311372	9.219580
Final Deficit	3.025428	3.151084
Total Gain	3.151084	12.569012
Gain per Minute	4.124553	



Processing: ..\Data_Sailnjord\Straight_lines\09_06\09_06_Run1
Error: No or insufficient intervals for run: 09_06_Run1

Processing: ..\Data_Sailnjord\Straight_lines\09_06\09_06_Run10
Processing only reduced intervals for Karl Maeder vs SenseBoard
Interval 1 summary:
{'SOG_variation_boat1': 0.4172626962395209,
'SOG_variation_boat2': 0.4660087049211628,
'avg TWA boat1': 53.63761990212071,
'avg TWA boat2': 53.313418300653595,
'avg_SOG_boat1': 23.155464926590536,
'avg_SOG_boat2': 23.533442088091356,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 61.204999923706055,
'end_time': 1749475539.06,
'stability_score': 0.9685558287592516,
'start_time': 1749475477.855}

=====
Interval 1: Upwind from 2025-06-09 13:24:37 to 2025-06-09 13:25:39: Karl Maeder vs SenseBoard
=====

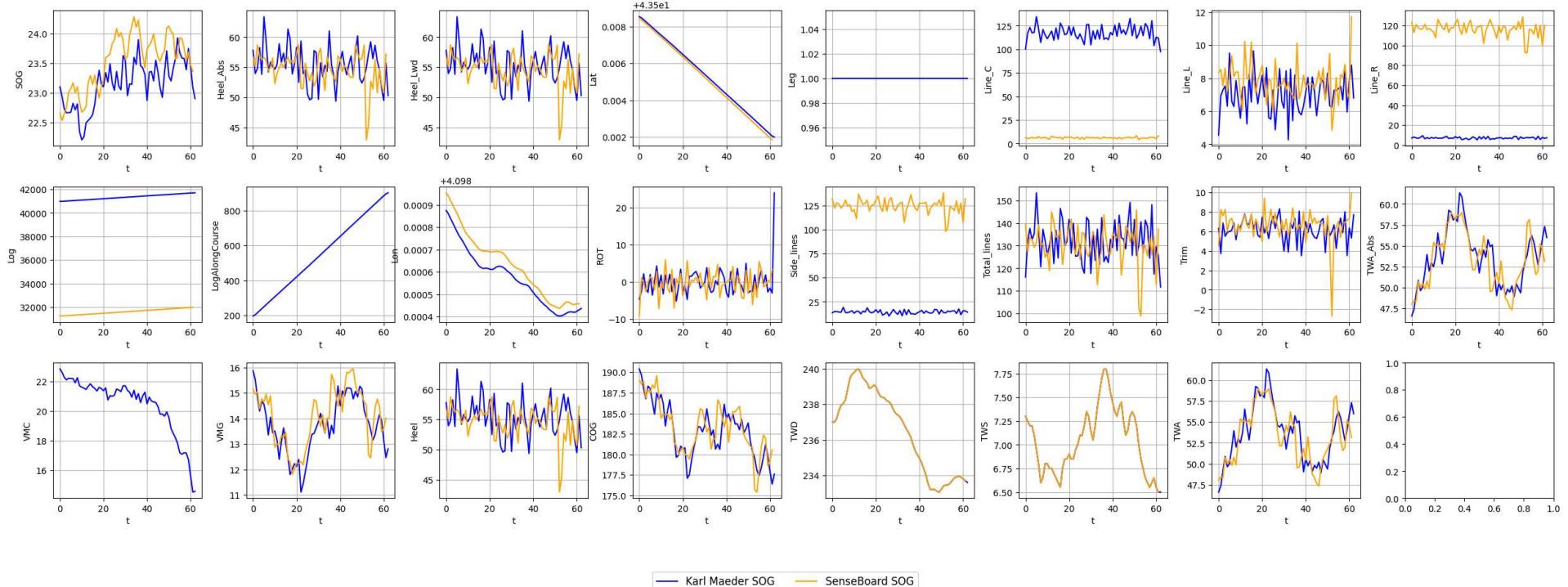
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.042	7.043	6.5	6.5	7.8	7.8	613	612	0.3467	0.3462			
TWD	236.5	236.5	233	233	240.1	240.1	613	612	2.363	2.362			
SOG	23.16	23.53	22.1	22.5	24	24.4	613	612	0.4173	0.4665	SenseBoard	Karl Maeder	Tie
VMG	13.7	14.03	9.926	10.9	16.57	17.25	613	612	1.201	1.247	SenseBoard	Karl Maeder	Tie
COG	182.9	183.2	173.5	172.5	193.1	192.5	613	612	3.589	3.571	SenseBoard	SenseBoard	
TWA_Abs	53.64	53.31	43.9	44.05	64.67	62.1	613	612	3.707	3.689			
Heel_Lwd	55.43	54.6	37.6	33.4	71.5	69.1	613	612	5.225	5.223	Karl Maeder	SenseBoard	Tie
Side_lines	14.31	124.3	5.9	56.4	26	164.1	613	612	3.445	12.64	SenseBoard	Karl Maeder	Tie
Line_C	117.7	6.056	80	0.9	154.6	12.1	613	611	12.52	1.752	Karl Maeder	SenseBoard	Tie
Total_lines	132.4	130.5	91.5	57.6	176.8	176.2	613	612	13.79	13.39	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	729.599182	740.289207
Straight Line [m]	728.162169	738.876414
Distance as Percentage of Straight Line [%]	100.197348	100.191208
Gain of Karl Maeder with respect to SenseBoard		
Forward	Initial Deficit	Final Deficit
	11.221311	-6.978208
Lateral		
	21.947869	-2.646800
VMG	Total Gain	Gain per Minute
	10.726558	10.515375
	4.331409	4.246132
	9.847672	9.653791

Interval 1: Upwind from 2025-06-09 13:24:37 to 2025-06-09 13:25:39: Karl Maeder vs SenseBoard - Parameters over time



Legend: — Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
  'SOG_variation_boat1': 0.5265769855048806,
  'SOG_variation_boat2': 0.556149167909675,
  'avg TWA boat1': -141.5574108216433,
  'avg TWA boat2': -141.35800401606423,
  'avg_SOG_boat1': 26.750901803607217,
  'avg_SOG_boat2': 27.055511022044087,
  'boat1_name': 'Karl Maeder',
  'boat2_name': 'SenseBoard',
  'duration': 49.80200004577637,
  'end_time': 1749475704.256,
  'stability_score': 0.967040276958964,
  'start_time': 1749475654.454
}
```

```
=====
Interval 2: Downwind from 2025-06-09 13:27:34 to 2025-06-09 13:28:24: Karl Maeder vs SenseBoard
=====
```

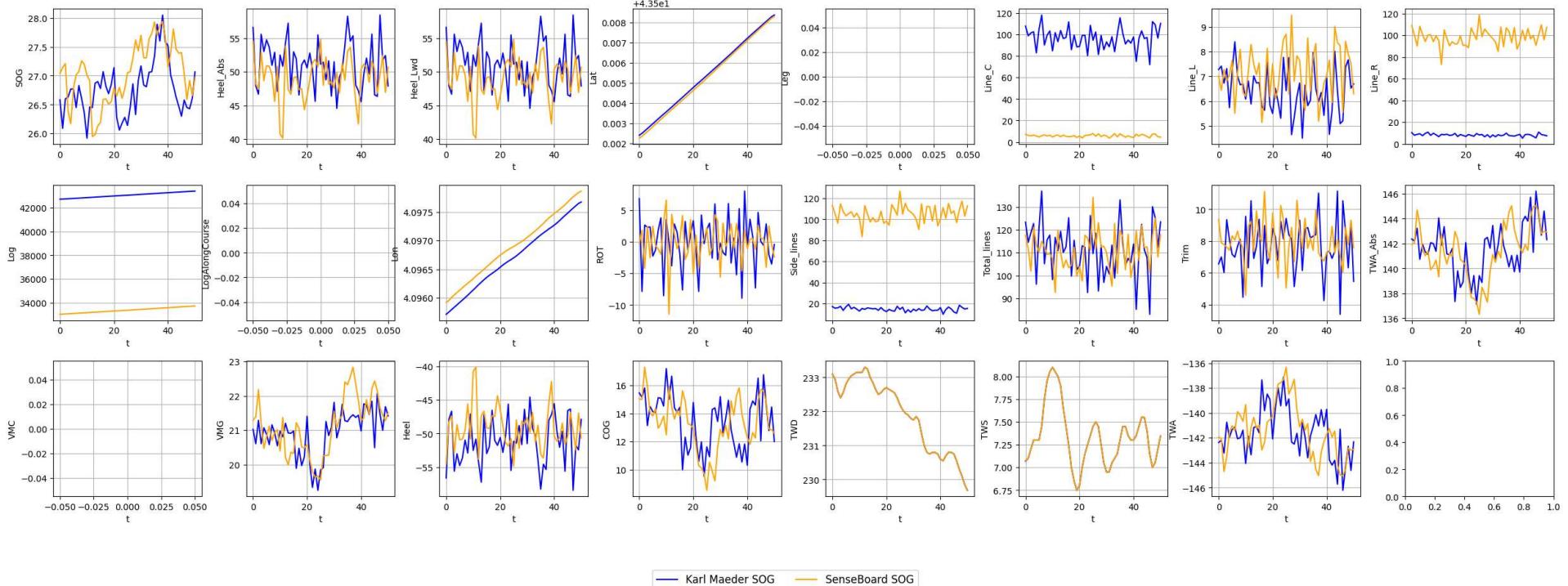
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.338	7.338	6.704	6.704	8.1	8.1	499	498	0.3289	0.329			
TWD	231.9	231.9	229.7	229.7	233.4	233.4	499	498	1.025	1.025			
SOG	26.75	27.05	24.5	24.4	28.3	28.4	499	498	0.5266	0.5647	SenseBoard	Karl Maeder	Tie
VMG	20.92	21.1	17.89	18.4	23.05	23.43	499	498	0.8914	1.01	SenseBoard	Karl Maeder	Tie
COG	13.48	13.27	4.1	5.6	20.5	22.8	499	498	2.863	2.697	SenseBoard	SenseBoard	
TWA_Abs	141.6	141.4	133.3	133	148.9	149.7	499	498	2.927	2.891			
Heel_Lwd	51.16	49.04	31.7	32.8	69.8	63.8	499	498	6.16	5.224	Karl Maeder	SenseBoard	Tie
Side_lines	14.63	105	5.9	51.4	23.2	146.8	499	498	3.089	12.33	SenseBoard	Karl Maeder	Tie
Line_C	96.57	5.729	60.7	0	132.7	10.3	499	498	12.81	1.94	Karl Maeder	SenseBoard	Tie
Total_lines	111.2	110.8	72.3	54.6	149	155.7	499	498	14.44	12.87	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard	
Distance [m]	685.413073	692.346612	
Straight Line [m]	684.565694	691.578962	
Distance as Percentage of Straight Line [%]	100.123784	100.111000	
Gain of Karl Maeder with respect to SenseBoard			
	Forward	Lateral	VMG
Initial Deficit	-11.181616	-20.215784	-3.810991
Final Deficit	-4.158951	-16.847369	-7.217111
Total Gain	7.022665	3.368415	-3.406120
Gain per Minute	8.460702	4.058169	-4.103595

Interval 2: Downwind from 2025-06-09 13:27:34 to 2025-06-09 13:28:24: Karl Maeder vs SenseBoard - Parameters over time



Processing: ./Data_Sailnjord/Straight_lines\09_06\09_06_Run11

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{'SOG_variation_boat1': 0.6936663946225158,
'SOG_variation_boat2': 0.6433790136832493,
'avg TWA boat1': 52.5763244047619,
'avg TWA boat2': 52.12876154992549,
'avg_SOG_boat1': 22.59032738095238,
'avg_SOG_boat2': 22.65357142857143,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 67.09000015258789,
'end_time': 1749476119.654,
'stability_score': 0.957127357613573,
'start_time': 1749476052.564}
```

```
=====
Interval 1: Upwind from 2025-06-09 13:34:12 to 2025-06-09 13:35:19: Karl Maeder vs SenseBoard
=====
```

MainReport

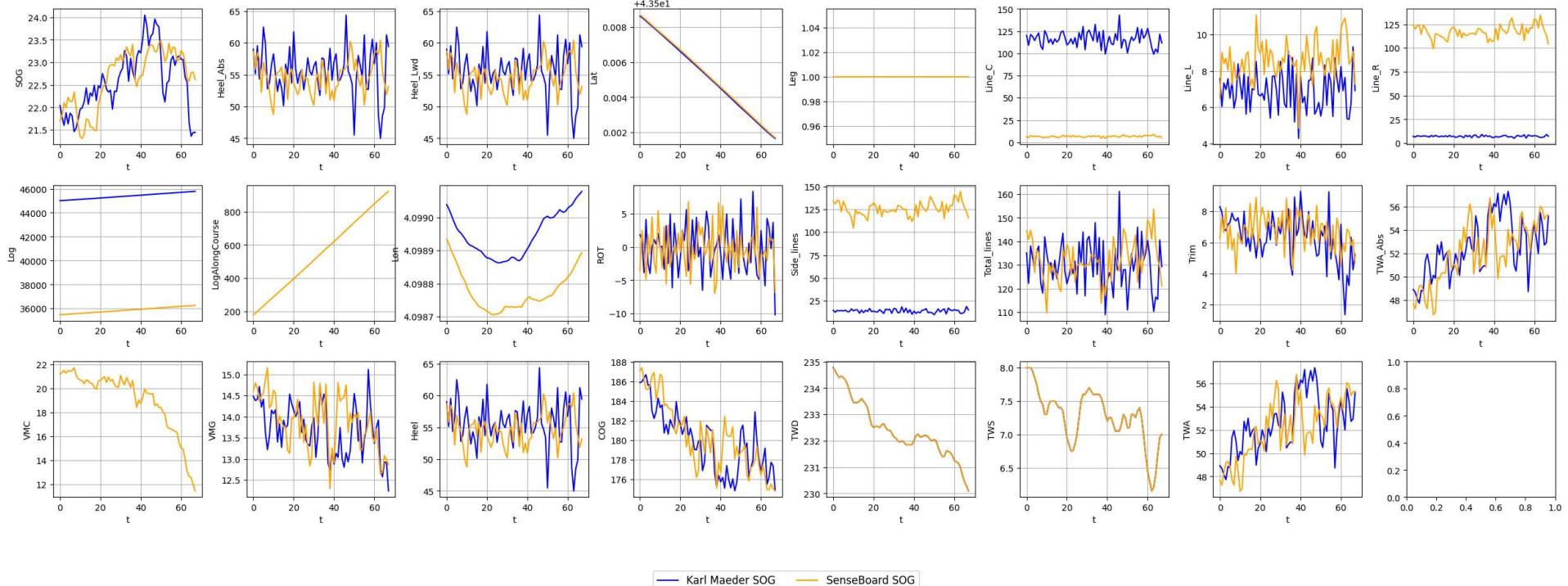
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.257	7.256	6.104	6.104	8	8	672	671	0.4089	0.4081			
TWD	232.4	232.4	230	230	234.8	234.8	672	671	1.056	1.052			
SOG	22.59	22.66	21.2	21.2	24.2	23.6	672	671	0.6937	0.6453	SenseBoard	SenseBoard	SenseBoard
VMG	13.69	13.88	10.5	10.82	15.93	15.99	672	671	0.8706	0.82	SenseBoard	SenseBoard	SenseBoard
COG	179.8	180.3	168.8	170.4	189.3	191.5	672	671	3.709	3.809	Karl Maeder	Karl Maeder	Karl Maeder
TWA_Abs	52.58	52.13	45	42.04	62.3	61.4	672	671	3.125	3.013			
Heel_Lwd	55.52	54.61	31.9	36.9	74.2	70.5	672	671	5.827	5.271	Karl Maeder	SenseBoard	Tie
Side_lines	14.03	125.4	5.1	82.3	25.5	161.4	672	671	3.535	11.09	SenseBoard	Karl Maeder	Tie
Line_C	116	6.57	73	1.2	163.5	12.1	672	666	13.4	1.666	Karl Maeder	SenseBoard	Tie
Total_lines	130	132	82.5	83.5	182.6	162.1	672	671	15.1	11.54	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	779.659914	780.751685
Straight Line [m]	778.003259	779.012757
Distance as Percentage of Straight Line [%]	100.212937	100.223222
Gain of Karl Maeder with respect to SenseBoard		
Forward	8.468087	3.009949
Lateral	-6.113330	-5.118573
VMG	0.994757	14.881461
Initial Deficit	-5.118573	8.707735
Total Gain	5.697786	5.735615
Gain per Minute	0.889632	0.095650

