

<b>BOAT</b> Name <b>HMS VICTORY</b> Sail Nr <b>ECU-007</b>	<b>GPH</b> <b>585,1</b>	<b>HULL</b> Length Overall <b>12,400m</b> Maximum Beam <b>3,486m</b> Displacement <b>6.694kg</b> Draft <b>2,486m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0,009%</b> Fwd Accommodation <b>Yes</b> Hull Construction <b>Solid</b> Carbon Rudder <b>No</b> Crew Arm Extension
<b>GENERAL</b> Class <b>RODMAN 42</b> Designer <b>VROLIJK</b> Builder <b>RODMAN</b> Series <b>07/2002</b> Age <b>06/2003</b> Age Allowance <b>0,487%</b> Offset File <b>CHI4208.OFF - 16/07/2002 08:16:00</b> Measurement by <b>P. GUTIERREZ - 28/04/2016</b>		IMSL <b>10,982m</b> VCGD <b>0,107m</b> Sink <b>22,33kg/mm</b> RL <b>9,652m</b> VCGM <b>0,109m</b> WS <b>29,85m<sup>2</sup></b> LSMO <b>10,657m</b> Displacement/Length ratio <b>5,5307</b>



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**2017**  
ORC International  
Certificate

**Rating Office**  
Federación Ecuatoriana  
de Vela  
Patricio D. Gutiérrez - RO  
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SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	<b>569,7</b>			<b>640,1</b>	
Time On Time	<b>1,0532</b>			<b>1,0545</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>676,4</b>	<b>516,7</b>	<b>457,7</b>	<b>882,9</b>	<b>643,7</b>	<b>554,1</b>
Time on Time	<b>0,9979</b>	<b>1,3064</b>	<b>1,4747</b>	<b>0,7645</b>	<b>1,0486</b>	<b>1,2183</b>

TIME ALLOWANCES	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>997,6</b>	<b>820,5</b>	<b>717,7</b>	<b>679,7</b>	<b>663,0</b>	<b>650,7</b>	<b>639,2</b>
52°	<b>650,2</b>	<b>539,4</b>	<b>484,9</b>	<b>469,7</b>	<b>463,2</b>	<b>459,7</b>	<b>451,6</b>
60°	<b>610,7</b>	<b>511,0</b>	<b>469,2</b>	<b>455,3</b>	<b>449,1</b>	<b>445,5</b>	<b>436,3</b>
75°	<b>578,6</b>	<b>492,0</b>	<b>458,2</b>	<b>438,8</b>	<b>427,6</b>	<b>421,6</b>	<b>415,9</b>
90°	<b>579,5</b>	<b>485,7</b>	<b>451,3</b>	<b>435,7</b>	<b>415,7</b>	<b>400,0</b>	<b>387,4</b>
110°	<b>592,8</b>	<b>488,6</b>	<b>449,2</b>	<b>422,1</b>	<b>403,1</b>	<b>390,3</b>	<b>370,9</b>
120°	<b>615,8</b>	<b>503,6</b>	<b>457,5</b>	<b>430,6</b>	<b>403,3</b>	<b>377,1</b>	<b>350,8</b>
135°	<b>695,3</b>	<b>559,1</b>	<b>484,5</b>	<b>451,2</b>	<b>426,3</b>	<b>400,7</b>	<b>349,8</b>
150°	<b>829,2</b>	<b>654,9</b>	<b>551,5</b>	<b>488,0</b>	<b>454,2</b>	<b>430,7</b>	<b>384,2</b>
Run VMG	<b>957,5</b>	<b>756,3</b>	<b>636,9</b>	<b>557,8</b>	<b>505,3</b>	<b>466,5</b>	<b>419,6</b>

**Certificate**  
Number **00710**  
ORC Ref **ECU00005593**  
Issued On **04/10/2017**  
VPP Ver. **2017 1.00**  
Valid until **31/03/2018**

**Crew Weight**  
Declared **815kg**  
Default\* **754kg**  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **613,4 0,9782**  
Non Spin OSN **596,8 1,0053**

Selected Courses	977,6	788,4	677,3	618,7	584,1	558,6	529,4
Windward / Leeward	<b>977,6</b>	<b>788,4</b>	<b>677,3</b>	<b>618,7</b>	<b>584,1</b>	<b>558,6</b>	<b>529,4</b>
Circular Random	<b>811,1</b>	<b>652,4</b>	<b>567,3</b>	<b>517,8</b>	<b>487,2</b>	<b>466,8</b>	<b>440,4</b>
Ocean for PCS	<b>1000,3</b>	<b>769,1</b>	<b>638,7</b>	<b>559,0</b>	<b>506,9</b>	<b>470,3</b>	<b>419,4</b>
Non Spinnaker	<b>862,1</b>	<b>688,5</b>	<b>594,0</b>	<b>538,4</b>	<b>503,7</b>	<b>480,8</b>	<b>451,4</b>

