

	
<p>NK GroenLeven Zonnebootrace</p>	<p>SOLAR & ENERGY BOAT CHALLENGE</p>
<p>YOUNG SOLAR  CHALLENGE</p>	

Race Instructions 2021

Version 15-Sep-2021

BASIC RULES

These Race Instructions (RI) have been developed to lay down a clear set of rules for the teams competing in solar boat races. Any situation not covered by these rules will be decided on by the Jury.

Each team shall participate in compliance with recognised principles of sportsmanship and fair play. Not taking part in one or more race elements or a parade, without a valid reason, is considered foul play. The responsibility for a competitor's decision to participate in the race is for his/her alone.

The local organiser shall establish a Race Committee (RC).

1 RULES

- 1.1 The race will be held in accordance with these Race Instructions, The race will be conducted subject to the provisions of the Notice of Race for the race under consideration (NR), the current version of the Technical Regulations (TR), the current version of the Race Elements Catalogue (REC), the current the right-of-way rules of the valid in the country the race is held in and any further amendments to any of these rules.
- 1.2 In the case of a conflict between the rules the Race Instructions prevail over the other rules as long as there is no conflict with the prevailing national and international laws. When a boat racing under these rules meets a boat that is not, she shall comply with the prevailing national and international laws.
- 1.3 Competitors shall keep to the right and may not deliberately hinder other competitors.
- 1.4 Competitors shall adhere to the speed limits prescribed by the organisers.
- 1.5 Instructions given by the Race Committee (during the briefing, on land and on the water) shall be followed at any time.
- 1.6 The official language of the race is English.
- 1.7 The Race Committee reserves the right to take out of the race any competitor who:
 - a) is unlikely to finish the race within the maximum time set;
 - b) for any other reason is affecting or might affect safety.
- 1.8 Competitors leaving the race shall inform the Race Committee as soon as possible. The RC will supervise their referral to the next paddock.

2 NOTICES TO COMPETITORS

- 2.1 Before the start of the race there will be one General team briefing for all persons on board and team captains. Attendance during this briefing is mandatory for all team captains and recommended for all other team members. As proof of attendance an attendance register shall be signed. The time and location of the General team briefing will be announced by the local organiser.
- 2.2 In addition to the briefing before the start of the event there may be a Daily briefing for all persons on board and team captains. The location and timing of these briefings will be announced in due time on the camp site. Attendance during these briefings is mandatory for all team captains and recommended for all other team members. As proof of attendance an attendance register shall be signed.
- 2.3 Notices to competitors will be posted on the official Notice Board located at the car of the Race Office / Information Desk in the vicinity of the camp site.
- 2.4 Decisions and notices from the Jury will be posted on the Jury section of the Notice Board, the internet or any sort of social media the race committee deems suitable.

3 CHANGES TO THE RACE INSTRUCTIONS / NOTICES TO COMPETITORS

- 3.1 Each change to the Race Instructions as well as notices to competitors will be posted on the official Notice Board, the internet or any sort of social media the race committee deems suitable, before 9 AM on the day that it takes effect, except that any change to the schedule of racing will be posted before 10 PM on the day before it takes effect.
- 3.2 It is the responsibility of the teams to check the official notices on a regular basis and take necessary actions. Unforeseen and urgent changes may be announced by the race management at any time.

4 IDENTIFICATION OF THE BOATS

4.1 Competitors:

All boats must carry the entry / registration number assigned by the organisation. See TR item 8.1.

4.2 Officials:

Official boats will carry a flag from the organisation.

5 PROLOGUE

5.1 Prior to the race a prologue may be held. The elapsed time of each boat in the prologue will determine the starting order for other parts of the race.

5.2 The requirements for the prologue are described in TR 5.24.

6 TIMEKEEPING

6.1 The time taken by each competitor to complete a race element (where relevant) is recorded by the Race Committee by means of (electronic) timing (minutes and seconds).

7 THE RACE

7.1 The local organiser will determine the location and timing of the race.

7.2 The local organiser will determine the type, amount and order of the race elements to be raced on the basis of the current version of the Race Elements Catalogue. A race consists of a combination of two or more of the following elements:

- A. Sprint Competition
- B. Endurance Competition
- C. Time Trial
- D. Top Speed Competition
- E. Stage(s)
- F. Match Race
- G. Slalom Competition
- H. Speed Record Competition

7.3 The schedule for all elements of the race will be announced by the local organiser.

7.4 Competitors shall not deviate from the course prescribed in the Road book, unless instructed to do so by the Race Committee. The Road Book will be published on the web site only.