Interval 1: Upwind from 2025-06-09 13:34:12 to 2025-06-09 13:35:19: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.595943023245209,
'SOG_variation_boat2': 1.301806479623148,
'avg TWA boat1': -143.12540796963947,
'avg TWA boat2': -144.06554562737642,
'avg_SOG_boat1': 25.45749525616698,
'avg_SOG_boat2': 25.68709677419355,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 52.59599995613098,
'end_time': 1749476288.852,
'stability_score': 0.9622185408950876,
'start_time': 1749476236.256}
```

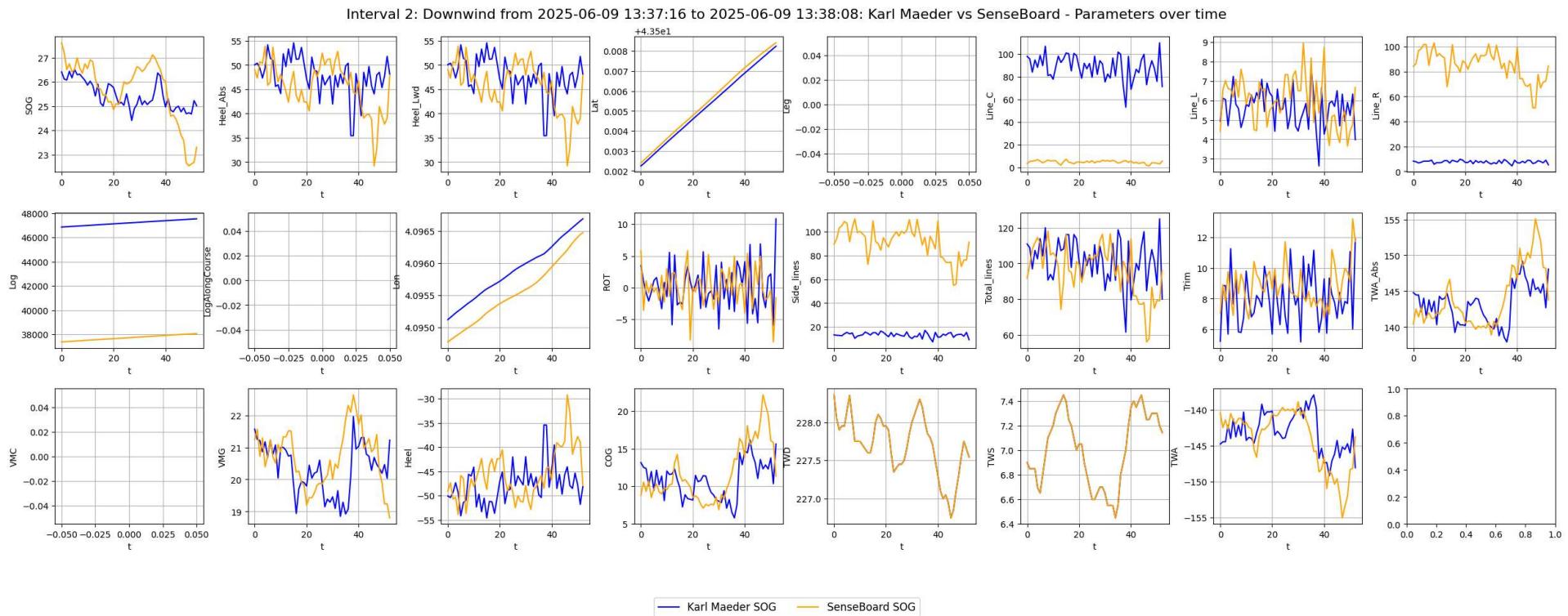
```
=====
Interval 2: Downwind from 2025-06-09 13:37:16 to 2025-06-09 13:38:08: Karl Maeder vs SenseBoard
=====
```

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.009	7.008	6.405	6.404	7.496	7.496	527	526	0.3006	0.3008			
TWD	227.7	227.7	226.7	226.7	228.5	228.5	527	526	0.3898	0.3902			
SOG	25.46	25.69	23.9	22.4	26.7	28.1	527	526	0.5959	1.295	SenseBoard	Karl Maeder	Tie
VMG	20.33	20.7	17.28	18.02	22.64	23.14	527	526	0.9043	1.015	SenseBoard	Karl Maeder	Tie
COG	10.82	11.76	1.9	3.4	18.8	24.2	527	526	3.035	4.303		Karl Maeder	Karl Maeder
TWA_Abs	143.1	144.1	133.9	135.7	151.8	157	527	526	3.224	4.52			
Heel_Lwd	47.79	45.54	17.7	24.3	65.8	63.3	527	526	6.722	7.073	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	13.27	91.39	4.2	50.2	22.6	127.3	527	526	2.922	14.83	SenseBoard	Karl Maeder	Tie
Line_C	88.24	4.58	45.1	0	136.2	9.2	527	524	14.16	1.713	Karl Maeder	SenseBoard	Tie
Total_lines	101.5	96.1	51.3	50.6	149.6	132.2	527	526	16.05	15.94	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	688.421640	692.360352
Straight Line [m]	687.459131	690.486777
Distance as Percentage of Straight Line [%]	100.140010	100.271341
Gain of Karl Maeder with respect to SenseBoard		
Forward	11.678188	30.330984
Lateral	8.858563	
VMG		
Initial Deficit	2.963488	-9.158644
Final Deficit	-7.866424	14.641676
Total Gain	3.380661	-10.447917
Gain per Minute	-8.973790	



Processing: ../Data_Sailnjord/Straight_lines\09_06\09_06_Run2
Error: No or insufficient intervals for run: 09_06_Run2

Processing: ../Data_Sailnjord/Straight_lines\09_06\09_06_Run3
Error: At least two CSV files are required.

Processing: ../Data_Sailnjord/Straight_lines\09_06\09_06_Run4
Processing only reduced intervals for Karl Maeder vs SenseBoard
Interval 1 summary:
{'SOG_variation_boat1': 0.32204164944144703,
'SOG_variation_boat2': 0.4157278383213897,
'avg TWA boat1': 49.306181240063594,
'avg TWA boat2': 49.00578980891719,
'avg_SOG_boat1': 23.74006359300477,
'avg_SOG_boat2': 24.408267890620033,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 62.801000118255615,
'end_time': 1749472181.65,
'stability_score': 0.9756446070411259,
'start_time': 1749472118.849}

=====
Interval 1: Upwind from 2025-06-09 12:28:38 to 2025-06-09 12:29:41: Karl Maeder vs SenseBoard
=====

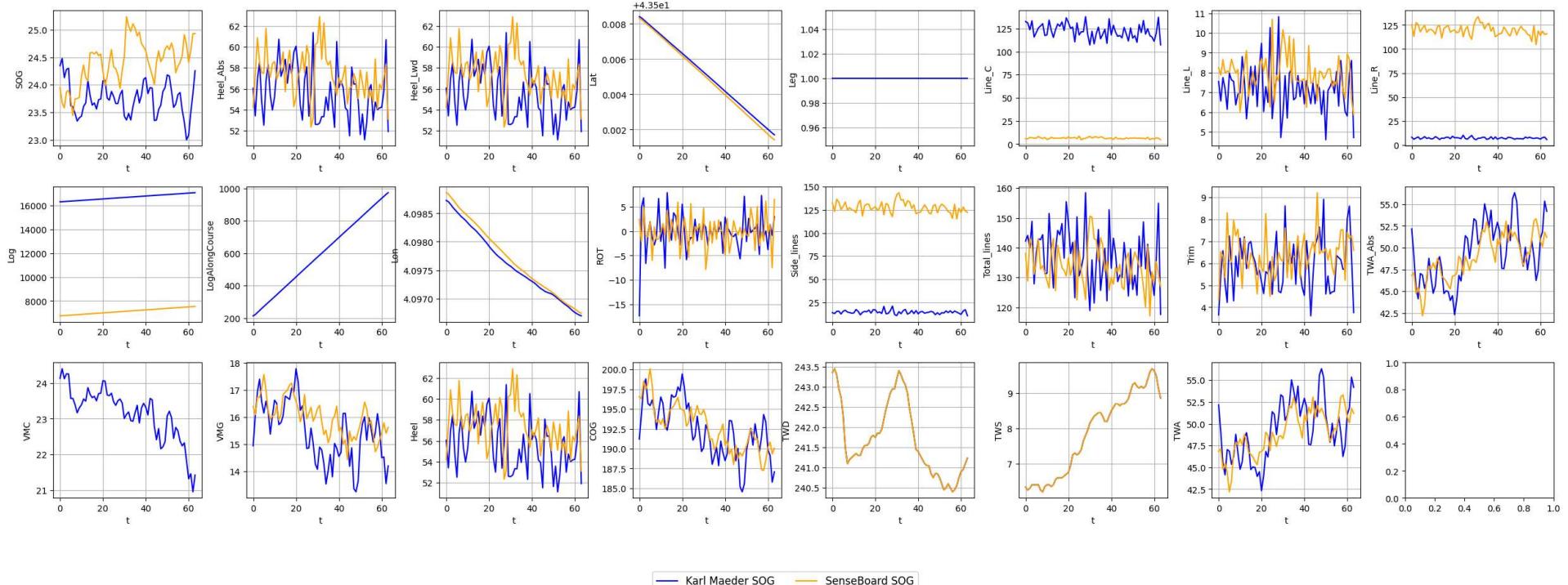
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.871	7.869	6.108	6.111	9.7	9.7	629	628	1.149	1.15			
TWD	241.7	241.7	240.4	240.4	243.5	243.5	629	628	0.8997	0.9002			
SOG	23.74	24.41	22.9	23.3	24.6	25.4	629	628	0.322	0.4167	SenseBoard	Karl Maeder	Tie
VMG	15.44	15.98	11.43	13.36	18.61	18.55	629	628	1.237	0.8759	SenseBoard	SenseBoard	SenseBoard
COG	192.4	192.7	179.7	184.2	203.3	203.6	629	628	3.938	3.366		SenseBoard	SenseBoard
TWA_Abs	49.31	49.01	39.75	37.85	61.17	56.27	629	628	3.867	3.032			
Heel_Lwd	55.62	57.42	39.1	43.6	71.2	76.4	629	628	4.986	4.71	SenseBoard	SenseBoard	SenseBoard
Side_lines	14.49	127.5	6.5	85.9	27.3	157.2	629	628	3.527	10.59	SenseBoard	Karl Maeder	Tie
Line_C	122.3	6.443	92.7	1.7	155.1	11.6	629	626	12.06	1.721	Karl Maeder	SenseBoard	Tie
Total_lines	136.9	133.9	104	92	174.1	166.6	629	628	13.83	11.05	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	767.900300	787.819286
Straight Line [m]	766.098882	786.484937
Distance as Percentage of Straight Line [%]	100.235142	100.169660
Gain of Karl Maeder with respect to SenseBoard		
Forward	9.088869	-13.276014
Lateral	-4.139712	
VMG		
Initial Deficit	29.498781	-10.164505
Final Deficit	11.527162	
Total Gain	20.409912	3.111508
Gain per Minute	15.666874	14.968113
Gain per Minute	19.499605	2.972731

Interval 1: Upwind from 2025-06-09 12:28:38 to 2025-06-09 12:29:41: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.849627104813067,
'SOG_variation_boat2': 0.5257048959698549,
'avg TWA boat1': -134.64182882882884,
'avg TWA boat2': -134.72823702031604,
'avg_SOG_boat1': 27.6213963963964,
'avg_SOG_boat2': 28.11644144144144,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 44.29400014877319,
'end_time': 1749472312.65,
'stability_score': 0.9623474927915108,
'start_time': 1749472268.356}
```

```
=====
Interval 2: Downwind from 2025-06-09 12:31:08 to 2025-06-09 12:31:52: Karl Maeder vs SenseBoard
=====
```

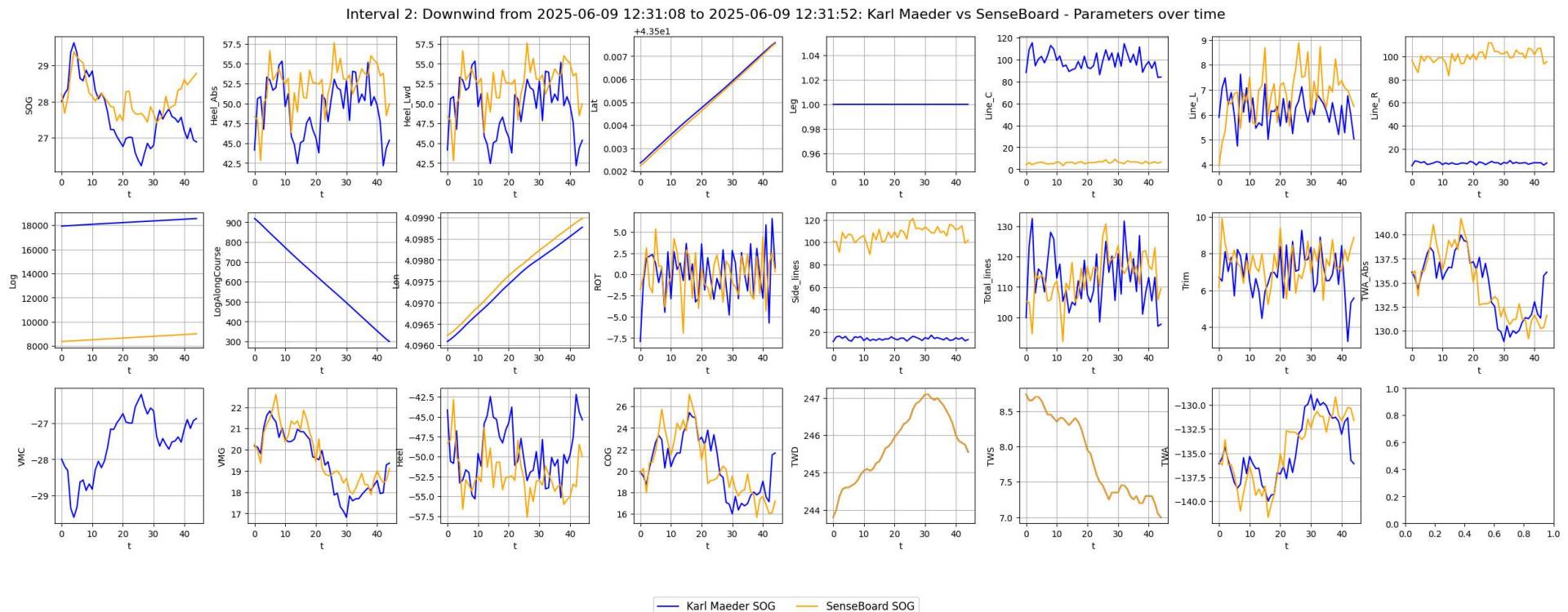
MainReport

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.859	7.861	7	7	8.764	8.764	444	443	0.569	0.5682			
TWD	245.8	245.8	243.8	243.8	247.1	247.1	444	443	0.9117	0.9124			
SOG	27.62	28.11	26.1	27.2	29.8	29.5	444	443	0.8496	0.5262	SenseBoard	SenseBoard	SenseBoard
VMG	19.38	19.74	14.59	16.61	22.76	23.07	444	443	1.535	1.461	SenseBoard	SenseBoard	SenseBoard
COG	20.44	20.53	9.2	11.9	27.3	29.4	444	443	3.222	3.431	Karl Maeder	Karl Maeder	Karl Maeder
TWA_Abs	134.6	134.7	123.4	126.2	142	143.9	444	443	3.698	3.892			
Heel_Lwd	49.4	52.31	33.6	32.3	63.1	65.3	444	443	5.706	5.335	SenseBoard	SenseBoard	SenseBoard
Side_lines	13.94	107.1	6.5	75	22	128.3	444	443	2.695	8.781	SenseBoard	Karl Maeder	Tie
Line_C	98.77	6.126	74.8	0.2	133.9	15.7	444	442	11.01	2.326	Karl Maeder	SenseBoard	Tie
Total_lines	112.8	113.5	85.4	75.2	151	140.1	444	443	12.32	10.03	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard	
Distance [m]	629.036540	639.025352	
Straight Line [m]	628.039306	637.870393	
Distance as Percentage of Straight Line [%]	100.158785	100.181065	
Gain of Karl Maeder with respect to SenseBoard			
	Forward	Lateral	VMG
Initial Deficit	-8.612373	-15.395409	-4.902277
Final Deficit	1.231082	-16.560347	-12.647902
Total Gain	9.843455	-1.164938	-7.745625
Gain per Minute	13.333799	-1.578008	-10.492110



— Karl Maeder SOG — SenseBoard SOG

Processing: ../Data_Sailnjord/Straight_lines\09_06\09_06_Run5
Error: No or insufficient intervals for run: 09_06_Run5

Processing: ../Data_Sailnjord/Straight_lines\09_06\09_06_Run6
Processing only reduced intervals for Karl Maeder vs SenseBoard
Interval 1 summary:
{'SOG_variation_boat1': 0.5131314014854907,
'SOG_variation_boat2': 0.47743257900555647,
'avg TWA boat1': 48.00279735682819,
'avg TWA boat2': 47.65900294117647,
'avg_SOG_boat1': 23.033039647577709,
'avg_SOG_boat2': 23.575477239353894,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 68.0,
'end_time': 1749473220.452,
'stability_score': 0.9744204774376893,
'start_time': 1749473152.452}

=====
Interval 1: Upwind from 2025-06-09 12:45:52 to 2025-06-09 12:47:00: Karl Maeder vs SenseBoard
=====

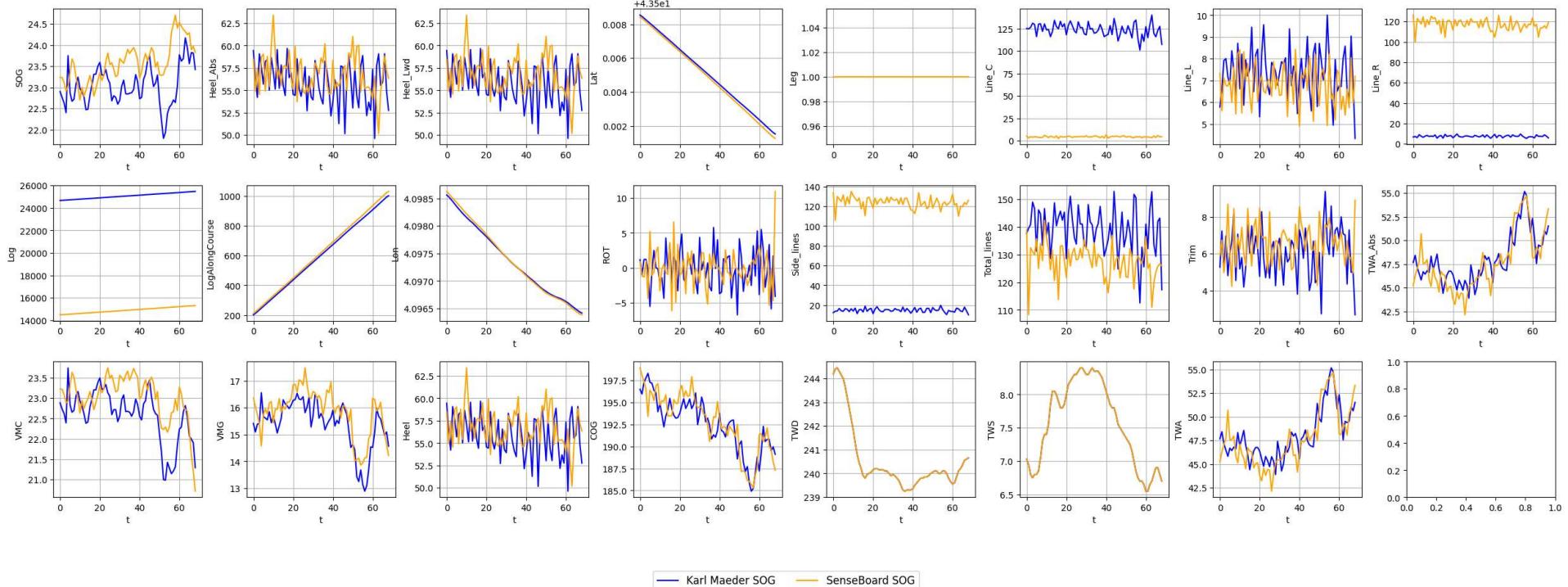
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.561	7.562	6.504	6.504	8.4	8.4	681	680	0.6257	0.6253			
TWD	240.5	240.5	239.2	239.2	244.5	244.5	681	680	1.393	1.394			
SOG	23.03	23.58	21.7	22.6	26.5	24.8	681	680	0.5131	0.4797	SenseBoard	SenseBoard	SenseBoard
VMG	15.39	15.84	11.71	12.91	18.77	18.13	681	680	1.022	0.9798	SenseBoard	SenseBoard	SenseBoard
COG	192.5	192.9	181.3	182.9	202.2	201.3	681	680	3.526	3.714	Karl Maeder	Karl Maeder	Karl Maeder
TWA_Abs	48	47.66	40.77	40.53	58.79	57.09	681	680	3.084	3.404			
Heel_Lwd	55.85	56.83	42.9	41.3	71.2	72.5	681	680	4.762	4.769	SenseBoard	Karl Maeder	Tie
Side_lines	14.83	123.8	6.5	93.5	25.5	144.5	681	680	3.377	9.65	SenseBoard	Karl Maeder	Tie
Line_C	124.1	4.271	90.3	0.5	157.7	8.9	681	676	11.75	1.607	Karl Maeder	SenseBoard	Tie
Total_lines	139.1	127.6	101.5	94.2	178.7	152.6	681	680	12.77	9.997	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	806.286547	824.671834
Straight Line [m]	804.762039	822.938608
Distance as Percentage of Straight Line [%]	100.189436	100.210614
Gain of Karl Maeder with respect to SenseBoard		
Forward	10.499277	-7.721290
Lateral	-7.721290	1.286935
VMG	1.286935	
Initial Deficit	28.692710	-3.735532
Final Deficit	18.193433	3.985758
Total Gain	16.053029	3.516845
Gain per Minute	15.135430	13.354791

Interval 1: Upwind from 2025-06-09 12:45:52 to 2025-06-09 12:47:00: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.9562666476793272,
'SOG_variation_boat2': 0.9439934006012783,
'avg TWA boat1': -137.5699430379747,
'avg TWA boat2': -137.814531779661,
'avg_SOG_boat1': 26.858227848101265,
'avg_SOG_boat2': 27.347257383966245,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 47.29200005531311,
'end_time': 1749473362.253,
'stability_score': 0.947487140959874,
'start_time': 1749473314.961}
```

```
=====
Interval 2: Downwind from 2025-06-09 12:48:34 to 2025-06-09 12:49:22: Karl Maeder vs SenseBoard
=====
```

MainReport

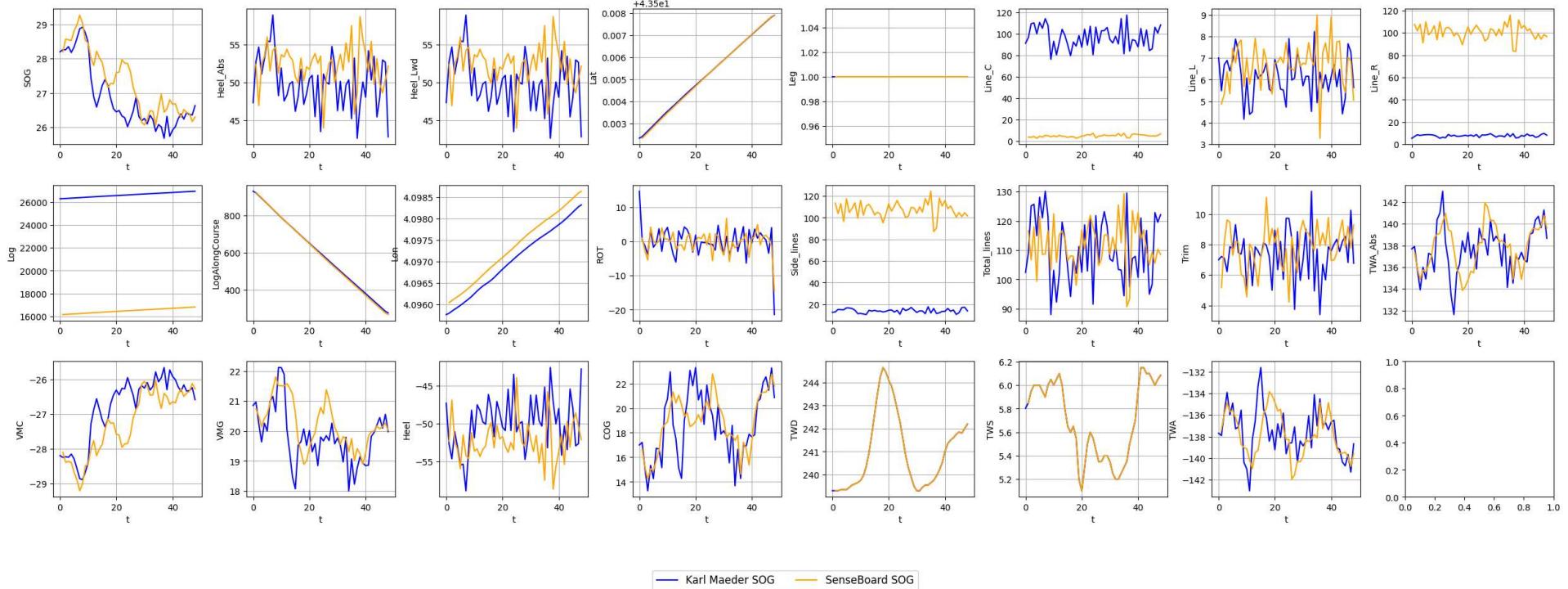
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	5.695	5.694	5.01	5.01	6.196	6.196	474	472	0.3286	0.3288			
TWD	241	241	239.3	239.3	244.7	244.7	474	472	1.634	1.635			
SOG	26.86	27.35	25.1	24.5	29.6	30.1	474	472	0.9563	0.9583	SenseBoard	Karl Maeder	Tie
VMG	19.8	20.24	16.18	16.9	23.23	23.29	474	472	1.073	1.003	SenseBoard	SenseBoard	SenseBoard
COG	18.55	18.8	8.5	10.2	26.3	26.2	474	472	3.282	2.816	SenseBoard	SenseBoard	SenseBoard
TWA_Abs	137.6	137.8	129.1	130.8	145.9	145.1	474	472	2.811	2.725			
Heel_Lwd	50.09	52.24	35.5	34.5	66.3	68.1	474	472	5.961	5.18	SenseBoard	SenseBoard	SenseBoard
Side_lines	13.92	107.3	6.6	69.5	25.4	141.7	474	472	2.91	10.89	SenseBoard	Karl Maeder	Tie
Line_C	96.85	4.909	68.4	0	130.2	10.7	474	469	13.06	2.099	Karl Maeder	SenseBoard	Tie
Total_lines	110.3	111.9	82.2	71.5	151.4	152.4	474	472	14.04	11.4	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard	
Distance [m]	652.802042	661.215301	
Straight Line [m]	651.731524	660.398203	
Distance as Percentage of Straight Line [%]	100.164258	100.123728	
Gain of Karl Maeder with respect to SenseBoard			
	Forward	Lateral	VMG
Initial Deficit	-0.219055	-21.706818	-14.483607
Final Deficit	8.454806	-24.110791	-22.507751
Total Gain	8.673860	-2.403973	-8.024144
Gain per Minute	11.004644	-3.049953	-10.180340

Interval 2: Downwind from 2025-06-09 12:48:34 to 2025-06-09 12:49:22: Karl Maeder vs SenseBoard - Parameters over time



Processing: ..\Data_Sailnjord\Straight_lines\09_06\09_06_Run7

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{'SOG_variation_boat1': 0.5271773185574329,
 'SOG_variation_boat2': 0.481809816843384,
 'avg_TWA_boat1': 49.11989275362319,
 'avg_TWA_boat2': 47.80012354651163,
 'avg_SOG_boat1': 22.484492753623186,
 'avg_SOG_boat2': 22.590289855072463,
 'boat1_name': 'Karl Maeder',
 'boat2_name': 'SenseBoard',
 'duration': 68.87999987602234,
 'end_time': 1749473713.441,
 'stability_score': 0.9725206272449781,
 'start_time': 1749473644.561}
```

```
=====
Interval 1: Upwind from 2025-06-09 12:54:04 to 2025-06-09 12:55:13: Karl Maeder vs SenseBoard
=====
```