Sails Limitations	
Headsails	Spinnakers
<b>6</b>	<b>4</b>

Velocity Prediction in Knots for True Wind Speeds	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>43,2°</b>	<b>42,3°</b>	<b>41,9°</b>	<b>39,8°</b>	<b>39,5°</b>	<b>38,9°</b>	<b>39,0°</b>
Beat VMG	<b>3,61</b>	<b>4,39</b>	<b>5,02</b>	<b>5,30</b>	<b>5,43</b>	<b>5,53</b>	<b>5,63</b>
52°	<b>5,54</b>	<b>6,67</b>	<b>7,42</b>	<b>7,66</b>	<b>7,77</b>	<b>7,83</b>	<b>7,97</b>
60°	<b>5,89</b>	<b>7,05</b>	<b>7,67</b>	<b>7,91</b>	<b>8,02</b>	<b>8,08</b>	<b>8,25</b>
75°	<b>6,22</b>	<b>7,32</b>	<b>7,86</b>	<b>8,20</b>	<b>8,42</b>	<b>8,54</b>	<b>8,65</b>
90°	<b>6,21</b>	<b>7,41</b>	<b>7,98</b>	<b>8,26</b>	<b>8,66</b>	<b>9,00</b>	<b>9,29</b>
110°	<b>6,07</b>	<b>7,37</b>	<b>8,01</b>	<b>8,53</b>	<b>8,93</b>	<b>9,22</b>	<b>9,71</b>
120°	<b>5,85</b>	<b>7,15</b>	<b>7,87</b>	<b>8,36</b>	<b>8,93</b>	<b>9,55</b>	<b>10,26</b>
135°	<b>5,18</b>	<b>6,44</b>	<b>7,43</b>	<b>7,98</b>	<b>8,44</b>	<b>8,98</b>	<b>10,29</b>
150°	<b>4,34</b>	<b>5,50</b>	<b>6,53</b>	<b>7,38</b>	<b>7,93</b>	<b>8,36</b>	<b>9,37</b>
Run VMG	<b>3,76</b>	<b>4,76</b>	<b>5,65</b>	<b>6,45</b>	<b>7,13</b>	<b>7,72</b>	<b>8,58</b>
Gybe Angles	<b>143,0°</b>	<b>147,2°</b>	<b>148,0°</b>	<b>154,9°</b>	<b>167,5°</b>	<b>180,0°</b>	<b>180,0°</b>

**Class Division Length**  
CDL = **10,318**

**Storm Sails Areas**  
Heavy Weather Jib **33,07**  
Storm Jib (JL=10,17) **12,25**  
Storm Trysail **16,93**

**Owner**  
CRISTOBAL TOLEDO y  
HERMOGENES BARCIA


I certify that I understand my responsibilities under ORC Rules and Regulations

Signature

<b>BOAT</b>	
Name <b>HMS VICTORY</b>	Sail Nr <b>ECU-007</b>
File <b>ECU007</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>27/09/2017</b>		SG <b>1,0253</b>
FFM <b>1,381</b>	FF <b>1,381</b>	SFFP <b>0,160</b>
FAM <b>1,117</b>	FA <b>1,117</b>	SAFP <b>12,030</b>
W1 <b>90,0</b>	PD1 <b>475,7</b>	WD <b>10,950</b>
W2 <b>90,0</b>	PD2 <b>480,0</b>	GSA <b>1,0</b>
W3 <b>90,0</b>	PD3 <b>478,2</b>	RSA <b>1,0</b>
W4 <b>90,0</b>	PD4 <b>475,0</b>	PLM <b>9000,0</b>
LCF from stem on CL / on sheer		<b>6,745 / 6,955</b>
Maximum beam station from stem		<b>8,030</b>
RM Measured		<b>162,6kg·m</b>
RM Default		<b>187,6kg·m</b>
Limit of positive stability / Stab.Index		<b>114,0° / 118,4</b>
Freeboard at mast at 4,751		<b>1,207</b>

