

Sailing with space-age technology

Mast

Carbon fibre masts up to 110 ft above water. Carbon masts have the best strength-to-weight ratio – cost \$50,000

Mainsail

Sails made of Mylar and Kevlar – lightweight, strong and resistant to stretch. Lighter sails improve boat's stability

Spinnaker

4,500 sq ft

Debut of new 'America Class' yacht

Keel

Ballast torpedo

30,000 – 35,000 lb lead weight helps boat resist side force of wind resulting in increased thrust from the sails

Hull – Length up to 75 ft

Light, tough composite materials have replaced aluminium

Carbon fibre

Synthetic resin

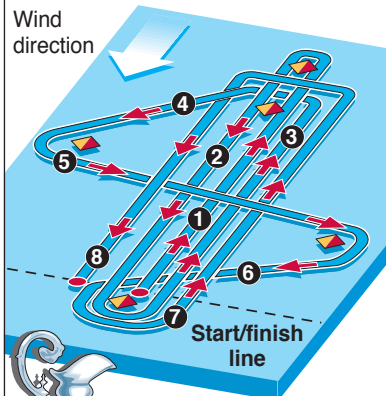
Honeycomb core – usually nylon-coated paper

On-board computers

Using satellite 'Global Positioning System', computers give boat's speed to a tenth of a knot, position to 2-5 metres and tell crew optimum time to change sails

The San Diego course

The best-of-seven match competition is sailed on a new eight-leg course



Leg	Nautical miles
1	3.28
2	3.28
3	2.66
4	1.60
5	2.29
6	1.60
7	2.66
8	2.66
Total	20.03

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