NAVIGA

World Organisation for Model Ship Building and Model Ship Sport
Weltorganisation für Schiffsmodellbau und Schiffsmodellsport
Organisation Mondaile de Navimodelisme et de Sport Nautique

NAVIGA - Competition Rules 2003

Categories FSR - O

Amendments,additions and proposals for improvements are to be directed to the NAVIGA Section Management via the representative of the country.

This version is copied from the FSR-H and FSR-V rulebook. The paragraphs that are valid from that book are blanked in this version. Just to get it easier to copy this version into that book when this is ready.

The NAVIGA Executive Committee

Amended 02-02-2005

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Remark: * HYDRO-planes (A free build model with two or more planing surfaces).

3 Principal and General Rules

3.1 Principal Rules

3.1.1 Competitions where the rules apply

3.1.2 Entry Fee

3.1.3 Protest Fees

3.2 Personal Rules

3.2.1 Age Groups

3.2.2 Competitor registration

3.2.3 Maximum Allowed Competitors

(1) At the world championships each country is allowed to enter the following number of competitors in seniors and juniors:

In the FSR-O classes 3 competitors and the title defendant.
In the FSR-O classes it can be more,if one country have a competitor in the final the country have the richt for 1 extra place in the next worldchampionship.If they have 2 in the final than they have 2 extra place's for the next worlchampionship,in this case they have the richt for 5 competitors.The maximum is 5 competitors and the title defendant.

(2) In continental championships
In the FSR-O classes each 5 competitors and the title defendant

3.2.4 Assistants and substitution of the competitor

3.3 Technical rules

3.3.1 Propulsion of models and fuels

3.3.2 Fuel

(1) Free fuel is allowed except in the FSR-V35 and FSR-O35 class.

(2) Fuel in the FSR-V35 and FSR-O35 class must be a petrol-oil mixture.
Petrol can be of any octane level.
The use of Methanol mixtures is prohibited.

3.3.3 Noise reduction, noise level measurement and rules

(1)

(2) Amended 02-02-2005

(14) FSR-V35 boats must have a towing eye on the front for recue purposes.

(15)

6.2 Manning Level of the Start Pontoon

6.3 Minimum requirements for the starting area

The minimum requirements for a starting area in the FSR category are:

- A starting pontoon for FSR-V class should be minimum 19,5 meters long and 1.5 meters wide, with numbered starting positions from 13 – 1. In the FSR-H class the starting pontoon should be minimum 12 meters long and 1.5 meters wide, with numbered starting positions from 8 – 1 FSR-O numbered starting positions1 - 8
- 2 sets of number plates with the numbers 1 to 13 for FSR-V and 1 to 8 for FSR-H/O.

6.4 Competition course and duration of the race in the FSR-V Classes

6.5 Procedures for Races in the FSR-V Classes

6.6 Lap Counting for FSR-V races

6.6.1 Manual lap counting

6.6.2 Computerised lap counting

6.7 Scoring in FSR-V classes

6.8 Composition of Result Lists in the FSR-V classes

6.9 Competition course and duration of a race in the FSR-H classes

6.10 Start clock for FSR-O classes may be also supplemented by a digital diplay

(1) The start clock is designed for FSR-O races with special optical and acoustical information and signals, which the competitors use to prepare for the start of the heat.

