

Hot Buoys Trimaran

Designer: Jay Kantola
Constant Camber Construction
USA built launched 2000
65 ft long by 40 ft wide
DuraKore balsa core hulls
Dinvycell foam decking
West System epoxy
Proctor 18 m, aft, wing-mast
Isuzu 150 hp engine

2012 Sail plan refit objectives:
Squall friendly, cruising-tourist safe
Windward capability in 8 knots wind
Self-tacking sail with no engine assist
Sail folds up to forestay for storage
Max 35 knot winds with full sail up
Max 50 knot winds partly reefed
Max 145 knot winds wing mast only
Zero battens

New sail plan
Modified crab claw – lateen with spar in foot
59 ft (18 m), rotating, wing, aft-mast,
Rake 13.83 deg, forwards
816 ft² (76 m²)

Previous sail plan fractional Bermuda
79 ft (24.4 m), rotating, mid-ship mast,
Rake 2 deg. backwards
Full batten main 1560 ft² (145 m²)
& Jib 570 ft² (53 m²)
Total previous 2130 ft² (198 m²)

Notes on stability:
Original design calculations indicated at
24 knot winds and 2130 ft² sail area a
heeling force of 130,000 ft lbs and righting
moment of 132,000 ft. Heeling angle 5-6
degrees. With smaller sail plan of 816 ft²
and all other factors comparable, a wind
speed of 38.45 knots would produce same
heeling forces and heeling angle.
However, type of sail is a *lifting* sail that
provides lift and forward drive and profile is
much lower. Therefore, 38.45 knots is
believed to be low for comparison.
Overall, design change reduces risk of rig
at comparable wind speeds and risks
associated with sudden squalls. This said,
reef early and reef often.

