

Equipment for the 2008 Olympic Sailing Competition – Laser Radial

Women's One Person Dinghy Mast

A submission from the International Laser Class Association

Proposal:

That the top mast for the Women's One Person Dinghy at the 2008 Olympic Games shall be made of composite glass/carbon fibre.

Current Position:

No Current Position

Reason:

For the last 3 years the Laser builders and the Laser Class have jointly been testing and developing composite upper mast sections for the Laser Radial produced using a continuous poltruded process. This process creates a uniform section tube of the same dimensions as the existing aluminium tube. The composite tube has two advantages over aluminium extrusion in that it produces greater uniformity and is stronger. Static tests show a 70% increase in strength without making the mast stiffer. To compensate for the difference in dynamic response between aluminium and composite the section has to be 14% more flexible to achieve the same performance as aluminium.

Preliminary sailing tests have shown that lighter weight sailors are more comfortable with the composite mast in strong winds whilst heavier sailors do not suffer a performance loss. Final independent sailing tests are currently being conducted in 4 different locations and a more detailed report will be published prior to the November conference.

The composite section will be widely available in early 2006.