

<b>BOAT</b> Name <b>BANDIT</b> Sail Nr <b>ECU-4208</b>	<b>GPH</b> <b>542,7</b>	<b>HULL</b> Length Overall <b>12,960m</b> Maximum Beam <b>3,910m</b> Displacement <b>7.637kg</b> Draft <b>2,742m</b> IMS Reg. Division <b>Cruiser/Racer</b> Dynamic Allowance <b>0,000%</b> Fwd Accommodation <b>No</b> Hull Construction <b>Cored</b> Carbon Rudder <b>Yes</b> Crew Arm Extension
<b>GENERAL</b> Class <b>SWAN 42 CLUB</b> Designer <b>FRERS</b> Builder <b>NAUTOR</b> Series <b>02/2006</b> Age <b>02/2007</b> Age Allowance <b>0,357%</b> Offset File <b>SWAN42CS.OFF - 31/07/2014 01:38:00</b> Measurement by <b>P. GUTIERREZ - 28/09/2017</b>		IMSL <b>11,838m</b> VCGD <b>-0,471m</b> Sink <b>24,41kg/mm</b> RL <b>11,284m</b> VCGM <b>-0,366m</b> WS <b>33,03m<sup>2</sup></b> LSMO <b>11,528m</b> Displacement/Length ratio <b>4,9850</b>



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**2017**  
ORC International  
Certificate

**Rating Office**  
Federación Ecuatoriana  
de Vela  
Patricio D. Gutiérrez - RO  
gutierrez@yca.org.ar



SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Time On Distance	<b>528,3</b>			<b>594,3</b>	
Time On Time	<b>1,1357</b>			<b>1,1358</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>616,8</b>	<b>482,3</b>	<b>429,6</b>	<b>799,9</b>	<b>595,7</b>	<b>523,1</b>
Time on Time	<b>1,0944</b>	<b>1,3994</b>	<b>1,5712</b>	<b>0,8439</b>	<b>1,1331</b>	<b>1,2905</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>916,6</b>	<b>755,7</b>	<b>665,9</b>	<b>628,6</b>	<b>609,9</b>	<b>598,7</b>	<b>583,6</b>
52°	<b>597,9</b>	<b>499,8</b>	<b>459,1</b>	<b>445,3</b>	<b>438,3</b>	<b>434,2</b>	<b>425,3</b>
60°	<b>561,6</b>	<b>477,4</b>	<b>446,8</b>	<b>432,6</b>	<b>425,0</b>	<b>420,0</b>	<b>411,0</b>
75°	<b>531,3</b>	<b>462,8</b>	<b>436,5</b>	<b>417,8</b>	<b>402,7</b>	<b>394,4</b>	<b>386,0</b>
90°	<b>532,0</b>	<b>459,2</b>	<b>435,3</b>	<b>415,1</b>	<b>394,6</b>	<b>376,4</b>	<b>357,2</b>
110°	<b>539,9</b>	<b>455,3</b>	<b>423,2</b>	<b>405,7</b>	<b>390,6</b>	<b>375,9</b>	<b>349,0</b>
120°	<b>555,5</b>	<b>462,3</b>	<b>428,2</b>	<b>399,0</b>	<b>377,5</b>	<b>362,2</b>	<b>332,6</b>
135°	<b>619,2</b>	<b>498,8</b>	<b>447,3</b>	<b>420,1</b>	<b>391,9</b>	<b>362,8</b>	<b>305,9</b>
150°	<b>735,5</b>	<b>587,0</b>	<b>497,4</b>	<b>450,4</b>	<b>429,4</b>	<b>408,4</b>	<b>355,3</b>
Run VMG	<b>849,3</b>	<b>677,8</b>	<b>574,3</b>	<b>519,3</b>	<b>493,7</b>	<b>461,4</b>	<b>410,3</b>

**Certificate**  
Number **420802**  
ORC Ref **ECU00005611**  
Issued On **04/10/2017**  
VPP Ver. **2017 1.00**  
Valid until **31/03/2018**

**Crew Weight**  
Declared **966kg**  
Default\* **843kg**  
Non Manual Pwr **No**

**Special Scoring**  
ToD ToT  
Non Spin GPH **578,3** **1,0375**  
Non Spin OSN **564,4** **1,0632**

Selected Courses	882,9	716,7	620,1	573,9	551,8	530,0	497,0
Windward / Leeward	<b>882,9</b>	<b>716,7</b>	<b>620,1</b>	<b>573,9</b>	<b>551,8</b>	<b>530,0</b>	<b>497,0</b>
Circular Random	<b>742,8</b>	<b>601,7</b>	<b>526,8</b>	<b>483,6</b>	<b>456,6</b>	<b>437,6</b>	<b>409,2</b>
Ocean for PCS	<b>911,1</b>	<b>705,7</b>	<b>590,7</b>	<b>520,6</b>	<b>474,6</b>	<b>441,4</b>	<b>392,3</b>
Non Spinnaker	<b>807,9</b>	<b>647,8</b>	<b>560,6</b>	<b>508,7</b>	<b>475,8</b>	<b>453,3</b>	<b>423,5</b>