MainReport

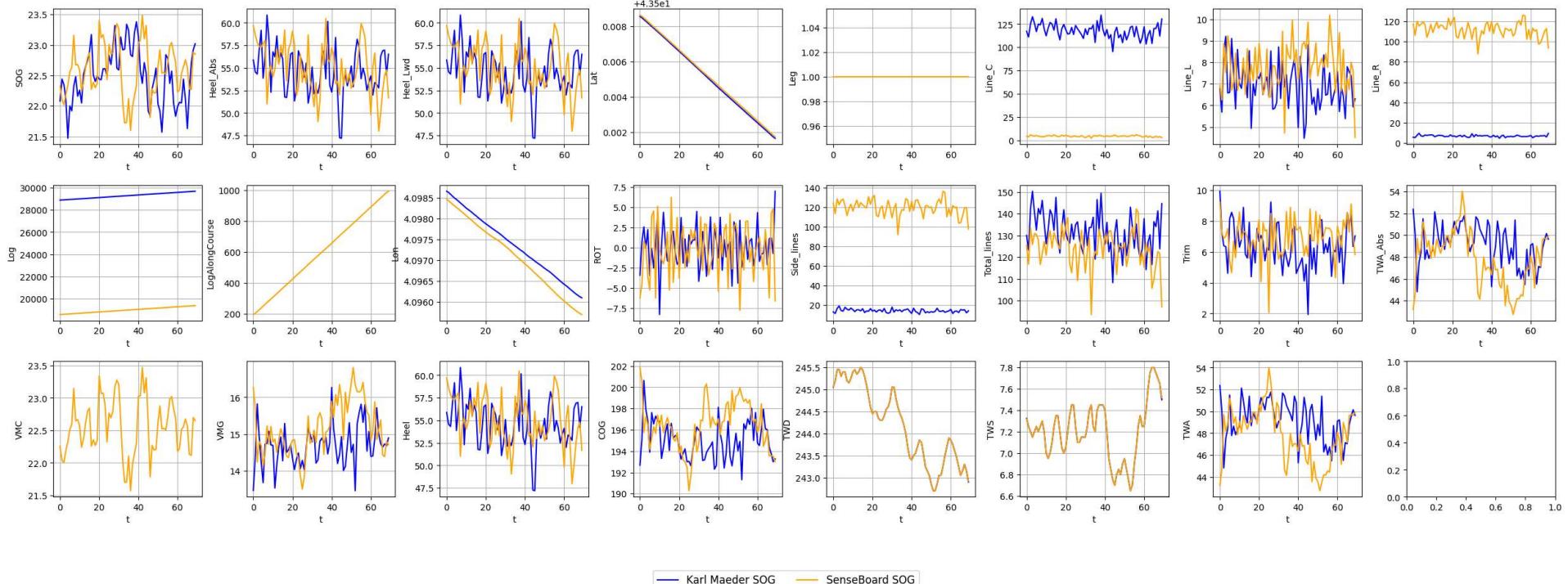
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.202	7.202	6.604	6.604	7.8	7.8	690	688	0.2762	0.2764			
TWD	244.2	244.2	242.7	242.7	245.6	245.6	690	688	0.8767	0.8758			
SOG	22.48	22.59	20.1	20.3	24.8	26	690	688	0.5272	0.5012	SenseBoard	SenseBoard	SenseBoard
VMG	14.7	15.15	11.93	12.15	17.65	18.66	690	688	0.8061	0.9189	SenseBoard	Karl Maeder	Tie
COG	195.1	196.4	187.2	186.2	207.8	205.9	690	688	2.609	2.853	Karl Maeder	Karl Maeder	
TWA_Abs	49.12	47.8	37.67	36.8	56.67	58.1	690	688	2.63	3.111			
Heel_Lwd	54.62	55.01	32.2	38.6	71.4	69.2	690	688	5.038	5.25	SenseBoard	Karl Maeder	Tie
Side_lines	13.92	119.5	3.6	77.7	25.6	149.7	690	688	3.511	11.54	SenseBoard	Karl Maeder	Tie
Line_C	117.5	4.57	70	0.6	158.3	9	690	686	12.86	1.536	Karl Maeder	SenseBoard	Tie
Total_lines	131.6	124.1	75.7	78.8	180.9	156.8	690	688	14.39	12.25	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	798.269700	799.432173
Straight Line [m]	797.425401	798.436988
Distance as Percentage of Straight Line [%]	100.105878	100.124642
Gain of Karl Maeder with respect to SenseBoard		
Forward	Initial Deficit	Final Deficit
	-3.684170	17.054576
	10.483506	-2.895893
Lateral	Total Gain	Gain per Minute
	0.788277	0.686653
	17.137638	14.928256
VMG		11.736419

Interval 1: Upwind from 2025-06-09 12:54:04 to 2025-06-09 12:55:13: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.3075979509419556,
'SOG_variation_boat2': 0.4363757068660953,
'avg TWA boat1': -142.399125,
'avg TWA boat2': -141.92563450292397,
'avg_SOG_boat1': 27.270639534883717,
'avg_SOG_boat2': 27.467441860465115,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 34.2930022125244,
'end_time': 1749473827.653,
'stability_score': 0.9731867204076343,
'start_time': 1749473793.36}
=====
```

===== Interval 2: Downwind from 2025-06-09 12:56:33 to 2025-06-09 12:57:07: Karl Maeder vs SenseBoard =====

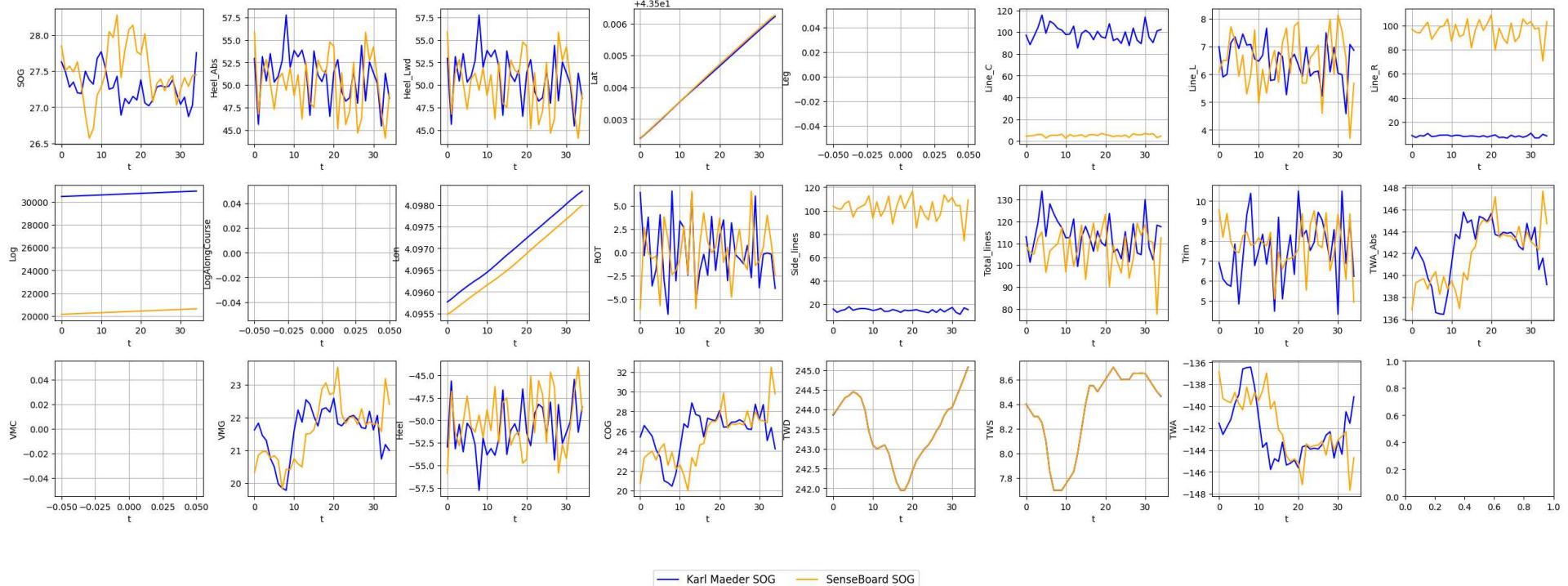
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.339	8.338	7.7	7.7	8.7	8.7	344	342	0.3361	0.337			
TWD	243.5	243.5	241.9	241.9	245.1	245.1	344	342	0.836	0.8335			
SOG	27.27	27.48	25.2	26.4	29.1	29.3	344	342	0.3076	0.4449	SenseBoard	Karl Maeder	Tie
VMG	21.57	21.6	18.35	19.13	23.89	24.31	344	342	0.9175	1.06	SenseBoard	Karl Maeder	Tie
COG	25.87	25.39	17	17.2	33.4	35.2	344	342	2.759	3.25	Karl Maeder	Karl Maeder	
TWA_Abs	142.4	141.9	132.8	134.2	150.3	150.5	344	342	3.134	3.315			
Heel_Lwd	50.98	50.03	34.7	33.4	66.6	65.8	344	342	5.596	5.704	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	14.8	102.1	7	57.5	22.4	129.3	344	342	2.544	11.59	SenseBoard	Karl Maeder	Tie
Line_C	98.66	5.231	72.5	0	132.2	10.4	344	342	11.84	2.004	Karl Maeder	SenseBoard	Tie
Total_lines	113.5	107.3	85.1	62.7	150.4	134.5	344	342	13.35	12.55	Karl Maeder	SenseBoard	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	481.306534	481.661093
Straight Line [m]	480.752082	480.885773
Distance as Percentage of Straight Line [%]	100.115330	100.161228
Gain of Karl Maeder with respect to SenseBoard		
Forward	Lateral	VMG
Initial Deficit	-7.938432	20.909369
Final Deficit	-7.818044	25.661175
Total Gain	0.120388	4.751807
Gain per Minute	0.210635	8.313895
		4.905815

Interval 2: Downwind from 2025-06-09 12:56:33 to 2025-06-09 12:57:07: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Processing: ./Data_Sailnjord/Straight_lines\09_06\09_06_Run8

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{
'SOG_variation_boat1': 0.8467710683012128,
'SOG_variation_boat2': 0.5286703541190796,
'avg TWA boat1': 56.368471728594514,
'avg TWA boat2': 56.132697411003235,
'avg_SOG_boat1': 22.98788368336026,
'avg_SOG_boat2': 23.934894991922455,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 61.789000034332275,
'end_time': 1749474388.641,
'stability_score': 0.9622994570570873,
'start_time': 1749474326.852}
```

```
=====
Interval 1: Upwind from 2025-06-09 13:05:26 to 2025-06-09 13:06:28: Karl Maeder vs SenseBoard
=====
```

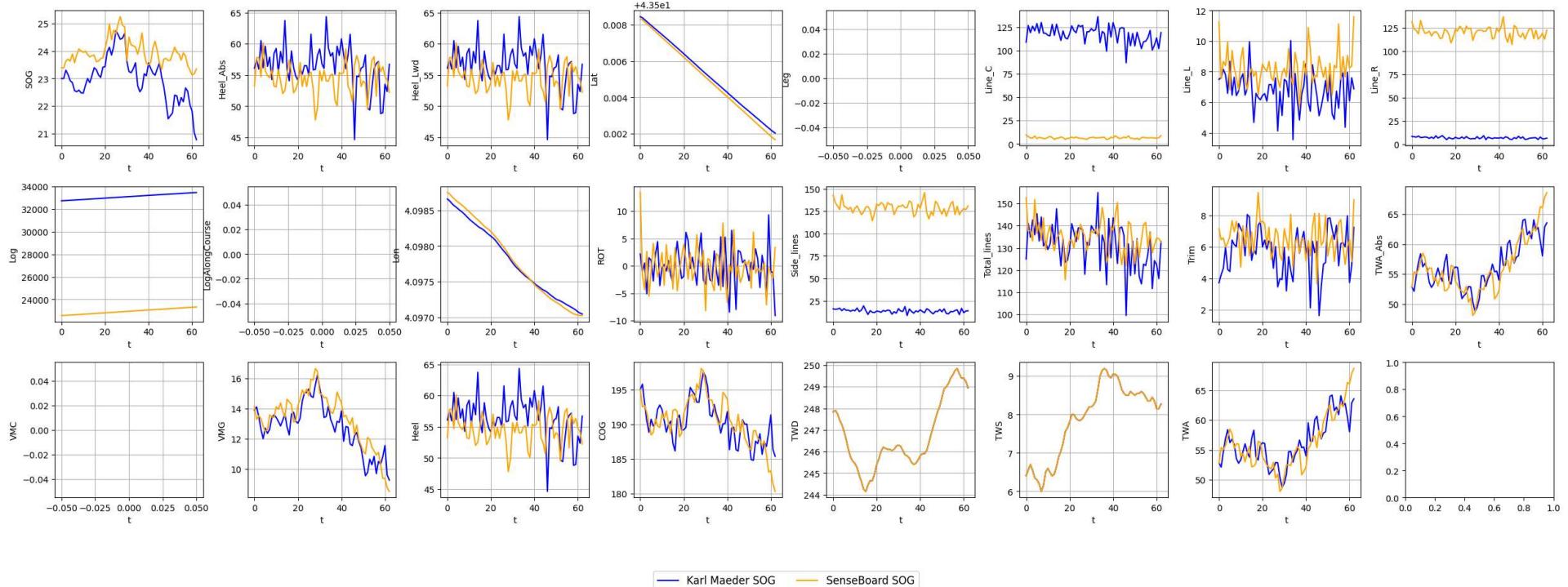
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.903	7.902	5.907	5.908	9.2	9.2	619	618	0.939	0.9396			
TWD	246.7	246.7	244	244	249.9	249.9	619	618	1.587	1.586			
SOG	22.99	23.95	20.7	22.5	27.6	26.7	619	618	0.8468	0.5475	SenseBoard	SenseBoard	SenseBoard
VMG	12.73	13.32	8.322	7.812	18.23	17.3	619	618	1.738	1.855	SenseBoard	Karl Maeder	Tie
COG	190.3	190.5	181.5	178.5	202.4	200.3	619	618	3.488	3.786		Karl Maeder	Karl Maeder
TWA_Abs	56.37	56.13	43.81	46	67.45	70.5	619	618	4.238	4.81			
Heel_Lwd	56.42	54.5	34.7	39.8	77.7	68.2	619	618	5.682	4.791	Karl Maeder	SenseBoard	Tie
Side_lines	13.57	128.6	4.9	90.2	26.1	159	619	618	3.647	10.2	SenseBoard	Karl Maeder	Tie
Line_C	117.5	6.567	69.6	2.6	152.9	11.5	619	608	14.36	1.78	Karl Maeder	SenseBoard	Tie
Total_lines	131.1	134.8	82	93.8	171.6	161.9	619	618	15.35	10.61	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	731.126994	760.515637
Straight Line [m]	729.796132	758.852487
Distance as Percentage of Straight Line [%]	100.182361	100.219166
Gain of Karl Maeder with respect to SenseBoard		
Forward	10.982798	-9.474040
Lateral	-1.805510	
VMG		
Initial Deficit	40.080691	-5.699953
Final Deficit	17.452586	
Total Gain	29.097893	3.774087
Gain per Minute	19.258096	28.255410
	3.664815	18.700509

Interval 1: Upwind from 2025-06-09 13:05:26 to 2025-06-09 13:06:28: Karl Maeder vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
  'SOG_variation_boat1': 0.7666824539305778,
  'SOG_variation_boat2': 0.6466930633281409,
  'avg TWA boat1': -142.5215644820296,
  'avg TWA boat2': -142.49367940552017,
  'avg_SOG_boat1': 26.936997885835094,
  'avg_SOG_boat2': 28.12811839323467,
  'boat1_name': 'Karl Maeder',
  'boat2_name': 'SenseBoard',
  'duration': 47.19099998474121,
  'end_time': 1749474541.045,
  'stability_score': 0.9627796173107166,
  'start_time': 1749474493.854
}
```

```
=====
Interval 2: Downwind from 2025-06-09 13:08:13 to 2025-06-09 13:09:01: Karl Maeder vs SenseBoard
=====
```

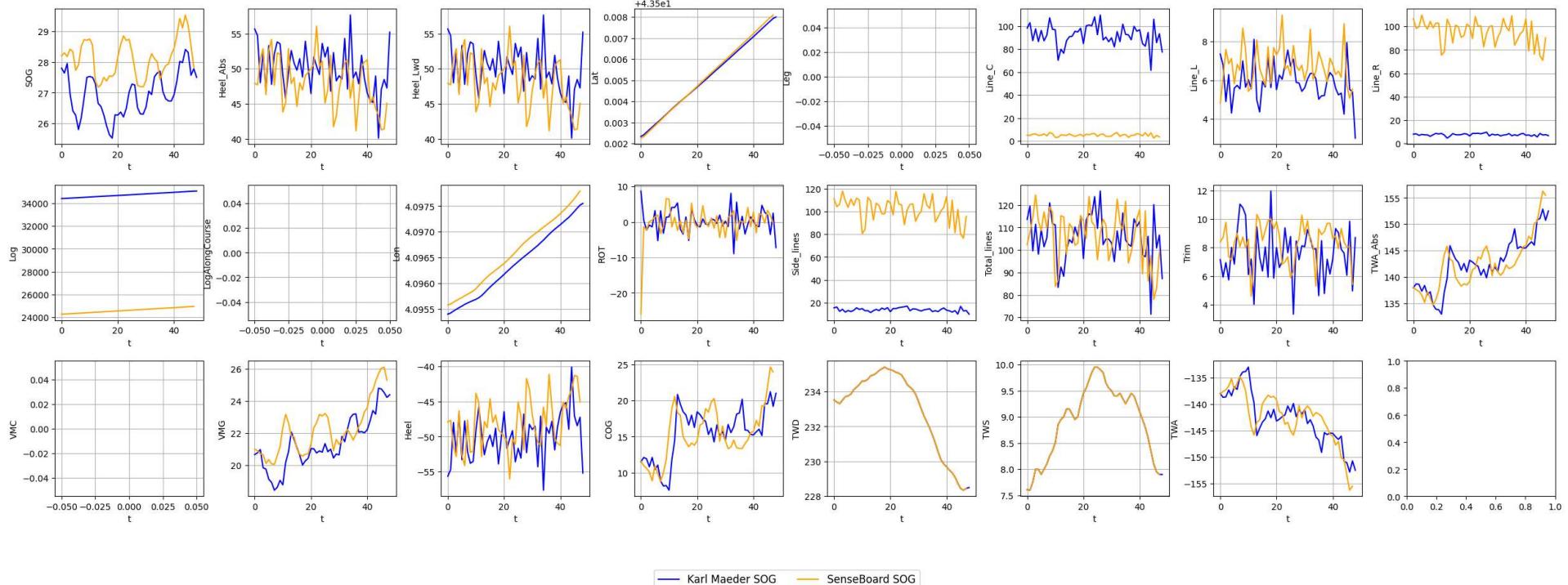
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.944	8.949	7.6	7.6	9.996	9.995	473	471	0.6739	0.6708			
TWD	232.9	233	228.3	228.3	235.4	235.4	473	471	2.284	2.279			
SOG	26.94	28.13	24.7	26.9	28.9	29.7	473	471	0.7667	0.6494	SenseBoard	SenseBoard	SenseBoard
VMG	21.31	22.23	17.13	18.77	25.46	27.28	473	471	1.679	1.702	SenseBoard	Karl Maeder	Tie
COG	15.47	15.45	5.6	5.5	25.6	26.8	473	471	3.838	4.092		Karl Maeder	Karl Maeder
TWA_Abs	142.5	142.5	131.3	131.4	155.5	158.3	473	471	4.934	5.244			
Heel_Lwd	49.81	48.06	34.7	33.4	66.2	63	473	471	5.809	5.803	Karl Maeder	SenseBoard	Tie
Side_lines	13.66	101.7	4.7	60.4	23.9	133.6	473	471	2.945	13.64	SenseBoard	Karl Maeder	Tie
Line_C	91.96	5.246	56.2	0	123.8	10.2	473	469	12.42	1.913	Karl Maeder	SenseBoard	Tie
Total_lines	105.8	106.6	64	62.8	142.7	138.7	473	471	13.57	14.13	SenseBoard	Karl Maeder	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	653.947489	679.904964
Straight Line [m]	652.472263	678.178992
Distance as Percentage of Straight Line [%]	100.226098	100.254501
Gain of Karl Maeder with respect to SenseBoard		
Forward	Initial Deficit	-4.091834 -16.263624 -6.648427
Lateral	Final Deficit	21.657897 -16.776957 -27.395478
VMG	Total Gain	25.749731 -0.513333 -20.747051
	Gain per Minute	32.738952 -0.652666 -26.378400

Interval 2: Downwind from 2025-06-09 13:08:13 to 2025-06-09 13:09:01: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Processing: ..\Data_Sailnjord\Straight_lines\09_06\09_06_Run9

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{
'SOG_variation_boat1': 0.5431600589134501,
'SOG_variation_boat2': 0.6840614956417097,
'avg TWA boat1': 41.60781976744186,
'avg TWA boat2': 41.441870451237264,
'avg_SOG_boat1': 22.307558139534883,
'avg_SOG_boat2': 22.687063953488373,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 68.69199991226196,
'end_time': 1749475007.056,
'stability_score': 0.9646825750124971,
'start_time': 1749474938.364}
```

```
=====
Interval 1: Upwind from 2025-06-09 13:15:38 to 2025-06-09 13:16:47: Karl Maeder vs SenseBoard
=====
```

