International 2.4mR Class Association, Technical Committee

R = (L + 2d – F + √S) / 2.37 = 2.4

2.4mR TC MEETING 18 January 2023 (notes in blue)

Present

Peter Russell (AUS)
Bruce Millar (CAN)
Rikard Bjurstrom (FIN)
Stellan Berlin (SWE)
Keith Gordon (GBR)

Apologies

Thomas Jatch (GER) zoom connection?

General Business

1. 2.4mR eAGM

   14.12.2022 2.4 NOD 2022 Class Rules and Construction Manual approved by World Council. G.3.4 Dimensions Mainsail leech length minimum amended to 4850mm.

   14.12.2022 2.4mR ICA Constitution eAGM mid 2023 to ratify revised Constitution approved by World Council. TC to review proposed Constitution

2. Foot Median Sail Measurement

   14.12.2022 2.4mR World Championship USA 2022 Dee Smith sailed well to win. 2.4mR sailors have experimented with foot extensions to mainsails and headsails in the past but Dee Smith looks to have designed an all-conquering sail extension. Dee Smith on Bar karate, The Sailing Podcast, 02/12/2022 – the 2.4mR is “really good …. it’s nice to sail”. “my boat had …. more sail area …. I read the rule different than everyone else … huge speed advantage”.

   HEADSAIL

   - Headsail foot median for standard headsails varies from 3760mm to 3785mm.
   - Headsail foot median for Quantum medium headsail is 4125mm with 230mm luff extension.
   - Headsail foot median for Quantum heavy headsail is 3910mm.

   MAINSAIL

   - Mainsail luff extension for Quantum mainsail is 190mm.

   CLASS RULES

   2.4mR class rules do not include foot median controls, sail area is based on maintriangle and foretriangle dimensions only with foot extensions not considered in the rules.

   2.4 NOD class rule G.3.4 includes mainsail foot median of 4900mm, there is no headsail foot median.

   KEEPING EXISTING SAILS COMPETITIVE

   Do we need to introduce foot median controls as follows to keep existing sails competitive? One set of sails should be available for all events.

FOOT MEDIAN	2.4mR	2.4 NOD
Headsail	I x 1.02 (proposed)	3825mm (proposed)
Mainsail	P x 1.054 (proposed)	4900mm (existing)

   14.12.2022 Peter Russell to follow-up with World Sailing regarding 2.4mR interpretation options – (1) introduce foot median controls OR (2) introduce tack limit controls? TC to check proposed 2.4 NOD headsail foot median class rule.

18.01.2023 2.4mR Sail Area submission to World Sailing and 2.4 NOD headsail foot median submission issued by Peter Russell. Stellan Berlin noted requirement for 2.4mR World Council approval of proposed rule changes required prior to WS submission/rule amendment. Rikard Bjurstrom noted both foot median and tack controls recommended. 110% and 95% headsail to be considered. Peter Russell to redraft submissions as advice to website/NCAs only of intended rule proposal to address «sail area not in the spirit of the rules». Bruce Millar noted that in WC races there was no significant speed difference with luff increase.

3. Hollows

17.11.2022 Keith Gordon raised question of hollows in bow section of boats – hollows to be checked on 2.4 NOD scan boat. 2.4mR D.8.2 follows.

D.8.2 HOLLOWS

(a) There shall be no hollows in the surface of the hull between the LWL plane and the sheerline except an area at the stern between the buttock lines 100mm from the yacht centreline and below L1. For the purpose of rating, any hollows in the entry of the boat below the LWL plane shall be bridged by a straight line from points on the entry at a vertical distance of 30mm above and below the LWL plane.

18.01.2023 New prototype 2.4 NOD boats to be checked for hollows compliance.

4. Size of hatches

17.11.2022 Keith Gordon raised question on size of hatches – 2.4mR D.4.2 (c) limits deck openings to no more than 0.7m^2, 2.4mR D.5.1(c) requires inspection hatches of miniumum 100mm dia to watertight compartments., 2.4 NOD D.2.3 (h) permits hatches to be of any plastic material provided no lighter than deck. 2.4 NOD D.2.4 (f) permits one forward and one aft hatch in addition to the rudder hatch.

