Release notes (final) for class rules for 2016 ï Marblehead, Ten Rater & A Class

Long form version

A concise résumé is provided by the short form version

Notes to introduce the revised class rules and indicate the significant changes and their rationale
Notes in this colour indicate how existing and new boats may be affected

Common to all classes

Effective Date

1 July 2016. Measurement of boats and other equipment shall be to the revised rules from this day onwards.

Grandfathering

Except as prescribed in Section C, existing equipment is grandfathered as follows:

A Class	Hull, appendages, rig, sails
Ten Rater	Hull, sails
Marblehead	Hull, sails

Grandfathering does not apply to genoas, spinnakers and mainsails with a luff length less than 1390 mm which are not permitted by Section C of the A Class rules.

Grandfathering does not apply to mainsails with a luff length less than 990 mm which are not permitted by Section C of the Marblehead and Ten Rater Class rules.

Interpretations and Q&As

All existing interpretations are incorporated in order to make them redundant.

Since the class rules were last revised there have been many interpretations answering questions about the meaning of the class rules. According to IRSA regulations, interpretations have a lifetime of 2 years only after which they cease to apply. After the last IRSA GA few of the interpretations were actually valid – in order that the forthcoming Marblehead world championship could be held without disagreement on the same issues the interpretations were revised and brought up to date. Where possible (that is, where a simple answer to a question is satisfactory and where no rule change is possible to improve the understanding of the class rules) a Q&A has been issued. Please see the Q&A section under the Class Section of the IRSA website http://www.radiosailing.org/classes

Action required for an existing compliant boat	None
Additional action required for a new boat	None

Advertising

Advertising shall comply with the ISAF Advertising Code.

This is not a change but brings the class rule up to date with the ISAF rules concerning advertising.

Action required for an existing compliant boat	None
Additional action required for a new boat	None

Automated sheeting, steering, navigation, on board cameras

All are prohibited.

This is a rule change felt necessary to ensure that Radio Sailing remains the same as sailors currently understand it until such time as the classes feel they want to revise class rules to permit any such items. In the meantime, this avoids differences in performance achieved by using relatively advanced technology, the possibility of an 'arms race', and/or a drop in the popularity of the classes themselves, due to cost, complexity, and/or perceived unfairness of using such equipment.

Action required for an existing compliant boat	Remove any such device
Additional action required for a new boat	Remove any such device

Multiple certificates

Whereas the 1994 (A Class) and 2002 (Marblehead and 10 Rater) class rules permit only the most recent certificate to be valid, the revised class rules permit multiple certificates to be valid at the same time.

Past practice for IRSA events is that it is the competitor who enters and, even if he is requested to send details of his boat in advance of the event, use of that particular boat is not binding in any way. Not only is this normal practice for IRSA (International) events, it appears to be normal practice for most Radio Sailing events worldwide.

Whereas some owners have a single boat, others may have two or more boats which are each suited to different conditions. The latter are able to arrive at an event and choose the boat they will compete with. This allows them to match their boat to the expected conditions at the event and clearly gives those multiple boat owners an inherent advantage over those with a single boat.

There are additional complicating factors. First, some DNMs actively enforce the previous 'one valid certificate' rule by taking back an existing certificate before issuing a new one. Second, that practice is not employed by other DNMs, who issue certificates without taking back or cancelling a previous certificate. Third, some DNMs recognise multiple valid certificates within their area of administration, even though this is not in compliance with the class rules.

Thus there have been three approaches to the issue and validity of certificates and, presumably, each DNM is content with its approach to certification.

The problem is that there has been no simple means of telling if the certificate produced at an event is the most recent (and therefore only valid) certificate. While IRSA has no mechanism to canvas the views of all class owners regarding which of the various approaches identified above is preferred, it does have a natural responsibility to ensure events are fair to individual owners as far as possible. In particular, IRSA is concerned about this problem at world and continental championships for those classes for which it has specific responsibility.