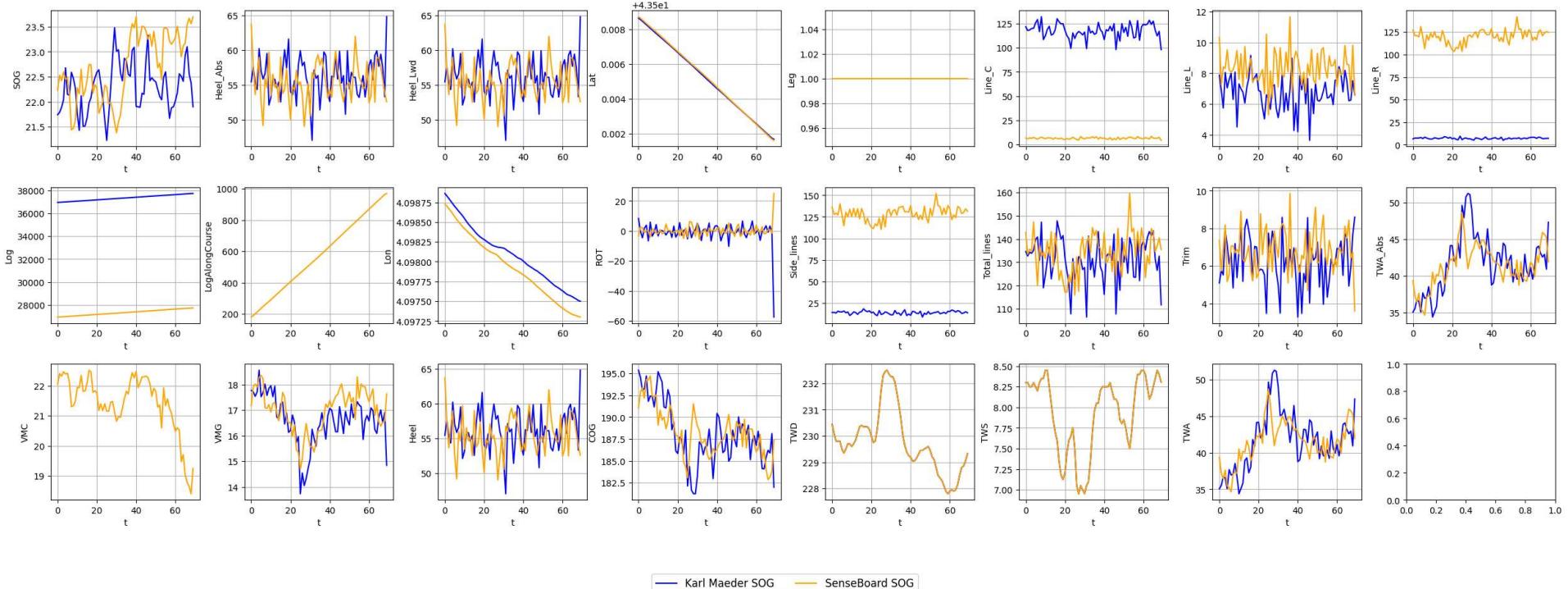
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.92	7.919	6.906	6.905	8.497	8.496	688	687	0.4616	0.4616			
TWD	229.8	229.8	227.8	227.8	232.5	232.5	688	687	1.214	1.214			
SOG	22.31	22.69	20.8	20.9	24.2	25	688	687	0.5432	0.6853	SenseBoard	Karl Maeder	Tie
VMG	16.62	16.98	12.43	13.15	19.91	19.87	688	687	1.09	0.9756	SenseBoard	SenseBoard	SenseBoard
COG	188.1	188.3	177.8	178.7	199	197.4	688	687	3.946	3.226		SenseBoard	SenseBoard
TWA_Abs	41.61	41.44	31.36	32.14	54.3	53.28	688	687	4.336	3.322			
Heel_Lwd	56.06	55.5	39	38.8	74.8	71.2	688	687	5.117	5.093	Karl Maeder	SenseBoard	Tie
Side_lines	13.76	128.4	5	70.7	26.1	159.1	688	687	3.601	11.44	SenseBoard	Karl Maeder	Tie
Line_C	118	6.344	82.6	1.8	155.2	11.5	688	687	12.5	1.706	Karl Maeder	SenseBoard	Tie
Total_lines	131.5	134.3	88.6	76.9	170.9	167.7	688	687	14.35	11.82	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	787.241036	802.900747
Straight Line [m]	785.367556	801.642668
Distance as Percentage of Straight Line [%]	100.238548	100.156938
Gain of Karl Maeder with respect to SenseBoard		
Forward	14.238665	2.235740
Lateral	12.419923	12.130917
VMG	3.102421	13.888283
Initial Deficit	-6.880790	16.301373
Final Deficit	9.420582	2.559624
Total Gain	16.990704	14.238665
Gain per Minute		

Interval 1: Upwind from 2025-06-09 13:15:38 to 2025-06-09 13:16:47: Karl Maeder vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
  'SOG_variation_boat1': 1.0217059599533802,
  'SOG_variation_boat2': 0.9318197050401614,
  'avg TWA boat1': -141.57092949907235,
  'avg TWA boat2': -141.8663840445269,
  'avg_SOG_boat1': 26.241558441558443,
  'avg_SOG_boat2': 26.94601113172542,
  'boat1_name': 'Karl Maeder',
  'boat2_name': 'SenseBoard',
  'duration': 53.80299997329712,
  'end_time': 1749475174.256,
  'stability_score': 0.9458172931147468,
  'start_time': 1749475120.453
}
```

```
=====
Interval 2: Downwind from 2025-06-09 13:18:40 to 2025-06-09 13:19:34: Karl Maeder vs SenseBoard
=====
```

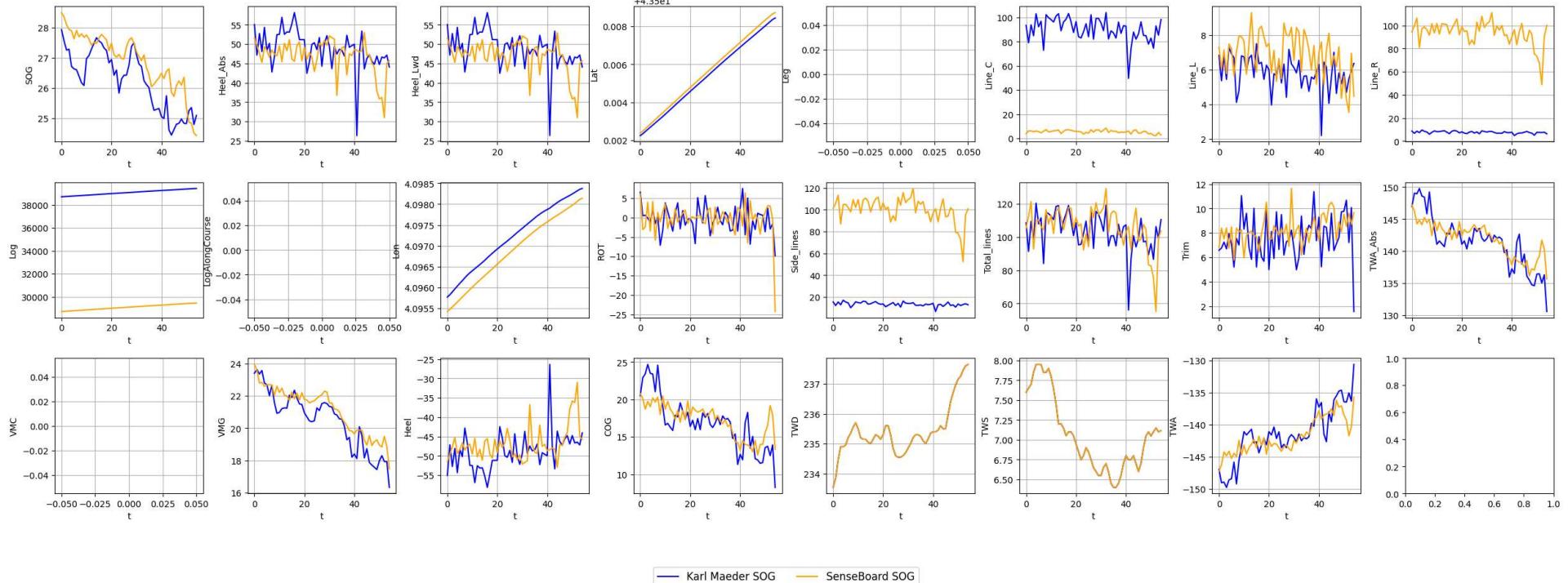
MainReport

	Run Statistics												
	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.045	7.045	6.4	6.4	7.996	7.996	539	539	0.466	0.4661			
TWD	235.4	235.4	233.5	233.5	237.7	237.7	539	539	0.7963	0.7963			
SOG	26.24	26.94	23.5	23.9	29.7	28.6	539	539	1.022	0.9265	SenseBoard	SenseBoard	SenseBoard
VMG	20.53	21.18	15.17	17.01	24.09	24.34	539	539	1.838	1.477	SenseBoard	SenseBoard	SenseBoard
COG	16.96	17.26	5.6	8.6	27.7	23.3	539	539	3.935	2.801	SenseBoard	SenseBoard	SenseBoard
TWA_Abs	141.6	141.9	129.3	132.8	152.4	149.1	539	539	4.406	3.139			
Heel_Lwd	48.89	46.85	18.9	21.9	66.7	63.3	539	539	7.083	6.565	Karl Maeder	SenseBoard	Tie
Side_lines	13.47	100.3	2.4	43	20.8	129.6	539	539	2.767	14	SenseBoard	Karl Maeder	Tie
Line_C	90.08	5.556	36.9	0	120.5	11.3	539	538	12.47	1.85	Karl Maeder	SenseBoard	Tie
Total_lines	103.4	106	42.2	43	138.6	138.8	539	539	14.12	15.04	SenseBoard	Karl Maeder	Tie

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	725.368854	743.841623
Straight Line [m]	723.667963	742.950370
Distance as Percentage of Straight Line [%]	100.235037	100.119961
Gain of Karl Maeder with respect to SenseBoard		
Forward	Lateral	VMG
Initial Deficit	5.767867	31.035619
Final Deficit	25.063841	27.297744
Total Gain	19.295974	-3.737875
Gain per Minute	21.518474	-4.168401
		-19.447909

Interval 2: Downwind from 2025-06-09 13:18:40 to 2025-06-09 13:19:34: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Processing: ./Data_Sailnjord/Straight_lines\10_06\10_06_Run1

Processing only reduced intervals for Gian Stragiotti vs SenseBoard

Interval 1 summary:

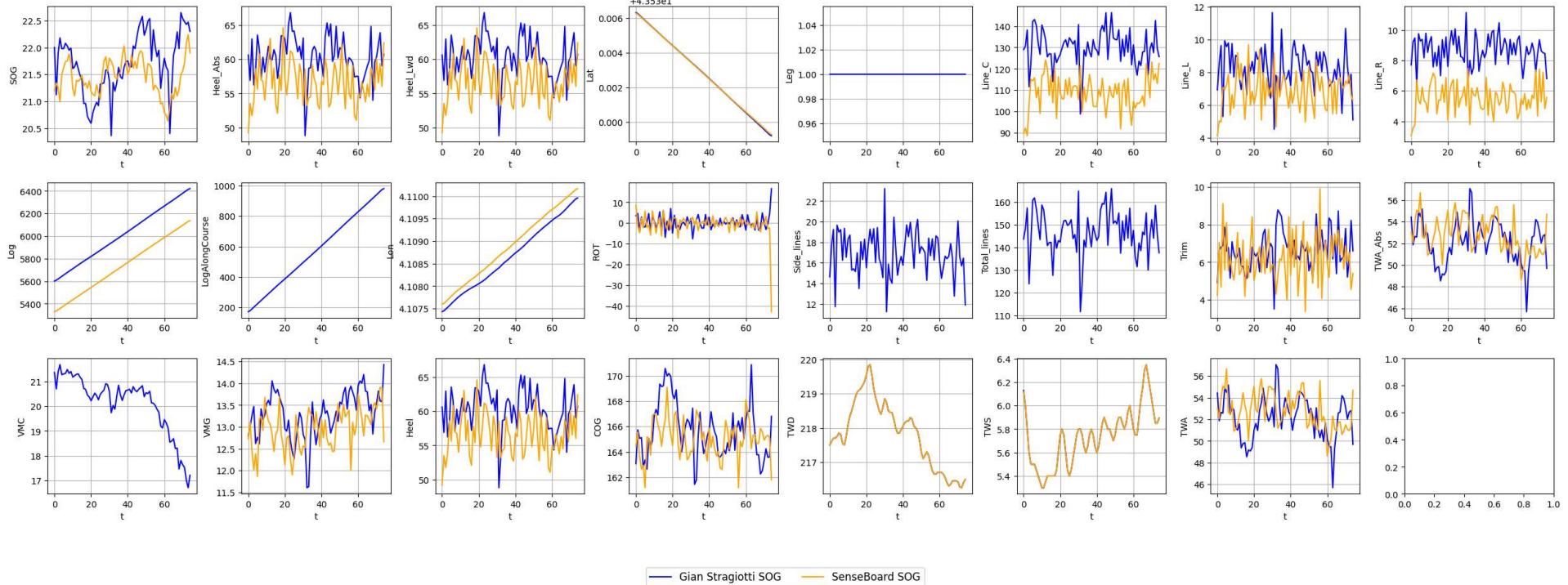
```
{
  'SOG_variation_boat1': 0.653690579620312,
  'SOG_variation_boat2': 0.34356141868005996,
  'avg_TWA_boat1': 52.140115803814716,
  'avg_TWA_boat2': 52.74440927694407,
  'avg_SOG_boat1': 21.688283378746593,
  'avg_SOG_boat2': 21.445367847411443,
  'boat1_name': 'Gian Stragiotti',
  'boat2_name': 'SenseBoard',
  'duration': 73.30599999427795,
  'end_time': 1749558582.059,
  'stability_score': 0.9696679129386098,
  'start_time': 1749558508.753
}
```

```
=====
Interval 1: Upwind from 2025-06-10 12:28:28 to 2025-06-10 12:29:42: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	5.728	5.727	5.3	5.3	6.394	6.395	734	733	0.24	0.2397			
TWD	217.8	217.8	216.2	216.2	219.9	219.9	734	733	0.9802	0.9808			
SOG	21.69	21.45	18.5	20.6	23.5	22.3	734	733	0.6537	0.3435	Gian Stragiotti	SenseBoard	Tie
VMG	13.29	12.97	10.71	10.79	15.44	15.03	734	733	0.6944	0.7321	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	165.7	165.1	158.1	157.8	174.9	171.5	734	733	2.66	2.346	SenseBoard	SenseBoard	
TWA_Abs	52.14	52.74	41.63	45.4	59.65	60.02	734	733	2.492	2.483			
Heel_Lwd	60.31	56.55	41.6	39.2	73.8	73.9	734	733	5.519	5.587	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	17.01	nan	5.5	nan	28	nan	734	nan	3.627	nan			
Line_C	129.9	108.9	63.9	78.7	166.5	139.3	734	728	12.12	10.63	Gian Stragiotti	SenseBoard	Tie
Total_lines	146.9	nan	70.3	nan	192.2	nan	734	nan	14.17	nan			
Distance Summary													
			Gian Stragiotti	SenseBoard									
	Distance [m]		820.362041	807.584715									
	Straight Line [m]		819.512621	806.909014									
	Distance as Percentage of Straight Line [%]		100.103649	100.083740									
Gain of Gian Stragiotti with respect to SenseBoard													
	Forward	Lateral	VMG										
Initial Deficit	8.295625	-11.901370	-4.305132										
Final Deficit	-4.381043	-18.414403	-17.227290										
Total Gain	-12.676668	-6.513033	-12.922159										
Gain per Minute	-10.375687	-5.330832	-10.576617										

Interval 1: Upwind from 2025-06-10 12:28:28 to 2025-06-10 12:29:42: Gian Stragiotti vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
'SOG_variation_boat1': 0.3462723462527339,
'SOG_variation_boat2': 0.42120353204467675,
'avg TWA boat1': -124.37445901639343,
'avg TWA boat2': -125.1762262773723,
'avg_SOG_boat1': 26.093624772313298,
'avg_SOG_boat2': 25.469581056466303,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 54.78699994087219,
'end_time': 1749558732.858,
'stability_score': 0.9730459562174268,
'start_time': 1749558678.071}
```

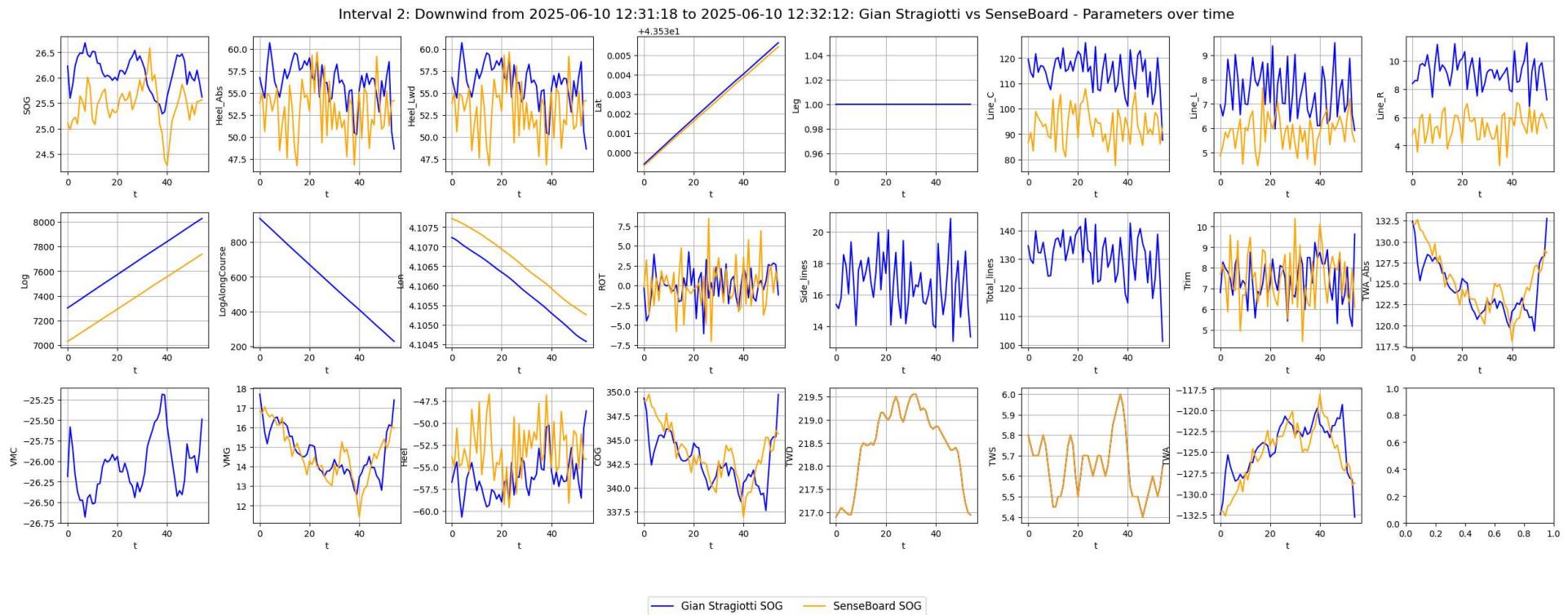
```
=====
Interval 2: Downwind from 2025-06-10 12:31:18 to 2025-06-10 12:32:12: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	5.65	5.65	5.4	5.4	6	6	549	548	0.1418	0.1418			
TWD	218.4	218.5	216.9	216.9	219.6	219.6	549	548	0.8411	0.8393			
SOG	26.09	25.47	25.2	24.2	26.8	26.7	549	548	0.3463	0.4216	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	14.71	14.64	11.72	10.19	18.43	18.24	549	548	1.254	1.412	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	342.8	343.6	336.3	333.6	351.4	354.2	549	548	2.747	3.314		Gian Stragiotti	Gian Stragiotti
TWA_Abs	124.4	125.2	117.6	114.8	134.5	137.1	549	548	3.276	3.884			
Heel_Lwd	56.15	53.01	42.5	37.3	66.5	72.7	549	548	4.134	5.839	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	16.67	nan	8.3	nan	24.6	nan	549	nan	3.195	nan			
Line_C	114.3	93.55	80.8	70.5	140.1	119.6	549	547	9.461	9.527	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	130.9	nan	92.9	nan	157.9	nan	549	nan	10.88	nan			

