



Race Instructions 2017

Version 22 August 2017

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

Organising authority

Stichting Solar Sport One:

Marcelien de Koning (Managing Director)

Stichting Young Solar Friesland:

Dennis Carton (Managing Director)

Race Committee:

Marcelien de Koning/ Dennis Carton (Race Managers)

Joris Melkert (Technical Committee)

Dennis Carton (start/finish/surveillance on water)

Dennis Carton (Timing)

Jury:

Lelystad: Frans Hin (Chair).

Lelystad: Cees Groeneveld

Lelystad: Brord van Dusseldorp

Rotterdam: tbd

In the remainder of these Race Instructions the organising authority will be referred to as the organiser or the organisation.

SOLAR SPORT ONE RACE INSTRUCTIONS

BASIC RULES

Everyone involved is required to report to the organisation and will be timely notified of the place and exact time of this registration. Everyone will receive a wrist band that must be worn conspicuously during the race. The colour of this wrist band depends on the category. The wrist band will not be supplied before all the required formalities have been completed. The following categories will be distinguished; competitors: skippers and / or crew, officials, volunteers, sponsors, guests and members of the press.

Each team shall participate in compliance with recognised principles of sportsmanship and fair play. The responsibility for a competitor's decision to participate in the race is for his alone. Unsporting, unsafe or inappropriate behaviour will be reported to the jury who will decide on appropriate measures.

The organisation reserves the right to change these race instructions when deemed necessary

1 RULES

- 1.1 The race will be held in accordance with these Race Instructions, the Technical Regulations (TR) and the engineering notes issued by the organisation, the right-of-way rules of the "Binnenvaart Politie Reglement (BPR)" (Inland Navigation Police Regulations) 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. When a boat sailing under these rules meets a vessel that is not, she shall comply with the BPR rules.
- 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 Solar Sport One events 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 Technical Committee (TC) as soon as possible. The TC will supervise their referral to the next paddock.
- 1.9 Any matters not covered by these rules will be decided upon by the Jury.
- 1.10 All marks (buoys, etc.) to be used by the organisation will be indicated as such.

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 timing of the briefing will be given in the appendices. The location of the briefing will be announced in due time on the camp site.
- 2.2 In addition to the briefing before the start of the event there will 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.

3 CHANGES TO THE RACE INSTRUCTIONS / NOTICES TO COMPETITORS

Each change to the Race Instructions as well as notices to competitors will be posted on the official Notice Board 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. In case of urgent announcements the organisation may deviate from these timings. It is the responsibility of the teams to check the official Notice Board on a regular basis and take necessary actions.

4 IDENTIFICATION of 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 QUALIFICATION

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 RESERVED

7 THE COURSES / ROUTE

7.1 The schedule for all parts of the events will be announced on the website of the organization

7.2 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.

7.3 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 notified by the Race Committee.

7.4 Competitors themselves are responsible for travelling the correct course.

7.5 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 red marks.

8 ELEMENTS OF THE RACE

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

- a) The team has received an approval from the Technical committee
- b) The captain(s) on board during the race have passed the sailing test
- c) All persons on board have passed the Swim test
- d) To be eligible to take part in the stages, the team has demonstrated that the boat complies with rule TR 5.24

8.2 The race will consist of the following elements:

- i) Sprint competition
- ii) Endurance competition 1
- iii) Endurance competition 2
- iv) One-on-one duels

Extra element (outside of the competition)

- v) Top speed competition

8.3 Sprint competition

- a) The course of the sprint competition will be a straight line. The course will be published on the website of the organisation.
- b) Boats must cross the starting line in the direction of the finish line.
- c) Boats must cross the finish line from the direction of the starting line.
- d) The sprint will be a timed sprint. Every participant will be given two attempts.
- e) The final time will be the average of the two attempts

