

International 2.4mR Class Association, Technical Committee

$$R = (L + 2d - F + \sqrt{S}) / 2.37 = 2.4$$


2.4mR TC MEETING 28 February 2024 (notes in blue)

Present

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

Apologies

Thomas Jatsch (GER)

General Business

1. Instructional Videos

28.02.2024 Buoyancy Certifier instruction video production ongoing – additional video programed for next buoyancy checks.

28.02.2024 Certification instruction video production ongoing.

2. WS 2.4mR Class Rules Changes

28.02.2024 World Sailing approved 2.4mR class rules amendment submission on seat/headstail boom weight, buoyancy validity and eMeasurement Form with effective date 12 February 2024.

28.02.2024 Bruce Millar advised new ICA Constitution issued to World Sailing for comment to World Sailing Regulations 10.2.1:

10.2.1 In order to be so designated a class must be able to meet the following criteria, detailed in an application to the Chief Executive Officer, for consideration by Council at the next scheduled meeting,

- (a) an active class/owners association;
- (b) a constitution passed by a pre-existing class/owners association and approved by the Equipment Committee and the Constitution Committee containing at least:
 - (i) the name of the class,
 - (ii) provision for control by a class/owners association,
 - (iii) an elected board and executive committee,
 - (iv) an executive committee, including at least the executive officers, and
 - (v) a statement of the objectives of the class;

3. Brian Harding Prototype 2.4 NOD Inspection

28.02.2024 Prototype 2.4 NOD boat scheduled for measurement 2nd week March 2024. Keith Gordon to refer to updated 2.4 NOD Inspection Checklist and 2.4 NOD Builder Declaration Form. Super 3 to apply for NOD sticker.

4. Evert Aartsen 2.4 NOD boats

28.02.2024 7 2.4 NOD boats under production by Ab Skim Kayaks Finland Oy now scheduled for March 2024 completion. Ab Skim Kayaks Finland Oy to ensure all documentation completed and fees paid for boats under production. Ab Skim Kayaks Finland Oy issued NOD stickers.

5. 2024 2.4mR World Championship Germany Review

28.02.2024 TC comments on NOR forwarded to Organising Authority by EC. TC can prepare Equipment Inspection NOR clause if required.

6. World Sailing Hannah Stodel Meeting

28.02.2024 Meeting with World Sailing on 12.02.2024 confirmed parasailing “inclusive” strategy. Bruce Millar preparing response on 2.4 NOD class rules. NOTE *The 2.4 NOD Class Rule controls all factors affecting boat speed but allows internal structure and rigging options to ensure that the boat is a truly inclusive class able to be sailed by people of all abilities.*

7. Rudderstock

28.02.2024 Parts of rudder discussed – rudder terms are rudder blade, rudderstock, rudder port tube, rudder armature, rudder steering lines. 2.4 NOD class rules to be amended with “rudderstock” one word and D.7.1(a) (3) “rudder post” deleted as not a fitting.

2.4mR Class Rule D3.1 permits rudder stock to be “of any materials” E.4.2 prescribes rudderstock of stainless steel or aluminium.

8. Mainsail Edge Measurement

28.02.2024. Peter Russell advised Doyle sailmaker that local curvature from upper leech point to aft head point is required to comply with ERS H.5.4 Extended as necessary as follows:

H.5.4 Extended as necessary

If there is local curvature and/or irregularity in the **sail edge** leading into a corner point, the extension of the **sail edge** shall be found as follows using a batten as specified in H.5.4(e) :-

- (a) Hold the batten at its very ends with one end approximately where the **corner point** will be and the other end touching the **sail edge** being extended.
- (b) Apply compression only to the batten to produce a uniform curve when required.
- (c) If the batten does not replicate the sail edge shape exactly, move the end of the batten at the **corner** away from **sail** until the longest possible length of the batten touches the **sail edge**.
- (d) Where this technique does not provide a repeatable **corner point**, ERS H.1.2 shall apply.
- (e) Battens shall be of a specification approved by World Sailing unless otherwise specified in class rules.

