

The Wireless Race System

At the [J/70 Cup 3](#) Regatta on Lake Garda – we reported on it – the Vakarao RaceSense platform was used, according to the organizers, to assist the race committee. The 70s in Les Embiez, France, were unforgettable and romantic, when race director Busquet, along with three girls on a small motorboat with an old shotgun, sent over 50 Lasers into challenging Mistral race, and handwritten finish lists hung on the wall in the evening. Yes, digitalization is becoming more and more prevalent in sailing.

From 1998 to 2000, ISAF (now World Sailing) created a blueprint for sailing as part of the IOC's Olympic Results' and Information System (ORIS) project. This blueprint encompasses all functions, from registration to prize distribution, based on all the data necessary to organize a regatta. This includes precise tracking of participating boats, buoys, and race management boats, as well as measured and predicted information on wind, current, and waves. Based on this data, functions such as precise early start detection and individual callbacks, automatic course layout according to class requirements (length or time, orientation, coordinates of mobile buoys), jury assistance with replays and Racing Rule interpretations, up to automatic jury decisions, various evaluations of a race or regatta series, etc. are possible. Contact between the race management and participants takes place digitally via voice and/or text in push or query mode. Devices that were unknown 30 years ago, such as smartphones, smartwatches, [robot buoys](#), and drones, make much more possible. ----- It was already clear back then that internet live streams, rather than TV broadcasts, were the ideal means of transmission.

GPS tracking, developed with Swiss Timing, was used for the first time at the 2000 Olympic Regattas in Sydney, and has now become standard for all major events.

Technological progress have made the goals formulated as visions at the time feasible today, and thanks to AI, even generally understandable. In the America's Cup, and especially in the SailGP circuit, most of the goals envisioned at the time have been implemented. More and more systems are being developed that can be used at the club, class, or by other regatta organizers. The [VakaraoRaceSense platform](#), deployed a week ago at the J/70 Cup on Lake Garda, is already gaining increasing acceptance in many one-design classes and is receiving unanimous praise from the sailors. Development continues. A race director from the New York YC and engineers from Velocitek (known for regatta compasses) are working to develop an even better system. The platform used is based on the same L1-L5 GPS technology used in the RaceSense system. This has been further developed into a technology called Real Time Kinematics (RTK), which will enable even greater starting line accuracy. --- -- RTK is essentially a GPS standard that uses differential positioning to achieve an accuracy of 1.8 cm. The RTK launch technology is intended to be made generally available as open source. ----- From an [article in SailingWorld](#).

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