

The 2013 America's Cup in San Francisco

# The Californian Challenge

In every sense of the word, the latest challenge for the 'Auld Mug' took the degree of difficulty to crazy new heights, with the Cup holder - America - declaring the Rules that included a totally new concept in yacht racing. Every competing country was sent back to the drawing board; every crew person had to start over; every tactician had to throw away years of sailing lore. As an amazed world of sailors and sportspeople became increasingly glued to the high-tech TV broadcast from San Francisco's infamous bay, it became obvious that a completely new class of yacht racing had been created.





ACEA/ PHOTO ABNER KINGMAN



ACEA/ PHOTO ABNER KINGMAN



**T**he America's Cup is the oldest trophy in international sport and the hardest to win. Only four countries – the United States, Australia, New Zealand and Switzerland – have experienced the euphoria of winning the “Auld Mug,” and only seven cities have hosted the competition before San Francisco.

The 34th edition of the America's Cup marks a transformation for the oldest trophy in international sport as new boats, cutting-edge technology, and a close-to-shore venue meant that this summer's America's Cup was unlike anything that's preceded it.

The 2013 America's Cup is featured several notable firsts:

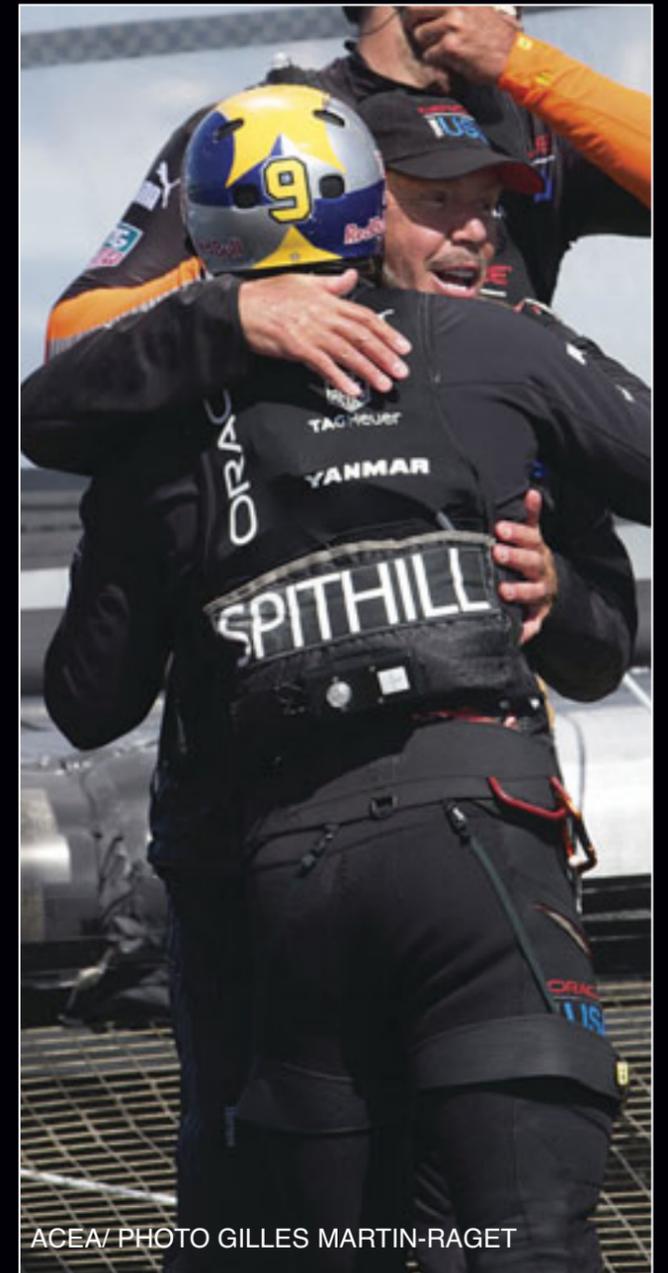
- First time racing is inshore not offshore
- First time all teams are racing wing sail catamarans
- First time the AC72 “50 mph flying boats” foil above the water
- First time there is a new pathway series for youth sailors, the Red Bull Youth America's Cup
- First time the America's Cup has been held in the United States since 1995

#### The History

First contested in 1851, the America's Cup is the oldest trophy in international sport, pre-dating the modern Olympics by 45 years, and is yachting's biggest prize.

The trophy's roots date back to when a syndicate of businessmen from New York sailed the schooner America across the Atlantic Ocean to represent the United States at the World's Fair in England. The schooner won a race around the Isle of Wight and, with it, a trophy called the £100 Cup. (It was subsequently inscribed, incorrectly, as the 100 Guineas Cup.)

After winning the trophy, the United States embarked on what would become the longest



ACEA/ PHOTO GILLES MARTIN-RAGET

winning streak in the history of sport, a 132-year stretch of domination that saw boats representing the country successfully defend the trophy 24 times from 1870 through 1980—until 1983, when Australia II became the first successful challenger.