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PART 3 RULES GOVERNING EQUIPMENT CONTROL AND INSPECTION

- (f) Class Rules may vary ERS H.5.4

9. Rondar Lifting Eye Failure

28.02.2024 Peter Russell advised the EC on 16.02.2024 of a Rondar 2.4mR boat lifting eye failure. The failure occurred over water, and fortunately no-one was injured. The front lifting eye failed first so the rig was OK. Subsequent inspection has found that one other Rondar boat has lifting eye lamination failure. The lifting eye failure is a Rondar 2.4mR boat issue.

Lifting eyes are not required under the 2.4mR class rules. Lifting eye design is the responsibility of the builder.

Keith Gordon noted that Weymouth Olympic Centre requires all boats to be lifted with their certified lifting slings. Keith Gordon noted that short lifting strops impose a sheer force on lifting eyes.

Requirement for adding a lifting eye requirement to 2.4mR class rules discussed – agreed that the design of the method of lifting 2.4mR boats is the builder’s responsibility and that a class rule change to add lifting eyes is not consistent with the open rule.

Requirement for periodic testing of 2.4 NOD lifting eye load capacity discussed – agreed that 5 yearly checks are not required however advise that all 2.4 NOD owners regularly check lifting eyes and lifting strops for potential failure as for all boat rigging. Lifting eye load capacity can be checked over water with boat not rigged to address safety protocols.

EC to consider Rondar 2.4mR boat safety warning options.

10. 2.4 NOD Class Rules Changes

28.02.2024 2.4 NOD class rules 2024 draft including World Council AGM approved rule changes agreed. Peter Russell to issue for website publication.

- ❖ 2.4 NOD Sail Numbers Proposal – plaque numbers
- ❖ 2.4 NOD Pumps Proposal – electric pumps
- ❖ 2.4 NOD Sail Area Proposal – foot median
- ❖ 2.4 NOD Certification Proposal – spar certification
- ❖ 2.4 NOD Lifting Eye Proposal – load capacity

C.5.2 (a) "One or more electric pumps with battery" reviewed – agreed reword as "One or more electric pumps" with battery reference deleted as batteries are intrinsic part of electric pump system and reference not required.

C.5.2 (b) noted total portable equipment weight requirement to be amended to same paragraph as definition to avoid confusion due to page break.

Rudder appendage amendments incorporated as item 7 Rudderstock.

11. Strad Measurement

28.02.2024 Bruce Millar noted Strad IV rating at 2.383 following measurement of 2.4mR boat constructed from plans – rating confirmed as within expected range.

12. IM Seminar

28.02.2024 Keith Gordon noted next IM seminar programmed for Japan – Keith Gordon to liaise with World Sailing and Thomas Jatsch – Peter Russell noted comprehensive knowledge of ERS is required with closed book exam.

11. 2024 2.4mR TC Work Program

28.02.2024 TC Work Program finalised with World Council AGM approval of proposed class rule changes:

- ❖ 2.4mR Headsail Proposal – RRS 50.4
- ❖ 2.4mR and 2.4 NOD Sail Numbers Proposal – plaque numbers
- ❖ 2.4mR and 2.4 NOD Pumps Proposal – electric pumps
- ❖ 2.4mR and 2.4 NOD Sail Area Proposal – foot median
- ❖ 2.4 NOD Certification Proposal – spar certification
- ❖ 2.4 NOD Lifting Eye Proposal – load capacity

Next Meeting

Canada	12.00pm Wednesday 3 April 2024
UK	8.00pm Wednesday 3 April 2024
Sweden	9.00pm Wednesday 3 April 2024
Germany	9.00pm Wednesday 3 April 2024
Finland	10.00pm Wednesday 3 April 2024
Australia	7.00am Thursday 4 April 2024

2024 2.4mR TC WORK PROGRAM

2.4mR Technical Committee

Peter Russell (AUS) Chairman
Bruce Millar (CAN) EC Representative
Stellan Berlin (SWE)
Rikard Bjurstrom (FIN)
Keith Gordon (GBR)
Thomas Jatsch (GER)