Distance Summary

	Gian Stragiotti	SenseBoard	
Distance [m]	735.526488	716.692440	
Straight Line [m]	734.710887	715.495093	
Distance as Percentage of Straight Line [%]	100.111010	100.167345	
Gain of Gian Stragiotti with respect to SenseBoard			
Forward	Forward	Lateral	
Initial Deficit	-18.632957	-35.287888	-18.605543
Final Deficit	-37.947182	-45.790725	-16.369610
Total Gain	-19.314225	-10.502838	2.235933
Gain per Minute	-21.151980	-11.502186	2.448683



Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run10
Error: No or insufficient intervals for run: 10_06_Run10

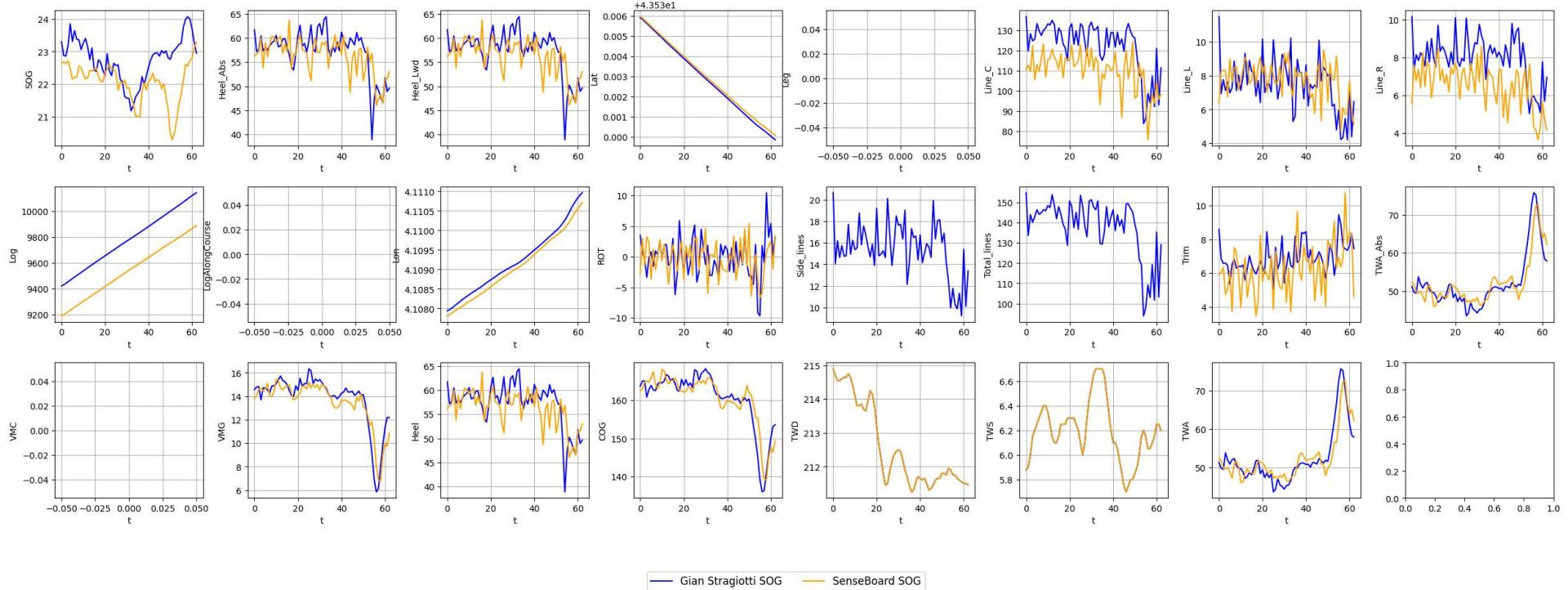
Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run2
Processing only reduced intervals for Gian Stragiotti vs SenseBoard
Interval 1 summary:
{'SOG_variation_boat1': 0.7741700772777428,
'SOG_variation_boat2': 0.6155188589560149,
'avg TWA boat1': 52.30156270096463,
'avg TWA boat2': 52.145245980707394,
'avg_SOG_boat1': 22.768167202572346,
'avg_SOG_boat2': 22.051125401929262,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 62.1010000705719,
'end_time': 1749559054.755,
'stability_score': 0.9661567984326258,
'start_time': 1749558992.654}

=====
Interval 1: Upwind from 2025-06-10 12:36:32 to 2025-06-10 12:37:34: Gian Stragiotti vs SenseBoard
=====

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	6.196	6.196	5.7	5.7	6.7	6.7	622	622	0.245	0.245			
TWD	212.6	212.6	211.2	211.2	214.9	214.9	622	622	1.212	1.212			
SOG	22.77	22.05	19.7	20.2	25.5	23.4	622	622	0.7742	0.6147	Gian Stragiotti	SenseBoard	Tie
VMG	13.77	13.44	4.652	5.367	17.1	16.4	622	622	2.341	2.038	Gian Stragiotti	SenseBoard	Tie
COG	160.3	160.4	132.8	135.3	171.9	171.6	622	622	7.776	6.902		SenseBoard	SenseBoard
TWA_Abs	52.3	52.15	39.82	42.39	78.83	76.33	622	622	7.395	6.401			
Heel_Lwd	57.19	56.23	32.5	35.3	73.3	73.2	622	622	6.381	5.921	Gian Stragiotti	SenseBoard	Tie
Side_lines	15.37	nan	4.7	nan	25.4	nan	622	nan	3.806	nan			
Line_C	122.3	109.8	76	60.5	147.9	144.4	622	614	14.3	12.17	Gian Stragiotti	SenseBoard	Tie
Total_lines	137.7	nan	86.2	nan	165.4	nan	622	nan	16.22	nan			
Distance Summary													
			Gian Stragiotti	SenseBoard									
	Distance [m]		727.587690	704.953620									
	Straight Line [m]		720.666128	699.717916									
	Distance as Percentage of Straight Line [%]		100.960439	100.748259									
Gain of Gian Stragiotti with respect to SenseBoard													
	Forward	Lateral	VMG										
Initial Deficit	-9.386246	7.919598	0.517705										
Final Deficit	-30.355216	10.508961	-10.269246										
Total Gain	-20.968970	2.589363	-10.786951										
Gain per Minute	-20.259549	2.501760	-10.422007										

Interval 1: Upwind from 2025-06-10 12:36:32 to 2025-06-10 12:37:34: Gian Stragiotti vs SenseBoard - Parameters over time



Interval 2 summary:

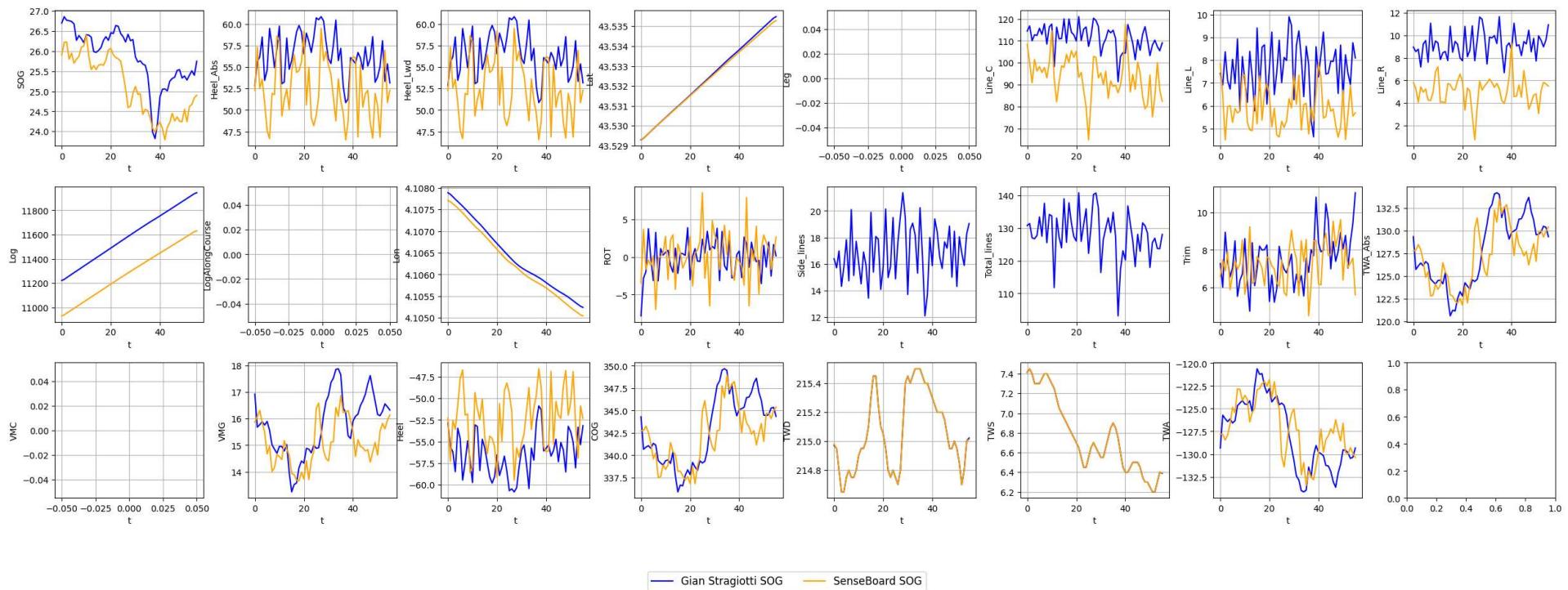
```
{
'SOG_variation_boat1': 0.7194692927018169,
'SOG_variation_boat2': 0.7702815382301164,
'avg TWA boat1': -127.73065321100918,
'avg TWA boat2': -127.0197661141805,
'avg_SOG_boat1': 25.846055045871555,
'avg_SOG_boat2': 25.106972477064218,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 54.39100003242493,
'end_time': 174955922.144,
'stability_score': 0.9627767974222723,
'start_time': 1749559167.753}
```

```
=====
Interval 2: Downwind from 2025-06-10 12:39:27 to 2025-06-10 12:40:22: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	6.754	6.754	6.2	6.2	7.496	7.495	545	543	0.3697	0.3689			
TWD	215.1	215.1	214.6	214.6	215.5	215.5	545	543	0.2693	0.2697			
SOG	25.85	25.11	23.4	23.6	26.9	26.5	545	543	0.7195	0.7701	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	15.75	15.06	12.67	12.47	18.39	17.94	545	543	1.215	1.039	Gian Stragiotti	SenseBoard	Tie
COG	342.8	342.1	334.7	334.2	351.5	352.6	545	543	4.123	3.705		SenseBoard	SenseBoard
TWA_Abs	127.7	127	119.3	119.4	136	137.2	545	543	4.018	3.645			
Heel_Lwd	56.53	52.43	43	33.7	68.6	70.1	545	543	4.299	5.9	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	16.89	nan	6.7	nan	26.1	nan	545	nan	3.233	nan			
Line_C	111.3	93.58	87.3	59.7	141.3	128.1	545	541	9.186	11.3	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	128.3	nan	97.8	nan	163.2	nan	545	nan	10.82	nan			
Distance Summary													
			Gian Stragiotti	SenseBoard									
	Distance [m]	723.409288	699.392828										
	Straight Line [m]	721.542059	697.925511										
	Distance as Percentage of Straight Line [%]	100.258783	100.210240										
Gain of Gian Stragiotti with respect to SenseBoard													
	Forward	Lateral	VMG										
Initial Deficit	6.478441	13.092265	6.390153										
Final Deficit	-17.247769	21.673518	27.696281										
Total Gain	-23.726210	8.581253	21.306127										
Gain per Minute	-26.172944	9.466183	23.503293										

Interval 2: Downwind from 2025-06-10 12:39:27 to 2025-06-10 12:40:22: Gian Stragiotti vs SenseBoard - Parameters over time



Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run3

Processing only reduced intervals for Gian Stragiotti vs SenseBoard

Interval 1 summary:

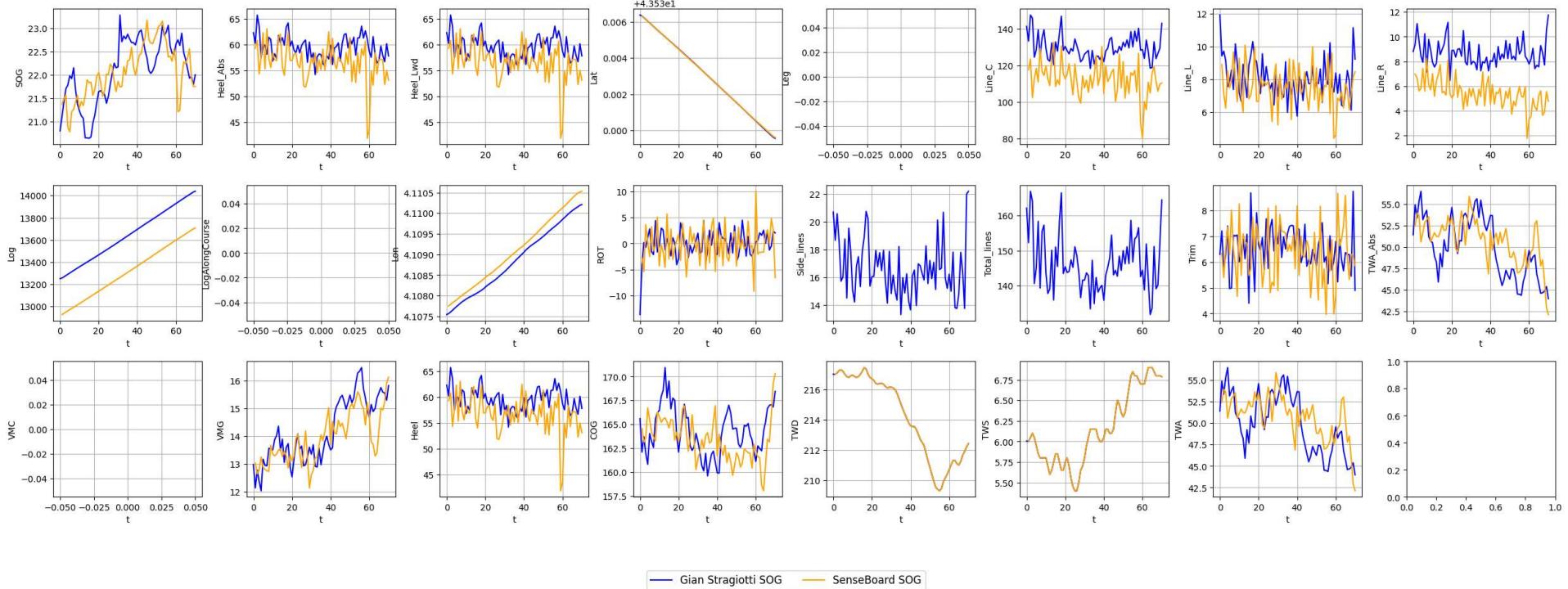
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{
  'SOG_variation_boat1': 0.7148200380354032,
  'SOG_variation_boat2': 0.5779364885443138,
  'avg_TWA_boat1': 49.995786435786435,
  'avg_TWA_boat2': 50.876849710982654,
  'avg_SOG_boat1': 22.099278499278498,
  'avg_SOG_boat2': 22.045021645021645,
  'boat1_name': 'Gian Stragiotti',
  'boat2_name': 'SenseBoard',
  'duration': 69.20099997520447,
  'end_time': 1749559513.154,
  'stability_score': 0.9637924299775269,
  'start_time': 1749559443.953
}
```

```
=====
Interval 1: Upwind from 2025-06-10 12:44:03 to 2025-06-10 12:45:13: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	6.147	6.147	5.4	5.4	6.9	6.9	693	692	0.4459	0.4462			
TWD	214.2	214.2	209.2	209.2	217.6	217.6	693	692	2.721	2.72			
SOG	22.1	22.05	20	20.3	25.1	23.3	693	692	0.7148	0.5752	Gian Stragiotti	SenseBoard	Tie
VMG	14.18	13.9	11	10.87	17.24	16.63	693	692	1.201	1.024	Gian Stragiotti	SenseBoard	Tie
COG	164.2	163.3	157.6	154	172.9	171.1	693	692	2.779	2.745		SenseBoard	SenseBoard
TWA_Abs	50	50.88	41.37	41.31	58.5	60.25	693	692	3.69	2.929			
Heel_Lwd	59.52	56.59	46.1	26.2	73.1	70.9	693	692	4.436	5.756	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	16.61	nan	7.1	nan	27.7	nan	693	nan	3.477	nan			
Line_C	129.6	112.5	91.6	50.8	158.6	145.6	693	691	9.413	12.65	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	146.2	nan	107	nan	177.7	nan	693	nan	11.11	nan			
Distance Summary													
			Gian Stragiotti	SenseBoard									
	Distance [m]		787.228994	783.638619									
	Straight Line [m]		786.299026	782.743025									
	Distance as Percentage of Straight Line [%]		100.118272	100.114417									
Gain of Gian Stragiotti with respect to SenseBoard													
			Forward	Lateral	VMG								
Initial Deficit	5.992906	-14.222250	-7.041849										
Final Deficit	2.302425	-26.279255	-18.649938										
Total Gain	-3.690481	-12.057005	-11.608088										
Gain per Minute	-3.199792	-10.453899	-10.064671										

Interval 1: Upwind from 2025-06-10 12:44:03 to 2025-06-10 12:45:13: Gian Stragiotti vs SenseBoard - Parameters over time



— Gian Stragiotti SOG — SenseBoard SOG

Interval 2 summary:

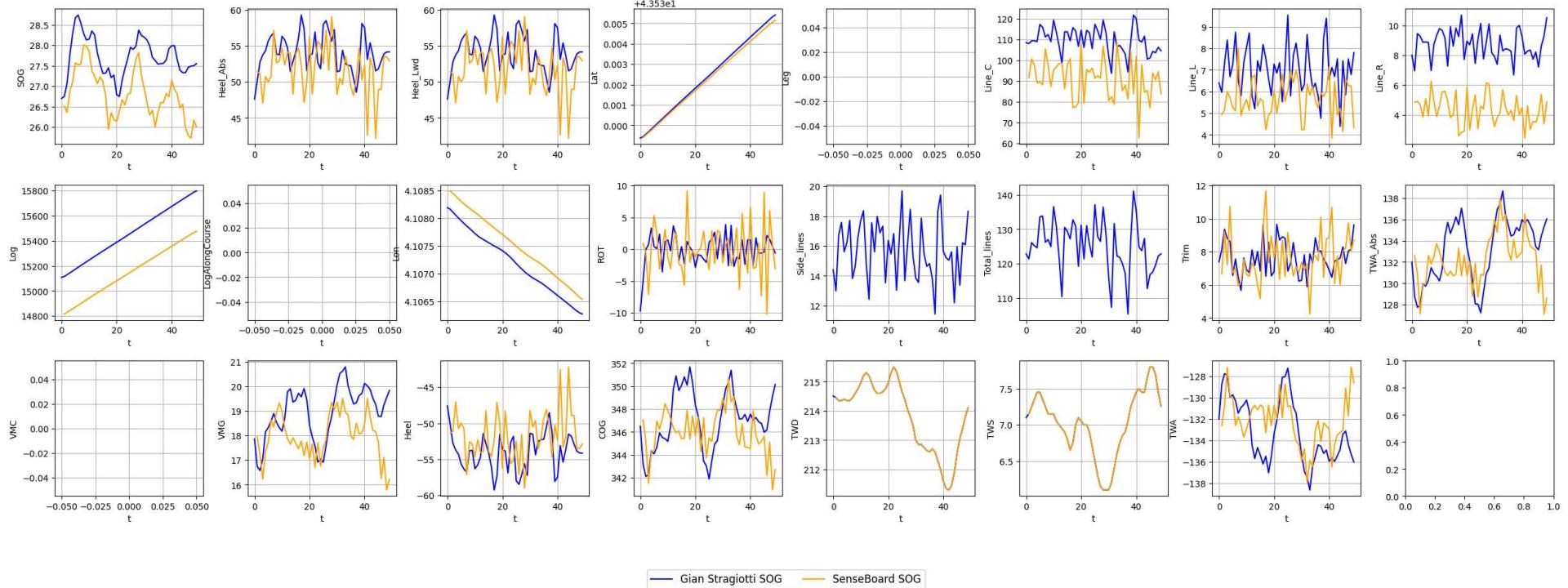
```
{
'SOG_variation_boat1': 0.48782414350891035,
'SOG_variation_boat2': 0.5967613024843319,
'avg TWA boat1': -133.17295463917526,
'avg TWA boat2': -132.24709917355372,
'avg_SOG_boat1': 27.7280412371134,
'avg_SOG_boat2': 26.803505154639176,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 48.401000022888184,
'end_time': 1749559676.354,
'stability_score': 0.970534801199097,
'start_time': 1749559627.953}
```