**Sails Limitations**  
Headsails **7** Spinnakers **5**

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>43,1°</b>	<b>42,0°</b>	<b>40,5°</b>	<b>38,3°</b>	<b>37,5°</b>	<b>36,8°</b>	<b>36,1°</b>
Beat VMG	<b>3,93</b>	<b>4,76</b>	<b>5,41</b>	<b>5,73</b>	<b>5,90</b>	<b>6,01</b>	<b>6,17</b>
52°	<b>6,02</b>	<b>7,20</b>	<b>7,84</b>	<b>8,08</b>	<b>8,21</b>	<b>8,29</b>	<b>8,46</b>
60°	<b>6,41</b>	<b>7,54</b>	<b>8,06</b>	<b>8,32</b>	<b>8,47</b>	<b>8,57</b>	<b>8,76</b>
75°	<b>6,78</b>	<b>7,78</b>	<b>8,25</b>	<b>8,62</b>	<b>8,94</b>	<b>9,13</b>	<b>9,33</b>
90°	<b>6,77</b>	<b>7,84</b>	<b>8,27</b>	<b>8,67</b>	<b>9,12</b>	<b>9,57</b>	<b>10,08</b>
110°	<b>6,67</b>	<b>7,91</b>	<b>8,51</b>	<b>8,87</b>	<b>9,22</b>	<b>9,58</b>	<b>10,31</b>
120°	<b>6,48</b>	<b>7,79</b>	<b>8,41</b>	<b>9,02</b>	<b>9,54</b>	<b>9,94</b>	<b>10,82</b>
135°	<b>5,81</b>	<b>7,22</b>	<b>8,05</b>	<b>8,57</b>	<b>9,19</b>	<b>9,92</b>	<b>11,77</b>
150°	<b>4,89</b>	<b>6,13</b>	<b>7,24</b>	<b>7,99</b>	<b>8,38</b>	<b>8,81</b>	<b>10,13</b>
Run VMG	<b>4,24</b>	<b>5,31</b>	<b>6,27</b>	<b>6,93</b>	<b>7,29</b>	<b>7,80</b>	<b>8,77</b>
Gybe Angles	<b>143,2°</b>	<b>145,6°</b>	<b>149,0°</b>	<b>151,6°</b>	<b>152,3°</b>	<b>176,1°</b>	<b>143,2°</b>

**Class Division Length**  
CDL = **11,562**

**Storm Sails Areas**  
Heavy Weather Jib **43,10**  
Storm Jib (JL=11,61) **15,96**  
Storm Trysail **17,54**

**Owner**  
JUAN CARLOS PLAZA

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

Signature

<b>BOAT</b>	
Name <b>BANDIT</b>	Sail Nr <b>ECU-4208</b>
File <b>ECU4208</b>	Data in <b>meters/kilograms</b>

<b>INCLINING TEST AND FREEBOARDS</b>		
Inclining Test <b>Current Inclining</b>		
Flotation date <b>28/09/2017</b>	SG <b>1,0253</b>	
FFM <b>1,461</b>	FF <b>1,462</b>	SFFP <b>0,474</b>
FAM <b>1,115</b>	FA <b>1,115</b>	SAFP <b>12,543</b>
W1 <b>120,0</b>	PD1 <b>482,3</b>	WD <b>11,450</b>
W2 <b>120,0</b>	PD2 <b>483,3</b>	GSA <b>1,0</b>
W3 <b>120,0</b>	PD3 <b>483,6</b>	RSA <b>1,0</b>
W4 <b>120,0</b>	PD4 <b>485,5</b>	PLM <b>9000,0</b>
LCF from stem on CL / on sheer		<b>7,172 / 7,421</b>
Maximum beam station from stem		<b>8,347</b>
RM Measured		<b>223,7kg·m</b>
RM Default		<b>215,6kg·m</b>
Limit of positive stability / Stab.Index		<b>135,7° / 138,3</b>
Freeboard at mast at 5,348		<b>1,238</b>



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**IMS Measurement Certificate**

