



TC Meeting 17 November 2022 (notes in blue)

Present

Peter Russell (AUS)

Bruce Millar (CAN)

Rikard Bjurstrom (FIN)

Keith Gordon (GBR)

Apologies

Stellan Berlin (SWE)

Thomas Jatsch (GER)

General Business

1. 2.4mR eAGM 2022

17.11.2022 TC documents for 2022 eAGM submitted 12 October 2022 for World Council approval as follows:

- ❖ 2.4mR TC report
- ❖ 2.4mR & 2.4 NOD Headsail Boom and Seat Removal
- ❖ 2.4mR & 2.4 NOD Buoyancy Certificate
- ❖ 2.4 NOD Accredited Builder
- ❖ 2.4 NOD Spar Definition
- ❖ 2.4 NOD Class Rules 2022 (including amendment schedule)
- ❖ 2.4 NOD Construction Manual 2022

2. ICA Constitution

Bruce Millar noted that Heiko has prepared a new ICA Constitution for review. Peter Russell to issue to TC for consolidated response.

01.09.2022 TC to review TC responsibilities under proposed constitution.

06.10.2022 Bruce Millar advised mid 2023 proposed time for eAGM vote on new ICA Constitution.

17.11.2022 TC to review TC responsibilities under proposed constitution.

3. 2.4 NOD Builders

01.09.2022 Bruce Millar advised Rudy Trejo is possible 2.4 NOD builder in USA, ICA data file required for production.

01.09.2022 Peter Russell advised Michael Bunyard is possible 2.4 NOD builder in Australia, new mould production funding has been secured, ICA data file required for production.

06.10.2022 Heiko Kroger advised Thomas Bergner is interested in building 2.4 NOD boats – he has used Charger boat 1020 for moulds. Thomas Jatsch has confirmed that he is available to be the TC point of contact for Thomas Bergner. We understand that moulds are completed and he intends to start building the prototype boat in November 2022. Moulds not produced from ICA data file noted. ICA Accredited Builder agreement to be prepared by EC. TC to prepare 2.4 NOD prototype boat inspection plan. Thomas Jatsch has set of ICA 2.4 NOD templates (note Keith Gordon advice that rudder template is to be checked).

06.10.2022 Brian Harding has confirmed that he is interested in building 2.4 NOD boats – he notes that he has received no response from the ICA. The work of Brian Harding in developing the Super 3 and successfully exporting 2.4mR boats around the world is acknowledged as sustaining the class in the difficult period from 2019 following the refusal by the EC to approve the Oy Kaph Group Ab (Charger) licence. The TC notes that the 2.4 NOD boat is a class of 2.4mR boat and that supporting the Super 3 and other open rule boats is a fundamental element of metre boat sailing. The TC has confirmed Brian's interest in building 2.4 NOD boats with him. ICA Accredited Builder agreement to be prepared by EC. TC to agree point of contact for Brian Harding.

International 2.4mR Class Association, Technical Committee

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



4. 2.4mR World Championships 2022

17.11.2022 Bruce Millar advised 39 boats competed in WC with 34 2.4 NOD boats and 19 Para sailors. Event disrupted by storm NICOLE with boats hauled out for safety.

17.11.2022 Bruce Millar advised measurement questions from 2.4mR WC 2022.12.09

- ❖ some 2.4 NOD mainsail leech lengths less than 4900mm – rule to be changed to <4850mm to allow for shrinkage over time
- ❖ certified scales with backup required – recommend certification be checked for currency and certification posted with scales at measurement station
- ❖ individual divisions score methodology to be confirmed – recommend winner of individual divisions be taken from overall results only (individual divisions to not be scored separately)
- ❖ increased foot roach on Dee Smith sails noted – addition of jib and mainsail foot median limits to be considered for 2.4mR class and jib foot median limit to be considered for 2.4 NOD class
- ❖ rescue of swapped boats to be considered - pump type and numbers for 2.4mR events to be reviewed

4. 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 HOLLOWES

(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.

