

WRS FALLBACK METHOD

PROPOSAL

When Weather Routing Scoring is used, the Notice of Race or Sailing Instructions shall specify a fallback ORC scoring method. ORC, together with the Organizing Authority, shall validate WRS before, during and after the race. Before the WRS factors are published, it shall be confirmed that:

- Routing has been completed successfully and consistently for the entire fleet
- The calculated routes comply with the course, marks, boundaries and exclusion zones
- Routing resolution and segment lengths are sufficiently consistent
- No material technical anomaly or unexplained outlier exists
- The forecast, starting time and course used in the calculation correspond to the race as intended

During and after the race, ORC and the Organizing Authority shall analyze the fleet's actual performance against the routing model, including elapsed times, routes sailed and conditions experienced. This analysis shall determine whether the model remained sufficiently representative of the race as sailed. The pre-declared fallback method shall be used when:

- A start delay materially affects the forecast or routing calculation
- The course is shortened or materially changed
- Valid and consistent WRS factors cannot be produced for the entire fleet
- A material technical, weather-data or calculation error is identified
- Fleet-wide analysis demonstrates that the routing model was not sufficiently representative of the race as sailed

The decision shall be based on the pre-declared validation procedure and fleet-wide evidence, not on provisional results or which boats would benefit from either method.

ORC shall provide the Organizing Authority with sufficient technical support, guidance and timely access to WRS expertise to implement, validate and, where necessary, correct WRS successfully at the event. Suggested wording for the Standard Notice of Race and Sailing Instructions:

"Results are determined using Weather Routing Scoring. The fallback scoring method shall be [insert ORC scoring method]."

WRS shall be validated before, during and after the race. The fallback method shall be used if a start delay or course change materially affects the routing calculation, if valid and consistent WRS factors cannot be produced for the entire fleet, if a material technical or weather-data error is identified, or if fleet-wide analysis demonstrates that the model was not sufficiently representative of the race as sailed.

Any decision to apply the fallback method shall be based on the pre-declared validation procedure and shall not be influenced by provisional results."

RATIONALE

WRS has the potential to improve offshore scoring, but it depends on weather data, routing assumptions and complex calculations. Its validity cannot always be confirmed before the start; some problems become apparent only when the model is compared with the fleet's actual performance.

Recent analysis has shown that inconsistent routing resolution and segment lengths may produce materially different ratings even between similar boats. In the analyzed Færder race, nearly identical X-41s received different WRS ratings because their predicted routes were divided into different numbers and lengths of segments. One segment exceeded 18 nautical miles on an 88-nautical-mile course. In changing conditions, this may allow the routing process, not the boat's predicted performance, to influence the rating.

Start delays and course changes may also make the original forecast and routing calculation unrepresentative. A defined validation and fallback procedure would prevent improvised decisions, protect the integrity of the results and give competitors certainty before the race.

Organizing Authorities should not be expected to resolve complex WRS issues without adequate assistance. Where ORC requires or recommends WRS, it should provide sufficient technical support for its successful implementation and validation.

This proposal provides the safeguards, support and transparency required for WRS credible use at ORC events.