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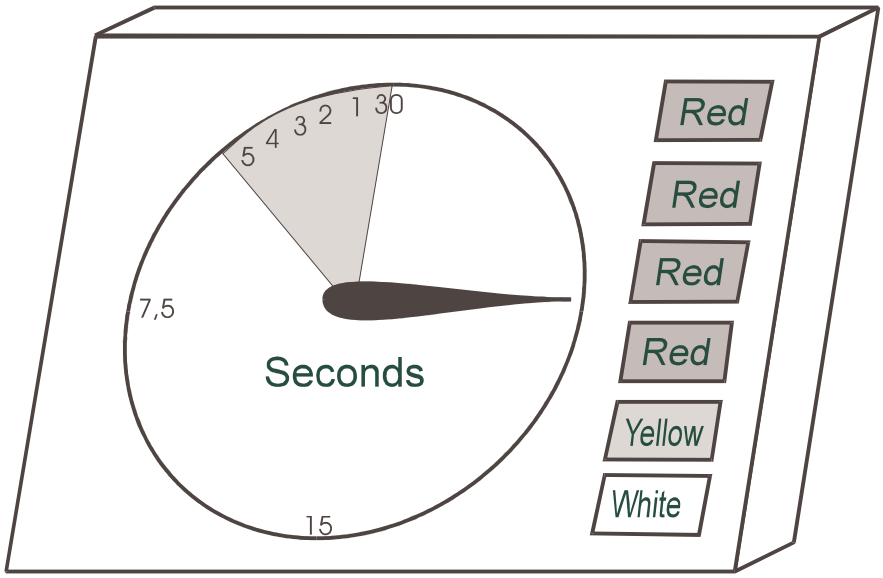

Drawing 5: Start clock for FSR-O races.

(2) The start clock must comply with the following:

- 1 turn of the hand must be 30 seconds with a precision of approx. 1 second.
- The face of the clock must show the following points: 15 seconds, 7.5 seconds, 5, 4, 3, 2 ,1 seconds.
- The 5-second segment must be shown in a contrast colour.
- There must be 4 red lights, which are all switched on at the beginning of preparation time. The lights will be switched off individually at 30-second intervals.
- After the last red light has gone off a yellow light will come on which indicates the 30 seconds control time when no boats can be launched. At the end of this 30 seconds a white light or acoustic signal will indicate the start of the race.
- The clock hand must reach the "12 o'clock" position at exactly the same time as the light or acoustic signal indicates the start of the race.
- The face of the clock must be white or orange, the hand must be black.
- The diameter of the face of the clock must be between 750 and 1000 mm.
- The start clock must be able to float so that it can be positioned within the competition course.

6.11 Procedures for races in the FSR-H classes

6.12 Basic rules and penalties in the FSR-H classes

6.12.1 Left Turns

6.12.2 Right of Way

6.12.3 Negotiating/passing the buoys

6.13 Rules for overtaking in the FSR-H classes

6.14 Calculation of final results in the FSR-H classes

6.15 Composition of results in the FSR-H classes

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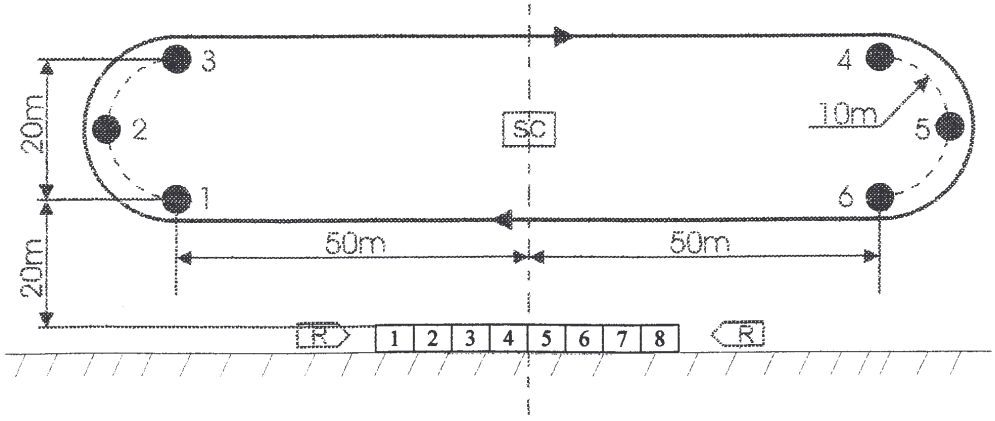
6.16 Competition course and duration of a race in the FSR-O classes

(1) The competition will be held on a course as shown in drawing 4.a The competition course has to be placed so that the base line runs parallel to the starting pontoon and the centre line is at a right angle from between start positions 5 and 4



Lapcounter and Finish line have to be on the leftside of the pontoon

1---------8	=	Start positions
RB	=	Recue boat
SC	=	Start clock

Drawing: 4 a: FSR-O competition course

(2) Starting time for the heat has to be shown on a start clock (see drawing 5) or other adequate (optical or acoustic) means (see 6.10 for start clock).

