

BOAT Name Aurora Borealis Sail Nr RUS 2675	GPH 557.0	HULL Length Overall 12.200m Maximum Beam 3.818m Displacement 5,674kg Draft 2.635m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0.179% Fwd Accommodation No Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class ELF1180 Designer Mataruev/Kosorotov Builder CYC yachts Series 04/2015 Age 09/2016 Age Allowance 0.130% Offset File ELF1220-2018.off - 15/06/2018 Measurement by - 29/07/2016		IMSL 11.519m VCGD -0.312m Sink 21.61kg/mm RL 11.032m VCGM -0.504m WS 29.80m² LSM0 11.466m Displacement/Length ratio 3.7640



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SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	540.2			608.7		
Time on Time	1.1108			1.1089		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	642.4	492.4	433.4	833.6	609.2	531.1
Time on Time	1.0508	1.3707	1.5576	0.8097	1.1080	1.2709

TIME ALLOWANCES							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	962.2	785.6	683.5	635.7	618.3	609.9	597.1
52°	630.3	523.5	473.2	453.8	444.9	440.2	435.1
60°	594.8	499.9	461.2	442.7	430.9	424.4	418.6
75°	568.0	483.9	452.3	431.6	412.7	398.1	385.0
90°	562.4	470.1	443.3	429.6	408.9	387.6	356.0
110°	554.3	464.5	429.7	401.4	384.5	371.1	342.3
120°	570.6	471.5	434.8	402.4	371.9	351.3	322.9
135°	641.8	512.6	455.6	425.4	393.9	362.4	299.5
150°	766.1	608.1	511.7	460.6	436.8	413.7	351.9
Run VMG	884.6	702.2	590.9	531.7	503.5	471.4	406.3

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Number **2675.5**
ORC Ref **RUS00010005**
Issued On **29/05/2019**
VPP Ver. **2019 1.01**
Valid until **31/12/2019**

Crew Weight
Default **837kg**
Maximum **837kg**
Minimum* **628kg**
**when applied by the NoR and SI*
Non Manual Pwr **No**

Special Scoring

	ToD	ToT
Double H.GPH	567.0	1.0581
Double H.OSN	551.3	1.0884
Non Spin GPH	602.0	0.9967
Non Spin OSN	583.2	1.0289

Selected Courses							
Windward / Leeward	923.4	743.9	637.2	583.7	560.9	540.7	501.7
Circular Random	771.2	620.8	540.2	493.1	463.2	442.0	409.9
Coastal / Long Distance	919.5	697.6	575.8	509.3	474.6	444.5	392.1
Non Spinnaker	854.6	679.2	582.6	524.8	488.1	463.1	429.8

Sails Limitations

Headsails	Spinnakers
6	4

Velocity Prediction in Knots for True Wind Speeds							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	42.5°	41.1°	40.0°	37.8°	37.3°	36.9°	36.3°
Beat VMG	3.74	4.58	5.27	5.66	5.82	5.90	6.03
52°	5.71	6.88	7.61	7.93	8.09	8.18	8.27
60°	6.05	7.20	7.81	8.13	8.35	8.48	8.60
75°	6.34	7.44	7.96	8.34	8.72	9.04	9.35
90°	6.40	7.66	8.12	8.38	8.80	9.29	10.11
110°	6.49	7.75	8.38	8.97	9.36	9.70	10.52
120°	6.31	7.64	8.28	8.95	9.68	10.25	11.15
135°	5.61	7.02	7.90	8.46	9.14	9.93	12.02
150°	4.70	5.92	7.03	7.82	8.24	8.70	10.23
Run VMG	4.07	5.13	6.09	6.77	7.15	7.64	8.86
Gybe Angles	142.5°	144.7°	148.0°	151.0°	151.0°	175.9°	142.9°

Class Division Length
CDL = **11.277**

Storm Sails Areas
Heavy Weather Jib **29.94**
Storm Jib (JL=9.68) **11.09**
Storm Trysail **14.66**

Owner

BOAT			
Name	Aurora Borealis	Sail Nr	RUS 2675
File	RU2675_Aurora	Data in	meters/kilograms

