

## CHALLENGER FINALS: WHO HAS THE EDGE?

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Winner of the 1992 America's Cup  
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Several months ago, racing experts were picking Prada, the Italian syndicate, to win the Louis Vuitton Cup. I know because I was one of them. Even before the first gun had sounded, the Italians seemed to have it all: an \$80 million program, a strong organization, no nonsense leadership, talented sailors and a shore team that could replace a broken mast within hours. Experience was the only thing they lacked.

Now, yachting observers believe AmericaOne out of San Francisco has the momentum and a slight advantage. Even the bookies are giving them the edge. After losing the first race to a mechanical mishap, Skipper Paul Cayard won eight consecutive races when it counted most. AmericaOne has an adequate \$32 million program, excellent shore team, outstanding sailors and Cayard has four America's Cup campaigns under his belt.

Because Prada lost three critical matches in the semi-finals, experts are now giving a slight edge to AmericaOne. The sole reason: experience. There is a general consensus among experts and seasoned Cup observers that Prada and AmericaOne possess versatile all around boats. Prada is considered faster upwind in a breeze, AmericaOne quicker downwind. Some consider AmericaOne to be faster in light air.

However, expert opinions do not win races. When America3 reached the finals in the 1992 America's Cup, 24 out of 27 sailing pundits picked Il Moro, skippered by Cayard, to

beat us four to one. It was just the opposite. At the beginning, Las Vegas odds were 100 to 1 against us. We discovered that being an underdog had its advantages.

In the finals of this Louis Vuitton Cup both teams are too close to call. Will Prada's extensive training and unlimited resources overcome Cayard's experience? A careful scientific analysis of each of their five races shows some interesting facts. AmericaOne has won three races and lost two others against Prada. On one of these races, Prada had to withdraw because its mast broke. Having a boat that does not break is an important part of this game. Prada's breakage rate is only three incidences out of 40 races; AmericaOne is five out of 40. However, two of Prada's three breakage rates occurred in the semi-finals. AmericaOne, on the other hand, had only one of its five breakage rates occur in the semi-final round. Both teams lost a race in the semi-finals because of breakage.

The races have been extremely close. Prada won a race by 17 seconds, the other by 1m6s. AmericaOne won its two races by 23 and 8 seconds. This has been the closest racing not only in this Louis Vuitton Cup, but also in the history of the America's Cup. The median win has been 1m14s and the average 1m53s for all of the 195 races that have occurred to date.

Prada had its big win in 1m6s in light air (6.4 knots). It also won in 14.2 knots of breeze (17s win). She broke her mast in 12.4 knots. AmericaOne won in 12.0 knots (8s win) and 12.4 knots (29s win). In these multi leg courses, Prada has gained nine out of a total of 11 windward legs by an average of 21 seconds; AmericaOne gained on two out of 11 by an average of 41 seconds. In the 11 leeward legs, Prada gained five legs for an average of 19 seconds; AmericaOne gained six legs for an average of 27 seconds.

There are some other fascinating statistics. Prada has won the start three to two. She has also been the first boat to the windward mark three out of four times. This is an important point. In the 19 races of the semifinals where both boats finished, the first boat to the weathermark won 89.7 percent of the time. In the 159 total races held to date where both boats finished, the first boat to the windward mark won 86.2 percent of the time. The first boat to the windward mark has an enormous advantage in that she can play the wind shifts first, and/or closely cover, cutting off any passing lanes. In the Prada – AmericaOne races, the first boat to the windward mark has won only 75 percent of the time. More impressively, the boats have passed each other five times in four races – twice after the first windward mark. In the 11 leeward legs, AmericaOne has passed Prada three times and Prada passed AmericaOne once. In the windward legs, Prada has a slight advantage, passing AmericaOne once. AmericaOne has never passed Prada in the windward legs. From a macro point of view, Prada has made seven gross mistakes, including four penalties in 40 races. AmericaOne has made nine errors, receiving three penalties in 40 races. In the semi-finals, both boats have made a total of five gross mistakes – Prada made three and received two penalties; AmericaOne committed two and earned one penalty. There have been numerous other small mistakes made by both teams. What does all of this tell us? The boats are extremely close and the teams are about evenly balanced. The upcoming races should be very close and exciting. Both teams have shown they can win when it counts and are mentally tough enough to come back after a major setback. What it will take for Prada to win is to keep her upwind speed advantage while speeding downwind and improving her downwind covering and tactics. For AmericaOne to win she must increase her upwind speed.

Both teams have what it takes to win. The one who will win is the one who has no breakdowns, gets a conservative start, picks the first wind shift for the first crossing, religiously stays between his opponent and the next mark, and is mentally tough enough to withstand the pressure. The winner will be the one who makes the fewest mistakes.

Regardless of who wins, both teams will need to dramatically reduce their errors if they hope to compete against Team New Zealand. This should be the most exciting challenger series final in America's Cup history. The best five out of nine series could well be decided on the final race.

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