Submission: SR05-13

# Offshore Special Regulation 4.10

A submission from the Radar Reflector Working Party.

#### Purpose or Objective

To amend 4.10 as proposed by the working party at the last meeting and included as appendix 1 to the 2012 minutes

#### Proposal

Delete existing 4.10 and insert new text below

## New text:

## 4.10 Radar Reflector

4.10.1 A passive Radar Reflector (that is, a Radar Reflector without any power) shall be carried on board

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- a) Suggested passive reflectors include:
  - i octahedral with triangular plates making up each

pocket it must have a minimum diagonal

measurement of 456 mm (18in).

ii octahederal with circular sector plates making up

each pocket it must have a minimum diameter of 304mm (12in).

iii reflectors meeting ISO 8729-1:2010 which requires passive reflectors to have a documented RCS (radar cross-section) of not less than 10 m2 at

0° elevation and be capable of performance

around  $360^{\circ}$  in azimuth. At present, there are no practical reflectors available to meet this standard for racing yachts.

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When deployed, the passive radar reflector shall be set a minimum of 4 m above the water when deployed.

b) The passive and active devices referred to in these notes and in 4.10.1 and 4.10.2 above are primarily intended for use in the X (9GHz) band.

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4.10.2 The most effective radar response from a yacht may be provided by an RTE (Radar Target Enhancer) which may be on board in addition to the required passive reflector. An RTE should conform to ISO 8729-2:2009. An RTE is strongly recommended.

MoMu1,2,3,4

a) An RTE shall be provided in compliance with ISO8729-2:2009 or ITU-R 1176

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b) The display of a passive reflector or the operation of an RTE is for the person in charge to decide according to prevailing conditions.

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4.10.3 S (3GHz) band radar is often used by ships in bad weather to complement X (9GHz) band radar. On S (3GHz) band a passive reflector offers about 1/10 the response obtained on the X (9GHz) band. Unless specifically designed to operate in the S(3GHz) band, an RTE will provide no response at all.

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#### Reason:

As proposed at the 2012 meeting by the working party formed as a result of deferred submissions SR15-11 and 38-11. Will Apold(Chairman), Stuart Carruthers, Sten Edholm, Stan Honey.