INCLINING TEST AND FREEBOARDS			
Inclining Test Current Inclining			
Flotation date		16/06/2017	SG 1.0000
FFM	1.261	FF	1.270
FAM	1.021	FA	1.027
SFFP	0.500	SAFP	11.800
W1	129.3	PD1	190.0
W2	129.3	PD2	190.0
W3	129.3	PD3	190.0
W4	129.3	PD4	190.0
WD	10.370	GSA	64.0
RSA	24025.	PLM	1530.0
LCF from stem on CL / on sheer		6.811 / 7.043	
Maximum beam station from stem		8.600	
RM Measured		188.5kg-m	
RM Default		155.7kg-m	
Limit of positive stability / Stab.Index		134.9° / 133.8	
Freeboard at mast at 4.500		1.113	



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RIG			
Forestay Tension	Aft	Spreaders	2
Inner Stay	None Fitted	Runners	0
Carbon Mast	Yes	Jumper Struts	None
Taper Hollows	No	Jib Furler	No
Fiber Rigging	No	Main Furler	No
Lenticular Rigging	No	Without Backstay	No
Articulated Bowsprit	No		
P	15.450	E	5.420
IG	14.815	J	4.100
ISP	17.555	SFJ	0.400
BAS	1.880	SPL	0.210
FSP	0.080	TPS	5.600
MDT1	0.111	MW	0.216
MDL1	0.216	GO	0.237
MDT2	0.111	BD	
MDL2	0.210	MWT	160.00
TL	2.640	MCG	5.725

MIZZEN RIG AND SAILS			
N/A			

PROPELLER			
Installation	Strut	PRD	0.435
Type	Folding 2 blades	PBW	0.120
Twin Screw	No	PIPA	0.0033
ST1	0.065	ST3	0.180
ST2	0.180	ST4	0.110
		ST5	0.110
		EDL	2.620

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COMMENTS			

MOVABLE BALLAST			
N/A			

CENTERBOARD			
N/A			



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SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0.200	1.13	2.03	3.50	4.55	49.82	50.82	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric on centerline	SLU	SLE	SL	SHW	SFL	Area	Formula		
	18.80	15.96	17.38	9.71	9.37	139.65	AS · (SFL + 4·SHW) / 6		

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0.10	0.72	1.34	2.35	3.30	4.40	14.42	33.16	Y		09/11/2017	Carbon	
0.05	0.49	0.97	2.05	3.32	4.44	14.17	30.49	Y		12/05/2018	Dacron	
0.08	0.51	0.94	1.87	2.80	3.68	11.56	21.61	Y		12/05/2018	Dacron	OSR Heavy

MEASUREMENT INVENTORY				
Measurer	RUS 279			
Date	12/06/2018			
Comment				
Id	Item	Weight	Distance	VCG Description
A4	Anchor	0.0	11.20	0.30 Danfort 15 kg in
Gh1	Gchain	0.0	11.20	0.30 rope d14 150 6 kg
Id	Item	Maker	Model	
E	Engine	Volvo Penta	D1-30 Sail	
Id	Item	Weight Description		