```
=====
Interval 2: Downwind from 2025-06-10 12:47:07 to 2025-06-10 12:47:56: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.011	7.01	6.1	6.1	7.8	7.8	485	484	0.4524	0.4529			
TWD	213.8	213.8	211.3	211.3	215.5	215.5	485	484	1.215	1.215			
SOG	27.73	26.8	26.6	25.1	28.8	28.1	485	484	0.4878	0.5972	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	18.94	18	16.05	14.43	21.34	20.83	485	484	1.123	1.066	Gian Stragiotti	SenseBoard	Tie
COG	347	346	340.5	337.2	353.4	352.4	485	484	2.751	2.588		SenseBoard	SenseBoard
TWA_Abs	133.2	132.2	125.7	123.7	140.7	141	485	484	3.162	2.869			
Heel_Lwd	54.12	51.72	40.6	30.1	66.3	69.8	485	484	4.061	6.174	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	15.73	nan	6.9	nan	24.9	nan	485	nan	3.243	nan			
Line_C	109.5	91.25	88.4	50.7	136.2	125.5	485	484	8.561	12.21	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	125.2	nan	99.1	nan	154.6	nan	485	nan	10.07	nan			
Distance Summary													
			Gian Stragiotti	SenseBoard									
	Distance [m]		690.970285	666.083542									
	Straight Line [m]		690.171508	665.408593									
	Distance as Percentage of Straight Line [%]		100.115736	100.101434									
Gain of Gian Stragiotti with respect to SenseBoard													
			Forward	Lateral	VMG								
Initial Deficit	-9.117328	-24.292027	-11.477867										
Final Deficit	-34.015310	-13.825463	13.190585										
Total Gain	-24.897982	10.466564	24.668452										
Gain per Minute	-30.864630	12.974811	30.580094										

Interval 2: Downwind from 2025-06-10 12:47:07 to 2025-06-10 12:47:56: Gian Stragiotti vs SenseBoard - Parameters over time



Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run4

Processing only reduced intervals for Gian Stragiotti vs SenseBoard

Interval 1 summary:

```
{
'SOG_variation_boat1': 0.3954585811078938,
'SOG_variation_boat2': 0.4432496653425174,
'avg_TWA_boat1': -135.37653558052435,
'avg_TWA_boat2': -135.27015759849908,
'avg_SOG_boat1': 26.68239700374532,
'avg_SOG_boat2': 25.471910112359552,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 53.319000005722046,
'end_time': 1749560208.072,
'stability_score': 0.9735561698878598,
'start_time': 1749560154.753}
```

```
=====
Interval 1: Upwind from 2025-06-10 12:55:54 to 2025-06-10 12:56:48: Gian Stragiotti vs SenseBoard
=====
```

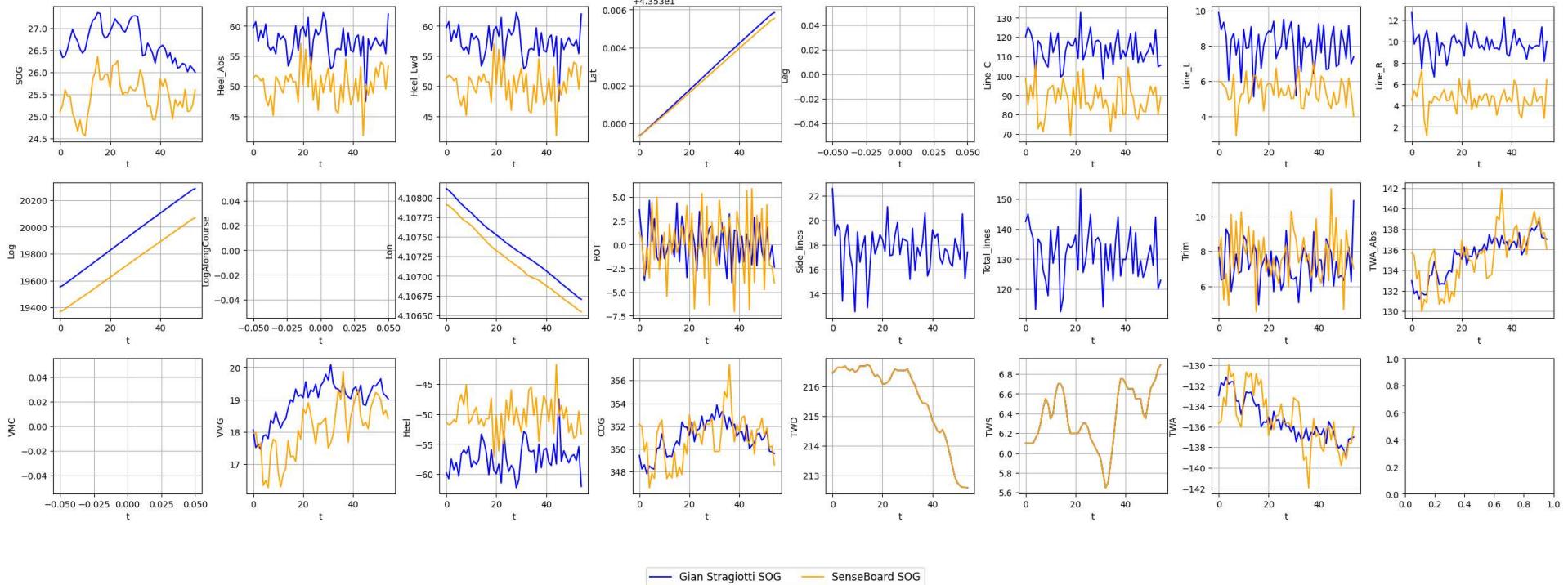
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	6.356	6.357	5.605	5.605	6.895	6.896	534	533	0.2899	0.2899			
TWD	215.6	215.6	212.6	212.6	216.8	216.8	534	533	1.29	1.291			
SOG	26.68	25.47	25.9	24.5	27.4	26.5	534	533	0.3955	0.4448	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	18.97	18.06	16.3	14.55	20.58	20.48	534	533	0.732	1.001	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	351	350.9	344.4	341.8	355.5	359.5	534	533	1.922	2.738		Gian Stragiotti	Gian Stragiotti
TWA_Abs	135.4	135.3	127.8	125.1	140.3	144.1	534	533	2.35	3.247			
Heel_Lwd	57.23	50.22	38.6	34.7	68.3	67.4	534	533	4.239	5.593	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	17.65	nan	9	nan	26.3	nan	534	nan	2.76	nan			
Line_C	114	87.73	88.8	55.8	145.2	118.6	534	532	10.51	11.43	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	131.5	nan	102	nan	168	nan	534	nan	12	nan			

Distance Summary

	Gian Stragiotti	SenseBoard
Distance [m]	731.997505	697.945743
Straight Line [m]	731.584904	697.149990
Distance as Percentage of Straight Line [%]	100.056398	100.114144
Gain of Gian Stragiotti with respect to SenseBoard		
Forward	2.356075	16.402933
Lateral	-32.145307	17.950630
VMG	35.488384	
Initial Deficit	-34.501382	1.547697
Final Deficit	25.643155	
Total Gain	-38.824489	1.741627
Gain per Minute	28.856305	

Interval 1: Upwind from 2025-06-10 12:55:54 to 2025-06-10 12:56:48: Gian Stragiotti vs SenseBoard - Parameters over time



— Gian Stragiotti SOG — SenseBoard SOG

Interval 2 summary:

```
{
  'SOG_variation_boat1': 0.253889716586543,
  'SOG_variation_boat2': 0.2897555698691407,
  'avg TWA boat1': 55.89349328214971,
  'avg TWA boat2': 54.93533461538461,
  'avg_SOG_boat1': 23.940882917466407,
  'avg_SOG_boat2': 23.243186180422267,
  'boat1_name': 'Gian Stragiotti',
  'boat2_name': 'SenseBoard',
  'duration': 51.990999937057495,
  'end_time': 1749560020.046,
  'stability_score': 0.973918519280143,
  'start_time': 1749559968.055
}
```

```
=====
Interval 2: Downwind from 2025-06-10 12:52:48 to 2025-06-10 12:53:40: Gian Stragiotti vs SenseBoard
=====
```

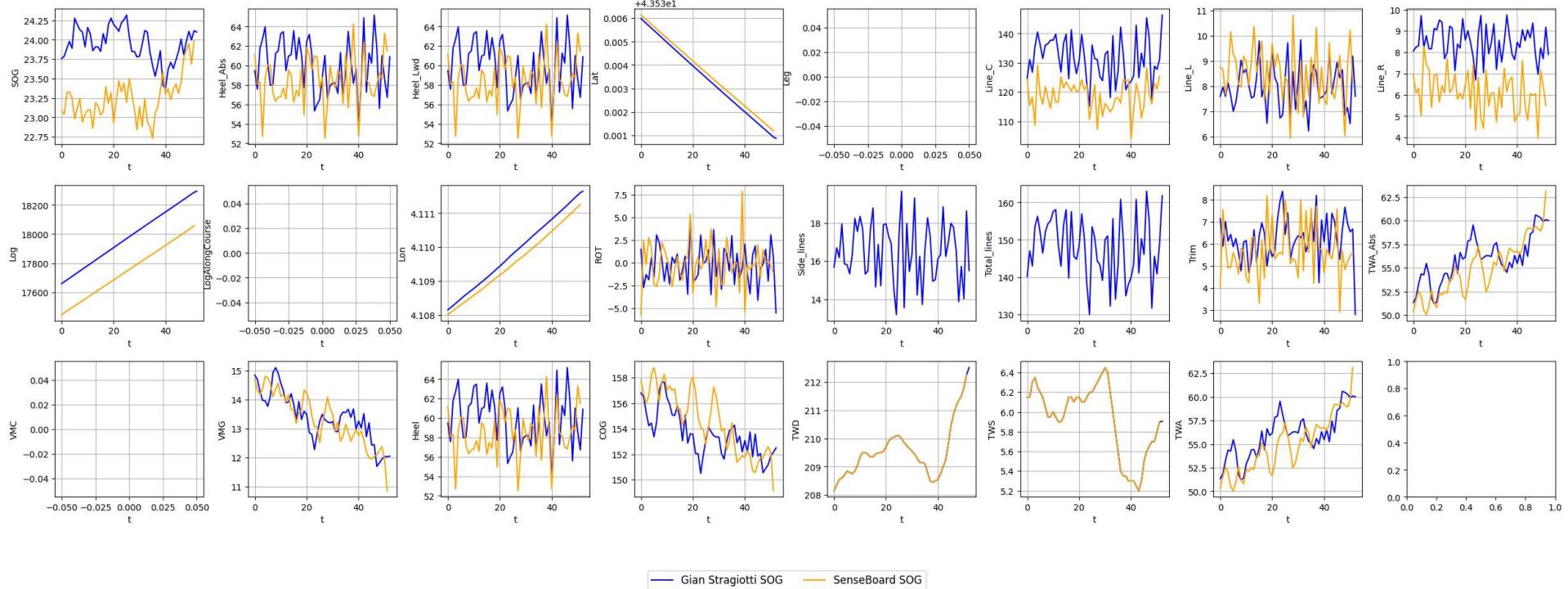
MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	5.924	5.924	5.2	5.2	6.496	6.495	521	520	0.3552	0.3555			
TWD	209.5	209.5	208.1	208.1	212.5	212.5	521	520	0.9027	0.894			
SOG	23.94	23.24	21.7	22.6	24.6	24.2	521	520	0.2539	0.2918	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	13.41	13.32	10.85	10.32	15.89	15.67	521	520	0.9177	1.01	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	153.6	154.6	147.2	147.2	160.4	161.5	521	520	2.116	2.845		Gian Stragiotti	Gian Stragiotti
TWA_Abs	55.89	54.94	47.91	47.52	62.88	64.53	521	520	2.657	3.262			
Heel_Lwd	59.9	58.43	43.4	45.4	72.6	73	521	520	4.684	4.389	Gian Stragiotti	SenseBoard	Tie
Side_lines	16.5	nan	9.9	nan	28.3	nan	521	nan	3.37	nan			
Line_C	131.2	118.8	102.6	84.5	160	147.5	521	519	10.29	9.833	Gian Stragiotti	SenseBoard	Tie
Total_lines	147.7	nan	117.9	nan	177.2	nan	521	nan	11.51	nan			

Distance Summary

	Gian Stragiotti	SenseBoard
Distance [m]	640.521969	620.834396
Straight Line [m]	640.087072	620.058025
Distance as Percentage of Straight Line [%]	100.067943	100.125209
Gain of Gian Stragiotti with respect to SenseBoard		
Forward	2.380364	-9.273697
Lateral	-20.053471	-40.161156
VMG	-9.532295	-11.912659
Initial Deficit	-9.273697	-12.656015
Final Deficit	-40.161156	-40.107684
Total Gain	-3.382318	9.532295
Gain per Minute	-3.903350	-23.205191

Interval 2: Downwind from 2025-06-10 12:52:48 to 2025-06-10 12:53:40: Gian Stragiotti vs SenseBoard - Parameters over time



Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run5

Processing only reduced intervals for Gian Stragiotti vs SenseBoard

Interval 1 summary:

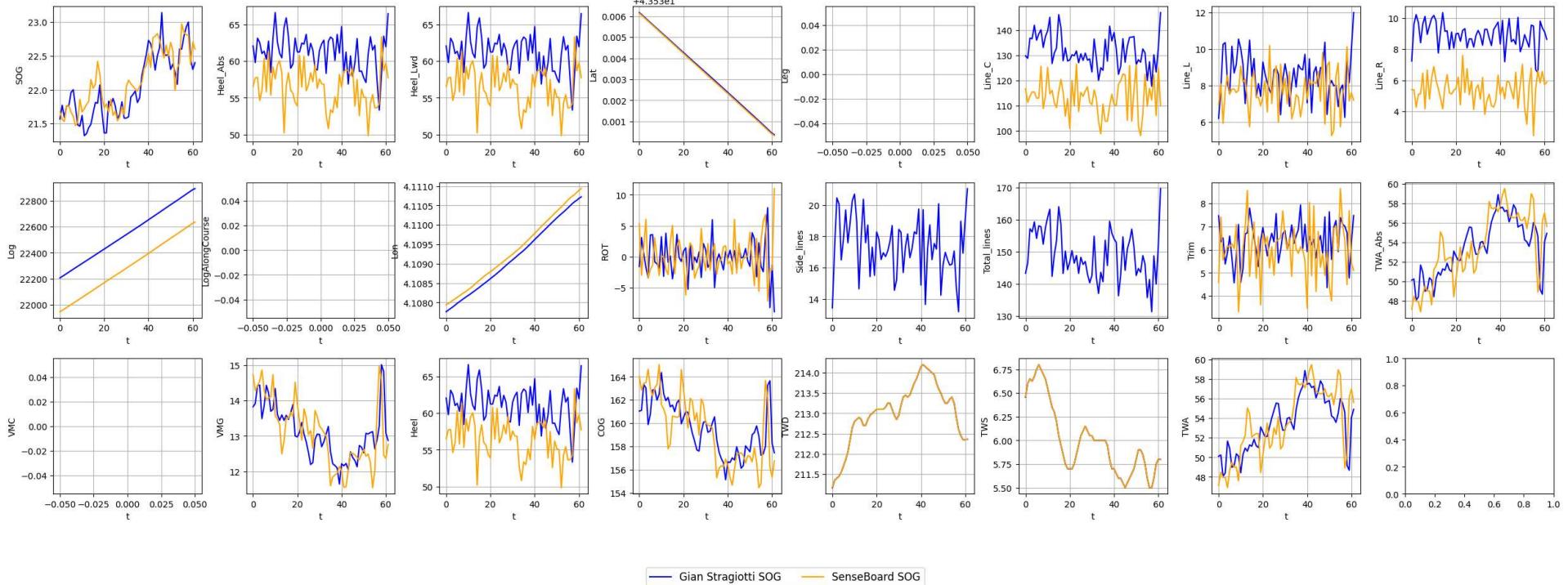
```
{'SOG_variation_boat1': 0.5005847480056898,
'SOG_variation_boat2': 0.44646452469984443,
'avg_TWA_boat1': 53.364595432300156,
'avg_TWA_boat2': 53.518686274509804,
'avg_SOG_boat1': 22.025285481239806,
'avg_SOG_boat2': 22.11337683523654,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 61.199000120162964,
'end_time': 1749560597.354,
'stability_score': 0.9663098809174583,
'start_time': 1749560536.155}
```

```
=====
Interval 1: Upwind from 2025-06-10 13:02:16 to 2025-06-10 13:03:17: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	5.994	5.993	5.5	5.5	6.8	6.8	613	612	0.3742	0.374			
TWD	213	213	211	211.1	214.2	214.2	613	612	0.7327	0.7288			
SOG	22.03	22.12	21.2	21.4	26	23.1	613	612	0.5006	0.4465	SenseBoard	SenseBoard	SenseBoard
VMG	13.11	13.11	10.79	10.67	16.28	16.35	613	612	0.8652	1.065	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	159.7	159.5	152.7	151.7	167.7	169.3	613	612	2.634	3.353			
TWA_Abs	53.36	53.52	44.7	42.2	61.23	61.7	613	612	3.13	3.847			
Heel_Lwd	61.18	56.53	44.4	42.4	76.2	71.9	613	612	4.615	5.091	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	17.38	nan	7.5	nan	26.5	nan	613	nan	3.245	nan			
Line_C	131.7	113.3	95.5	82	154.3	143.3	613	610	9.576	10.3	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Total_lines	149	nan	107.2	nan	175.9	nan	613	nan	10.6	nan			
Distance Summary													
			Gian Stragiotti	SenseBoard									
	Distance [m]	693.543742	695.008054										
	Straight Line [m]	692.798079	693.806617										
	Distance as Percentage of Straight Line [%]	100.107631	100.173166										
Gain of Gian Stragiotti with respect to SenseBoard													
			Forward	Lateral	VMG								
	Initial Deficit	9.542824	-12.349694	-4.215643									
	Final Deficit	10.545690	-14.413585	-5.273386									
	Total Gain	1.002866	-2.063891	-1.057743									
	Gain per Minute	0.983218	-2.023456	-1.037020									

Interval 1: Upwind from 2025-06-10 13:02:16 to 2025-06-10 13:03:17: Gian Stragiotti vs SenseBoard - Parameters over time



— Gian Stragiotti SOG — SenseBoard SOG

Interval 2 summary:

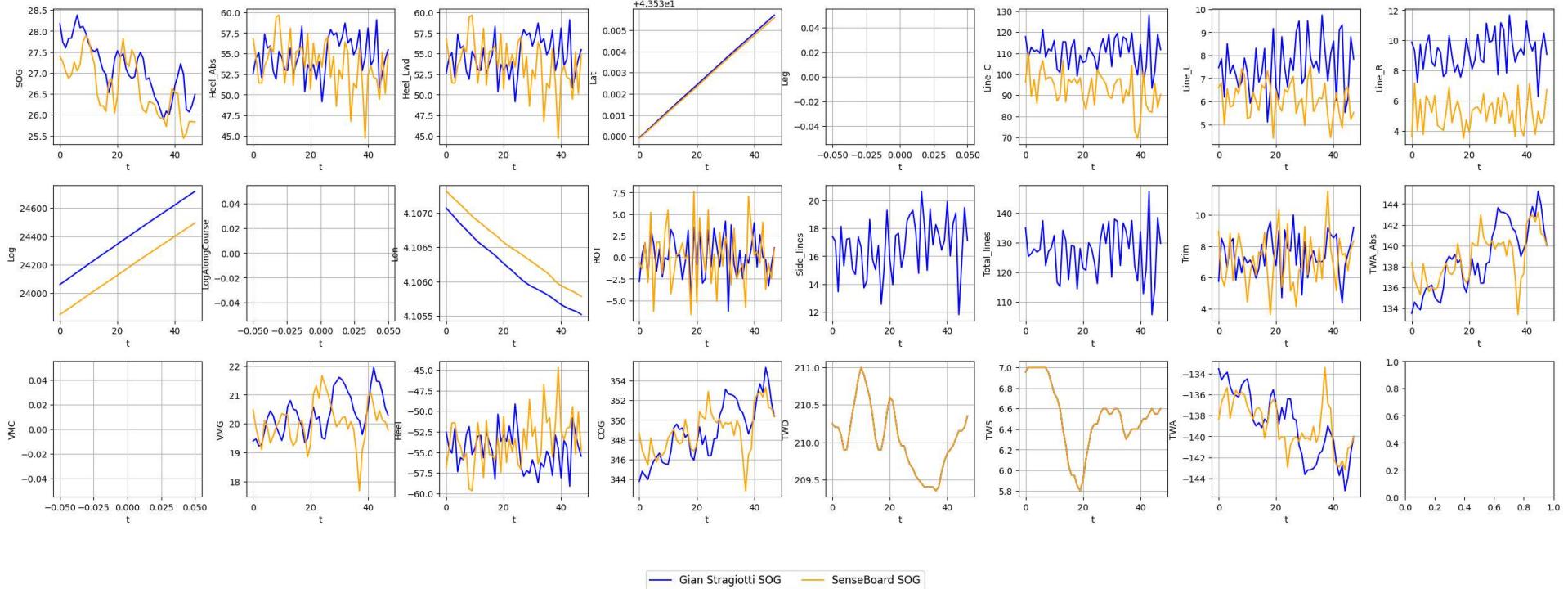
```
{
'SOG_variation_boat1': 0.661275652373244,
'SOG_variation_boat2': 0.6862557608982934,
'avg TWA boat1': -138.87261169102297,
'avg TWA boat2': -138.84397703549064,
'avg_SOG_boat1': 27.096033402922757,
'avg_SOG_boat2': 26.642797494780798,
'boat1_name': 'Gian Stragiotti',
'boat2_name': 'SenseBoard',
'duration': 47.79900002479553,
'end_time': 1749560771.956,
'stability_score': 0.9616481492402572,
'start_time': 1749560724.157}
```