18.01.2023 World Sailing confirmed openings definition to Keith Gordon. Openings include openings covered by hatches. Keith Gordon to forward WS Interpretation to TC. Area of opening to be checked for 0.7m^2 compliance.

WS Interpretation of International 2.4mR Class rule D.4.2 (c)
Question

1. *Is hatch an opening and is part of the total allowable openings?*
   Yes
2. *If fitted with a cover, screwed , bolted or glued is this then a fitting?*
   No, the fitting will only be the cover
3. *Is the mast hole part of the opening particularly if surrounded by a fitting?*
   Every hole in the deck shall be considered part of the openings (including holes where the ropes pass through)
4. *Does a hatch have to have a practical use, i.e access to a fitting equipment etc.?*
   This last question is to stop use of hatches purely to lighten deck.
   If we understand well, rules are open; hence, if it the use of the hatch is not limited in the rules, it should not have a practical use.
   An option to limit the use of hatches to lighten the deck could be to specify the number of allowed hatches

5. Station 0

14.12.2022 Bruce Millar noted some boats 3mm to narrow at station 0 – definition to be checked.

6. 2023 Work Program

14.12.2022 Draft 2023 2.4mR TC Work Program reviewed, TC to advise additional items for consideration.

7. Buoyancy Checks

18.12.2022 Request for Henk van Heuveln Buoyancy Check Certification approved by TC. Draft Buoyancy Check Certificate form approved by TC.

8. Carbon mast spar fittings

   18.01.2023 No grandfathering of carbon mast spar fittings to 2.4 NOD boats in class rules. Carbon mast spar fititngs advice to be issued to EC.

9. Rudder weights

   18.01.2023 Standard rudder weights in 2.4 NOD Construction Manual to be corrected to min: 1.5kg and max: 2.5kg. Rudder weight 2.4 NOD correction to be issued to EC.

Next Meeting

Canada	noon Wednesday 22 February 2023
UK	8.00pm Wednesday 22 February 2023
Sweden	9.00pm Wednesday 22 February 2023
Germany	9.00pm Wednesday 22 February 2023
Finland	10.00pm Wednesday 22 February 2023
Australia	6.00am Thursday 23 February 2023

2023 2.4mR TC Work Program

A EC Meetings

Bruce Millar to act as TC representative for EC meetings. TC meeting minutes to be issued to EC and website for information. EC/TC to review Mid-year Measurement Forum 2023.

B ICA Constitution

TC to review proposed ICA Constitution including TC responsibilities for official measurers, buoyancy check persons, 2.4 NOD builders and EC coordination.

C 2.4mR and 2.4 NOD classes

TC to review 2,4mR and 2.4 NOD class descriptions for website.

14.12.2022 Peter Russell working to improve 2.4mR and 2.4 NOD description. Copy to be forwarded to Loic Eonnet (FRA) to develop description. Draft wording attached for review:

The International 2.4mR Class Association is the world organization that governs the International 2.4mR Class (2.4mR) and the 2.4 Norlin One Design Class (2.4 NOD).

All 2.4mR boats comply with the 2.4mR Rating Rule.

The 2.4mR World Championship includes all 2.4mR boats with the first boat awarded the World Cup Trophy and the first 2.4 NOD boat awarded the 2.4 NOD Trophy.

INTERNATIONAL 2.4mR CLASS

*The International 2.4mR Class is a development class with boats complying with the 2.4mR **Open Class Rules**. 2.4mR boats are administered by Member National Authorities under delegation by World Sailing.*

The 2.4mR class rule provides a development option for sailors looking at innovation within the meter rule which has produced beautiful boats for over a century.

Current production 2.4mR boats include the Super 3 and Stradivari. Home built 2.4mR boats can also be built under this rule.

2.4 NORLIN ONE DESIGN CLASS

*The 2.4 Norlin One Design (NOD) is a restricted class with boats complying with the 2.4 NOD **Closed Class Rules.** 2.4 NOD boats are a class of 2.4mR boat, based on the Norlin Mk III design and administered by the 2.4mR ICA.*

The 2.4 NOD class rule provides a one-design option for sailors with racing in boats of equal performance where results are determined by the skill of the sailor. The 2.4 NOD has been selected by World Sailing as the single person technical equipment for Para Sailing.