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 0.7m², 2.4mR D.5.1(c) requires inspection hatches of minimum 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.

5. Station 0

17.12.2022 Bruce Millar noted some boats 3mm to narrow at station 0 – definition to be checked.

6. RRS 78.1

17.11.2022 A reminder regarding class rules and certificates.

78 COMPLIANCE WITH CLASS RULES; CERTIFICATES

78.1 While a boat is racing, her owner and any other person in charge shall ensure that the boat is maintained to comply with her class rules and that her measurement or rating certificate, if any, remains valid. In addition, the boat shall also comply at other times specified in the class rules, the notice of race or the sailing instructions.

2022 2.4mR TC Work Program

A EC Meetings

Bruce Millar to act as TC representative to EC meetings except where Peter Russell required

Bruce Millar advised 2021 AGM Minutes approved for publication (not on website to date).

B NOD certification strategy

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?

International 2.4mR Class Association, Technical Committee

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



26.05.22 Noted that owners think measurement form is certificate. Thomas Jatsch to forward copy of GER forms to TC for review. Bruce Millar to consider explanatory video. Requirement for owners to issue certificate to event organising authorities as part of entry should be included in all NORs. NCAs could be required to collect all NOD forms for certification.

26.05.22 Keith Gordon noted rating certification on 2.4mR measurement form now used by GBR so relevant measurement data included.

28.07.2022 Bruce Millar advised Certification video under production for review.

C Follow-up WS approval of 2015 & 2018 amendments to 2.4mR Class Rules

Stellan Berlin to advise approval status.

30.06.2022 Stellan Berlin issued copy of new 2.4mR Class Rules approved by World Sailing subject to one issue not advised to date – Stellan Berlin to follow-up publication of new rules.

28.07.2022 Stellan Berlin to follow-up publication of new rules.

01.09.2022 Stellan Berlin advised no WS approval of new rules to date – anchor weight ruling under consideration.

06.10.2022 Stellan Berlin advised no WS approval of new rules to date.

17.11.2022 World Sailing published 2.4mR Class Rules 2022 with effective date 15 November 2022.

17.11.2022 Peter Russell as Chairman 2.4mR TC confirmed to Francesco Gulizzi (World Sailing) on 12 October 2022 that 'there are no internal issues between the 2.4 NOD and 2.4mR classes affecting the 2.4mR class rules'.

D Review NOD Rule Proposal resulting from ERS change

Refer draft 2.4mR TC NOD Class Rule Proposal SPAR

26.05.22 TC members confirmed NOD Class Rule Proposal SPAR supported for WC approval submission.

E Prepare Seat removal rule for 2.4mR and NOD classes

Refer Canada proposal 6

30.06.2022 Draft Seat and Headsail Boom rule reviewed. Possible use of removable seat rule to allow additional ballast in keel discussed – weight control or location above waterline rule to be considered. Standard seat weight is 2.5kg.

28.07.2022 Revised draft Seat and Headsail Boom rule reviewed. Section D.1 to be deleted – refers to hull only not rig. Approval of measurer to be deleted – unnecessary administrative requirement. Rickard suggested weigh limit be added to prevent additional ballast adjustment. TC agreed to add max. 5kg limit to removable seat.

01.09.2022 Revised draft Seat and Headsail Boom rule reviewed. TC agreed D.6.2(b) (4) to be amended to change waterline to floor level reference, maximum fixing tab projection to be amended from 25mm to 100mm to allow for aluminium tabs.

F Prepare Headsail Boom removal rule for 2.4mR and NOD classes

Refer Canada proposal 7

30.06.2022 Draft Seat and Headsail Boom rule reviewed. No comments.

G Establish Official Measurer database

26.04.22 Peter Russell issued draft OM database to TC members for population then issue to NCAs.

01.09.2022 David Foscarini (Canada) added to OM database.

H Measurer training strategy

Class IMs - Keith Gordon + Matti Muoniovaara

26.04.22 Rikard Bjurstrom undertaking 2.4mR measurement skilling with Matti Muoniovaara.

Keith Gordon working with Thomas Jatsch with view to obtaining IM qualification subject to IM examination pass, inspections at two events (2021 Para Worlds), 2022 European Championship) now completed – IM exam possible this year, requirement for detailed understanding of ERS noted.