<b>RIG</b>			
Forestay Tension <b>Aft</b>	Spreaders <b>2</b>		
Inner Stay <b>None Fitted</b>	Runners <b>0</b>		
Carbon Mast <b>Yes</b>	Jumper Struts <b>None</b>		
Taper Hollows <b>No</b>	Jib Furler <b>No</b>		
Fiber Rigging <b>No</b>	Main Furler <b>No</b>		
Lenticular Rigging <b>No</b>	Without Backstay <b>No</b>		
Articulated Bowsprit <b>No</b>			
P <b>16,400</b>	E <b>5,900</b>	MDT1 <b>0,125</b>	MW <b>0,247</b>
IG <b>15,580</b>	J <b>4,450</b>	MDL1 <b>0,247</b>	GO <b>0,267</b>
ISP <b>15,650</b>	SFJ <b>0,301</b>	MDT2 <b>0,081</b>	BD <b>0,250</b>
BAS <b>1,702</b>	SPL <b>4,450</b>	MDL2 <b>0,181</b>	MWT <b>194,20</b>
FSP <b>0,066</b>	TPS <b>5,511</b>	TL <b>2,440</b>	MCG <b>5,750</b>




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<b>MIZZEN RIG AND SAILS</b>	
N/A	

<b>PROPELLER</b>		
Installation <b>Strut</b>	PRD <b>0,430</b>	
Type <b>Folding 2 blades</b>	PBW <b>0,130</b>	
Twin Screw <b>No</b>	PIPA <b>0,0095</b>	
ST1 <b>0,420</b>	ST3 <b>0,180</b>	ST5 <b>0,315</b>
ST2 <b>0,180</b>	ST4 <b>0,112</b>	EDL <b>1,020</b>

<b>COMMENTS</b>	
CAMBIO ARMADOR EX MITSUBISHI CHI4208	

<b>MOVEABLE BALLAST</b>	
N/A	

<b>CENTERBOARD</b>	
N/A	

<b>SAILS (Maximum Areas)</b>									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,240	1,18	2,09	3,65	4,82	55,98	56,97	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL			SL · (SFL + 4·SHW) / 6	
	15,41	15,41	15,41	8,25	7,96	105,20			
Asymmetric	SLU	SLE	SL	SHW	SFL			AS · (SFL + 4·SHW) / 6	
	16,05	14,56	15,30	8,19	8,11	104,25			

<b>HEADSAILS</b>												
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	0,70	1,33	2,45	3,52	4,63	15,70	37,75	Y		29/09/2017	Kevlar	3DL
0,07	0,69	1,33	2,45	3,54	4,64	15,63	37,64	Y		29/09/2017	Kevlar	3DL
0,07	0,66	1,25	2,42	3,51	4,66	15,55	37,02	Y		28/04/2016	Carbon	USADA
0,08	0,62	1,06	2,13	3,24	4,41	14,82	32,28	Y		04/10/2017	Kevlar	AMARILLO

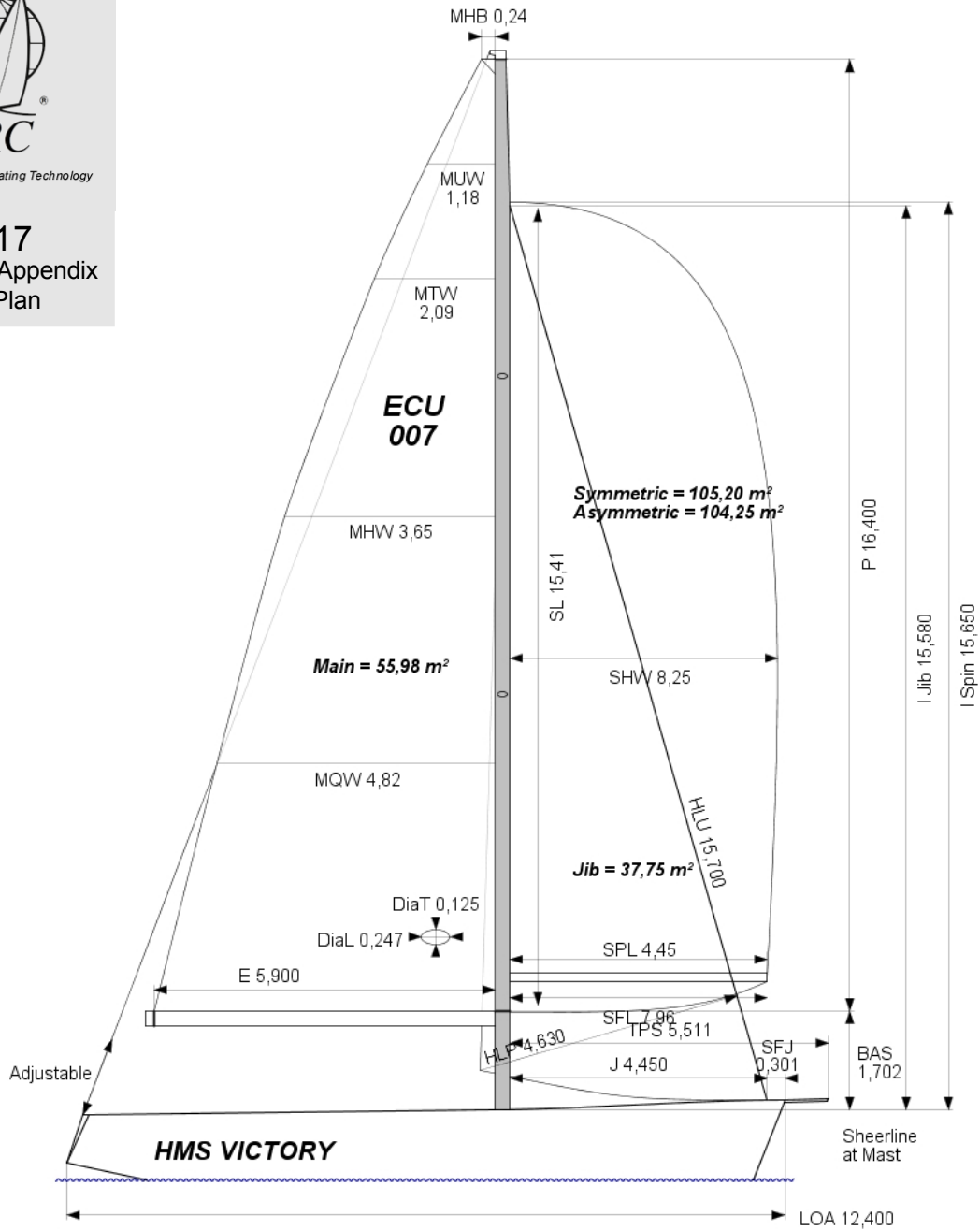
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>PATRICIO GUTIERREZ P G</b>				
Date <b>27/09/2017</b>				
Comment <b>J M SENSOR</b>				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
C5	Engine	YANMAR	40 HP	
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