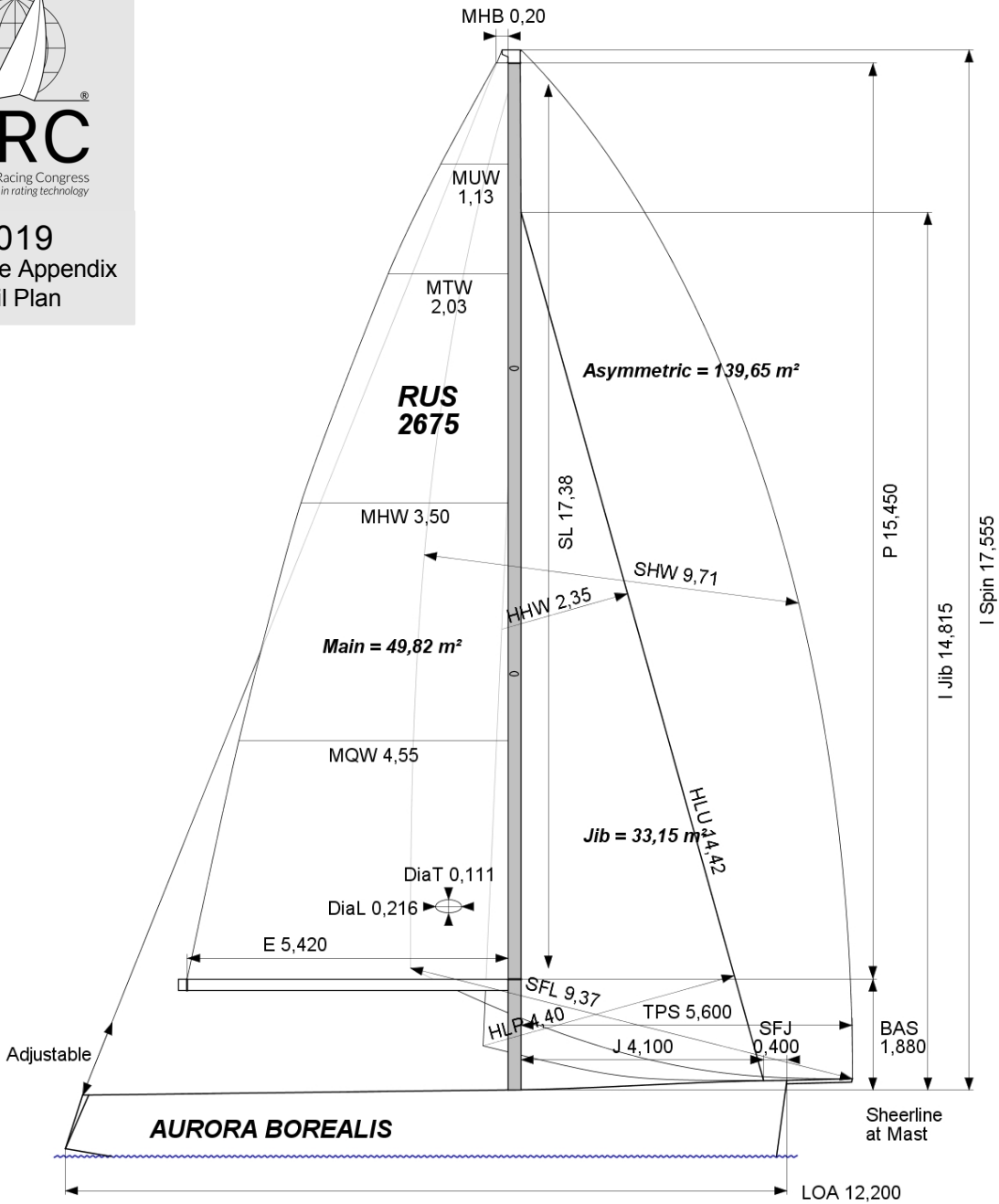
MEASUREMENT INVENTORY									
Id	Item	Tank Use	Tank Type	Capcty	Dist.	VCG	Condtn	Description	
F	Tank Fuel		fixed, plastic	120.0	9.10	0.00	0.0	At CL under cokpit	
W	Tank Water		Portable, plastic	60.0	4.50	1.00	0.0	portable cans - 3 pc	
Id	Item	Weight	Distance	VCG Description					
B1	Battery	15.0	8.60	-0.20 Startert Exide EN 600 62 AH					
B2	Battery		3.13	-0.20 Consumers - Exide AGM EK950					



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Sail Plan



SAILS INVENTORY																
MAINSAIL (1)																
Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
M2	0.20	1.13	2.03	3.50	4.55	49.82		12/05/2018	SSSails	Dyneema						
HEADSAILS (3)																
Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
ODK	0.10	0.72	1.34	2.35	3.30	4.40	14.42	107%	33.16	Y			09/11/2017	North Sails	Carbon	
H2	0.05	0.49	0.97	2.05	3.32	4.44	14.17	108%	30.49	Y			12/05/2018	Unknown	Dacron	
H3	0.08	0.51	0.94	1.87	2.80	3.68	11.56	90%	21.61	Y			12/05/2018	Ulman Sails	Dacron	OSR Heavy
SYMMETRIC SPINNAKERS (0)																
Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment					
ASYMMETRIC SPINNAKERS (3)																
Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment				
ODK 105903-	18.80	15.96	17.38	9.71	9.37	139.65	asym		21/10/2017	North Sails	Unknown	A2				
OUK	15.96	14.42	15.19	7.45	9.49	99.47	asym		20/10/2018	North Sails	Unknown	A5				
OUK	17.62	16.44	17.03	5.94	7.92	89.92	asym		25/10/2018	North Sails	Unknown	A0				