Situation summary
Class rules require a single valid certificate for a boat and event rules permit choice of boats at events so multiple boat owners have an inherent advantage. Only some DNMs cancel an earlier certificate before issuing a new certificate, while some DNMs allow multiple certificates. There has been no simple way to know if the certificate presented at an event is the single current one.

One possibility that was discussed was a scheme where an event organiser requires boat certificates well in advance of the event (perhaps two weeks), while keeping the Class rules requirement for a single valid certificate for a boat.

The benefits of this scheme are that:

- The advantage of a multiple boat owner is diminished or negated by needing to declare his boat well in advance.
- Organisers have time to make enquiries of the registrar about the validity of the certificate presented.

The disadvantages of the scheme are that:

- It does not deal with variant DNM practices of certification.
- It requires event organisers and certification authorities to undertake additional duties and put in place additional processes for certification, event entry, and certificate checking.
- The competitor would be required to withdraw from the event if the boat is not certificated by the time the need to lodge the certificate arrives (delays are typical in getting a new build prepared in time for its first event), or if the boat is irreparably damaged or lost before the event.
- History tells us that race committees, even at the most major events, do not refuse entry to boats that do not comply with the rules. After all, they are facilitators and not policemen, and competitors have typically travelled some distance and at some expense to attend. A race committee would thus come under great pressure to give special dispensation to a competitor to use another boat, and so competitors would effectively be able to choose their boat on the day by providing one of the above “excuses”.
- The advantage enjoyed by multiple boat owners remains at any event where the scheme is not used and the previous normal practice prevails.

If the class rules permit multiple certificates, on the other hand, an event organiser can implement this scheme if they wish to ensure competitors use the boat which matches the entered certificate. However, as it is likely most events will continue to be run as they are now (no pre-submission of the certificate required) the owner of a single boat will not be at such a disadvantage with respect to a multiple boat owner that he was previously.

The previous class rules do not prevent any boat from being configured to suit a particular wind condition or venue – the boat can be re-rated for a specific event and then it can be returned to its original configuration immediately afterwards. The drawback of the previous system is that the boat has to be re-measured and re-certificated in order to achieve the return to its original state. There is a clear cost to this exercise which can be viewed as no more than bureaucratic nonsense. Thus there is effectively a tax on experimentation or on the attempt to reduce the advantage enjoyed by a multiple boat owner.

The control of what equipment is used by the competitor at an event is clearly in the hands of the event organiser and the event rules they choose to invoke and enforce. The equipment used by the competitor is ultimately more an event rules issue than a class rules issue. The conclusion is that the class rules can be amended to reduce the advantage enjoyed by a multiple boat owner over the owner of a single boat without affecting what happens at an event. This is in line with the general trend to reduce unnecessary cost in the sport. An advantage still remains with the multiple boat owner as each boat can be fully optimised to particular conditions. A single boat/design that is configured to suit different conditions will almost always be at some disadvantage compared to a fully optimised boat in each condition.

Other future options

Future active class organisations may have the resources to create an accessible electronic database of certificates that can be easily accessed by event organisers and race committees (as well as registrars, certification authorities, and owners themselves) thus avoiding most of the snags identified with the scheme outlined above. However, having a requirement to use a particular boat at an event will remain an event rule and not a class rule.

Conclusion

Permitting multiple certificates for a single boat to help level the playing field with a multiple boat owner is a class rule change that can be as effective under such a central register of certificates as under the previous system. Permitting multiple certificates additionally addresses the issues around the variability of DNM practice, ensuring fairness for all competitors, particularly at open events.

Action required for an existing compliant boat	None
Additional action required for a new boat	None

Hull geometry

It is prohibited to change the geometry of the hull shell during an event.

Whereas placement of the appendages is generally heavily restricted, there has been no rule limiting or prohibiting change of hull form during an event or race. In the Ten Rater and A Class it may be difficult to alter hull form without making the boat non-compliant with its certificate. However, this does not mean it is impossible to make such a change. In the Marblehead class a change to the hull form would not normally render the hull non-compliant.