8.4 Endurance Competition 1

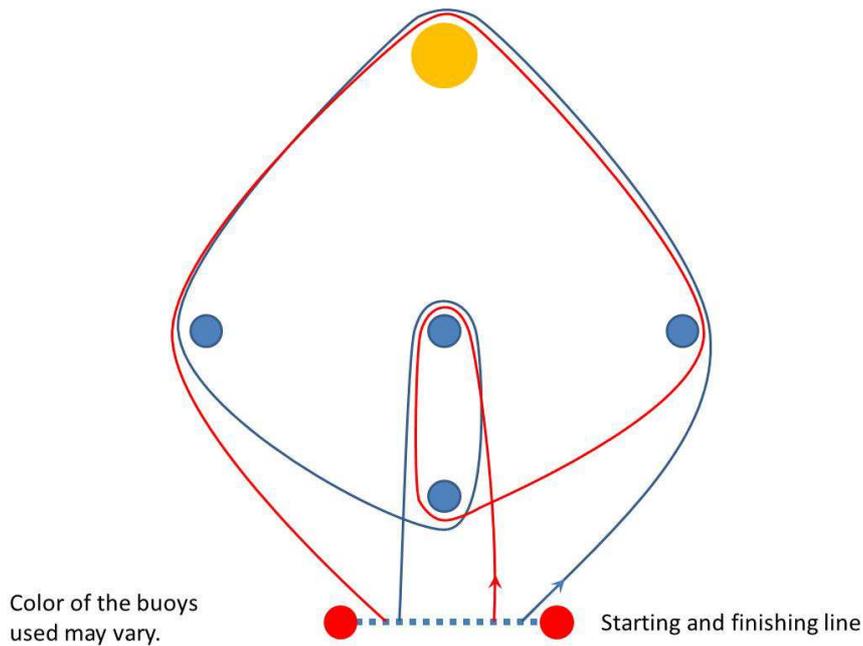
- a) The course of the endurance competition will be published on the website of the organisation.
- b) The endurance may start with a mass start ("Le Mans start"). All boats are positioned with the stern towards the quay and the bow facing the course. The boat is held to the quay by a team member. All participants will appoint a runner who will carry a baton. All runners will leave at the same time from the starting point and run towards to their boat. There they hand over their baton to the person holding the boat. Only when this person has received the baton the boat may start sailing the course.
- c) The aim is to sail as many laps as possible within the given amount of time. Any lap that is started within the given amount of time may be finished and will be counted.
- d) If there is a tie in the total amount of laps sailed, the tie will be broken by the total time sailed when the last lap counted, is completed. The team with the smallest total time wins the tie.
- e) The given amount of time for the Young Solar class vessels will be 30 minutes. For all other boats the given amount of time is 60 minutes.

8.5 Endurance Competition 2

- a) The course of the endurance competition will be published on the website of the organisation.
- b) The endurance may start with a mass start ("Le Mans start"). All boats are positioned with the stern towards the quay and the bow facing the course. The boat is held to the quay by a team member. All participants will appoint a runner who will carry a baton. All runners will leave at the same time from the starting point and run towards to their boat. There they hand over their baton to the person holding the boat. Only when this person has received the baton the boat may start sailing the course.
- c) The aim is to sail as many laps as possible within the given amount of time. Any lap that is started within the given amount of time may be finished and will be counted.
- d) If there is a tie in the total amount of laps sailed, the tie will be broken by the total time sailed when the last lap counted, is completed. The team with the smallest total time wins the tie.
- e) The given amount of time for the Young Solar class vessels will be 60 minutes. For all other boats the given amount of time is 120 minutes.

8.6 One-on-one duels

- a) In pairs the boats will compete in sailing the prescribed course (see figure). There will be an inner course and an outer course.
- b) The start will be from standstill.
- c) The boat that crosses the finish line first will be the winner of the heat.
- d) Cutting across the bow of another boat such that it causes hindrance to the other boat, is not allowed and will lead to automatically losing the heat.
- e) The winner of the competition will be determined via a round robin competition for its particular class.