6.17 Procedures for races in the FSR-O classes

(1) The Offshore classes are running 2 heats on a day and the follow order will be on this manner 3.5J, 3.5S, 7.5J, 7.5S, 15J, 15S, 35S, and round again.

(2) A heat must have a minimum of 4 and maximum of 8 competitors. Each competitor must run at least 4 heats. If there are more than 8 competitors entered in a class, a final must be run in accordance with paragraph (3).

(3) A heat shall be so composed that the competitors will be mixed in the heats as much as possible. Also the place on the pontoon shall be randomly.

(4) 8 competitors with the highest scores from the heats qualify for the final. For the final one heat is to be run. The best placed competitor will occupy start position 1, the second best placed start position 2, the third best placed start position 3, the fourth best placed start position 4 etc. until the eight placed, who will occupy start position 8.

(5) Before the start of each heat a radio check has to be carried out to prevent interference. Therefore all transmitters and receivers must be switched on. When it has been confirmed that there is no radio interference it is no longer possible to protest.

(6) Each race consists of three independent phases:
- Preparation time (Pit time) 2 minutes
- Control time (Milling time) 30 seconds
- Course time (Race time) 8 minutes for qualification and 12 minutes for final

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(7) During preparation time engines are started, and the boats launched. Races cannot be repeated. Preparation time must not be delayed or cancelled, unless in exceptional circumstances at the judges discretion (e.g. problems on the racecourse). Models can be adjusted during the preparation time, however the competitor is not allowed to leave the start position.

(8) During the control time no further boats can be launched. During the course time the competitiors are allowed for after start.

(9) The competitors must drive their boats around the course or the special lay-by zone allocated by the competition management, so that all the competitors can cross the start line at the end of control time. Boats must drive the course in the clockwise direction.

(10) During the last 15 seconds of the control time in order to ensure the safety of all the boats, the models must keep in a straight line after passing buoy No 6. Zigzagging across the course, course changes in excess of 45 degrees in order to avoid crossing the start line early etc., are not allowed and are penalised with a one lap off.

(11) The end of the control time indicates the start of the race time, regardless of where the boats are on the course.

(12) Models crossing the start line immediately before the end of control time have a false start and must therefore complete an extra lap.

(13) The race officially starts, when at the end of control time the first boat crosses the starting line.

(14) FSR-O boats can be repaired and/or refuelled during a heat. Only laps completed during the heat will be counted.

(15) During the racetime you may leave the start position to pickup the model or to fetch spare materials. However while driving the competitor must not leave the start position. It is not allowed to remove the transmitter from the start position.

(16) All buoys must be negotiated in accordance with the course. Touching the buoys is allowed. Only those laps negotiated in accordance with the course are counted.

(17) During the race each competitors laps must be displayed on a scoreboard.

(18) If a buoy is passed on the wrong side, it is allowed to re circle the buoy without interfering with other competitors. If you do not re circle the buoy the lap will not be counted.

(19) A slower boat can be overtaken on either side. During the overtaking manoeuvre the slower boat must not change course or get in the way of the overtaking boat. The overtaking boat can return to the racing line when no less then three boat lengths ahead.

(20) The faster boat is not allowed to interfere with the slower model during the overtaking manoeuvre.

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(21) The boat on the race line, which is less than 5 boat lengths from a buoy, has right of way. A manoeuvre to force a boat to pass on the inside of a buoy in order to overtake is not permitted.