As with the prohibition of on board automated sheeting, steering, navigation, and camera equipment, this is a rule change felt necessary to ensure that Radio Sailing remains the same as we currently understand it until such time as the classes feel they want to revise class rules to permit this feature. In the meantime, this avoids differences in performance achieved by using relatively advanced technology, the possibility of an ‘arms race’, and/or a drop in the popularity of the classes themselves, due to cost, complexity, and/or perceived unfairness.

Action required for an existing compliant boat	Remove or de-activate any such device
Additional action required for a new boat	Remove or de-activate any such device

Minimum mainsail luff length

A universal minimum mainsail luff length is introduced.

There are three reasons for this:

- To ensure the mainsail is large enough to carry the normal sail numbers and national letters
- To ensure that, when a race is abandoned because boats cannot sail, it is likely that all boats will be similarly affected and criticism of the race officer/race team will be minimised
- To introduce a cost reduction/limiting factor that assists owners to sensibly plan their investment/expenditure.

Large enough to carry normal sail numbers
There has been no minimum size for a mainsail and/or headsail in the M, 10R or A Classes. In principle it would be possible for a competitor to have a sail so small that the sail marks on it would serve no purpose for identification, either for other boats when trying to protest or for the race committee when observing the start line for recalls or the finishing order. The first object of IRSA expressed in its constitution is “the promotion and encouragement of designing, building, and racing radio sailing boats”. If the class rules encourage or permit boats that are not capable of being raced then IRSA is failing in this primary object.

The rules concerning sail marks themselves have, up to the present, permitted ever more reduced size to fit onto very small sails. This is a fundamental error as it actively permits the reduction of sail numbers to the point that they serve no purpose when racing. The sail marks rules for the next issue App E address this and set a sensible lower limit to the size of sail numbers below which they may be omitted on headsails. This is so that sail numbers need not be applied on a very small headsail if they would have to be below that minimum limiting size – for example on the headsail of a minimum size swing rig. However, it follows that at least one sail has to be large enough to carry the maximum size numbers and a minimum luff length (mainsail for M and A Class, any sail for 10R class) is required to achieve this.

It is known that an IOM No 3 mainsail is large enough to carry the maximum size sail numbers so the minimum luff length for the other classes is bound to be more than 880 mm. For reasons covered below it does not follow that 880 mm should be the minimum size for the other classes.

Race abandonment/postponement
Where there is no consistency in the smallest size of sails used by competitors at an event it is possible that the race officer will be in a position where he is criticised by half of the competitors regardless of whether he continues to race (by those without small enough sails), or abandons racing (by those with smaller sails). The promotion of racing radio sailing boats, of the IRSA classes and their events would not be served well by a major disagreement over whether to abandon or not and the IRSA executive has an interest in enabling the race officer for its events to make good decisions and provide equitable racing for all.

At a ranking race for IOM in the United Kingdom in 2015 the wind and sea conditions were such that the boats were incapable of adequate control to permit sensible racing. There was a significant danger of boats banking because they were unable to tack. Rescue of a large number of any such boats would have been problematic. Start lines and the few heats seen in these conditions were a shambles. The race officer first postponed racing and, when conditions failed to improve, abandoned the event early. What was remarkable about this was that there was no dissent from the competitors. It is believed this can be attributed to the fact that they were all equally affected. There is a clear lesson to learn here for the other classes. Introduction of a lower limit to mainsail luff length ensures no-one is aggrieved if racing is abandoned because it is 'too windy'. It sets a definite limit on the need for smaller sails and is simpler/cheaper.

Cost reduction
Should there be a world or European championship planned for a venue where it is reputed to be extremely windy it is reasonable that competitors planning to travel large distances to attend (at considerable cost to themselves) should be able to do so safe in the knowledge that they will be at no disadvantage compared to locals when it comes to their level of preparation. With no lower limit to rig height, how should they determine what is the smallest rig they will need? They could ask some local owners, they might look at local wind roses, they could ask the designer, or their sailmaker. They could ask all of these and take an average, or the smallest. None of these will help them as much as a hard limit in the class rules. Having that hard limit will allow owners to plan their rig purchases from the outset, and so will contribute to reducing costs.

