



# 2020 ORC Club Certificate

## Rating Office

Offshore Racing Congress



## Certificate

Number **US6094**  
 Issued On **11/01/2021**  
 ORC Ref **03410000TM3**  
 VPP Ver. **2020 1.02**  
 Valid until **31/01/2021**

## Crew Weight

Default 777kg  
 Maximum **728kg**  
 Minimum\* **546kg**  
\*when applied by the NoR and SI  
 Non Manual Pwr **No**

## Special Scoring

	ToD	ToT
Non Spin GPH	<b>614.7</b>	<b>0.9761</b>
Non Spin OSN	<b>598.9</b>	<b>1.0018</b>

## Sails Limitations

Headsails **6** Spinnakers **4**

**Asymmetric on centerline**

**Spinnaker configuration**  
 Symmetric: **No**  
 Asymmetric: **Yes 173.06**  
 Flying H/S: **No**  
 Spin. Pole: **No**

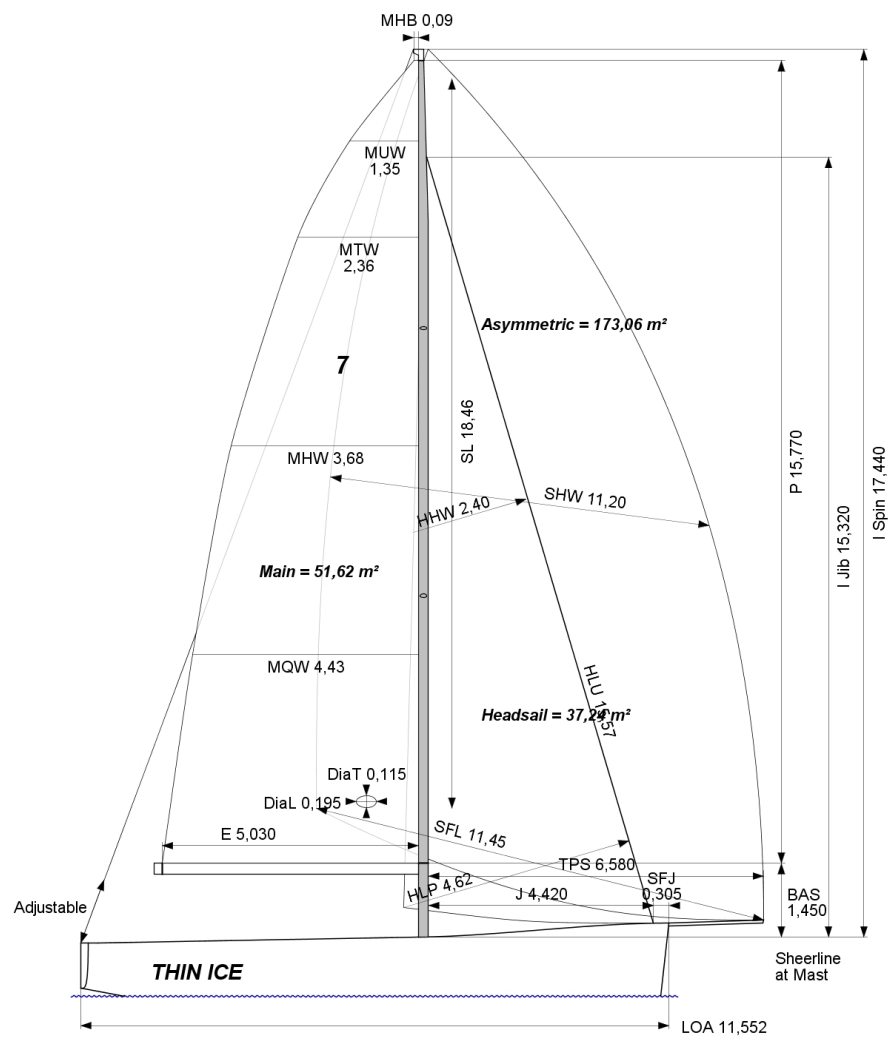
## Class Division Length

**CDL = 10.286**

## Stability (Estimated)

Limit Positive Stab.: **111.2°**  
 Stability Index: **109.0**

## Owner



BOAT		GPH	HULL			
Name <b>Thin Ice</b>		<b>569.8</b>	Data File <b>US6094</b>	LOA <b>11.552m</b>		
Sail Nr <b>7</b>			Offset File <b>US31007skSR.O</b>	MB <b>3.992m</b>		
CLASS			Displacement <b>6,007kg</b>	Draft <b>1.794m</b>		
Class <b>Aerodyne 38</b>	Designer <b>Roger Martin</b>		IMS Division <b>Cruiser/Racer</b>	Dynamic All. <b>0.012%</b>		