ICA NOD Certification Administrator

Louise Anstey (CAN) (backup - John Seepe (USA))

ICA IM

Keith Gordon (GBR) IM
Matti Muoniovaara (FIN)

A 2.4mR Class

TC to review class documentation:

- ❖ Updated 2.4mR class rules issued by World Sailing 15 November 2022
- ❖ 2.4mR Measurement Manual 2020 (v. 9)
- ❖ 2.4mR Buoyancy certificate (v. 3)
- ❖ 2.4mR **Certificate** template for NCA Certification Authorities

TC to incorporate World Sailing class rule changes approvals:

- ❖ 2.4mR eMeasurement Form
- ❖ 2.4mR seat/headsail boom weight
- ❖ 2.4mR buoyancy validity

TC to seek World Sailing class rule changes approval:

- ❖ 2.4mR Sail Numbers Proposal – plaque numbers
- ❖ 2.4mR Sail Area Proposal – foot median
- ❖ 2.4mR Headsail Proposal – RRS 50.4
- ❖ 2.4mR Pumps Proposal – electric pumps

TC to review World Sailing RRS and ERS for class rule compliance.

31.01.2024 World Sailing advice that 2.4mR class rules amendment submission on seat/headsail boom weight, buoyancy validity and eMeasurement Form is acceptable – approval from World Sailing expected early February 2024. eMeasurement Form to be available on website / pdfMeasurement Form on World sailing website. World sailing logo instructions received – Peter Russell to forward to Rikard Bjurstrom for 6m class.

31.01.2024 Loss of plaque number on some World Sailing plaques noted. No alteration to World Sailing plaque is permitted so replacement plaques are required. New rating certificates to note original and new R plaque numbers.

B 2.4 NOD Class

TC to review class documentation:

- ❖ 2.4 NOD Class Rules 2022
- ❖ 2.4 NOD Construction Manual 2023.1
- ❖ 2.4 NOD Drawings J1 – Measurement Section, J2 – Templates, J3 – Deck layout, J4 - Section
- ❖ 2.4 NOD Measurement Manual 2020 (v. 9)
- ❖ 2.4 NOD Measurement Report New Boats (v.5), Measurement Report – Old Boats (v. 4), Optional Measurement Report Mast & Boom (v. 5)
- ❖ 2.4 NOD **Certificate** template (v. 4)
- ❖ 2.4 NOD Accredited Builder stickers starting at number 1000

TC to incorporate class rule changes:

- ❖ 2.4 NOD Certification Proposal – spar certification
- ❖ 2.4 NOD Sail Numbers Proposal – plaque numbers
- ❖ 2.4 NOD Sail Area Proposal – foot median
- ❖ 2.4 NOD Pumps Proposal – electric pumps
- ❖ 2.4 NOD Lifting Eye Proposal – load capacity

C Buoyancy Checks

TC to review ICA Buoyancy Certifier assignments:

- ❖ Buoyancy Certifier applications need to demonstrate competency either by current or past measurement qualifications or endorsement by an Official Measurer.
- ❖ ICA Buoyancy Certifier is a Measurer role appointed by the ICA (not MNA) where the person needs to have knowledge of the Class Rules and the ERS, respect competitors and officials and be aware of conflicts of interest.

TC to maintain 2.4mR Buoyancy Certifier database.

TC to prepare ICA Buoyancy Certifier instruction video.

D 2.4 NOD Accredited Builders

TC to review 2.4 NOD Accredited Builder class rule compliance:

- ❖ 2.4 NOD Accredited Builder Application Process (v. 5)
- ❖ 2.4 NOD Accredited Builder Agreement (EC)
- ❖ 2.4 NOD Accredited Builder Boat Inspection Plan (v. 4)
- ❖ 2.4 NOD Accredited Builder Declaration Form (v. 3)
- ❖ 2.4 NOD scan prepared by *VmaxYachting* in high definition for 2.4 NOD Accredited Builders and low definition for general distribution (EC)
- ❖ 2.4 NOD scan data file agreement (EC)

The EC has executed 2.4 NOD Accredited Builder Agreements as follows:

- ❖ *SUPER 3 (United Kingdom) Brian Harding*
- ❖ *AB SKIM KAYAKS FINLAND OY (Finland) Evert Aartsen*

31.01.2024 2.4 NOD laminate compliance advice issued to Brian Harding. Keith Gordon noted no 2.4 NOD prototype measurement to date. Brian Harding has 2.4 NOD templates for compliance checks.