Precedents for a lower rig height limit
Abandonment/postponement in high winds is far less frequent than postponement because there is too little wind. There are always differences of opinion about whether races should continue or not but this is something that most competitors are well adapted to. A factor that assists race committees to reach this decision to postpone/abandon is that in the IOM, M and A Classes there is an upper rig height limit. In the IOM and A Class this height limit was established at the outset. In the M class it was not established until some time in the 1970s/80s. The height limit was established because of a proliferation of rigs of ever-increasing height, remarkable for the time because of the universal use of alloy masts. Adopting the height limit in the Marblehead class set a hard limit to which owners could go, safe in the knowledge that no-one could be better prepared for light airs than they due to having a yet taller rig. The upper height limit successfully serves to limit cost and complexity.

The choice of the height limit
A good example of a poorly chosen limit in the class rules is the current draught limit in the Marblehead class. Around 1998 the IRSA EC decided that there should be a draught limit in each class so that race organisations could run IRSA events safe in the knowledge that no competitor could present with a boat that would not float on the chosen site. Although the principle is perfectly sound the figure for the draught limit was more difficult. The IRSA DNMs were consulted and indicated their preferred draught limit. A normal draught at the time for the majority of boats was around 580 mm. The majority preferred 600 mm and the second choice was 650 mm. The chairman of IRSA owned a boat with a 654 mm draught whose designer claimed the boat could not possibly be altered. The draught limit was set at 700 mm in order to accommodate that design and its sister-ships. A consequence of choosing a limit considerably higher than the current normal value was that the new limit then became a target for designers and builders. Even when their boats did not always give improved performance, the impression given was of an arms race, and a side effect was that several important sailing waters were lost because newer boats could not float there. The popularity of the class was dropping anyway because of competition from the widely recognised benefits of the IOM class but it is unlikely that the overly large draught limit helped the situation. The lesson taken from this is that setting a limit that is far removed from the current norm is not wise if undesirable or unnecessary development is to be avoided.

The generally greater numbers of Marbleheads in use and the consistency of level of preparation between the more competitive owners provided a sound basis for making an assessment of what should be the minimum height limit. The IRSA technical committee comprises many Marblehead owners who were able to use their judgement about an appropriate limit. The relatively small range of ‘normal’ displacement and draught serves to focus the size of smallest rigs already in use. A figure of 990 mm would cover the vast majority of existing rigs.

The same decision for the 10R class was considerably eased by virtue of the fact that most 10R owners own Marbleheads and would choose to use their smallest Marblehead rig on their 10R. Again the relatively small range of ‘normal’ displacement and draught serves to focus the size of smallest rigs already in use. Hence the figure of 990 mm was chosen for this class too.

The A Class poses a more difficult problem by virtue of boats ranging more widely in displacement and sail area. An informal poll of competitors at a free sailing and Radio Sailing events at Fleetwood, known as a windy venue and amongst well prepared competitors, indicated smallest luffs of 1610, 1580 and 1400 mm. Other input suggested a light boat in the class could use its No 1 rig (2000+ mm) in 25 knots but the competitor thought a lowest rig of 1390 would be acceptable. Other input from the Australian fleet, generally used to windy conditions, indicated lowest rigs commonly around 1600 mm.

Wishing to avoid the problem of setting a limit so far below the current ‘normal’ that a new target would be set, a limit of 1390 mm was chosen.

As there is no limit to the number of sails used on a 10R or A Class it is always possible to create narrower sails within the height limit to reduce the windward heeling moment to a degree and the bow burying moment considerably.

Calculations have been made to put these limits into context by determining the limiting wind speed in which each such rig can be used. Comparing the stability of the different classes and the expected heel