



## MECAL TECHNICAL NOTE

### MTN 13-8

Issued by the *MECAL* Technical Committee

#### LIFERAFTS

Reference: All Vessels – Section 13

MECAL continues to accept the use of existing ORC liferafts for vessels operating up to Category 2 as long as they remain serviceable (required annually). This applies to existing rafts on existing coded vessels & hire rafts on new vessels. This interpretation is supported by 13.2.3.5 of MGN 280.

#### HISTORY OF RORC/ORC/ISAF/ISO9650 LIFERAFTS

It will be useful to understand the history and chronology of RORC, ORC, ISAF and ISO9650 rafts etc as background to our coding work. The "potted" history below outlines the main points:

1 In the beginning, the Royal Ocean Racing Club (RORC) in the late 50s identified that commercial SOLAS rafts were not appropriate for smaller yachts and racing yachts. So the club drew up its own "RORC" specification for yachtsmens' liferafts. This was adopted by several UK liferaft manufacturers led by Avon and these rafts became known as "RORC" rafts.

2 Next the organisation known as the Offshore Racing Council (ORC) was set up as an international governing body for offshore yacht racing, led primarily by the Royal Ocean Racing Club in UK but with strong USA and French involvement, and other international representatives. A sub-committee of this organisation produced a handbook called the "Offshore Special Regulations" or OSRs to supplement the navigation racing rules (port gives way to stbd etc). This document is rather like the MCA CoP; it specifies construction standards, level of equipment etc so that yachts can race together safely and on an equal footing, and is reviewed and updated each year. Initially OSRs were very basic and asked for rafts to the RORC specification.

3 Then the 1979 Fastnet disaster showed that improvements to the RORC raft spec were desirable, particularly in regard to larger ballast pocket sizes and more effective drogues. So the ORC produced Appendix A to the OSRs giving a slightly revised spec for rafts; this became known as the "ORC" raft. Think of the ORC raft as a sort of "RORC Mk II" raft, though actually the differences are not great. This is the yachtsmans' raft we used on coded boats until very recently.

4 Next came the Sydney-Hobart Race disaster of 1998. More liferaft lessons were learned so ORC set about revising its spec again.

5 In 2000 the Offshore Racing Council was subsumed into the International Sailing Federation or ISAF. The offshore special regulations sub-committee now under ISAF continued work on a much improved small craft raft spec and eventually produced Appendix A Part 2 to the OSRs specifying what we now know as the "ISAF" raft. Appendix A Part 1 continues to specify the old ORC raft as a "grandfathering" measure for older racing yachts. This all means that that any raft used in racing and made after 1/2003 must be an ISAF raft. No new ORC rafts have been accepted for racing since 2002.

6 Thus at the time of drafting the New Harmonised Code, the best yachtsmans' raft available was the ISAF raft. So this was adopted for new coded boats in MGN280 and the ORC raft was dropped.

7 Meanwhile the International Standards Organisation set about producing its own liferaft spec suitable for small craft and eventually ISO9650 was published in 2005. Offshore liferafts are covered by ISO9650 Part 1 Type 1 Group A, loosely known by us as ISO9650. Lesser rafts (coastals etc) are covered in other sections of ISO9650.

8 ISAF looked at ISO9650/1/1/A and realised that the ISAF and ISO rafts were equivalent in the main features (tubes, canopy etc), but the ISAF raft specified, in addition, a semi-rigid boarding ramp. This was a strong Sydney-Hobart lesson and ISAF felt it could not compromise on this point, so does not accept plain ISO9650 rafts. However it will accept an ISO9650 raft brought up to ISAF specification by the addition of a boarding ramp (and a few other minor changes). As a result, few manufacturers produce a plain ISO9650 raft, most now produce an ISO9650 raft with a semi-rigid boarding ramp; we could call these "upgraded ISO9650" rafts.

9 MCA followed ISAF's thinking and published MIN 241 allowing "upgraded ISO9650" rafts for coded boats as an alternative to the ISAF rafts specified in MGN 280.

10 Hopefully the last step will be a revised ISO9650 standard which fully aligns the ISO spec with the ISAF spec. At this point ISAF will drop its own spec and adopt the revised ISO9650 standard.

11 ISAF has similar categories to the MCA. Races are known as category 0, 1, 2, 3 events etc. It should be noted that ISAF has always required full SOLAS rafts for category zero racing (eg round the world events).

To summarise, the time line is:

RORC rafts > Fastnet disaster 1979 > ORC rafts > Sydney-Hobart disaster 1998  
> ISAF rafts > MGN280

Meanwhile (ISO9650 raft + rigid boarding ramp) = Upgraded ISO9650 raft =  
ISAF raft > MIN241

See these links for more info:

[http://www.ussailing.org/safety/Studies/1998\\_sydney\\_hobart.htm#Executive%20Summary](http://www.ussailing.org/safety/Studies/1998_sydney_hobart.htm#Executive%20Summary)  
<http://www.sailing.org/specialregulations.php>  
<http://www.rya.org.uk/NewsAndEvents/newsroom/archive/janjul2007/detail/isyourliferaftuptostandard.htm>