2.4 NOD boats are manufacturer controlled with the ICA looking at accreditation of new builders. 2.4 NOD builders know that they are building a standard product that will not be outdated and is subject to quality control.

18.01.2023 No advice received on proposed description. Peter Russell to forward to EC for review and website update.

D 2.4mR Class Rules

TC to obtain WS approval of seat and headsail boom amendments. TC to review headsail and mainsail foot median class rule requirement.

E 2.4 NOD Class Rules

TC to publish 2.4 NOD Class Rules and Constrcution Manual as approved 2022 eAGM. TC to review headsail foot median class rule requirement.

14.12.2022 2.4 NOD Class Rules 2022 and 2.4 NOD Construction Manual 2022 to be issued to ICA for website.

F 2.4 NOD Boat Scan

TC to manage NOD digital file production by VmaxYachting as aproved by EC 2 December 2022.

14.12.2022 Bruce Millar working with Heiko Kroger and Thomas Jatsch to complete 2.4 NOD boat scan, scan media including backup to be finalise.

18.01.2023 Bruce Millar advised scan expected mid February for issue to 2.4 NOD Accredited Builders.

G 2.4mR Measurement Forms

TC to review 2.4mR measurement forms including certification section for WS approval.

14.12.2022 Rikard Bjurstom to forward eform used for 6m & 8m boats for reference.

18.01.2023 Measurement eform to be reviewed for adoption as 2.4mR measurement form, WS plaque number required on each page.

H 2.4mR Rating Certificates

TC to review standard 2.4mR Rating Certificates for NCAs responsible for class administration.

14.12.2022 Bruce Millar to forward current Canada Rating Certificate for reference, valid Rating Certificate to include Measurement Form and Buoyancy Certificate.

I NOD certification

How to get all NOD boats certified? How to inform owners that they are responsible for obtaining NOD certificates and require them to compete at para events? NOD certification explanatory video by Bruce Millar. 2.4 NOD boat event NORs to include requirement for owners to issue certificates to organising authorities.

J Official Measurer training

TC to review measurer training and certification process oportunities?

14.12.2022 Timeline for WS process to IM qualification to be scheduled, 2 events and IM seminar required.

K Buoyancy Checks

TC to establish 'competent persons' register for buoyancy checks. Note; Both 2.4mR and 2.4 NOD buoyancy checks can be preformed by a competent individual assigned by the TC.

14.12.2022 Buoyancy Check certificates register to be established, TC to consider addition to website for event organiser information?

L 2.4mR boat builders

2.4mR builders are as follows:

- *SUPER 3 (UNITED KINGDOM)*
- *MALMSTEN BOATS (SWEDEN)*

M 2.4 NOD boat builders

2.4 NOD interested builders are as follows:

- *United Kingdom (Brian Harding) – waiting for 2.4 NOD Agreement*
- *USA (Rudy Trejo) – ongoing discussion*
- *Australia (Michael Bunyard) – waiting for scan and 2.4 NOD Agreement*
- *Germany (Thomas Bergner) – construction mid-2023*
- *Finland (Evert Aartsen) – 10 boats to be manufactured 2023, monitoring program to ensure complete boats and payement schedule by FIN.*

TC contact person to be defined for potential builders.

- *United Kingdom – TC contact tbc*
- *USA – TC contact Bruce Millar*
- *Australia TC contact Peter Russell*
- *Germany – TC contact Thomas Jatsch*
- Finland - TC contact Rikard Bjurstrom

14.12.2022 Brian Harding to be advised that 2.4 NOD Accredited Builder Agreement is under preparation, Bruce Millar is happy to be the GBR TC contact person.

14.12.2022 Evert Aartson to be advised that 2.4 NOD Accredited Builder Agreement is under preparation, Rikard Bjurstrom is happy to be the FIN TC contact person.