Throughout its history, the America's Cup has bedazzled a worldwide roster of business and industry tycoons such as fashion magnate Patrizio Bertelli, brewing and real estate mogul Alan Bond, tea merchant Sir Thomas Lipton, aviation pioneer Sir T.O.M. Sopwith, the Aga Khan, media mogul Ted Turner, and Harold S. Vanderbilt, an American railroad executive who won the America's Cup three times and also helped author the original racing rules of sailing. It's also attracted larger-than-life sailing figures such as Tom Blackaller, Peter Blake, Paul Cayard, Dennis Conner, Russell Coutts, and Grant Dalton.

### The Summer of Racing

One of the most notable changes to the format is the AC72, the wing-sail catamaran that is capable of speeds more typically seen on freeways. At 43 knots boatspeed, the AC72 is capable of sailing its 72-foot length in a single second, travelling near 85 k/ph. The demand on the sailors is unprecedented; only the most athletic and multi-talented need apply.

The venue itself is an important part of the story. San Francisco Bay is among the world's premier sailing spots because of its reliable winds and challenging tides; a stunning natural amphitheatre that is framed in part by the world-renowned Golden Gate Bridge. Racing is inshore and close to the public. The short racecourses will bring the sailors within earshot of the roaring spectators as the boats charge along the city front.

Tight racing was expected on a compact racecourse that kept the crews close to each other. And with the racecourse nearer to shore than ever before, this America's Cup delivered "stadium sailing" on the Bay Arena at its best, where the sailors can hear the roar of the crowds, and spectators can all but reach out and touch the boats as they fly past.

An unexpected and innovative development in the design of the AC72s—the addition of hydrofoils—now allows the seven-ton craft to lift out of the water and "fly" on foils. At speed, the hydrofoils, positioned at the bottom of the daggerboards and rudders, generate enough lifting force to raise the AC72's two hulls clear of the water, reducing hull drag and adding yet more speed.

With this speed comes a new challenge. Controlling the boats while they fly on their foils is, for the sailors, an immensely difficult task. Many think that victory in this America's Cup went to the team that best mastered the promise and the challenges of the hydrofoils and the attendant issues of speed, risk, skill, and nerve.

Transformative television graphics add layers of information to the screen, making the racing easier to understand than ever before. The Emmy Award-winning AC LiveLine graphics are just one element of

a television production that sets a new standard for sport.

### About The Two Teams In the Finals

**Defender: ORACLE TEAM USA**  
Country: USA  
Founded: 2000  
Yacht Club: Golden Gate Yacht Club  
Principal: Larry Ellison  
Skipper: Jimmy Spithill  
Key Personnel: Ben Ainslie, afterguard; Russell Coutts, CEO; Dirk de Ridder, wing trimmer; John Kostecky, tactician; Joe Newton, headsail trimmer  
Tom Slingsby, afterguard  
ORACLE TEAM USA won the America's Cup on Valentine's Day in February 2010, the culmination of a 10-year quest for the trophy by team principal Larry Ellison. This followed unsuccessful challenges in 2003, in Auckland, and the 2007 effort in Valencia.

The American defender is stacked with talent. Skipper Jimmy Spithill is the youngest winner in the long history of the America's Cup. His backup helmsman, Ben Ainslie, is the most successful Olympic sailor of all time. Tactician John Kostecky is the only sailor to have won the America's Cup (2010), the Volvo Ocean Race (2001-02) and an Olympic medal (1988). The boatbuilding team has been together for years, and the design-office roster reads like a who's who of grand-prix boat design.

As the first team to relocate to San Francisco, ORACLE TEAM USA has piled up more sailing time on the Bay than any of the challengers. But the team suffered a major setback in October 2012 when it capsized its first AC72 in dramatic fashion on San Francisco Bay. The boat was damaged and the wing sail destroyed.

ORACLE TEAM USA was forced off the water for three months. Such a setback could put the entire campaign at risk. But skipper Jimmy Spithill insists it did just the opposite, and that the team is now stronger than ever.

Winning both America's Cup World Series championships in the lead-up to the 2013 Summer of Racing proves that the sailing team is winners against its key rivals. Spithill insists that complacency won't be an issue on his watch.

"We'll never take the point of view that we're ready," Spithill says. "We're always going to push harder and try to get better. The development program keeps going forward up until the start of the last race."

**Challenger: Emirates Team New Zealand**  
Country: New Zealand  
Founded: 1993  
Yacht Club: Royal New Zealand Yacht Squadron  
Principal: Matteo de Nora  
Skipper & Helmsman: Dean Barker  
Key personnel: Glenn Ashby, wing trimmer; Adam Beashel, strategist; James Dagg, trimmer; Grant Dalton, managing director and grinder; Ray Davies,

ACEA/ PHOTO RICARDO PINTO



ACEA/ PHOTO ABNNER KINGMAN







tactician

Emirates Team New Zealand is the reigning Louis Vuitton Cup champion, having won the trophy in 2007. Although the current iteration of Emirates Team New Zealand was founded in 1993, the team is the most tenured in the 2013 America's Cup field with roots tracing back to the first ever New Zealand challenge in 1986-87 Louis Vuitton Cup in Western Australia. The New York Yacht Club notwithstanding, no other team in the history of the America's Cup has competed for as long as Team New Zealand.