Peter Russell IM application withdrawn.

OM + IM training, additional IMs, regular measurement seminars?

26.04.22 Thomas Jatsch noted that only one OM resulted from measurement seminar despite 20 attendees. OM training suggested as up-skilling approach for people already committed to measurement – 2 potential measurers in Germany.

06.10.202 Peter Russell noted the Peter Coleman (AUS) has been approved as 2.4mR Official Measurer.

I NOD manufacturers – no current agreements issued by ICA

NOD Class Rules and Construction Manual are based on licenced builders

«The 2.4 Norlin One Design hulls and rudders shall only be manufactured by Licensed Builders – in the class rules referred to as licensed hull builder. Equipment is required to comply with the 2.4 Norlin One Design Construction Manual and is subject to a manufacturing control system approved by the ICA.»

2.4mR website schedules the following builders:

- *OY KAPH GROUP AB (CHARGER SAILING) (FINLAND)*
- *MALMSTEN BOATS (SWEDEN)*
- *NOMAD BOATBUILDING (CANADA)*
- *PURE SAILING (THE NETHERLANDS)*
- *SUPER 3 (UNITED KINGDOM)*
- *SUPER 3 (GERMANY)*

ICA to review manufacturer control strategies with World Sailing (WS) – amend Class Rules and Construction Manual to World Sailing and ICA World Council agreed strategy in consultation with builders to achieve rule compliance and quality builds.

30.06.2022 Peter Russell paper and EC advice on NOD licences noted:

My concern is that if a change from “licenced” to “class” builders is agreed as the preferred way forward this will need to go through various steps:

- *Discussion with WS as 2.4mR NOD is selected equipment for Para Sailing*
- *Discussion with builders regarding proposed class rule changes to ensure confidence in class administration and agree class rule compliance declaration strategy*
- *Development of 2.4mR NOD Class Rule amendments by TC including WS, builder and EC review*
- *Approval by World Council of 2.4mR NOD Class Rule changes*
- *Development of “class builder” agreement and fees strategy*

A “class builder” rule will need to consider how the class rule compliance declaration will work?

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

30.06.2022 Bruce Millar advised EC meeting 27 June 2022 voted to replace «licenced» builder agreements with «accredited builder» agreements as follows:

Item 1

The word Licence is not supported in the majority.

The EC voted to remove Licence where necessary in builder agreements, class rules, specifications and any other documents and replace with:

Accredited Builder

TC is directed to proceed with changes and updates. World Sailing has indicated to our class president (Heiko) that they are pleased with our Norlin OD rules as controls.

Item 2

International 2.4mR Class Association, Technical Committee

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



Norlin OD Class rules should also include in the Administration section text indicating approval of boats to be eligible for OD measurement if they were built by previously licenced builders.

(Charger, Edge)

Item 3

TC to create a Directive to be sent to all Official Measurers indicating that boats built since the cancellation of builder licencing are eligible for OD measurement if they were built buy previously licenced builders. (Charger, Edge)

Item 4

Specifications are needed for Norlin OD Deck. Recently a boat builder in the UK has built moulds for a Norlin 3 hull and attached a Super 3 deck to this boat. Although these moulds are not yet eligible for Norlin OD they could be in the future but in the Norlin OD builder specification it must be clear about the deck specification.

Item 5

Norlin OD Stickers – Concern of lack of control of the stickers and tracking of which boats go with which stickers. EC decided for now that stickers issued to Edge Sailing for Charger built boats (8 boats?) would be at no cost until further procedures can be established.