7.5 At any point of the course the race committee may abandon the race, postpone, change or shorten the course. An abandoned race may be restarted at a place and by a method to be decided on and notified by the Race Committee.

7.6 Competitors themselves are responsible for travelling the correct course.

7.7 If a safety gate is used anywhere on the route, boats shall pass between the marks of the 'gate' from the direction from where they have come. The 'gate' will consist of two spherical marks.

8 ELIGIBILITY TO TAKE PART IN THE RACE

8.1 A team is eligible to take part in the competition under the following conditions:

- a) The team has received an approval from the Technical committee
- b) The captain on board the boat during the race have passed the sailing test
- c) All persons on board have passed the swimming test

9 SCORING

9.1 The performance of the teams in each of the elements of a race will be converted into a ranking.

- a) The team that has reached the highest rank in an element of a race will be given 1 point. The second best team will be given 2 points, etc.
- b) The points scored in the elements of a race will be multiplied by a weighing factor per element, the element multiplier. This leads to the element score.
- c) All element scores will be added and will lead to the race score.
- d) The team with the lowest combined score will win the race.
- e) The position in the final ranking of a race will be the race score. This will count towards the championships (see rule 10.4 and 10.5)
- f) During the technical inspection of a Young Solar Boat an oral examination will be held. In the oral examination all team members can be questioned randomly on all aspects of the boat, its design, the team organisation, etc. The Technical Committee will determine a score for the oral examination. This can be:
 - i) Excellent 1 point
 - ii) Good 2 points
 - iii) Sufficient 3 points
 - iv) Fail 4 points

9.2 The element multiplier for the elements will be as follows:

- | | |
|-----------------------------|--|
| A. Sprint Competition | element multiplier 1 |
| B. Endurance Competition | element multiplier 2 |
| C. Time Trial | element multiplier 2 |
| D. Top Speed Competition | element multiplier 1 |
| E. Stage(s)
organizer | element multiplier 2 or 3 per stage, to be determined by the local |
| F. Match Race | element multiplier 1 |
| G. Slalom Competition | element multiplier 1 |
| H. Speed Record Competition | element multiplier 1 |

9.3 If a boat does not start (DNS) in an element the score for that element will be the highest in its class of the boats that did start and complete that element plus 5 points.

- 9.4 If a boat does start but does not manage to complete that particular element (DNF) the score for that element will be the highest in its class of the boats that did start and complete that element plus 2 points.
- 9.5 If a boat does not start in a race the race score will be that of the lowest in the final ranking of the race plus 5 points.
- 9.6 If at the end of the race a tie remains between two or more boats, they shall be ranked in order of their scores in the element of the race with the largest element multiplier. Any remaining ties shall be broken by using the tied boats' scores in the race element with the next-to-largest element multiplier and so on until all ties are broken. If two race elements have the same element multiplier, the race element raced first will be used first to break the tie.

10 2021 CHAMPIONSHIPS

- 10.1 The Solar Boat World Cup is open for V10 class boats, Open class boats and V20 class boats and will be held over one race in Groningen.

11 STARTING

- 11.1 The starting order will be determined by the organisation.
- 11.2 Starting times may be determined on the basis of the expected weather conditions.
- 11.3 On subsequent days the starting order will be published on the Notice Board, the internet or any sort of social media the race committee deems suitable at the Information Desk.
- 11.4 At all times competitors are responsible for taking note of the starting order that is made available by the organisation, which will be published on the Notice Board at the Information Desk, the internet or any sort of social media the race committee deems suitable.
- 11.5 Towing boats from any location to the start is not allowed unless in cases of emergency or malfunction.
- 11.6 Charging the batteries from the mains or any other source of energy other than the solar panels installed on the boat is allowed until the start of the first element of the race. The local organiser may make an exemption to this rule.
- 11.7 The starting line will be at the sign. The sign may be a buoy, an arch or a flag, whatever is deemed appropriate by the local organiser. It is the responsibility of the competitor to make sure his/her or her boat does not pass the starting line before the starting signal has been given. Once the starting signal has been given, timing will start.
- 11.8 Competitors shall ensure that they reach the starting lane in time. Details of the start procedure per element will be given in the General team briefing.
- 11.9 Competitors who are not yet starting shall avoid the starting area.
- 11.10 A competitor who starts a trial or an endurance competition before his/her allocated time shall receive a 10-minute time penalty. A boat causing more than one false start in a sprint heat will be disqualified for that particular heat.