Emirates Team New Zealand is led by managing director Grant Dalton, who joined the team after its loss in the 2003 America's Cup. The defeat ended an eight-year run for Team New Zealand that had it sitting atop the sailing world. The team won the 1995 Louis Vuitton Cup and America's Cup in San Diego, and followed it up in 2000 with the first successful defense outside of American waters. After that victory, however, the team fractured and lost many of its top leaders. They returned in 2003 with the Swiss team, Alinghi, and defeated Team New Zealand, 5-0.

One of the constants over the past 13 years has been skipper Dean Barker. Barker steered the team to victory in the fifth and deciding race of the 2000 America's Cup, and he's been the mainstay on the wheel since. Barker has had his share of heartbreaks in sailing, narrowly missing out on an Olympic bid and stumbling from the lead of a Laser World Championship, but he's also experienced the pinnacle of victory and has been enjoying the switch to multihulls. It feeds his need for speed, one that

he's quenched in the past by racing cars with his father, Ray.

Emirates Team New Zealand says it "employs designers and engineers of international repute," and they've invested more than 140,000-man hours in designing the team's two AC72 yachts. The 37-person design team is led by technical director Nick Holroyd, who's been with the team since the successful defense in 2000. Other key members include Daniel Bernasconi, who migrated to the sailing world in 2007 from Formula 1, wing designer Steve Wilson, sail designer Burns Fallow, and naval architect Pete Melvin, a Californian multihull specialist who drafted the new AC72 Class Rule.

#### About the AC72: A New-Age Speedster

The AC72 is the new class of yacht created specifically for the 2013 America's Cup by the best designers in the world with input from the best sailors in the world to deliver a cutting-edge design for the pinnacle of the sport.

Crewed by 11, the AC72 catamaran is a lightweight speedster that measures in at 72 feet long by 46 feet wide and weighs 13,000 pounds. The AC72 is powered by a wing sail that stands 131 feet tall and covers 2,798 square feet in area.

The dimensions add up to an athletic yacht that's long and light, wide and stable, and possesses incredible speed potential. When the windspeed hits 18 knots, the AC72 sails at 35 knots (40 mph). When the boatspeed reaches 43 knots, a speed easily achieved off the wind, the catamaran is capable of

sailing its 72-foot length in a single second. By comparison, the sloops used in the 2007 America's Cup had a top average speed of 12 knots, meaning they sailed their 80-foot length in four seconds.

A dynamic feature of the AC72 is its ability to hydrofoil. Hydrofoils significantly reduce drag and further increase speed, and designers recognise that refining the efficiency of those appendages has become as important to success as the plans they create for the hulls and wings. In testing on the smaller AC45s, hydrofoiling increased the boat's performance potential by an average of 25 percent.

"What's so amazing about this boat is that it's suspended on these tiny pieces of engineered carbon-fiber," says ORACLE TEAM USA skipper Jimmy Spithill. "That's why these boats are so cutting-edge technologically, and we're pushing them right to the limit. The other big advance is we're trying to stay on the foils while maneuvering, like through a jibe. It's a handful, but once the boat foils it's like hitting a turbo button in a car: off she goes. It's pretty cool."

#### About the Racecourse and Event Format

For the first time in the 162-year history of the America's Cup, the racing will be held on the confined waters of a bay rather than three miles offshore, as with previous America's Cup racing. On San Francisco Bay, the racing will be intense and close.

Principal Race Officer John Craig, who has run

more than 300 sailing competitions on San Francisco Bay, can set five - or seven-leg courses. In a typical 20-knot breeze, a five-leg course takes approximately 27 minutes and a seven leg course approximately 46 minutes.

The style of racing that's done in the America's Cup is known as match racing: two crews, one-on-one, battling it out over a 10 - 15 nautical mile race course. The tactics are simple: Get ahead of your opponent, then stay between them and the next mark at all costs, taking into account windshifts and tidal effects.

The racing rules play a considerable role in such close-quarters action, as crews manoeuvre their boats with the intention of getting their opponent penalized. A penalty means that the offending crew loses time, giving the leading team a significant advantage.

The new racecourse developed for the 2013 America's Cup adds yet another wrinkle to the tactics, as the crews start by sailing on a course that's called a reach (where the wind blows over the side of the yacht), and then turn downwind at the first mark before heading upwind.

This means the boats start on the fastest point of sail, creating an overtaking opportunity from the get-go. In previous America's Cups, racing was a defensive game as the boat that led off the start line invariably won the race; in 2013 it is an attacking game.

TBM

