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 - H/V

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

In case of doubt of the interpretation of the Rules and Regulations the English text will prevail.

The NAVIGA Executive Committee

CONTENTS:

1. DEFINITION OF MODELS	5
2. CLASSES	5
3. PRINCIPAL AND GENERAL RULES	6
3.1 PRINCIPAL RULES	6
3.1.1. Competitions where the rules apply	6
3.1.2. Entry fees	6
3.1.3. Protest fees	6
3.2 PERSONAL RULES	6
3.2.1. Age Groups	6
3.2.2. Competitors registration	7
3.2.3. Maximum allowed number of competitors	7
3.2.4. Assistant and substitution of the competitor	7
3.3 TECHNICAL RULES	7
3.3.1 Propulsion of models and propulsion agents (fuel)	7
3.3.2 Fuels	8
3.3.3 Noise reduction, noise level measurement and rules	8
3.3.4 Application and use of radio control equipment and frequency	
control	8
3.3.5 Time measuring	9
3.3.6 Buoys (dimensions, construction, anchorage)	9
3.3.7 Starting pontoon (construction and materials)	10
3.4 SPORT RULES	10
3.4.1. The competition area	10
3.4.2. Starting area, preparation area and access permission	11
3.4.3. Allowed number, entries and condition of models	11
3.4.4. Re-run of a race	12
3.4.5. Registration numbers	12
3.4.6. Registration of competitors and models	13
3.4.7. Issuing of starting permits, issuing start and computer	
passes	13
3.4.8. Surrender of competitor passes and assessment of running	
order	14
3.4.9. Calling time (time allowed to get ready)	14
3.4.10. Preparation times (at the starting point)	15
3.4.11. Interruption / Suspension of the competition Amended 02-02-200	05 15
3.4.12. Scoring and announcement of the results	15
3.4.13. Checking of the first three placed models during World and	
Continental Championships	15
3.4.14. Awarding of titles at World and Continental	
Championships	16
3.4.15. Award ceremonies at World and Continental	
Championships	17
3.4.16. Result lists	17

	AVIGA PROTEST POLICY	
	Principal rules	17
	Lodging of protests	18
	Handling of protests	19
	HE MODEL - MEASUREMENT CERTIFICATE	19
	ENERAL RULES REGARDING CONSTRUCTION FOR	
CA	ATEGORY FSR	19
4. GE	NERAL RULES REGARDING THE SET UP OF COMPE	ΓΙΤΙΟΝ
CO	URSES FOR FSR CATEGORY	20
5. GE	NERAL RULES REGARDING START AND TERMINAT	ION
OF	A RACE OR HEAT	20
6. CO	MPETITION REQUIREMENTS IN FSR CATEGORY	20
6.1	General rules and regulations	Amended 02-02-200
20	Seneral rules and regulations	7 mienaea 02 02 200
6.2	Manning level of the start pontoon	22
6.3	Minimum requirements for the starting area	23
6.4	Competition course and race duration in FSR-V classes	23
6.5	Procedure for races in the FSR-V classes	. 24
6.6	Lap counting for FSR-V races	. 27
6.6.1	Manual lap counting	27
6.6.2	Computerised lap counting	28
6.7	Scoring in FSR-V classes	28
6.8	Composition of result lists in the FSR-V classes	29
6.9	Competition courseand race duration in the FSR-H classes Ame	ended 02-02-2005 29 30
6.10 30	Start clock for FSR-H classes	Amended 02-02-2005
6.11 31	Procedure for races in the FSR- H classes	Amended 02-02-2005
6.12	Basic rules and penalties in the FSR - H classes	33
6.12.1	Left turns	33
6.12.2	Right of way	33
6.12.3	Negotiating / passing the buoys	33
6.13	Rules for overtaking in the FSR-H classes	34
6.14	Calculation of final results in FSR-H classes	36
6.15	Composition of result lists in the FSR-H classes	36
7. ME	THODS FOR MEASURING NOISE LEVELS IN THE FSI	R
CA	FEGORY	37
	General	
7.2 1	Measuring methods in FSR-H	37
7.3	Measuring methods in FSR-V	
APPE	<u>NDIX</u>	

1.	Guide to measuring and setting up a FSR-V course	38
----	--	----

3.4.10 Preparation times (at the Starting Point.

(1) The finish of the preparation time must be announced verbally and possibly also optical.

3.4.11 Interruption / suspensions of the competition (re 6.5.20)

- (1) An interruption of the complete event can only be announced by the chief judge.
- (2) An interruption of the competition at a starting pontoon is decided by the start position official.
- (3) If a competition is suspended only the heads they are suspended have the right the rerun.

3.4.12 Scoring and Announcement of the Results

- (1) All results of a competition should immediately be announced or displayed at the starting area. The verbal announcement must be made in at least one of the three official NAVIGA languages in addition to the national language. The verbal announcement is regarded as a provisional result.
- (2) The results are to be recorded in the result list. After the completion of the event the results must be checked and made public within two hours. This is a preliminary result list.
- (3) The jury can confirm the final results one hour after issuing the preliminary results.
- (4) After confirmation of the results by the competition officials i.e. jury, it is no longer possible to protest against the results.
- (5) Competitors with a zero result will be recorded at the end of the result list in alphabetical order.
- 3.4.13 Checking of the first three placed models during World and Continental Championships
- (1) At World and Continental Championships the first three placed models must be checked that they conform to the construction regulations and the engines are measured for their true capacity.