```
=====
Interval 2: Downwind from 2025-06-10 13:05:24 to 2025-06-10 13:06:11: Gian Stragiotti vs SenseBoard
=====
```

MainReport

	Run Statistics												
	Avg (Gian Stragiotti)	Avg (SenseBoard)	Min (Gian Stragiotti)	Min (SenseBoard)	Max (Gian Stragiotti)	Max (SenseBoard)	Count (Gian Stragiotti)	Count (SenseBoard)	StdDev (Gian Stragiotti)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	6.515	6.515	5.8	5.8	7	7	479	479	0.3227	0.3227			
TWD	210	210	209.3	209.3	211	211	479	479	0.4335	0.4334			
SOG	27.1	26.64	25.8	25.1	28.4	28	479	479	0.6613	0.6851	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
VMG	20.36	20.03	18.54	17.2	22.48	22.19	479	479	0.7942	0.8952	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
COG	348.9	348.9	341.7	341.4	357.5	356.1	479	479	3.146	2.79		SenseBoard	SenseBoard
TWA_Abs	138.9	138.8	131.5	131.9	147.3	146	479	479	3.355	2.849			
Heel_Lwd	54.69	53.63	43	37.3	67.1	69.1	479	479	4.162	5.723	Gian Stragiotti	Gian Stragiotti	Gian Stragiotti
Side_lines	16.73	nan	7.2	nan	25.3	nan	479	nan	3.217	nan			
Line_C	110.4	92.85	85.6	62.9	139.7	121.2	479	478	10.95	10.94	Gian Stragiotti	SenseBoard	Tie
Total_lines	127	nan	94.9	nan	160.4	nan	479	nan	12.36	nan			
Distance Summary													
			Gian Stragiotti	SenseBoard									
	Distance [m]		665.931151	654.891622									
	Straight Line [m]		664.930507	654.117200									
	Distance as Percentage of Straight Line [%]		100.150488	100.118392									
Gain of Gian Stragiotti with respect to SenseBoard													
	Forward	Lateral	VMG										
Initial Deficit	-7.471444	-17.978134	-6.197094										
Final Deficit	-18.304329	-18.149456	1.850044										
Total Gain	-10.832885	-0.171322	8.047138										
Gain per Minute	-13.598049	-0.215053	10.101221										

Interval 2: Downwind from 2025-06-10 13:05:24 to 2025-06-10 13:06:11: Gian Stragiotti vs SenseBoard - Parameters over time



— Gian Stragiotti SOG — SenseBoard SOG

Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run6

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{'SOG_variation_boat1': 0.4758642081248499,
'SOG_variation_boat2': 0.45044067336619736,
'avg TWA boat1': 50.299209999999995,
'avg TWA boat2': 51.89534557595993,
'avg_SOG_boat1': 23.192,
'avg_SOG_boat2': 23.586166666666667,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 59.901000022888184,
'end_time': 1749561246.953,
'stability_score': 0.9621821189963834,
'start_time': 1749561187.052}
```

```
=====
Interval 1: Upwind from 2025-06-10 13:13:07 to 2025-06-10 13:14:06: Karl Maeder vs SenseBoard
=====
```

MainReport

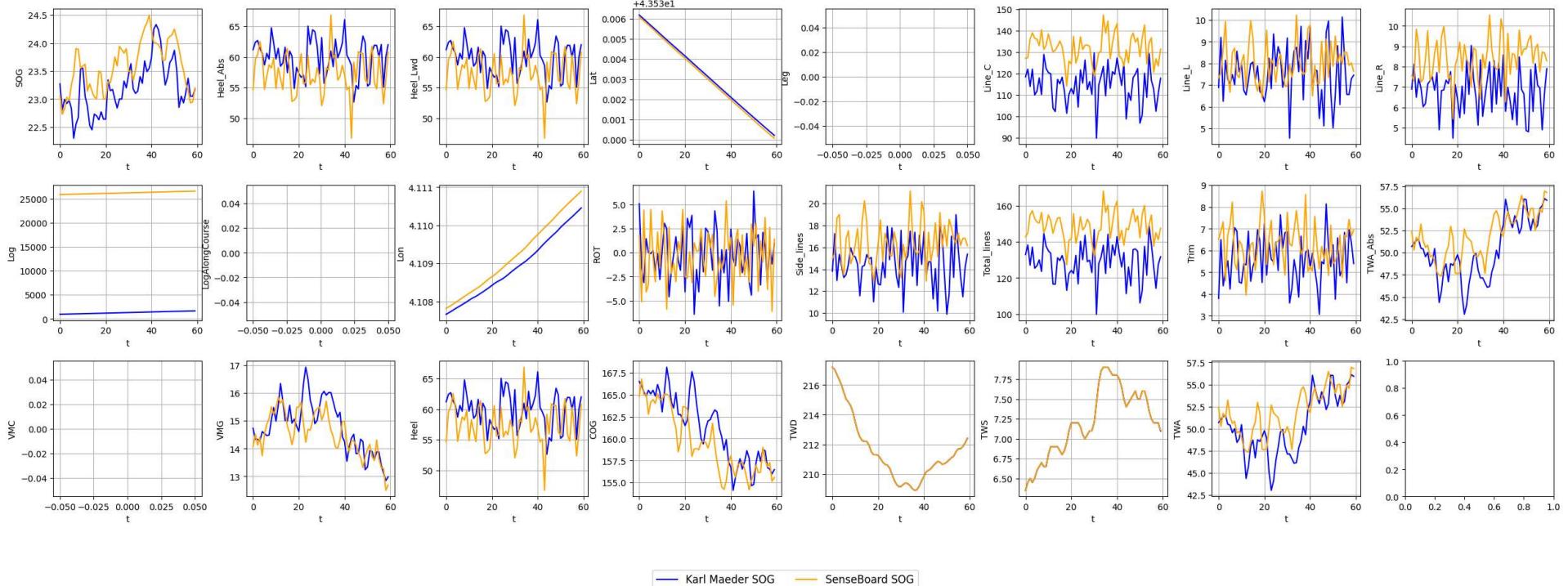
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.204	7.205	6.305	6.305	7.9	7.9	600	599	0.4266	0.4269			
TWD	211.6	211.6	208.9	208.9	217.2	217.2	600	599	2.185	2.186			
SOG	23.19	23.58	21.4	22.5	25.4	24.6	600	599	0.4759	0.4503	SenseBoard	SenseBoard	SenseBoard
VMG	14.78	14.53	11.67	11.2	17.69	16.66	600	599	1.04	0.9165	Karl Maeder	SenseBoard	Tie
COG	161.3	159.7	150.3	151.1	170.8	169.4	600	599	4.06	3.89	SenseBoard	SenseBoard	
TWA_Abs	50.3	51.9	40.6	44.62	60.49	60.85	600	599	3.601	2.963			
Heel_Lwd	59.91	57.36	47.1	36.3	71.5	74.3	600	599	4.493	5.346	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	14.44	16.41	5.7	6.8	23.8	30.6	600	599	3.17	3.914	SenseBoard	Karl Maeder	Tie
Line_C	114.9	131.8	71	90.5	144	156.4	596	599	11.3	11.32	SenseBoard	Karl Maeder	Tie
Total_lines	129	148.5	82.3	103.1	166.1	177.8	600	599	12.89	12.88	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard	
Distance [m]	712.743966	724.992238	
Straight Line [m]	710.912367	723.322534	
Distance as Percentage of Straight Line [%]	100.257641	100.230838	
Gain of Karl Maeder with respect to SenseBoard			
	Forward	Lateral	VMG
Initial Deficit	13.250529	-8.535744	1.897058
Final Deficit	25.337280	-29.029745	-6.149753
Total Gain	12.086751	-20.494001	-8.046811
Gain per Minute	12.106727	-20.527872	-8.060110

Interval 1: Upwind from 2025-06-10 13:13:07 to 2025-06-10 13:14:06: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.433373795501071,
'SOG_variation_boat2': 0.6449390318040755,
'avg TWA boat1': -139.59860047281325,
'avg TWA boat2': -138.77927251184835,
'avg_SOG_boat1': 27.282269503546107,
'avg_SOG_boat2': 26.92482269503546,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 42.21399998664856,
'end_time': 1749561405.263,
'stability_score': 0.9674756220226159,
'start_time': 1749561363.049}
```

```
=====
Interval 2: Downwind from 2025-06-10 13:16:03 to 2025-06-10 13:16:45: Karl Maeder vs SenseBoard
=====
```

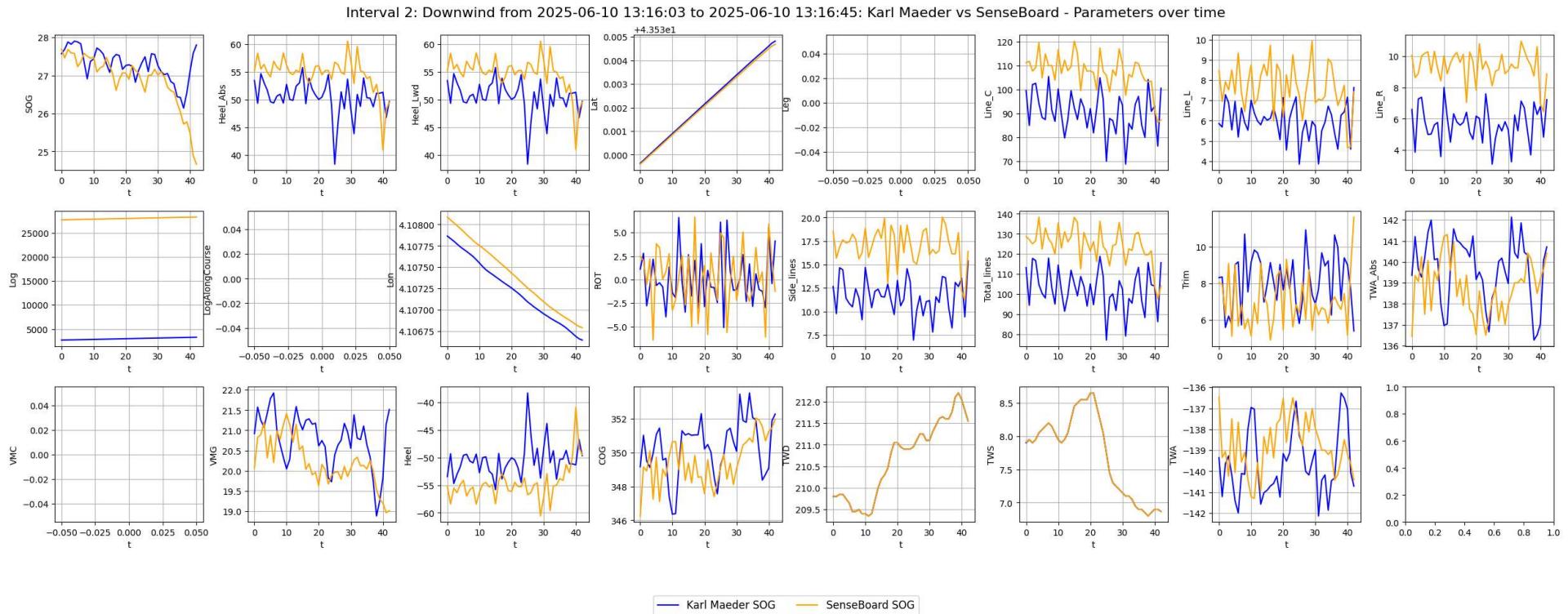
MainReport

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.745	7.745	6.8	6.8	8.696	8.696	423	422	0.6101	0.6107			
TWD	210.7	210.7	209.3	209.3	212.3	212.3	423	422	0.8839	0.8839			
SOG	27.28	26.92	26.1	24.6	28	27.8	423	422	0.4334	0.6459	Karl Maeder	Karl Maeder	Karl Maeder
VMG	20.77	20.23	17.99	17.13	22.46	22.17	423	422	0.7704	0.7868	Karl Maeder	Karl Maeder	Karl Maeder
COG	350.3	349.4	344.8	343.1	357.1	358.4	423	422	2.09	2.283		Karl Maeder	Karl Maeder
TWA_Abs	139.6	138.8	133.4	131.6	145.9	146.4	423	422	2.034	2.225			
Heel_Lwd	50.48	54.75	33.7	33.7	61.5	71.4	423	422	4.986	6.421	SenseBoard	Karl Maeder	Tie
Side_lines	11.56	16.99	2.6	6.8	19.8	25.1	423	422	2.991	3.147	SenseBoard	Karl Maeder	Tie
Line_C	90.36	107.5	54.4	78.1	116.6	140.7	422	422	11.76	11.15	SenseBoard	SenseBoard	SenseBoard
Total_lines	102.3	124.6	61	87.4	133.5	155	423	422	13.49	12.63	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	592.157245	582.084016
Straight Line [m]	591.762948	581.625415
Distance as Percentage of Straight Line [%]	100.066631	100.078848
Gain of Karl Maeder with respect to SenseBoard		
Forward	Forward	VMG
Initial Deficit	-6.389632	-17.295871
Final Deficit	-16.605448	-9.098593
Total Gain	-10.215816	8.197279
Gain per Minute	-14.520039	11.651033



Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run7

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{
  'SOG_variation_boat1': 0.4064534734530918,
  'SOG_variation_boat2': 0.47771268469360634,
  'avg_TWA_boat1': 52.990904270986746,
  'avg_TWA_boat2': 52.44766371681416,
  'avg_SOG_boat1': 22.583210603829162,
  'avg_SOG_boat2': 22.736082474226805,
  'boat1_name': 'Karl Maeder',
  'boat2_name': 'SenseBoard',
  'duration': 67.7999995231628,
  'end_time': 1749561812.555,
  'stability_score': 0.9673413662267509,
  'start_time': 1749561744.755
}
```

```
=====
Interval 1: Upwind from 2025-06-10 13:22:24 to 2025-06-10 13:23:32: Karl Maeder vs SenseBoard
=====
```

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.974	7.974	7.444	7.456	8.6	8.6	679	678	0.2441	0.2434			
TWD	209	209	207.7	207.7	210.7	210.7	679	678	0.872	0.8716			
SOG	22.58	22.73	21.7	20.9	23.6	23.6	679	678	0.4065	0.48	SenseBoard	Karl Maeder	Tie
VMG	13.54	13.82	10.04	9.67	16.85	17.18	679	678	1.381	1.303	SenseBoard	SenseBoard	SenseBoard
COG	156	156.6	145.6	147.2	166.6	167.4	679	678	3.962	3.603		SenseBoard	SenseBoard
TWA_Abs	52.99	52.45	41.22	40.5	64.25	63	679	678	4.588	4.126			
Heel_Lwd	58.52	57.19	40	39.4	72.9	73.3	679	678	4.553	5.233	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	13.41	16.61	3.7	7.5	24.2	28.6	679	678	3.582	3.875	SenseBoard	Karl Maeder	Tie
Line_C	112.3	131	58.8	92.7	140.2	165.1	677	678	11.25	10.54	SenseBoard	SenseBoard	SenseBoard
Total_lines	125.4	147.7	68.5	102.9	159.1	178.1	679	678	12.78	12.23	SenseBoard	SenseBoard	SenseBoard

Distance Summary

Karl Maeder SenseBoard

Distance [m] 786.369543 791.474082

Straight Line [m] 784.517576 789.913156

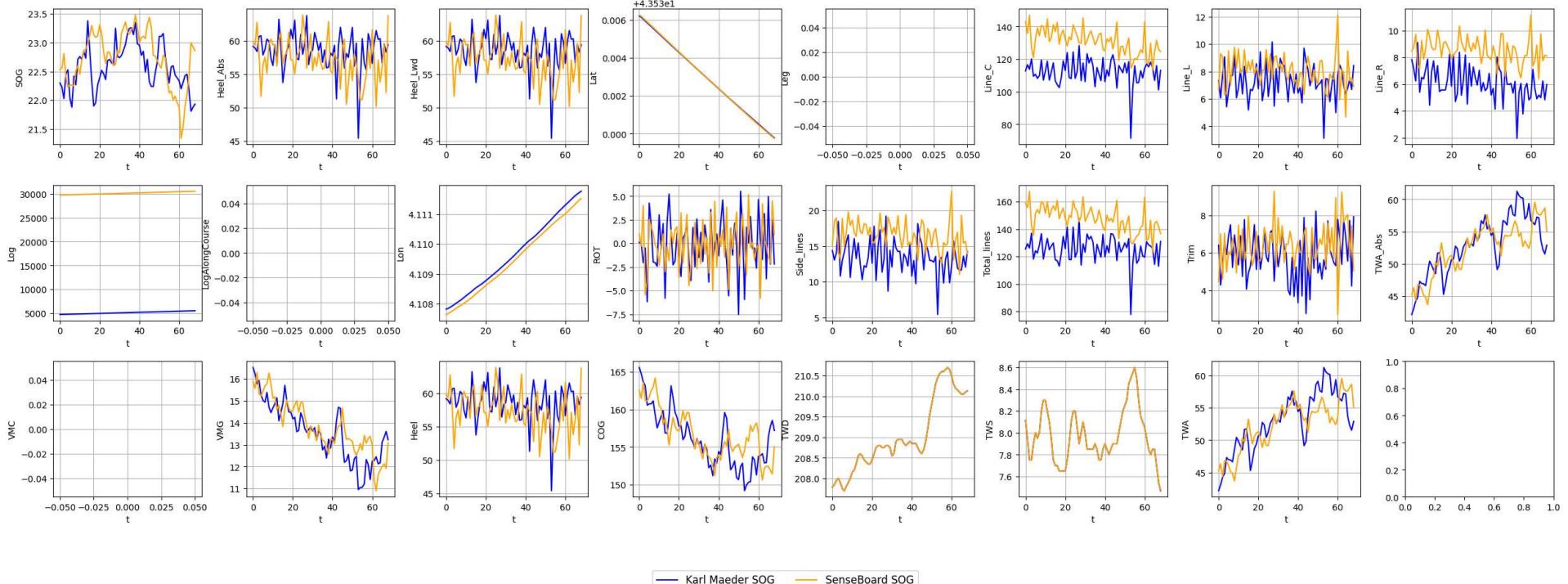
Distance as Percentage of Straight Line [%] 100.236064 100.197607

Gain of Karl Maeder with respect to SenseBoard

Forward Lateral VMG

Initial Deficit	-10.933459	11.063896	2.253799
Final Deficit	-5.545291	18.950663	11.795065
Total Gain	5.388168	7.886767	9.541266
Gain per Minute	4.768290	6.979440	8.443598

Interval 1: Upwind from 2025-06-10 13:22:24 to 2025-06-10 13:23:32: Karl Maeder vs SenseBoard - Parameters over time



Legend: Karl Maeder SOG — SenseBoard SOG

Interval 2 summary:

```
{
'SOG_variation_boat1': 0.5013496568388439,
'SOG_variation_boat2': 0.48395425116547436,
'avg TWA boat1': -140.14205468749998,
'avg TWA boat2': -140.84758984375,
'avg_SOG_boat1': 27.2220703125,
'avg_SOG_boat2': 27.58359375,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 51.10599994659424,
'end_time': 1749561975.263,
'stability_score': 0.9756249057051376,
'start_time': 1749561924.157}
```

```
=====
Interval 2: Downwind from 2025-06-10 13:25:24 to 2025-06-10 13:26:15: Karl Maeder vs SenseBoard
=====
```

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.349	7.349	6.7	6.7	7.896	7.896	512	512	0.3178	0.3177			
TWD	208.9	208.9	207.7	207.7	210.2	210.2	512	512	0.7588	0.7588			
SOG	27.22	27.58	26.4	26.6	28.5	28.5	512	512	0.5013	0.4832	SenseBoard	SenseBoard	SenseBoard
VMG	20.88	21.35	19.1	18.68	22.53	23.37	512	512	0.6006	0.9401	SenseBoard	Karl Maeder	Tie
COG	349.1	349.8	343.5	342	354.4	356.9	512	512	1.929	2.892	Karl Maeder	Karl Maeder	
TWA_Abs	140.1	140.8	134	131.8	146	148.5	512	512	2.112	3.222			
Heel_Lwd	51.11	54.72	35.2	35.9	66.8	70.3	512	512	5.039	5.97	SenseBoard	Karl Maeder	Tie
Side_lines	10.59	17.36	0.9	7.7	20.4	27.1	512	512	2.921	2.925	SenseBoard	Karl Maeder	Tie
Line_C	88.82	109.6	61.2	77.9	127.8	156.3	510	512	11.67	10.5	SenseBoard	SenseBoard	SenseBoard
Total_lines	99.36	127	64.4	88.4	138.5	179.3	512	512	13.13	11.18	SenseBoard	SenseBoard	SenseBoard