- 11.11 15 minutes before their scheduled starting time, competitors must be ready to start.
- 11.12 Competitors who arrive late at the start of an element may be penalised. It is up to the Race committee to determine the penalty. Other teams involved may be consulted.
- 11.13 The start will be closed 10 minutes after the starting signal of the last competitor on the starting list.
- 11.14 The organization may change the starting order when deemed necessary. The local organizer may also amend the starting procedure when deemed necessary

12 FINISHING

- 12.1 The finishing line will be between two spherical red marks or a clearly as finish designated object(s).
- 12.2 The time will be stopped at the moment when any part of her hull, or crew or equipment in normal position of the boat crosses the finishing line.
- 12.3 The finish time limits of elements and the finish time limits of the parts of an element (in case of a neutralisation) will be published on the Bulletin board, the internet or any sort of social media the race committee deems suitable. The race committee may change these time limits.
- 12.4 After racing, competitors shall move to the Paddock and store their boats in a location determined by the organisation. Boats shall not be relocated nor deprive another competitor of sunlight.
- 12.5 Towing boats from the finish to the paddock or any other location is not allowed unless in cases of emergency or malfunction.
- 12.6 The local organizer may also amend the starting procedure when deemed necessary

13 PROTESTS AND REQUESTS FOR REDRESS

- 13.1 Only protests by competing teams, the Race Committee and the Technical Committee will be heard.
- 13.2 Protests must be delivered in writing. Each protest shall describe the incident and indicate which boat, or which decision, is being protested, clearly indicating which rule is protested. Protest forms are available from the Race Committee, which will be located at the car of the Race Office / Information Desk. Protests shall be lodged there before the end of protest time.
- 13.3 Competitors, Race Committee and Technical Committee must inform the protested party at the first reasonable opportunity.
- 13.4 The protest time limit expires 60 minutes after the last boat in its class, has finished the race element with the exception of the last race element on the last day of a race. There the protest time limit expires 15 minutes after the finishing of the boat of the competitor lodging the protest. The same protest time limits apply to all protests by the Race Committee regarding incidents that they have observed on the course. The protest time for members of the Technical Committee ends 2 hours after the finish has been closed or 30 minutes after all boats have arrived at the paddock, whichever comes last. Requests for redress must be lodged within 30 minutes after the moment at which a competitor could have reasonably taken note of the fact on which his/her request for redress, is based.

- 13.5 Notices about the time and place of a hearing will be posted or communicated directly to those involved within 30 minutes or as soon as possible after the end of protest time to notify competitors of any hearings in which they are parties or have been named as witnesses. Hearings will be conducted in the Jury room. It is the competitors' responsibility to be present at the hearing on time, with his/her witnesses, if applicable.
- 13.6 Penalties issued by the Jury may vary from time penalties to disqualification for one or more race elements or removal of the right to start in the next race element(s), at the discretion of the jury.
- 13.7 Decisions by the Jury are binding. There shall be no appeal. If the Jury thinks it may have made an error, it may reopen a protest or request for redress.
- 13.8 If a competitor has been significantly disadvantaged through no fault of his/her own, the Jury may grant redress by giving him a new finishing position or a corrected finishing time.
- 13.9 The Jury will make decisions only in compliance with the rules of the event. It will not adjudicate any claim for damages.
- 13.10 Weather conditions will not be a cause for redress by the jury

14 MARK-ROOM

- 14.1 The mark-room is defined as the room for a boat to leave a mark on the required side. Also,
(a) room to sail to the mark when her proper course is to sail close to it, and
(b) room to round the mark as necessary to sail the course.
- 14.2 Clear astern, Clear ahead and Overlap are defined as:
One boat is clear astern of another when her hull and equipment in normal position are behind a line abeam from the aftermost point of the other boat's hull and equipment in normal position. The other boat is clear ahead. They overlap when neither is clear astern. However, they also overlap when a boat between them overlaps both.
- 14.3 The zone is defined as the area around a mark within a distance of three hull lengths of the boat nearer to it. A boat is in the zone when any part of her hull is in the zone.
- 14.4 While racing, a boat shall not touch a starting mark before starting, a mark that begins, bounds or ends the leg of the course on which she is sailing, or a finishing mark after finishing.
- 14.5 This rule applies between boats when they are required to leave a mark on the same side and at least one of them is in the zone. However, it does not apply
(a) between a boat approaching a mark and one leaving it, or
(b) if the mark is a continuing obstruction, in which case rule 15 of these Race Instructions applies.
- 14.6 Giving mark-room
a) When boats are overlapped the outside boat shall give the inside boat mark-room, unless rule 14.6 b applies.
b) If boats are overlapped when the first of them reaches the zone, the outside boat at that moment shall thereafter give the inside boat mark-room. If a boat is clear ahead when she reaches the zone, the boat clear astern at that moment shall thereafter give her mark-room.

