

2021 USA-CAN ORC Scoring Option Summary

General: In the new 2021 certificate design, ORC decided to no longer display a box of Simple Scoring Options on every certificate, opting instead to have only two options as standard for all certificates:

Single Number Scoring Options		
Course	Time On Distance	Time On Time
Windward / Leeward	601.8	0.9971
All purpose	486.3	1.2338

The **Windward/Leeward** ratings are determined from a course model that is 50% upwind VMG and 50% downwind VMG.

The **All Purpose** model is a replacement for the Coastal/Long distance model, and is an equal mix of all wind angles.

Both models condense into a single number with this mix of wind speeds:

<i>TWS (kt)</i>	<i>6</i>	<i>8</i>	<i>10</i>	<i>12</i>	<i>14</i>	<i>16</i>	<i>20</i>
<i>Time Allowance percentage</i>	5%	10%	20%	30%	20%	10%	10%

However, each national Rating Office may now display other options that are in use in their region. Race organizers around the US have shown interest in the following options, which are printed on Page 2 of every ORC certificate issued by US Sailing:

Single Number	Time On Distance	Time On Time
Triple Number All Purpose Low	643.6	0.9323
Triple Number All Purpose Medium	510.5	1.1754
Triple Number All Purpose High	457.3	1.3121
Triple Number Windward/Leeward Low	836.9	0.7169
Triple Number Windward/Leeward Medium	632.1	0.9492
Triple Number Windward/Leeward High	560.3	1.0709
Predominantly Upwind	559.1	1.0731
Predominantly Downwind	513.4	1.1687
Predominantly Upwind Low	735.4	0.8158
Predominantly Upwind Medium	586.1	1.0237
Predominantly Upwind High	556.5	1.0782
Predominantly Downwind Low	736.0	0.8152
Predominantly Downwind Medium	572.2	1.0486
Predominantly Downwind High	521.9	1.1496

Triple Number options for the Windward/Leeward and All Purpose course models are determined according to this wind speed mix:

TWS (kt)	6	8	10	12	14	16	20
Low	50%	50%					
Medium		8.4%	33.3%	33.3%	25%		
High					25%	37.5	37.5%

This year there are two new model options also available - **Predominant Upwind** and **Predominant Downwind** – that are considered useful for scoring point-to-point races of any length. These are shown on the certificate as single numbers with Upwind (below left) and Downwind (below right), like last year on ORC DH certificates, with the wind mixes described as follows:

Upwind				Downwind			
<i>TWS (kt)</i>	<i>8</i>	<i>12</i>	<i>16</i>	<i>TWS (kt)</i>	<i>8</i>	<i>12</i>	<i>16</i>
<i>Beat VMG</i>	10%	15%	7%	<i>Beat VMG</i>	3%	4%	1%
<i>52°</i>	10%	15%	9%	<i>52°</i>	4%	5%	2%
<i>90°</i>	5%	7%	3%	<i>90°</i>	5%	7%	3%
<i>135°</i>	4%	5%	2%	<i>135°</i>	10%	15%	9%
<i>Run VMG</i>	3%	4%	1%	<i>Run VMG</i>	10%	15%	7%

Or they may be scored using the **Triple Number** approach, where a rating is calculated within the same mix of wind speeds with this model mix of wind angles

for **Upwind Low**:

TWS (kt)	6	8
Beat VMG	20%	25%
52°	15%	10%
90°	5%	5%
135°	5%	5%
Run VMG	5%	5%

for **Downwind Low**:

TWS (kt)	6	8
Beat VMG	5%	5%
52°	5%	5%
90°	5%	5%
135°	15%	10%
Run VMG	20%	25%

for **Upwind Medium**:

TWS (kt)	8	10	12	14
Beat VMG	5%	15%	15%	12%
52°	3%	12%	12%	8%
90°	0.4%	4.3%	4.3%	3%
135°	0	1%	1%	1%
Run VMG	0	1%	1%	1%

for **Downwind Medium**:

TWS (kt)	8	10	12	14
Beat VMG	0	1%	1%	1%
52°	0	1%	1%	1%
90°	0.4%	4.3%	4.3%	3%
135°	3%	12%	12%	8%
Run VMG	5%	15%	15%	12%

For **Upwind High**:

TWS (kt)	14	16	20
Beat VMG	12%	18%	18%
52°	8%	12%	12%
90°	3%	5.5%	5.5%
135°	1%	1%	1%
Run VMG	1%	1%	1%

For **Downwind High**:

TWS (kt)	14	16	20
Beat VMG	1%	1%	1%
52°	1%	1%	1%
90°	3%	5.5%	5.5%
135°	8%	12%	12%
Run VMG	12%	18%	18%

Race-specific ratings appear for the first time on Page 2 of ORC certificates issued in the US:

Chicago-Mac Upwind		1.0423
Chicago-Mac All Purpose		1.0478
Chicago-Mac Downwind		1.0526
Bayview-Mac Cove Island		0.9879
Bayview-Mac Shore		1.0043
Harvest Moon Regatta	464.0	1.2930
Victoria-Maui		1.1055

The course models for the Chicago-Mac Race are published in the event's documents, as is that for the Victoria-Maui Race. The two Bayview Mac race course matrices are unpublished by the organizers.

Note please the wording of ORC Rating Systems rule 403.4: National Rating office scoring options –

National Rating Offices may publish on their certificates other scoring options. This may include ToD and/or ToT coefficients using different course models as well as multiple ToD and/or ToT coefficients for different wind ranges. The course type used to calculate these ratings and the methods of how they will be applied shall be specified in the Notice of Race and/or Sailing Instructions of the races and events that use them.

So, RC's must publish in the NOR and/or SI's which scoring type they intend to use and how they will use it: for eg, if using Triple Number the RC must state when they intend to announce their choice, if they want to make their choice changeable if there is a significant change in conditions, and that their final choice not be subject to redress.

More details on suggested applications of ORC scoring methods can be found in the **ORC Race Management Guidebook**, published on the ORC website at www.orc.org/rules with a 2021 updated edition planned for release in early March.