Distance Summary

Karl Maeder SenseBoard

Distance [m] 715.517392 725.710961

Straight Line [m] 715.111526 724.775972

Distance as Percentage of Straight Line [%] 100.056756 100.129004

Gain of Karl Maeder with respect to SenseBoard

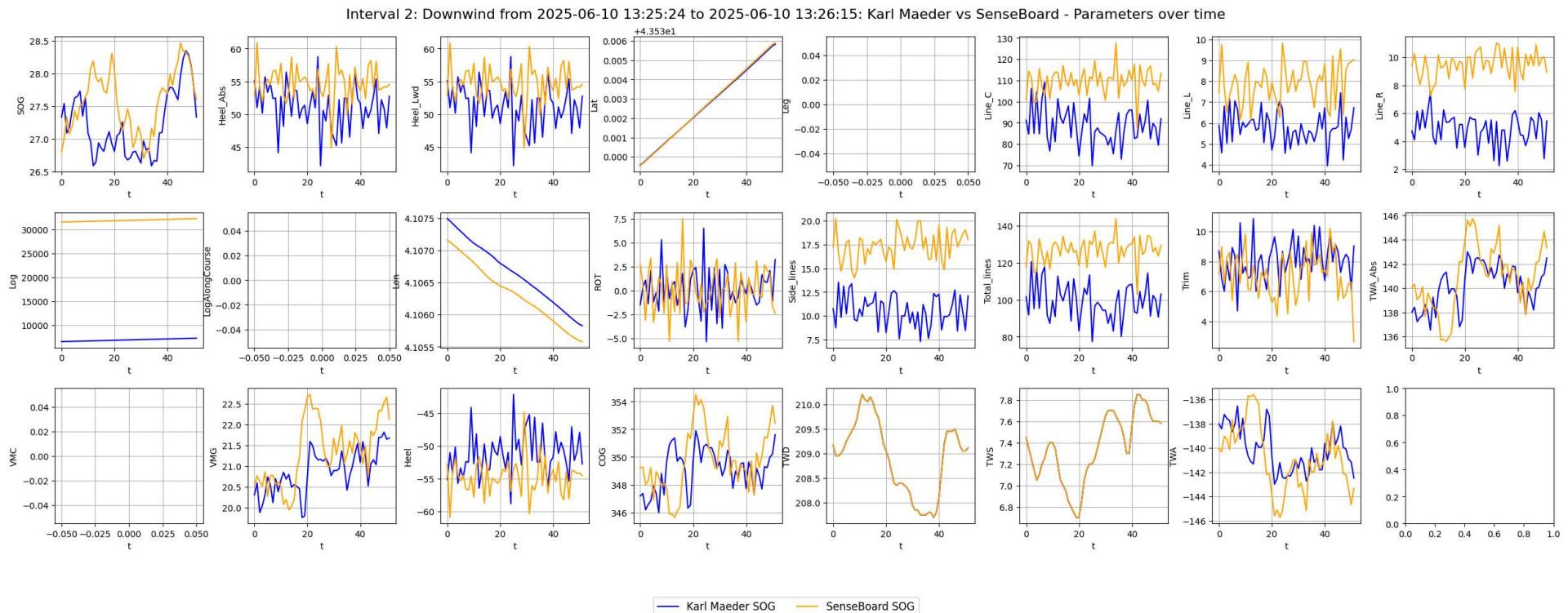
Forward Lateral VMG

Initial Deficit 2.480150 27.140883 15.490353

Final Deficit 12.110298 18.012490 2.247645

Total Gain 9.630148 -9.128393 -13.242708

Gain per Minute 11.306087 -10.717011 -15.547342



Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run8

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{
  'SOG_variation_boat1': 0.5122266995322216,
  'SOG_variation_boat2': 0.3443208505420073,
  'avg TWA boat1': 46.96074481658692,
  'avg TWA boat2': 46.02180990415335,
  'avg_SOG_boat1': 22.51658692185008,
  'avg_SOG_boat2': 23.037958532695374,
  'boat1_name': 'Karl Maeder',
  'boat2_name': 'SenseBoard',
  'duration': 62.5980000495591064,
  'end_time': 1749562427.954,
  'stability_score': 0.9738003608627106,
  'start_time': 1749562365.356
}
```

```
=====
Interval 1: Upwind from 2025-06-10 13:32:45 to 2025-06-10 13:33:47: Karl Maeder vs SenseBoard
=====
```

MainReport

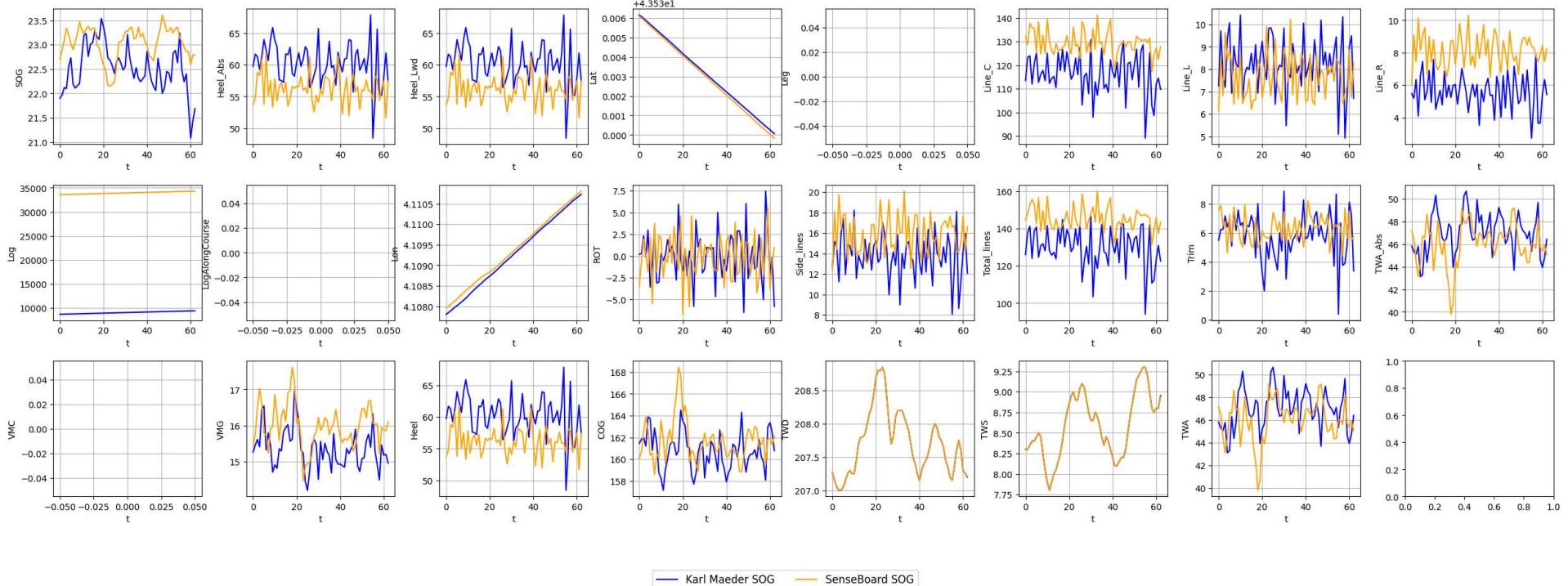
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.586	8.585	7.8	7.8	9.3	9.3	627	626	0.3888	0.3886			
TWD	207.7	207.7	207	207	208.9	208.9	627	626	0.4906	0.4904			
SOG	22.52	23.04	20.3	22.1	24	23.7	627	626	0.5122	0.3448	SenseBoard	SenseBoard	SenseBoard
VMG	15.35	15.98	13.25	13.58	17.41	18.34	627	626	0.7297	0.7226	SenseBoard	SenseBoard	SenseBoard
COG	160.7	161.7	153.2	156	168.9	171.1	627	626	2.366	2.389	Karl Maeder	Karl Maeder	Karl Maeder
TWA_Abs	46.96	46.02	39.1	37.14	54.01	52.09	627	626	2.412	2.336			
Heel_Lwd	60.24	56.28	40.7	44	75.5	71.1	627	626	4.56	4.737	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	13.79	15.86	4	7.6	24.8	28.4	627	626	3.38	3.938	SenseBoard	Karl Maeder	Tie
Line_C	116.2	129.4	70	95.8	144.4	159.5	623	626	11.84	11	SenseBoard	SenseBoard	SenseBoard
Total_lines	129.8	145.4	76.3	106.7	166.2	181.7	627	626	13.65	12.73	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	725.101527	740.846275
Straight Line [m]	724.487057	740.202673
Distance as Percentage of Straight Line [%]	100.084814	100.086949
Gain of Karl Maeder with respect to SenseBoard		
Forward	10.896665	-9.050141
Lateral	0.822354	
VMG		
Initial Deficit	26.553180	2.941227
Final Deficit	20.272244	
Total Gain	15.656516	11.991369
Gain per Minute	19.449890	
	15.006724	11.493692
	18.642663	

Interval 1: Upwind from 2025-06-10 13:32:45 to 2025-06-10 13:33:47: Karl Maeder vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
'SOG_variation_boat1': 0.5399102592381619,
'SOG_variation_boat2': 0.4688635040032667,
'avg TWA boat1': -141.74818333333332,
'avg TWA boat2': -141.80634728033473,
'avg_SOG_boat1': 27.33354166666667,
'avg_SOG_boat2': 27.5,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 47.894999980926514,
'end_time': 1749562585.552,
'stability_score': 0.96791813005577,
'start_time': 1749562537.657}
```

```
=====
Interval 2: Downwind from 2025-06-10 13:35:37 to 2025-06-10 13:36:25: Karl Maeder vs SenseBoard
=====
```

MainReport

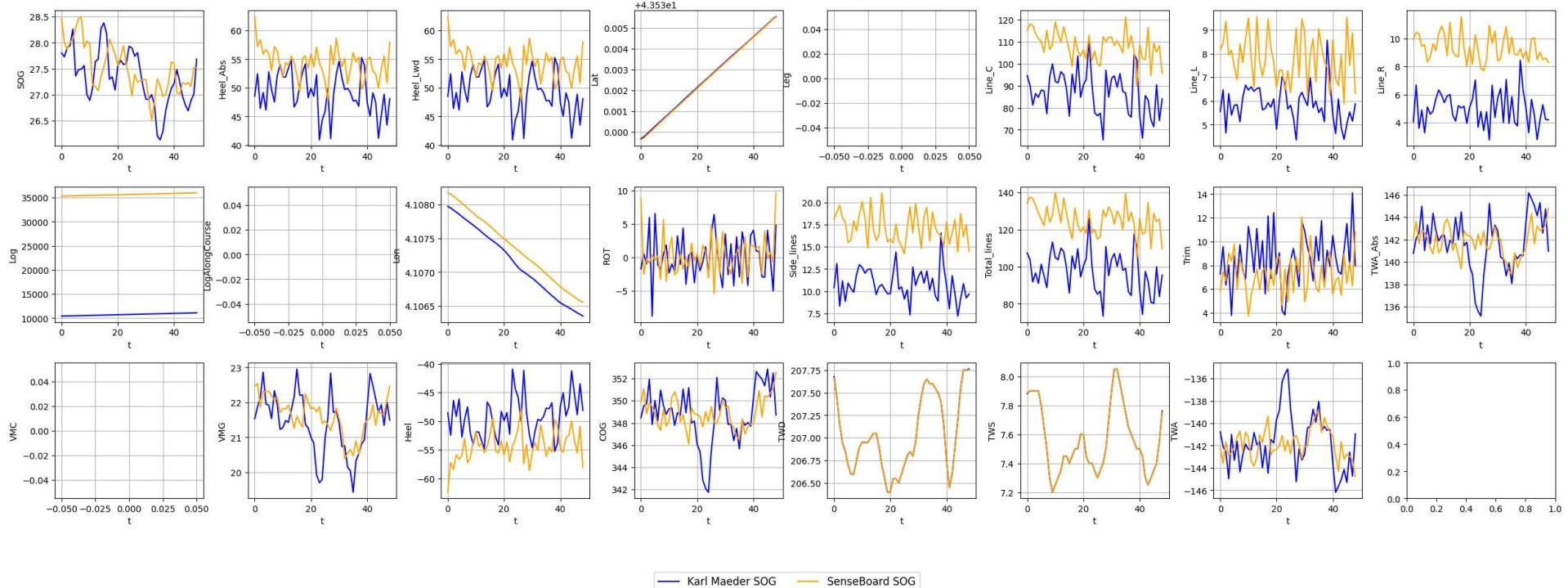
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	7.552	7.551	7.2	7.2	8.095	8.096	480	478	0.2326	0.2323			
TWD	207	207	206.3	206.3	207.8	207.8	480	478	0.4075	0.4054			
SOG	27.33	27.5	26	26.4	28.5	28.6	480	478	0.5399	0.4638	SenseBoard	SenseBoard	SenseBoard
VMG	21.44	21.6	18.79	19.39	23.89	23.31	480	478	0.961	0.6685	SenseBoard	SenseBoard	SenseBoard
COG	348.8	348.8	339.4	343	356.1	355.3	480	478	2.959	1.891		SenseBoard	SenseBoard
TWA_Abs	141.7	141.8	132.9	135.9	148.6	147.5	480	478	2.928	1.903			
Heel_Lwd	49.14	54.21	31.2	39.2	66.2	70.7	480	478	5.842	5.447	SenseBoard	SenseBoard	SenseBoard
Side_lines	10.82	17.15	3	6.3	20.9	26.8	480	478	2.951	3.285	SenseBoard	Karl Maeder	Tie
Line_C	87.03	108.3	60.8	78.4	125.3	133.9	479	478	13.13	9.369	SenseBoard	SenseBoard	SenseBoard
Total_lines	97.63	125.4	64.5	91.1	140.2	153.8	480	478	14.63	10.79	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	673.655103	674.678757
Straight Line [m]	672.759926	674.305252
Distance as Percentage of Straight Line [%]	100.133060	100.055391
Gain of Karl Maeder with respect to SenseBoard		
Forward	Initial Deficit	Final Deficit
	-8.191479	-14.492267
	-2.539508	-6.642724
		-15.836846
		-4.588195
Lateral	Total Gain	Gain per Minute
	1.548755	1.940188
	-1.344580	-1.684409
	-2.048687	-2.566473
VMG		

Interval 2: Downwind from 2025-06-10 13:35:37 to 2025-06-10 13:36:25: Karl Maeder vs SenseBoard - Parameters over time



— Karl Maeder SOG — SenseBoard SOG

Processing: ..\Data_Sailnjord\Straight_lines\10_06\10_06_Run9

Processing only reduced intervals for Karl Maeder vs SenseBoard

Interval 1 summary:

```
{
  'SOG_variation_boat1': 0.5458190734121626,
  'SOG_variation_boat2': 0.5352480320516277,
  'avg_TWA_boat1': 48.43236500754148,
  'avg_TWA_boat2': 48.93901812688822,
  'avg_SOG_boat1': 22.90346907993967,
  'avg_SOG_boat2': 23.240422322775263,
  'boat1_name': 'Karl Maeder',
  'boat2_name': 'SenseBoard',
  'duration': 66.19700002670288,
  'end_time': 1749562847.457,
  'stability_score': 0.9665584620353262,
  'start_time': 1749562781.26
}
```

```
=====
Interval 1: Upwind from 2025-06-10 13:39:41 to 2025-06-10 13:40:47: Karl Maeder vs SenseBoard
=====
```

MainReport

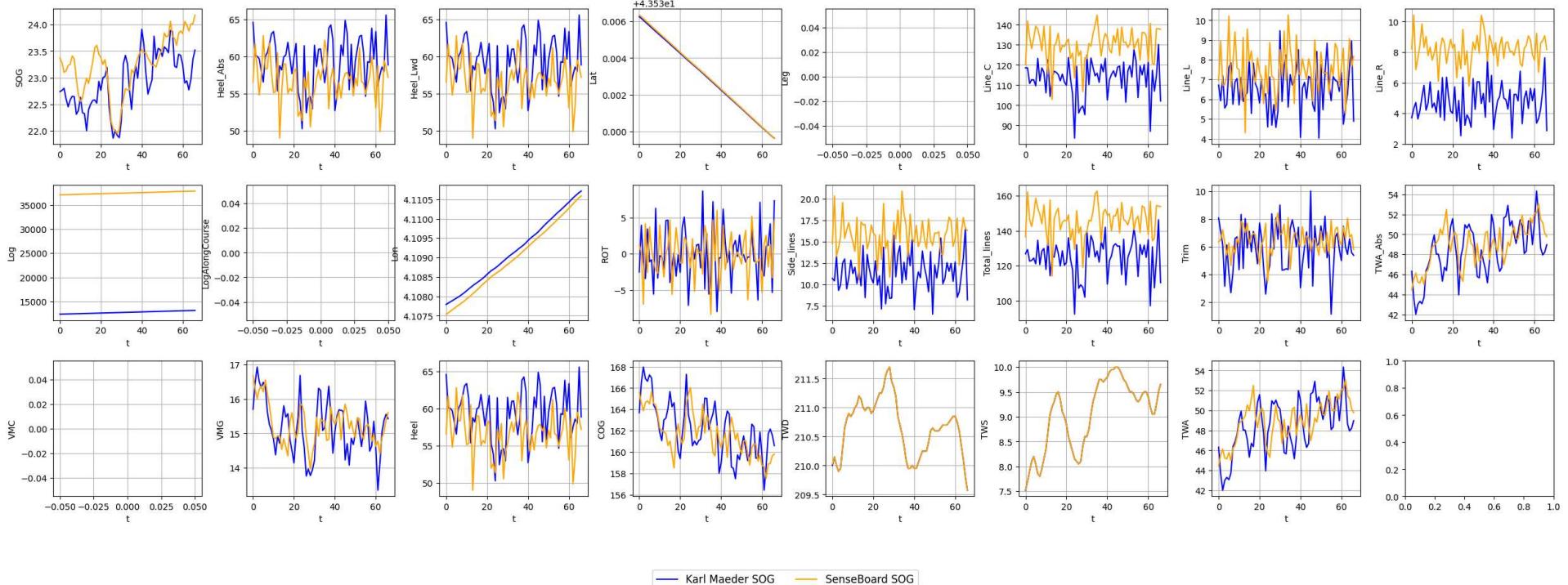
Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	9.045	9.047	7.452	7.471	10	10	663	662	0.6887	0.6864			
TWD	210.7	210.7	209.6	209.6	211.7	211.7	663	662	0.4885	0.4878			
SOG	22.9	23.24	21.6	21.9	24.3	24.3	663	662	0.5458	0.5368	SenseBoard	SenseBoard	SenseBoard
VMG	15.17	15.24	12.67	12.43	17.82	17.31	663	662	0.9745	0.7593	SenseBoard	SenseBoard	SenseBoard
COG	162.2	161.7	153.9	155.9	171.5	171.3	663	662	3.202	2.657		SenseBoard	SenseBoard
TWA_Abs	48.43	48.94	38.4	40.1	56.9	55.42	663	662	3.273	2.651			
Heel_Lwd	59.3	56.7	44.8	38.1	74.4	70.9	663	662	4.967	4.979	Karl Maeder	Karl Maeder	Karl Maeder
Side_lines	11.37	15.78	3.2	7.7	24	27.1	663	662	3.7	3.74	SenseBoard	Karl Maeder	Tie
Line_C	113.4	130.2	68.5	89	151.1	160.1	661	662	14.28	12.08	SenseBoard	SenseBoard	SenseBoard
Total_lines	124.8	145.9	76.6	101.6	174.5	177.1	663	662	15.74	13.3	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	779.433402	790.240518
Straight Line [m]	778.225191	789.390802
Distance as Percentage of Straight Line [%]	100.155252	100.107642
Gain of Karl Maeder with respect to SenseBoard		
Forward	14.876057	16.248072
Lateral	2.286146	
VMG		
Initial Deficit	-3.735786	9.429465
Final Deficit	-11.140272	-6.818606
Total Gain	2.290058	
Gain per Minute	10.097380	-6.180286
	2.075675	

Interval 1: Upwind from 2025-06-10 13:39:41 to 2025-06-10 13:40:47: Karl Maeder vs SenseBoard - Parameters over time



Interval 2 summary:

```
{
'SOG_variation_boat1': 0.6785337953400632,
'SOG_variation_boat2': 0.48984557892715896,
'avg TWA boat1': -141.96290425531916,
'avg TWA boat2': -142.04973931623934,
'avg_SOG_boat1': 26.97276595744681,
'avg_SOG_boat2': 27.57255319148936,
'boat1_name': 'Karl Maeder',
'boat2_name': 'SenseBoard',
'duration': 46.882999897003174,
'end_time': 1749562995.342,
'stability_score': 0.9723012641797767,
'start_time': 1749562948.459}
```

```
=====
Interval 2: Downwind from 2025-06-10 13:42:28 to 2025-06-10 13:43:15: Karl Maeder vs SenseBoard
=====
```

MainReport

Run Statistics

	Avg (Karl Maeder)	Avg (SenseBoard)	Min (Karl Maeder)	Min (SenseBoard)	Max (Karl Maeder)	Max (SenseBoard)	Count (Karl Maeder)	Count (SenseBoard)	StdDev (Karl Maeder)	StdDev (SenseBoard)	Winner (Avg)	Winner (StdDev)	Winner (Overall)
TWS	8.798	8.801	7.7	7.7	10.2	10.2	470	468	0.8433	0.844			
TWD	208	208	207.4	207.4	208.6	208.6	470	468	0.2684	0.2689			
SOG	26.97	27.57	25.2	26.4	28.5	28.4	470	468	0.6785	0.4882	SenseBoard	SenseBoard	SenseBoard
VMG	21.23	21.72	18.95	19.41	23.1	23.6	470	468	0.8641	0.8715	SenseBoard	Karl Maeder	Tie
COG	350	350.1	344.7	343.2	355.4	355.4	470	468	2.189	2.459	Karl Maeder	Karl Maeder	
TWA_Abs	142	142	136.3	134.9	147.4	147.5	470	468	2.308	2.488			
Heel_Lwd	49.3	53.36	7	36.5	63.7	68.5	470	468	6.641	5.855	SenseBoard	SenseBoard	SenseBoard
Side_lines	9.907	16.24	1	8.8	19	23.4	470	468	3.064	2.572	SenseBoard	SenseBoard	SenseBoard
Line_C	84.83	106.1	39.4	67.7	117.2	144.8	470	468	12.29	11.18	SenseBoard	SenseBoard	SenseBoard
Total_lines	94.69	122.4	50	78.7	130.3	164.9	470	468	14.15	12.07	SenseBoard	SenseBoard	SenseBoard

Distance Summary

	Karl Maeder	SenseBoard
Distance [m]	650.573241	662.100228
Straight Line [m]	650.099856	661.484797
Distance as Percentage of Straight Line [%]	100.072817	100.093038
Gain of Karl Maeder with respect to SenseBoard		
Forward	14.260343	37.203773
Lateral	3.203773	11.692301
VMG	25.666220	36.176934
Initial Deficit	2.076189	
Final Deficit		
Total Gain	11.405877	-1.026839
Gain per Minute	-9.616112	
	14.597031	-1.314129
		-12.306523

Interval 2: Downwind from 2025-06-10 13:42:28 to 2025-06-10 13:43:15; Karl Maeder vs SenseBoard - Parameters over time