(22) If a boat looses the numberplate during the race it is allowed to complete the commenced lap. Any laps completed after this lap without a number plat will not be counted.

(23) A race can be stopped by the start position official due to exceptional circumstances (e.g. sheered off buoys). Rules for stopping a race:

a) The start position official gives an acoustic signal about the same as at the end of a race. At the same time as the signal is given the clock which measures the duration of the race is stopped. After the start position official has given the signal, the models have to complete the commenced lap and this lap will be counted.
b) The time, from when the signal was given, until the models pass the finish line, must be recorded. The models have to be taken from the water and the engines stopped.
c) Competitors and assistants have to step back from the models. Repairs are not permitted. During the interruption in the race models can be rescued.
d) Rescued boats are not allowed to restart.
e) After resolving the cause for the interruption, the start position official will give a start signal. The time keeping will continue with the start signal.
f) If the race is stopped within the first three minutes it will be annulled and restarted from the beginning.

(24) If a heat had to be stopped, all the laps and times have to be added together.

(25) In cases of unfair behaviour, interference with other competitors, not following the rules or endangering spectators (e.g. collision with the starting pontoon) the start position leader can pronounce the following penalties.

a) The first occurrence of not following the rules described in paragraphs (18) - (20), where no other boat has stopped as a result of the incident a warning (yellow card) will be given.
b) The second occurrence of not following the rules described in paragraph (18) - (20), or a more serious incident, or running over a stopped boat will be punished with a one-lap deduction (yellow card with number 1).
c) The third occurrence of not following the rules described in paragraph (18) - (20), or exceptionally serious incident, or causing another boat to stop will be punished by a two-lap deduction (yellow card with the number 2).
d) The fourth occurrence of not following the rules described in paragraph (18) - (20), or exceptionally inconsiderate behaviour of a competitor will be punished by disqualification (red card). The model has to be taken out of the water immediately.

The competitor must be verbally and visually notified of a penalty. There is no possibility of an appeal against the decision. The start position official must record the penalty and the start number of the competitor.

(26) The end of the race is indicated by an acoustic signal. All models must after the signal complete the commenced lap and this lap will be counted. After the final signal the lap counters will record the time of delay for every model passing the finishing line. This time will be recorded with the number of laps.

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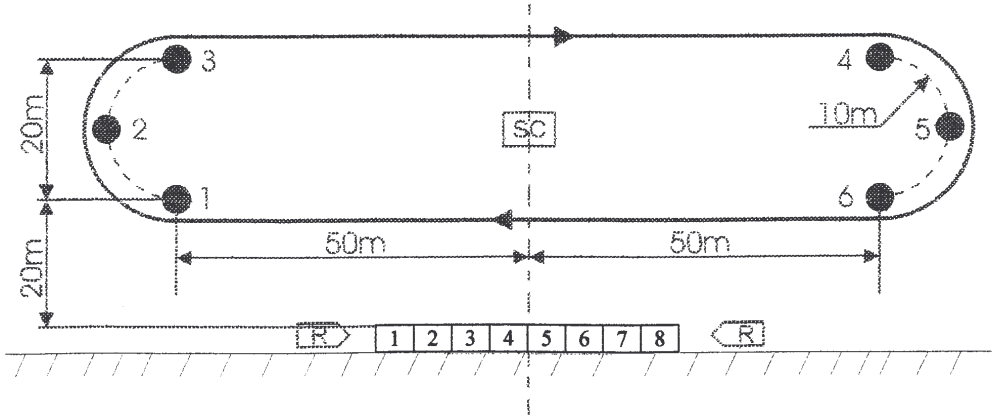
Drawing 4 a: FSR O competition course



Lapcounter and finish line have to be on the left side of the pontoon.

1------- 8	=	Start positions
RB	=	Rescue boat
SC	=	Start clock

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