<b>MEASUREMENT INVENTORY</b>								
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG</i>	<i>Condtn</i>	<i>Description</i>
6B	Tank	DIESEL	ALUMINIO	30,0	8,55	0,11	5,0	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>				
E5	Ballast	272,0	5,75	-0,25 16 LINGOTES DE PLOMO				
B5	Ballast	272,0	5,75	-0,25 16 LINGOTES DE PLOMO				
E6	Ballast	51,0	4,75	-0,30 3 LINGOTES DE PLOMO				
B6	Ballast	51,0	4,75	-0,30 3 LINGOTES DE PLOMO				
B5	Battery	14,0	7,25	0,11 BAT. BABOR 1 X 12V - 75 AMP				
E5	Battery	14,0	7,25	0,11 BAT. ESTRIBOR 1 X 12V - 75 AMP				



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Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

**MAINSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1	0,240	1,18	2,09	3,65	4,82	55,91	P GUTIERREZ	29/09/2017	NORTH	Carbon	NUEVA 3DL

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G1 MH	0,10	0,70	1,33	2,45	3,52	4,63	15,70	104%	37,75	Y		P	29/09/2017	NORTH	Kevlar	3DL
G1 LM	0,07	0,69	1,33	2,45	3,54	4,64	15,63	104%	37,64	Y		P	29/09/2017	NORTH	Kevlar	3DL
1 H	0,07	0,66	1,25	2,42	3,51	4,66	15,55	105%	37,02	Y		AVM	28/04/2016	NORTH	Carbon	USADA
G3	0,08	0,62	1,06	2,13	3,24	4,41	14,82	99%	32,28	Y		P	04/10/2017	NORTH	Kevlar	AMARILLO

**SYMMETRIC SPINNAKERS (3)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S 2	15,41	15,41	15,41	8,25	7,96	105,20	P GUTIERREZ	29/09/2017	NORTH S	Nylon	BL/ROJO
S1.5	15,38	15,38	15,38	8,06	7,94	102,99	P GUTIERREZ	04/10/2017	NORTH S	Nylon	BL/ROJO
S0	15,54	15,51	15,52	5,62	7,42	77,37	P GUTIERREZ	04/10/2017	NORTH	Nylon	BL

**ASYMMETRIC SPINNAKERS (2)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A1	16,05	14,56	15,30	8,19	8,11	104,25	asym	P GUTIERREZ	29/09/2017	NORTH	Nylon	BL
A0	15,97	14,71	15,34	5,97	7,89	81,23	asym	P GUTIERREZ	28/09/2017	NORTH	Technora	GRIS-NUEVO