Item 6

Engagement of possible builders. Concern was expressed that we do not have a formal means of engagement with possible builders. There needs to be a path to follow so that builders know who the person is that they contact and exchange with for guidance on how to become an Accredited Builder. Is this EC or TC or both?

30.06.2022 TC to prepare NOD Class Rules Interpretation to allow certification of boats built by previously licenced builders.

30.06.2022 TC agreed all NOD boats should be as alike as possible and do not support the use of a Super 3 deck installed on a NOD hull. The hull includes the deck under NOD Class Rule D.1.1. The Super 3 deck mould has not been approved for NOD boats under NOD Class Rule D2.7 (b).

28.07.2022 NOD class rules accredited builder interpretation reviewed. Peter Russell to amend Interpretation to include certification process for boats built by licenced builders to 2019-06-03. Keith Gordon noted (email 09.07.2022) that ICA is not Certification Authority under ERS.

28.07.2022 TC to review NOD Construction Manual.

28.07.2022 EC to review Accredited Builder invitation and agreement.

01.09.2022 EC to confirm instruction to change 2.4 NOD Licenced Builder to 2.4 NOD Accredited Builder.

01.09.2022 Draft Accredited Builder application process reviewed. TC agreed to cover build documentation requirement by reference to 2.4 NOD Class Rules and Construction Manual. TC agreed to add discussion with applicant after initial submission.

It is critical the EC finalises the new Accredited Builder Agreement so the class has a complete system for 2.4 NOD Accredited Builder engagement.

- ❖ 2.4 NOD Accredited Builder Agreement - EC
- ❖ 2.4 NOD Accredited Builder Application - TC
- ❖ 2.4 NOD Class Rules - TC
- ❖ 2.4 NOD Construction Manual - TC
- ❖ 2.4 NOD Data File - TC
- ❖ 2.4 NOD Drawings – TC

17.11.2022 2.4NOD Accredited Builder Agreement discussed – simple document required with nominal fee say €50 to cover plaque administration.

J Boat scan for NOD digital file as referenced under NOD Construction Manual



2 DRAWINGS

2.1 DIGITAL DRAWINGS

A licensed Builder will get a data file describing the hull shell. From these data a plug can be produced by MNC technique from which the moulds can be manufactured. Moulds may also be manufactured directly from the data. Templates needed to check moulds and built hulls can be manufactured from the data in the same way.

As an alternative, a licensed Builder may buy moulds from Charger Composites.

26.04.2022 NOD scan by Brian Harding noted.

30.06.2022 EC recommendation to engage Tony Pocklington to produce a data file describing the hull shell to NOD Construction Manual rule 2.1 at ICA cost with issue to accredited builders controlled under builder agreements supported by TC.

28.07.2022 Bruce Millar confirmed that Tony Pocklington is able to prepare data file. Reference boat to be new Charger with headsail boom recess. Reference boat measurement to be checked before data file preparation. Data file requirement to be extended to include NOD Class Rules template data files to NOD Class Rules section J.

28.07.2022 Rikard Bjurström advised that 11 sets of the templates were manufactured by Charger for distribution to MNAs. Drawings are not held by the ICA. Rikard confirmed Charger does not have J1-J6 drawings. Keith Gordon to issue J1-J6 drawings to TC members.

01.09.2022 TC confirmed ICA data file scan needs to be a controlled scan to the following parameters:

- ❖ The scan needs to be managed by respected, experienced boat builder Tony Pocklington
- ❖ The scan needs to be taken from a recent Charger that has been template measurement checked
- ❖ To be scanned the boat fittings need to be removed and boat setup on baseline
- ❖ The scan needs to be owned by the ICA and freely available to Accredited Boat builders

All existing scans are personal records which cannot not be relied upon to create the future of our class. The ICA scan will be used by Accredited Builders to manufacture hull plugs and the ICA needs to be assured that the data file is from a template measurement checked boat and that the data file has not been modified.