<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>17,232</b>	E <b>5,815</b>	MDT1 <b>0,136</b>	MW <b>0,252</b>
IG <b>17,868</b>	J <b>5,000</b>	MDL1 <b>0,252</b>	GO <b>0,252</b>
ISP <b>19,313</b>	SFJ <b>0,348</b>	MDT2 <b>0,103</b>	BD <b>0,206</b>
BAS <b>1,908</b>	SPL <b>0,000</b>	MDL2 <b>0,174</b>	MWT
FSP <b>0,074</b>	TPS <b>7,365</b>	TL <b>0,877</b>	MCG

**Certificate**

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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>0,110</b>	
Twin Screw	PIPA <b>0,0040</b>	
ST1 <b>0,065</b>	ST3 <b>0,180</b>	ST5 <b>0,280</b>
ST2 <b>0,180</b>	ST4 <b>0,110</b>	EDL <b>1,630</b>

<b>COMMENTS</b>	

<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	
	0,175	1,48	2,45	3,75	4,80	60,65	62,00	P/8 · (E + 2·MQW + 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric Not Available									
Asymmetric	SLU	SLE	SL	SHW	SFL			AS · (SFL + 4·SHW) / 6	
	21,98	17,69	19,84	10,95	11,01	181,19			

<b>HEADSAILS</b>												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
<b>HHB</b>	<b>HUW</b>	<b>HTW</b>	<b>HHW</b>	<b>HQW</b>	<b>HLP</b>	<b>HLU</b>	<b>Area</b>	<b>Btn</b>	<b>Fly</b>	<b>Meas.Date</b>	<b>Material</b>	<b>Comment</b>
0,10	0,81	1,50	2,70	3,93	5,36	18,36	49,81	Y		08/10/2015	Carbon	USADA
0,10	0,80	1,50	2,72	3,95	5,33	18,32	49,76	Y		30/03/2017	Carbon	REMEDICION
0,10	0,72	1,36	2,59	3,84	5,25	18,13	47,43	Y		26/09/2014	Carbon	REMEDICION