8.7 Top speed competition

- a) The course of the top speed competition will be published on the website of the organisation.
- b) At one point in the course the speed of the boat will be measured.
- c) All teams will be given three attempts to set the maximum speed.
- d) The highest value measured will count.
- a) If there is a tie in the top speeds between teams, then each tied competitor will receive points from all places of the tied competitors added and divided by the number of tied competitors.

9 SCORING

- 9.1** The performance of the team in each of the elements of the race will be converted into a ranking.
- a) The team that has reached the highest rank in that element of the race will be given 1 point. The second best team will be given 2 points, etc..
 - b) The points scored per element will be multiplied by a weighing factor per element leading to a total score per element.
 - c) All total scores of the elements will be added and will lead to the final total score.
 - d) The team that has the lowest final total score wins the race.
 - e) In order to be the winner of the race a team must have competed in all elements of the race.
- 9.2** The weighing factors will be as follows:
- | | |
|----------------------------|-------------------|
| a) Sprint competition | weighing factor 1 |
| b) Endurance competition 1 | weighing factor 2 |
| c) Endurance competition 2 | weighing factor 2 |
| d) One-on-one duels | weighing factor 1 |
- 9.3** If a boat does not start in an element of the race, the points for that element will be the highest in its class of the boats that did start and complete that element plus 10 points.
- 9.4** If a boat does start but does not manage to complete an element of the race, the points for that element will be the highest in its class of the boats that did start and complete that competition plus 2 points.
- 9.5** 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 last element of the race. Any remaining ties shall be broken by using the tied boats' scores in the next-to-last element of the race and so on until all ties are broken. When one tie has been broken between more than three competitors the remaining competitors ties will be broken by using regulation 9.5 from the beginning.

10 STARTING ORDER

- 10.1** The starting order for the elements of the race will be determined by the organization.
- 10.2** Starting times will be determined on the basis of the expected weather conditions. Starting for the stages will be done in groups where boats will be started with 30 second intervals.
- 10.3** The starting order will be published on the Notice Board at the Information Desk.
- 10.4** 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.

11 THE START

- 11.1** Towing boats from any location to the start is not allowed unless in cases of emergency of malfunction.
- 11.2** 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.

- 11.3** 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 organisation for the local situation. It is the responsibility of the competitor to make sure his 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.
- 11.4** 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.
- 11.5** Competitors who are not yet starting shall avoid the starting area.
- 11.6** A competitor who starts a stage, a time trial or an endurance competition before his or 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.
- 11.7** 15 minutes before their scheduled starting time, competitors must be ready to start.
- 11.8** Competitors who arrive late at the start of a stage, shall receive a 10-minute time penalty.
- 11.9** The start will be closed 10 minutes after the starting signal of the last competitor on the starting list.
- 11.10** The organization may change the starting order when deemed necessary.

12 FINISH

- 12.1** The finishing line will be at the sign. The sign may be a buoy, an arch or a flag, whatever is deemed appropriate by the organisation for the local situation.
- 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** 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.
- 12.4** Towing boats from the finish to the paddock or any other location is not allowed unless in cases of emergency of malfunction.
- 12.5** When the race committee shows a team a red flag the team has to stop sailing immediately unless safety requires the team to sail to a safe location first.