06.10.2022 EC meeting of 14 September 2022 approved the TC procuring a data file describing the 2.4 NOD boat as defined in the 2.4 NOD Construction Manual 2011. Bruce Millar to confirm the availability of Tony Pocklington to undertake the scan following boatyard damage from cyclone Ian. 2.4 NOD boats have been identified as recent 2.4 NOD boats that have been measurement jig/template checked with mid dimension tolerances. Brian Harding offer to scan boats and iron out anomalies is noted.

17.11.2022 Heiko Kroger provided quote from Max Gurgel for 2.4 NOD boat scan on 04.11.2022. Bruce Millar to review Tony Pocklington availability to conduct scan otherwise seek EC approval for Max Gurgel quotation. We understand that scan boat is in centre of tolerances - Thomas Jatsch to provide measurement numbers.

K Review ICA World Championship inspection plan and forms

Event Form
Inspection Plan
Haul-out Form
Substitution Form

L Assist EC with finalisation of updated 2.4mR World and Continental Championship Management Manual

Version 5 addresses RMM-hh/200730 review.

30.06.2022 EC reviewed draft 2.4mR World and Continental Championship Management Manual – comments to be issued to TC for manual update. Consider name change from «Manual» to «Guide». NOR template to be deleted from reference documents and website – not in accordance with current World Sailing Racing Rules of Sailing.

01.09.2022 EC to forward comments to TC for manual update.

06.10.2022 Draft 2.4mR World and Continental Championship Management Manual (v.6), responding to EC comments, issued to EC for review and website publication.

International 2.4mR Class Association, Technical Committee

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17.11.2022 Draft 2.4mR World and Continental Championship Management Manual to be amended with winner of individual divisions be taken from overall results only (individual divisions to not be scored separately).

M Progress 2.4mR measurement form update – refer Henrik Johnsson draft

N Review Certification Process – any operational issues?

O Review Measurement Manuals - any update required from measurement seminar?

P Class Rules education strategy – advice? newsletters?

A possible starting point?

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

30.06.2022 Certification videos to be first Class Rules education program.

Q Sail Numbers – use of plaque numbers for sail numbers.

The Class Rule A.10 follows:

A.10 SAIL NUMBERS

A.10.1 Sail numbers shall be issued by the MNA.

A.10.2 Sail number shall be issued in consecutive order starting at “1”.

A.10.2 Personal sail numbers may be used after decision by the MNA or the NCA.

The intent of the rule is clear.

1. Numbers are issued by the MNA – they are individual country numbers.
2. Numbers are issued in consecutive order and start at 1 – so AUS 1, AUS2 etc
3. Personal sail numbers may be used – this gives flexibility but shouldn't alter the intent of the rule.

28.07.2022 Draft Sail Numbers debate reviewed. TC concern regarding obtaining WS approval – we are still waiting for 2015 and 2018 rule changes to be approved by WS. TC also expressed concern that the change of sail numbers will require recertification of boats at owners cost. TC noted that the use of plaque numbers could regularise numbering where non-consecutive sail numbers have been used by sailors.

01.09.2022 Revised Sail Number debate with TC recommendation to retain existing rule agreed.

R Advise EC on WC NOR Template update.

The WC NOR Template requires updating to be consistent with current World sailing guidelines and the ICA WC Equipment Inspection Plan.

International 2.4mR Class Association, Technical Committee

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30.06.2022 TC recommends that the NOR template should be deleted from reference documents and website – not in accordance with current World Sailing (WS) Racing Rules of Sailing.

S Buoyancy Certificate – add provision for approved person.

2.4mR Class Rules B.4.3 FLOTATION CHECKS

B.4.3 A boat may carry a separate buoyancy flotation certificate, where an **official measurer** confirms a satisfactory flotation check. The International 2.4 mR buoyancy flotation form shall be used. A flotation check is valid for not more than 5 (five) years.