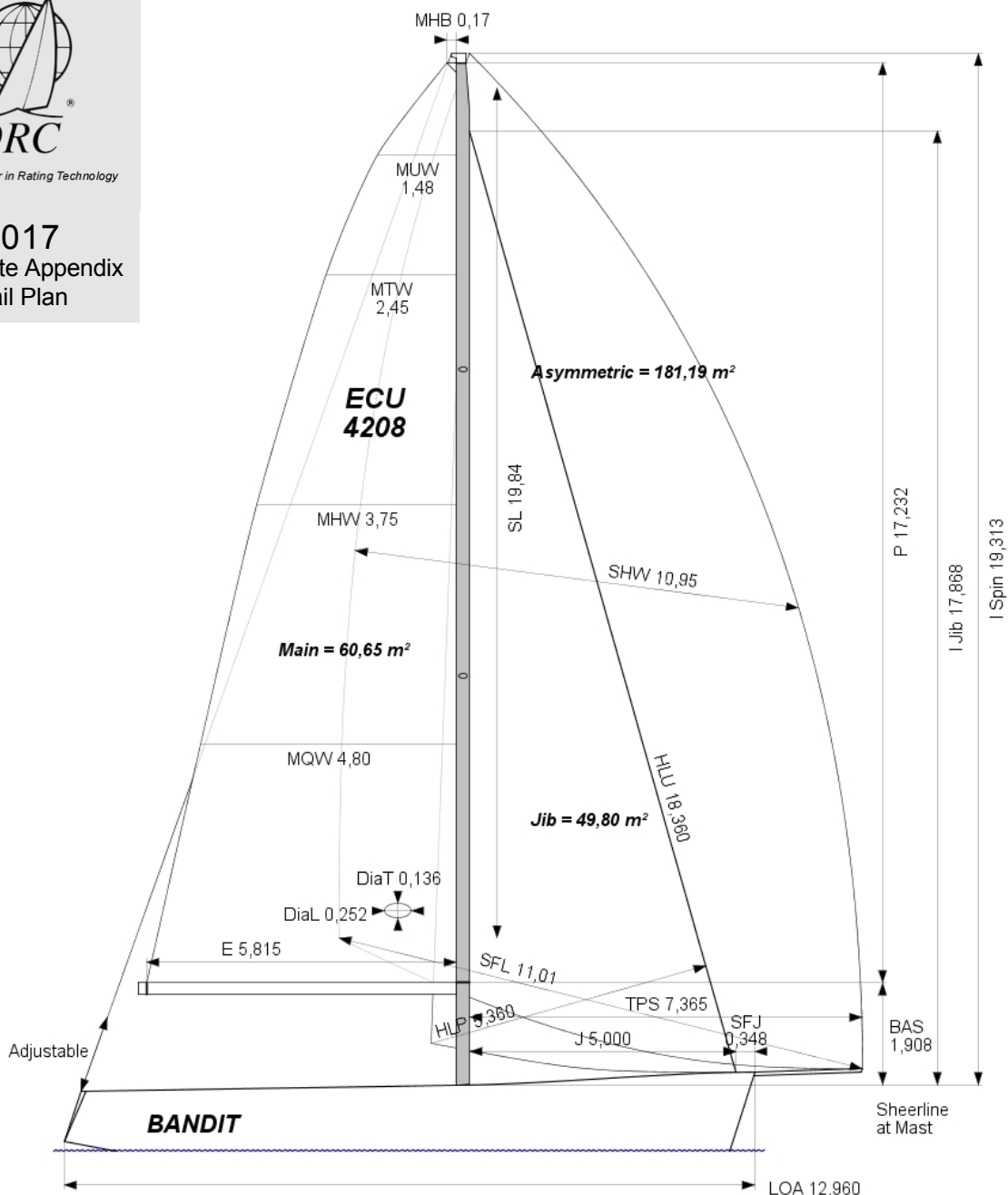
<b>MEASUREMENT INVENTORY</b>				
Measurer <b>PATRICIO GUTIERREZ P G</b>				
Date <b>28/09/2017</b>				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
3A	Engine	VOLVO PENTA	D2-40	
<i>Id</i>	<i>Item</i>	<i>Weight Description</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>	
4D	Tank	PETROLEO	PLASTICO	60,0	5,85	0,15	0,0	a babor sobre BMAX	
4C	Tank	AGUA	PLASTICO	60,0	6,85	0,15	0,0	a babor sobre BMAX	
4B	Tank	PETROLEO	PLASTICO	60,0	5,85	0,15	17,0	a estribor sobre BMAX	
4A	Tank	AGUA	PLASTICO	60,0	6,85	0,15	0,0	a estribor sobre BMAX	
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>					
1E	Ballast	28,0	5,55	-0,08 2 barras de plomo 20x31x2cm c/u					
1D	Ballast	3,4	8,75	-0,08 1 barra de plomo 10x15x2xm					
1C	Ballast	7,0	8,75	-0,08 1 barra de plomo 20x15.5x2cm					
1B	Ballast	3,4	8,75	-0,08 1 barra de plomo 10x15x2 cm					
1A	Ballast	7,0	8,75	-0,08 1 barra de plomo 20x15.5x2cm					
E4	Battery	14,0	8,50	12 V. 70 AMP					
C7	Battery	35,0	6,20	12V. 150 AMP					
C7	Battery	35,0	6,18	12V. 150 AMP					
C7	Misc	2,0	6,30	0,35 Gato Hidraulico sobre CL.					
C4	Misc	5,0	10,00	0,00 Calentador de agua Inox. a popa motor					
B5	Misc	10,0	8,25	0,63 COCINA CON HORNO A BABOR					



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Certificate Appendix  
Sail Plan



**SAILS INVENTORY**

**MANSAIL (1)**

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
M1	0,175	1,48	2,45	3,75	4,80	60,65	A VELASTEGUI	30/03/2017	QUANTUM	Carbon	REMEDIACION

**HEADSAILS (3)**

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G2	0,10	0,81	1,50	2,70	3,93	5,36	18,36	107%	49,81	Y		A	08/10/2015	QUANTUM	Carbon	USADA
G1	0,10	0,80	1,50	2,72	3,95	5,33	18,32	107%	49,76	Y		A	30/03/2017	QUANTUM	Carbon	REMEDIACION
G1 H	0,10	0,72	1,36	2,59	3,84	5,25	18,13	105%	47,43	Y		G LIZA	26/09/2014	NORTH	Carbon	REMEDIACION

**SYMMETRIC SPINNAKERS (0)**

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
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**ASYMMETRIC SPINNAKERS (3)**

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A2	21,98	17,69	19,84	10,95	11,01	181,19	asym	G LIZA	26/02/2014	NORTH	Nylon	REMEDIACION
R1.5	21,39	18,14	19,77	10,96	11,00	180,65	asym	A VELASTEGUI	30/03/2017	QUANTUM	Nylon	REMEDIACION
A0	20,12	18,06	19,09	8,24	10,95	139,71	asym	R PESCHIERA	08/10/2014	NORTH	Polyester	NUEVA