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, Technical Committee and Jury must inform the protested party at the first reasonable opportunity.
- 13.4** The protest time limit expires 30 minutes after the last boat of that day, has finished. The same protest time limit applies to all protests by the Race Committee and the Jury 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 60 minutes after the moment at which a competitor could have reasonably taken note of the fact on which his request for redress, is based. On the last day of the event all requests for redress or reopening shall be lodged within 30 minutes after the last boat of that day has finished.
- 13.5** Notices about the time of a hearing will be posted within 30 minutes 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 (the location of the Jury room for each day will be posted on the notice board). It is the competitors' responsibility to take note of the notices on the Notice Board and to be present at the hearing on time, with his witnesses, if applicable.
- 13.6** Penalties by the Jury may vary from time penalties to disqualification for one or more legs or removal of the right to start in the next leg(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 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 (see 1.1). 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 is about to round or pass the mark, the outside boat at that moment shall thereafter give the inside boat mark-room. If a boat is clear ahead when she is about to round or pass the mark, 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), she shall continue to do so even if later an overlap is broken or a new overlap begins. However, if the boat entitled to mark-room passes head to wind, 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 sailing 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 Skippers may be substituted by another registered skipper.

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. 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

The following prizes will be awarded by the organization

20.1 For the overall performance in the two endurance competitions

If at the end of the two endurance competitions a tie remains between two or more boats, they shall be ranked in order of their scores in the last endurance competition.

V20-class Endurance 1st prize
 A-class Endurance 1st prize
 T-class Endurance 1st prize

Young Solar Rotterdam Endurance 1st prize
 Young Solar Rotterdam Endurance 2nd prize
 Young Solar Rotterdam Endurance 3rd prize

20.2 For the overall performance in the one-on-one duels

V20-class Speed duel 1st prize
 A-class Speed duel 1st prize
 T-class Speed duel 1st prize

Young Solar Rotterdam Speed duel 1st prize
 Young Solar Rotterdam Speed duel 2nd prize
 Young Solar Rotterdam Speed duel 3rd prize

20.3 For the overall performance in the race

V20-class Overall ranking 1st prize
 V20-class Overall ranking 2nd prize
 V20-class Overall ranking 3rd prize

A-class Overall ranking 1st prize
 A-class Overall ranking 2nd prize
 A-class Overall ranking 3rd prize

T-class Overall ranking 1st prize
 T-class Overall ranking 2nd prize
 T-class Overall ranking 3rd prize

Young Solar Rotterdam Overall ranking 1st prize
 Young Solar Rotterdam Overall ranking 2nd prize
 Young Solar Rotterdam Overall ranking 3rd prize

The following prizes may be awarded by the organization if there are participants worthy of these awards, such as at the sole discretion of the organizer.

20.4 Special awards for remarkable performance and/or perseverance and/or innovation and/or design

Solar Sport One Special award
 Young Solar Special award Rotterdam

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 organizing authority has organized 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. This insurance commences on the day of the start of the event premises until the moment of departure on the last day of the event. This 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.

24 RACE SCHEDULE

The race schedule is as follows:

Program Friday September 1

Time	Element	Location
08.30-11.00	Technical inspection solar boats	Slipway
08.30-11.00	Finalising Young Solar boats	Slipway
10.00-11.30	Launching solar boats	Slipway
11.30-12.00	Convoy to race location	Slipway
11:30-12:00	General team briefing	Pontoon
12.15-13:00	Endurance competition 1 Young Solar	Race location
12.15-13:30	Endurance competition 1 Solar Sport One	Race location
14:30-15:30	One-on-one duels Young Solar + Solar Sport One	Race location
15:45-16:15	Speed record Young Solar + Solar Sport One (to be confirmed)	Race location
16.15-16.45	Convoy to slipway	Race location
16:45-17.45	Taking boats out of the water	Slipway

Program Saturday September 2

Time	Element	Location
08:30-09.30	Launching solar boats	Slipway
09.30-10.00	Convoy to race location	Slipway
10.00-11.00	Timed sprint Young Solar + Solar Sport One	Race location
12.00-14.00	Endurance competition 2 Solar Sport One	Race location
13.00-14.00	Endurance competition 2 Young Solar	Race location
15:00-16:00	Speed record Young Solar + Solar Sport One	Race location
16.30-17.00	Award giving ceremony	Docks
17.00-17.30	Convoy to slipway	Race location
17.30-18.30	Taking boats out of the water	Slipway