31.01.2024 7 2.4 NOD boats under production by Ab Skim Kayaks Finland Oy scheduled for February 2024 completion. Ab Skim Kayaks Finland Oy to ensure all documentation completed and fees paid for boats under production.

E 2.4 NOD Certification

TC to review 2.4 NOD certification process – TC to prepare 2.4 NOD Certification video.

TC to manage 2.4 NOD sticker issue to 2.4 NOD Accredited Builders.

F Official Measurer Training

TC to support 2.4mR Official Measurer training program.

- ❖ NCA obtains expressions of interest in obtaining Official Measurer accreditation from interested persons and advises ICA of persons names and background.
- ❖ Interested persons attend National, Continental or World Championship events as Equipment Inspector for measurement introduction.
- ❖ Interested persons attend ICA 2.4mR measurement training program to enable interested persons to undertake 2.4mR measurement for external examiner review. 2.4mR training could be conducted on a four-year cycle subject to commitment from interested people.
- ❖ Interested persons obtain NCA support and attend MNA Official Measurer program to obtain Official Measurer accreditation.
- ❖ NCAs obtains required measurement equipment, templates etc for Official Measurer use.

TC to maintain 2.4mR Official Measurer database. All NCAs to advise Official Measurer details.

G 2.4mR Germany World Championship 2024

TC to review 2.4mR Germany World Championship 2024 race documents for compliance with equipment inspection guidelines.

31.01.2024 Notice of Race reviewed. Bruce Millar and John Seepe comments noted. Number of Equipment Inspection days not adequate for up to 120 boats – allow 2 days for equipment inspection with final morning for compliance wrap-up. Schedule to be amended and race numbers to be corrected for 11 races. Equipment Inspection to be in accordance with 2.4mR World Championship Inspection Plan. Event insurance to be reviewed E2 million is policy limit in many 2.4mR countries. World Sailing is the Organising Authority for the 2.4mR Para World sailing Championship – delegation to be agreed with World Sailing. Thomas Jatsch noted that Keith Gordon has been appointed as 2024 2.4mR World Championship IM. Peter Russell to forward the 2.4mR World Championship Inspection Plan and associated documents to Thomas Jatsch for a meeting with the Organising Authority. Peter Russell to prepare TC review for issue to EC meeting 06.02.2024.

H 2.4mR World and Continental Championship Management

TC to review 2.4mR World and Continental Championship Management documentation.

- ❖ 2.4mR World and Continental Championship Management Manual
- ❖ Event Form
- ❖ Inspection Plan
- ❖ Haul-out Form
- ❖ Substitution Form

I Instructional Videos

31.01.2024 Buoyancy Certifier instruction video production ongoing.

31.01.2024 Certification instruction video production ongoing.

J Rudderstock

31.01.2024 Parts of rudder discussed – rudderstock (one word) agreed as correct term – word rudderstock and materials to be regularised. 2.4mR Class Rule D3.1 permits rudder stock to be “of any materials” E.4.2 prescribes rudderstock of stainless steel or aluminum. 2.4 NOD Class Rules E.2.6 & E.2.8 rudder stock

K Mainsail Edge Measurement

31.01.2024 Mainsail edge measurement discussed. There is no ERS or 2.4mR Class Rules for straight sail edges from top batten to aft head point. Sails with a local curvature to be measured with batten to ERS ensuring sail extension does not affect head width. North sails noted as straight and Neb sails noted as minor curvature between upper leech point and aft head point.

