REINHARD E. FLICK being duly sworn, deposes and says:

- 1. I am a citizen of the United States over the age of 18. I submit this Affidavit in support of Société Nautique de Genève's ("SNG") Opposition to Golden Gate Yacht Club's ("GGYC") Motion to Enforce Compliance with the Order and Judgment Entered April 7, 2009, Regarding the Venue Location for the 33rd America's Cup (the "Motion").
- 2. I am currently Staff Oceanographer for the California Department of Boating and Waterways ("CDBW"), for whom I conduct academic research and public education about oceanography. In addition, I manage study programs totaling more than \$3 million annually at Scripps Institution of Oceanography ("SIO") at the University of California San Diego ("UCSD"), where I am a Research Associate. I am also the Principal Oceanographer with the consulting firm TerraCosta Consulting Group of San Diego, and it is in my capacity as a private consultant with TerraCosta Consulting group that I was retained to provide an opinion in this matter. My opinion is not made in my capacity as Staff Oceanographer for CDBW, or as Research Associate at SIO.

- 3. I received a B.S. from the Cooper Union for the Advancement of Science and Art in New York in 1970, and a Ph.D. in Oceanography from SIO/UCSD in 1978. I have authored and co-authored more than 50 scientific publications, including several book chapters, and over 100 technical reports on coastal oceanographic matters.
- 4. I have studied oceanography and physical coastal processes since 1969 when I held a summer fellowship at the Woods Hole Oceanographic Institution in Woods Hole, MA, and since beginning graduate school at Scripps in 1970, where I have remained for my entire career.
- 5. I have sailed recreationally since about 1962, including as part of the sailing team at Cooper Union (1967-1970) and as Commodore of the college yacht club in 1969. I have owned a 49-ft heavy cruising ketch since 2004. I hold a 100-ton Inland Master's license with sailing and assistance towing endorsements, a form of U.S. Coast Guard charter boat captain's credential.
- 6. Over my career in academic research, public service, and consulting in nearshore oceanography, I have gained considerable knowledge and expertise relating to physical oceanography and coastal processes.

The Persian Gulf is Part of the Indian Ocean.

- 7. The Persian Gulf is part of the Indian Ocean.
- 8. The "world ocean" is in the broadest sense the entire body of salt water that encircles the globe. For more precise geographical purposes, the world ocean is commonly divided into five separate oceans the Atlantic Ocean, the Pacific Ocean, the Indian Ocean, the Arctic Ocean, and the Antarctic Ocean. Each one of these encompasses a number of smaller bodies of water such as the Persian Gulf.

The Course Area Set Out by SNG is "Free from Headlands."

- 9. A "headland" is a point of land projecting from a shore into an expanse of water. Headlands, or promontories, are usually high and steep, often marking the entrance to a bay. Many coastlines have some features that can be called "headlands" depending on the scale of their projection into the water, and their vertical relief.
- 10. A particular body of water can be considered "free from headlands" if no high-relief promontories exist at or near the shoreline.
- 11. If they do exist, the adjacent waters can still be free of the influence of headlands in the oceanographic sense when the headlands do not measurably, detectably, or significantly influence the currents or winds in and over the adjacent sea. Influences on the wind decrease quickly with increasing distance from any headlands; lower relief headlands have smaller or no effect.
- 12. I have reviewed the letter SNG sent to GGYC on August 5, 2009 setting forth the boundaries of the location for the match for the 33rd America's Cup (attached hereto as Exhibit A). The boundaries encompass the area roughly from Al Qir in the north to almost Dubai, roughly 60 miles to the south, and the adjacent sea to about 20 miles offshore. I have also plotted this boundary on photographs of the sea off Ras Al-Khaimah and inspected the coastline geometry of this area using images obtained from *Google Earth* (attached hereto as Exhibits B-C).
- 13. Based on my review of the August 5, 2009 letter attached and images of the area, this coast is dominated by low-relief beaches and dunes that are dotted with shoreline stabilization structures, mainly groins. Several inlets, small bays, and other drainages are separated from the sea by low-lying barrier spits and beaches. Numerous small harbors also exist with typical breakwaters and stabilized sand features for protection from waves.

- 14. On my review of the August 5, 2009 letter and images of the area, no prominent "headlands" exist in the area set forth by SNG for the 33rd America's Cup.
- 15. For these reasons it is my opinion that it will be possible to set forth sailing courses off Ras Al-Khaimah within the area demarcated in the August 5, 2009 letter of (1) twenty miles to windward and return and (2) an equilateral triangular race of thirty-nine nautical miles, that would be free from any influence of headlands.

REINHARD E. FLICK, Ph.D.

Sworn to before me this \(\frac{1}{2} \) th day of October, 2009

Notary Public

JENNIFER K. GRIFFIN
Commission # 1789741
Notary Public - California
San Diego County.
My Comm. Papies Feb 9, 2012



Société Nautique de Genève

M. Marcus Young Commodore The Golden Gate Yacht Club 1 Yacht Road San Francisco California 94123 USA

5 August 2009

33rd America's Cup

Dear Commodore,

Pursuant to the New York Supreme Court order dated May 12, 2008, we are pleased to inform you that the location of the match for the 33rd America's Cup shall be the Emirate of Ras Al-Khaimah in the United Arab Emirates. The marks of the races will be within an area bounded by the coast and the following coordinates (see chart attached):

Mark	Latitude	Longitude
Land-SW	25 19.700n	055 21.100e
CZ-1	25 34.430n	055 10.170e
CZ-2	25 48.060n	055 20.150e
CZ-3	25 59.450n	055 34.650e
CZ-4	26 14.680n	055 42.200e
Land-NE	26 03.040n	056 05.150e

Respectfully,

Fred Meyer

Société Nautique de Genève

America's Cup Committee Chairman

Alec Tournier

Société Nautique de Genève

General Secretary