30.06.2022 Draft Buoyancy Certificate rule reviewed. New 2.4mR Class Rules include provision for «competent individual assigned by Technical Committee» to undertake buoyancy certification – no amendment required. NOD Class Rule amendment to be consistent with new 2.4mR Class Rules. Proposed rule to be «Buoyancy Certificate». Technical Committee to approve «buoyancy certifiers» to keep record for certification checks.

28.07.2022 Keith Gordon noted (email 09.07.2022) that buoyancy check needs to be carried out or witnessed by OM or approved person. Peter Russell to amend NOD proposed rule. Buoyancy Certificate to be updated to WS plaque number.

01.09.2022 Updated Buoyancy Certificate with buoyancy checks agreed, corrected form to be uploaded on website.

T 2.4 NOD Class Rules, Construction Manual and Measurement Form review.

01.09.2022 Peter Russell issued draft 2.4 NOD Class Rules, Construction Manual and Measurement Forms update for review.

MEASUREMENT FORM

Boom cross section, mast weight, class rule references and general update completed. Template clearances to be revised to 1mm minimum for keel and rudder sections. Corrected forms to be uploaded on website.

CONSTRUCTION MANUAL

Draft 2.4 NOD Construction Manual update reviewed.

2.1 Hull shell to include deck, keel and standard rudder. Accredited Builder may buy moulds from another Accredited Builder or previously Licenced Builder.

2.2 Drawing reference to be deleted – drawings are not consistent with current 2.4 NOD class rules. 2.4 NOD boats to be manufactured in accordance with the ICA data file.

3.2 Construction compliance with drawings to be deleted. Hull shell lamination to class rule D.2.3 (c). Assembled hull dimensions to correspond to Measurement Form dimensions.. Keel girth dimension to be added. Fittings compliance with drawings to be deleted.

New drawings J1 SECTIONS AND DIMENSIONS and J2 TEMPLATES to be added to Construction Manual.

06.10.2022 2.4 NOD Construction Manual drawings J1-J6 & J8 now issued by Keith Gordon. Peter Russell to review and prepare new J3 Deck and J4 Section drawings for updated Construction Manual. Template drawings deleted as all templates are required to be ICA approved.

CLASS RULES

07.09.2022 Peter Russell issued draft 2.4 NOD Class Rules, Construction Manual and Measurement Forms update for review.

2.4 NOD class rule update includes World Sailing, dimensions check, formatting and proposed rule changes as follows:

- ❖ Accredited Builder
- ❖ Buoyancy Certificate
- ❖ Seat & Headsail Boom
- ❖ Spar Definition

International 2.4mR Class Association, Technical Committee

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Key principles guiding 2.4 NOD class rules development:

- ❖ The 2.4 NOD is a class of 2.4mR boat
- ❖ The 2.4 NOD class rules should not include barriers to increased sailing participation
- ❖ The accredited builder should certify boat compliance with the 2.4 NOD class rules

General discussion on ideas:

Rikard Bjurstrom

- ❖ Delete 181kg lead requirement
DISCUSSION – Removing lead for event verification of 181kg ballast compliance is barrier to 2.4 NOD sailing; production boats hull weight should be consistent so consider deleting 181kg ballast rule; how can special builds with reduced hull weight (minimum weight bulkheads, fitting etc) be controlled; additional ballast up to 10kg is possible with special build; builders certification could state that the ballast (excluding correctors if any) is 181kg so do we need event checking; random boat ballasts could be checked at events; consider removable keel.
RECOMMENDATION – Consider control with builder certification.
06.10.2022 2.4 NOD boats to be equal so 181kg ballast needs control to limit opportunity for special builds - builder declaration discussed but lack of control after boat leaves manufacturer noted – ballast control to be either pre-event inspection of random boats or during event spot checks of selected boats. Preference for during event spot checks noted but subject to availability of inspection personnel to remove/replace lead. World Championship Inspection Plan to be updated including NOR advice.
- ❖ Delete template measurement for production boats
DISCUSSION – Templates could be used only for checking say first 3-5 then random production boats, production boats manufactured to the ICA data file should be equal and not require template checking when manufacturing processes finalised; templates could be used for Paralympic events or where hull alteration is suspected; templates could be deleted from measurement form and rely on builder certification; measurement process barrier could be removed with template check deleted.
RECOMMENDATION – Consider control with builder certification, control hull dimensions with ICA data file and first 3 production boats then random production boat template checks, delete template check from measurement process.
06.10.2022 For new 2.4 NOD boats built by an Accredited Builder from an approved mould - prototype boat and first two production boats to be template checked – periodic template checks to be carried out for subsequent boats – template checks not required after fundamental measurement.
- ❖ Build true (symmetrical hulls)
DISCUSSION – existing boats not symmetrical about centreline; new boats could be built with symmetrical hulls to good building practice; symmetrical hulls would delete requirement for port and starboard templates; ICA data file could be used to average hulls to middle template dimensions; mould change to symmetrical hulls could improve 2.4 NOD market perception; mould change to symmetrical hulls would not disadvantage existing 2.4 NOD boats.
RECOMMENDATION – Consider builder views and existing boat implications
06.10.2022 2.4 NOD boats to be equal so existing hull shape to be retained. Keith Gordon noted key differences are in stern section and keel section.
- ❖ Consider maximum keel depth
DISCUSSION – Existing keel depth is 985mm, maximum keel depth is 1000mm; keel depth is controlled by maximum girth dimension < 2752mm; increase in keel depth will result in minor righting moment improvement so may disadvantage existing 2.4 NOD boats.
RECOMMENDATION – Consider retaining keel depth as existing.
06.10.2022 2.4 NOD boats to be equal so existing keel depth to be retained.

Stellan Berlin

- ❖ 2.4 NOD certificate to guarantee 2.4mR certificate
DISCUSSION – 2.4 NOD boats are automatically 2.4mRs, the 2.4mR is a World Sailing class so need to comply with WS regulations with certificates issued by MNAs or delegates.
RECOMMENDATION – Consider 2.4 NOD as 2.4mR certification options.
06.10.2022 2.4mR boats are an International Class subject to World Sailing Regulations. Keith Gordon has contacted World Sailing regarding 2.4 NOD boat certification as 2.4mRs.

International 2.4mR Class Association, Technical Committee

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



- ❖ 2.4 NOD class rules to be standalone
DISCUSSION – 2.4 NOD class rules could include all 2.4mR class rule requirements so they are a standalone class rule.
RECOMMENDATION – Review 2.4mR/NOD class rules to ensure 2.4 NOD class rule can stand alone.
06.10.2022 2.4 NOD Class Rules and Construction Manual reviewed for consistency with 2.4mR Class Rules – Sail Numbers and Measurement Marks added to 2.4 NOD Class Rules.

Bruce Millar

- ❖ Delete 2.4mR certificate requirement for 2.4 NOD boats
DISCUSSION – 2.4 NOD boats are automatically 2.4mRs, 2.4 NOD sailors can choose to have boats certified as 2.4mR boats if racing as 2.4mR class.
RECOMMENDATION – Consider deletion of 2.4mR certification requirement from 2.4 NOD class rules.
06.10.2022 2.4mR boats are an International Class subject to World Sailing Regulations. Keith Gordon has contacted World Sailing regarding 2.4 NOD boat certification as 2.4mRs.
- ❖ Do we need the 2.4 NOD measurement form
DISCUSSION – 2.4 NOD boats could be accredited builder certified so no measurement required; can 2.4 NOD measurement form be designed to match 2.4mR measurement form.
RECOMMENDATION – Consider builder certification process.
06.10.2022 2.4 NOD Measurement Form to be reviewed.

Next Meeting:

Canada	noon Wednesday 14 December 2022
UK	8.00pm Wednesday 14 December 2022
Sweden	9.00pm Wednesday 14 December 2022
Germany	9.00pm Wednesday 14 December 2022
Finland	10.00pm Wednesday 14 December 2022
Australia	6.00am Thursday 15 December 2022