Builder <b>Aerodyne</b>	Series <b>09/1999</b>		Plan Review	Construction <b>Cored</b>		
Age Date <b>01/2000</b>	Age Allowance <b>0.487%</b>		Fiber Rigging <b>No</b>	Aramid Core <b>No</b>		
COMMENTS			Crew Arm Ex	Carbon Rudder <b>No</b>		
				Light Stanchions <b>No</b>		
PROPELLER			IMSL <b>10.900m</b>	VCGD <b>0.127m</b>		
Installation <b>Strut</b>	PRD <b>0.442</b>		RL <b>9.671m</b>	VCGM <b>0.074m</b>		
Type <b>Feathering 2 blades</b>	PBW <b>0.125</b>		WS <b>28.55m²</b>			
	PIPA <b>0.0035</b>		LSM0 <b>10.889m</b>	Displacement/Length ratio <b>4.6526</b>		
			Water Ballast <b>0</b>	Trim Tab <b>No</b>		
			BLR Index <b>0.0000</b>			
			CENTERBOARD			
			N/A			
SCORING OPTIONS						
	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
Time on Distance	<b>557.5</b>			<b>629.8</b>		
Time on Time	<b>1.0763</b>			<b>1.0717</b>		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	<b>642.5</b>	<b>507.9</b>	<b>455.8</b>	<b>836.2</b>	<b>629.5</b>	<b>559.9</b>
Time on Time	<b>1.0506</b>	<b>1.3290</b>	<b>1.4809</b>	<b>0.8072</b>	<b>1.0722</b>	<b>1.2055</b>

# 2020

## ORC Club Certificate Appendix

<b>BOAT</b>							
Name	<b>Thin Ice</b>	Certificate Number		<b>US6094</b>			
Sail Nr	<b>7</b>	Issued On		<b>11/01/2021</b>			