- c) When a boat is required to give mark-room by rule 14.6 b,
 - i) she shall continue to do so even if later an overlap is broken or a new overlap begins;
 - ii) if she becomes overlapped inside the boat entitled to mark-room, she shall also give that boat room to sail her proper course while they remain overlapped. However, if the boat entitled to mark-room passes head to wind or leaves the zone, rule 14.6 b ceases to apply.
- d) If there is reasonable doubt that a boat obtained or broke an overlap in time, it shall be presumed that she did not.
- e) If a boat obtained an inside overlap from clear astern and, from the time the overlap began, the outside boat has been unable to give mark-room, she is not required to give it.

15 ROOM TO PASS AN OBSTRUCTION

15.1 A right-of-way boat may choose to pass an obstruction on either side.

15.2 When boats are overlapped, the outside boat shall give the inside boat room between her and the obstruction, unless she has been unable to do so from the time the overlap began.

15.3 While boats are passing a continuing obstruction, if a boat that was clear astern and required to keep clear becomes overlapped between the other boat and the obstruction and, at the moment the overlap begins, there is not room for her to pass between them, she is not entitled to room under rule 15.2. While the boats remain overlapped, she shall keep clear.

16 SAFETY REGULATION

16.1 Everyone on board of the boats of both the competitors and the organising authority, shall wear an adequate life-jacket as stated in the TR.

16.2 During the race everyone on board shall wear adequate footwear.

16.3 The cord of the dead man's switch must be worn in a clearly visible manner while racing the boat.

16.4 Competitors who are unable to continue racing, shall immediately notify the Race Committee by phone or otherwise, and report their whereabouts. Competitors who retire shall not deviate from the prescribed route. They shall wait by their boat in order for it to be collected by the race committee or receive further instructions. The Race Committee will not move any boats if their crew is not present unless required for safety related reasons.

16.5 Competitors who do not reach a check point within the set time shall retire from the race there.

17 SUBSTITUTION OF CREW AND EQUIPMENT

17.1 Captains may be substituted by another registered Captain.

17.2 In all classes substitution of the propeller is permitted at any time during the Challenge. For all other changes, repairs and replacements refer to the TR and relevant engineering notes.

18 INSPECTIONS

18.1 The Technical Committee may check boats for compliance with the Technical Regulations and all relevant engineering notes and the Race Instructions.

18.2 The Technical Committee may demand that the batteries or other parts of the electrical installation are submitted for inspection immediately after finishing. Competitors shall always assist in inspections.

19 OUTSIDE HELP

19.1 A competitor shall give all possible help to any person or vessel in danger. They shall report this to the Race Committee. Note: If help is needed from the emergency services dial 112.

19.2 Team leaders, coaches and other support personnel shall not sail in the zone starting 100 meters in front of the first competing boat and ending 100 meters behind the last competing boat under penalty of a Disqualification (DSQ) for the competitor involved.

19.3 While racing, competitors shall not receive outside help, except:

- a) When help is given to a person or vessel in danger;
- b) When help is given to a competitor who has fallen ill;
- c) After a collision, that is, help by the crew of the other boat to get clear.

The Race Committee will protest competitors who receive outside help that contravenes rule 19.3 or whose team leaders, coaches or other support personnel who follow their teams by boat.

19.4 Support by registered team members is not considered to be outside help.

19.5 Competitors and support personnel shall not enter any third party's property without the owner's or user's permission.

20 PRIZES AND AWARDS

20.1 Prizes will be awarded by the local organisation.

20.2 All prizes to be won will be announced by the local organiser in a way they deem appropriate

21 DISCLAIMER OF LIABILITY

21.1 Competitors participating in the event do so entirely at their own risk.

21.2 The organising authority will not accept any liability for material damage or personal injury or death sustained in conjunction with or prior to, during, or after the race. Neither does the organising authority accept any liability in any way whatsoever for damage suffered by a fast-travelling boat of an official. Competitors shall sign a declaration in respect of this disclaimer.

22 INSURANCE

22.1 The local organiser will arrange for a collective liability insurance for all the boats of the competing teams and for all the boats of the organisation for the duration of the event.

22.2 The insurance commences on the day of the start of the event premises until the moment of departure on the last day of the event.

22.3 The insurance only covers damage that is inflicted on third parties. Damage to the boat(s) of the person(s) causing the damage is not covered.

23 RIGHTS TO USE NAME AND LIKENESS

23.1 By participating in this event, competitors automatically grant to the organising authority and the event sponsors the right, in perpetuity, to make, use, and show, at their discretion, any photography, audio and video recordings, and other reproductions of them and their equipment made at the venue or on the water from the time of their arrival at the venue, until their final departure, without compensation.