4. <u>General Rules regarding the set up of competition courses for the category</u> <u>FSR</u>

- (1) The competitions in the category FSR are performed on two different courses.
 - For the FSR-H category see drawing 4
 - For the FSR-V category see drawing 3
- (2) The competition courses are to be placed in calm, preferably sheltered from wind, waters.

5. General Rules regarding start and termination of a race or heat

- (1) During the competition the competitor is free to move within the clearly marked area allocated by the organizer on the starting pontoon.
- (2) After completion of the race or heat the model must be taken out of the water immediately and radio control switched off.

6. <u>Competition requirements in FSR category</u>

- 6.1 General construction rules and regulations
- (1) The hull has no construction rules, however it must in form and shape look like a Mono hull.
- (2) The engine must have full throttle control. A switch of button is not allowed. The size of the tank is not restricted. Fuel has to be supplied by the competitor.
- (3) Every model must have on the deck a longitudinal mount for attaching number plate which can be provided by the competitor. The number plate must be made out of flexible and durable material, which does not cause damage to the model when run over. The plate must be white and the numbers from 1 to 13 must be black. The number plate must be attached to the model with two connections. The number plate for FSR/V must be mounted on the rigt hand side. The number plate for FSR H/O must be mounted on the left hand side. It is allowed the use the own number plate if they are according to the rules.
- (4) The dimensions of number plates for classes FSR-V and FSR-H and FSR-O are as follows (see drawing 2):

- Height 100 mm	
- Width 120 mm The corners of	the
- Thickness approx. 2 mm shield must be	
- Distance between the holes 100 mm rounded off	
- Distance of hole from the bottom of plate 10 mm	
- Diameter of hole 5 mm	

- (4) In the event that a final race takes place in accordance with paragraph 6.5 item (3), the placing are as follows:
 - a) The finalists are placed according to their finishing position in the final.
 - b) Placing of the remaining competitors will be in sequential order of the number of laps and delay time achieved in their best qualifying heat.

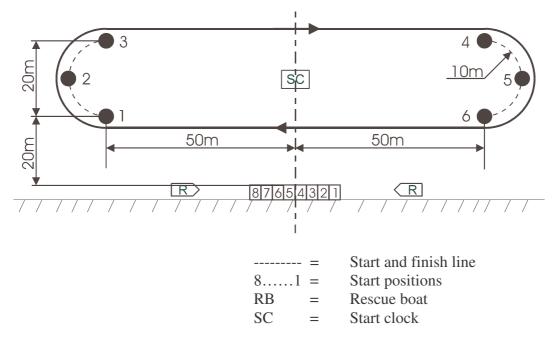
6.8 Composition of Result Lists in the FSR-V classes

The following items should be recorded in the result list of a competition in the FSR-V class:

- Type, place and date of the event
- Sequence of placing in accordance with paragraph 6.7
- Class
- Surname, Christian name and country registration number of the competitor
- Noise level result
- Number of valid laps (in brackets any laps deducted) from the best heat
- The delay time from the best heat
- Name and registration number of the judge
- Signatures of the chief judge

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

(1) The competition will be held on a course as shown in drawing 4. 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 4 and 5 to the centre buoy.



Drawing 4: FSR - H competition course

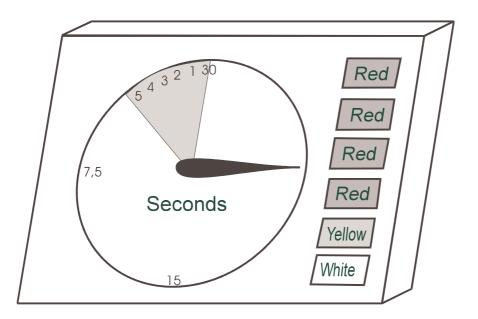
(2) The models have to achieve the following number of laps within 4 minutes:

FSR-H3.5	=	6 laps
FSR-H7.5	=	6 laps
FSR-H15	=	6 laps

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

6.10 Start clock for FSR-H classes may be also supplemented by a digital display.

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



Drawing 5: Start clock for FSR-H 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. A 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 indicate 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

- (1) The H 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, 15S 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 (2).
- (3) 8 competitors with the highest scores from the heats qualify for the final. For the final at least 4 heats must be run. The best placed competitor will occupy start position 5, the second best placed start position 4, the third best placed start position 6, the fourth best placed start position 3 etc. until the eight placed, who will occupy start position 1.
- (4) 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.
- (5) Each race consists of three independent phases:
 - Preparation time (Pit time) 2 minutes
 - Control time (Milling time) 30 seconds
 - Course time (Race time) 4 minutes
- (6) During preparation time engines are started, and the boats launched. If a competitor starts an engine after the preparation time, this race will not count. 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 race course). Models can be adjusted during the preparation time, however the competitor is not allowed to leave the start position.
- (7) At the start of control time no further boats can be launched.
- (8) 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.