SUPREME COURT OF THE STATE OF NEW YORK COUNTY OF NEW YORK

Golden Gate Yacht Club
Plaintiff,
v.
Societe Nautique de Geneve
Defendant,

Club Nautico Espanol de Vela,

Intervenor-Defendant.

Index No. 602440/07 **AFFIDAVIT OF GINO**

MORRELLI

STATE OF CALIFORNIA)
) ss
COUNTY OF SAN DIEGO)

GINO MORRELLI, being duly sworn, deposes and says:

- 1. I am over the age of 18 and am currently assisting Golden Gate Yacht Club's racing representative BMW Oracle Racing in its preparations for the 33rd America's Cup as a design specialist. I have been designing multi-hull yachts since 1975. In 1980, I started my own business designing and building racing and cruising multi-hulls; and was on the design team for *Stars and Stripes*, the multi-hull which won the America's Cup in 1988. In 1990, I helped found Morrelli & Melvin Design & Engineering, where I remain today. Morrelli & Melvin designs racing, cruising, and commercial yachts, and our designs have won the America's Cup, numerous world and continental championships, and have set numerous world records. I have also published magazine articles and book chapters on yacht design and construction, and give seminars to industry professionals about multi-hull construction and design.
- 2. In order to accurately counter-design a boat, it is necessary to know certain dimensions of your opponent's boat in detail: mast height, sail area (and configuration of the

sail), weight, length on load water-line, and beam. For multi-hulls, the most important are mast height, sail area, beam overall and weight, because those are the crucial drivers of speed. While beam and length on the water-line do impart useful information, it is not possible to counter-design a world-class multi-hull knowing only waterline length and beam.

- 3. The righting moment and point where the multi-hull will "fly a hull" (meaning that one of the hulls (of a catamaran or the mainhull and one float of a trimaran) is literally in the air above the water) is not solely a function of the overall boat beam.
- 4. Knowing the waterline length and beam of a multi-hull has little value without knowing the overall weight of the vessel, the length of the mast and the sail area. It is also important to know the likely wind conditions, given that certain wind conditions will affect wider boats differently than narrower boats, and thus change when the righting moment and "flying a hull" moment will occur.
- 5. The wider the overall beam of a multi-hull, the greater the speed potential of the vessel, because a wider beam allows for greater stability (and thus more power). However, under certain light wind conditions a narrower beam may be competitively advantageous; but, this can only be assessed if the designer knows the weight, length and overall beam of the boat on load water-line. Therefore, length and overall beam alone do not impart significant knowledge regarding how a boat will perform in a given racing condition.

Sworn to before me this 2% day of $5 \Rightarrow + \cdot \dots$, 2009

Notary Public

EARL LIEVANOS
Commission # 1708626
Notary Public - California
Orange County
My Comm. Expires Dec 5, 2010