Accredited builder submissions shall include the following details prior 2.4 NOD boat certification:

- *Prototype measurement – refer WS regulation 10.5 (f) (vi)*
- *Lay-up design*
- *Hull/keel stiffness*
- *Chain plate deflection*
- *2.4mR WS plaque*
- *2.4 NOD plaque*
- *2.4 NOD Class Rules Compliance Declaration*

2.4 NOD accredited builder pathway available for issue to potential builders following receipt of applications.

EC to prepare 2.4 NOD accredited builder agreement.

14.12.2022 Bruce Millar preparing draft 2.4 NOD Accredited Builder Agreement for review.

18.01.2023 Draft 2.4 NOD Accredited Builder Agreement prepared by Bruce Millar reviewed by TC. Key issues:

- No ICA financial responsibility
- Complete boats or hull only options
- Manufacture and/or assembly options
- Assembled hull to be capable of measurement to 253-254kg weight with 181kg of lead + corrector weight. Seat/headsail boom exclusion permited.
- Moulds to be in possession of 2.4 NOD Accredited Builder, ownership not required
- Production capacity 10 boats per year with 4 month delivery time – failure to meet this requirement does not result in cancellation of Agreement
- Hull only (includes rudder) definition to be reviewed – ballast? deck separate? fititngs? control console? Rikard Bjurstrom to check production weights with Evert.
- Complete boat and hull only boats 2.4 NOD Accredited Builder declaration forms to be designed.
- Prototype boat IM measurement check

TC to prepare 2.4 NOD inspection plan based on builder compliance declaration.

14.12.2022 Peter Russell preparing draft 2.4 NOD Accredited Builder Inspection Plan for review, prototype and boat 2 + 3 measurement and compliance declaration, other boats compliance declaration, checklist required.

18.01.2023 Draft Inspection Plan issued to Bruce Millar for 2.4 NOD Accredited Builder Agreement coordination.

N 2.4mR Finland World Championship 2023

TC to review 2.4mR Finland WC 2023 documents.

O WC NOR Template

WC NOR template to be deleted from reference documents and the website – not in accordance with currrent World Sailing (WS) Racing Rules of Sailing.

P World Championship inspection plan and forms

TC to review World Championship inspection plans and forms including - Event Form, Inspection Plan, Haul-out Form and Substitution Form.

Q 2.4mR World and Continental Championship Management Manual update

TC to update 2.4mR World and Continental Championship Management Manual to clarify divison scoring requirement.

14.12.2022 2.4mR World and Continental Championship Management Manual v.8 update including division scoring instructions to be issued to ICA for website.

R Measurement Manual update

TC to revise 2.4mR and 2.4 NOD measurement manuals to new 2022 2.4mR and 2.4 NOD class rules.

S Class Rules education

TC to develop a program of class rules education.

The 2.4mR Class is a development class granted international status in 1993. The 2.4mR Class is administered by Member National Authorities (MNAs) under delegation by World Sailing (WS). Where there is no MNA the International Class Association (ICA) may carry out administrative functions.

The 2.4 NOD Class is a restricted class based on the Norlin Mark III introduced in 2011. The 2.4 NOD Class hulls and rudders are manufacturer controlled with rigs and sails measurement controlled. The 2.4 NOD Class is administered by the ICA.

Class Rules are prepared from the World Sailing 'Standard Class Rules template' in accordance with World Sailing recommendations.

> *«As part of the World Sailing initiative to improve and standardise class rules and certification for the sailor, the Standard Class Rule template and Equipment Rules of Sailing has been developed. Through a common format, individuals can find relevant sections of each class rules easily and effectively. The World Sailing can consult and advise to aid a class in encompassing this rules system within their class. Class Rules are based on the ERS.»*

Class Rules are rules that specify the boat, the crew, the personnel and portable equipment, and any other equipment limited by the Class and their certifications and administrations.

The Class Rules are read in conjunction with the Equipment Rules of Sailing (ERS) which provide more general governance of the equipment used in the sport.

It is the owners responsibility to ensure that their boat complies with the Class Rules and has a valid certificate.

T Measurer Recognition

TC to develop Measurer jacket/hat for events.

14.12.2022 Thomas Jatsch suggested Measurer jacket/hat be considered for measurere recognition and events.