<b>TIME ALLOWANCES</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	<b>973.7</b>	<b>803.0</b>	<b>712.8</b>	<b>679.0</b>	<b>665.2</b>	<b>659.5</b>	<b>648.6</b>
52°	<b>634.4</b>	<b>534.2</b>	<b>490.1</b>	<b>474.9</b>	<b>468.8</b>	<b>465.7</b>	<b>458.3</b>
60°	<b>597.4</b>	<b>511.5</b>	<b>476.8</b>	<b>461.8</b>	<b>454.9</b>	<b>451.1</b>	<b>444.2</b>
75°	<b>552.3</b>	<b>484.0</b>	<b>462.6</b>	<b>448.5</b>	<b>434.3</b>	<b>425.9</b>	<b>418.2</b>
90°	<b>532.1</b>	<b>472.1</b>	<b>446.3</b>	<b>428.3</b>	<b>415.5</b>	<b>405.3</b>	<b>386.9</b>
110°	<b>549.6</b>	<b>475.5</b>	<b>444.5</b>	<b>420.9</b>	<b>395.3</b>	<b>374.5</b>	<b>347.4</b>
120°	<b>566.3</b>	<b>479.5</b>	<b>445.1</b>	<b>415.4</b>	<b>393.4</b>	<b>376.2</b>	<b>333.2</b>
135°	<b>636.0</b>	<b>509.6</b>	<b>462.2</b>	<b>431.8</b>	<b>400.7</b>	<b>370.5</b>	<b>315.0</b>
150°	<b>752.7</b>	<b>605.2</b>	<b>512.1</b>	<b>465.2</b>	<b>442.8</b>	<b>420.3</b>	<b>360.3</b>
Run VMG	<b>869.2</b>	<b>698.8</b>	<b>591.3</b>	<b>536.4</b>	<b>511.3</b>	<b>477.7</b>	<b>416.1</b>
<b>Selected Courses</b>							
Windward / Leeward	<b>921.4</b>	<b>750.9</b>	<b>652.1</b>	<b>607.7</b>	<b>588.3</b>	<b>568.6</b>	<b>532.4</b>
Circular Random	<b>774.7</b>	<b>629.8</b>	<b>553.5</b>	<b>509.9</b>	<b>482.8</b>	<b>463.7</b>	<b>434.3</b>
Coastal / Long Distance	<b>916.2</b>	<b>704.2</b>	<b>589.0</b>	<b>528.3</b>	<b>497.1</b>	<b>469.0</b>	<b>414.3</b>
Non Spinnaker	<b>855.7</b>	<b>687.1</b>	<b>595.8</b>	<b>542.3</b>	<b>508.9</b>	<b>486.6</b>	<b>456.9</b>

<b>Velocity Prediction in Knots for True Wind Speeds</b>							
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	<b>43.1°</b>	<b>41.6°</b>	<b>40.5°</b>	<b>39.4°</b>	<b>38.6°</b>	<b>38.4°</b>	<b>39.1°</b>
Beat VMG	<b>3.70</b>	<b>4.48</b>	<b>5.05</b>	<b>5.30</b>	<b>5.41</b>	<b>5.46</b>	<b>5.55</b>
52°	<b>5.67</b>	<b>6.74</b>	<b>7.35</b>	<b>7.58</b>	<b>7.68</b>	<b>7.73</b>	<b>7.85</b>
60°	<b>6.03</b>	<b>7.04</b>	<b>7.55</b>	<b>7.80</b>	<b>7.91</b>	<b>7.98</b>	<b>8.10</b>
75°	<b>6.52</b>	<b>7.44</b>	<b>7.78</b>	<b>8.03</b>	<b>8.29</b>	<b>8.45</b>	<b>8.61</b>
90°	<b>6.77</b>	<b>7.63</b>	<b>8.07</b>	<b>8.40</b>	<b>8.66</b>	<b>8.88</b>	<b>9.30</b>
110°	<b>6.55</b>	<b>7.57</b>	<b>8.10</b>	<b>8.55</b>	<b>9.11</b>	<b>9.61</b>	<b>10.36</b>
120°	<b>6.36</b>	<b>7.51</b>	<b>8.09</b>	<b>8.67</b>	<b>9.15</b>	<b>9.57</b>	<b>10.80</b>
135°	<b>5.66</b>	<b>7.06</b>	<b>7.79</b>	<b>8.34</b>	<b>8.98</b>	<b>9.72</b>	<b>11.43</b>
150°	<b>4.78</b>	<b>5.95</b>	<b>7.03</b>	<b>7.74</b>	<b>8.13</b>	<b>8.56</b>	<b>9.99</b>
Run VMG	<b>4.14</b>	<b>5.15</b>	<b>6.09</b>	<b>6.71</b>	<b>7.04</b>	<b>7.54</b>	<b>8.65</b>
Gybe Angles	<b>143.5°</b>	<b>147.0°</b>	<b>148.5°</b>	<b>151.8°</b>	<b>150.0°</b>	<b>176.0°</b>	<b>143.0°</b>