SURVEY OF SINGLE-HANDED OCEANIC RACING

FEDERATION FRANCAISE DE VOILE

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AIM

The aim of this enquiry is to give the general sailing world a better knowledge of this peculiar discipline, such as single-handed oceanic racing is, and, as especially requested at the ISAF Meeting in Lisbon, to bring some concrete elements to the international authorities about these races, most often very little seen or talked about on the international scene, as much in terms of numbers and accidents occurred as in terms of permanent responses against the technology evolution.

The single-handed oceanic races are entirely part of the sailing sport and are very large media events. Important investments are involved from the racing boat owners and organisers in financial terms and from the competitors as well in technical, physical and mental preparation terms.

We will review three major French or starting from France single-handed oceanic races, with their historical record and some statistical data (6.5 m Trans-Atlantic, Figaro Single Handed race, or the «Route du Rhum») in order to pay particular attention to this special case of single-handed oceanic races around the world with questions and answers concerning safety, event after event.

I – HISTORICAL RECORD

Single-handed navigation has always existed as far as we may judge and famous precursor sailors opened the circumnavigation roads.

Individual‘ achievements, such as the American-Canadian Joshua Slocum in 1895 sailing his 35 ‘ «SPRAY », as Alain Gerbault in 1924 on his 12 m «FIRECREST »or as Vito Duma in 1942, forced respect and fulfilled many sailors’ dreams following them.
Their boats were built for long circumnavigation with great autonomy, therefore very heavy but small in order to be sailed single-handed when the perfected deck fittings did not yet exist. However their goal was not to stay as long as possible at sea to go from one continent to another, but they already were interested in average speed and performance not only for their own satisfaction but also and already for safety, because, very early, sailors knew speed potential could be a major safety element both to decrease big breaker impacts and to escape from dangerous low pressure zones or, in those times, to stay at least, as little as possible. Already at this time, these boats were frequently laid flat and even knock down to 180° and rolled by waves. Most of the time, their sturdiness allowed them to start again.

The idea of having single-handed boats racing each other on ocean passages goes back to 1960, with the Observer Single-handed Trans-Atlantic Race, created by Blondie Hasler (“one man, one boat, one ocean”), and later in 1968 for the first single-handed race around the world without stop over, the «Golden Globe», created by the Sunday Times on an idea of Sir Francis Chichester.

These races became classic ones since the «S.T.A.R.», organised by the Royal Western Yacht Club, on Plymouth / Newport course will have its 12th edition in 2004.

The «Route du Rhum», on France / Guadeloupe course, created by the Frenchman Michel Etevenon, will see its 7th edition in 2002.

Concerning the around the world alone, the principle was used again in 1982 by David White, who organised the first edition of the Boc Challenge in 1982 (around the world alone race with stop over), and, in the proper spirit of the Golden Globe, by Philippe Jeantot in 1989, who organised the first edition of the «Vendee Globe» (around the world single handed race with no stop over and no assistance). The «Boc/Around Alone» is now in its 6th edition (on now), the «Vendée Globe» will see its 5th edition in 2004.

To end this historical record, here are some statistical data about the precursors:
In 1969, 9 boats started the around the world Golden Globe race,
- Only one crossed the finishing line, Sir Robin Knox Johnston,
- Six retired unhurt,
- One wreck, skipper rescued,
- one Skipper declared lost at sea.

II –THREE MAJOR SINGLE-HANDED OCEAN RACES

A – THE 6.50m TRANS-ATLANTIC:

This single-handed oceanic race, created by Bob Salmon in 1977, drew a very simple principle, using again the other crossing principles, except boats must not be over 6.5 metres long on an European/Caribbean course, via one stop over. Revolution in the design field of the so called Open races, at a time of giantism.

Race frequency: every odd year.

The first edition started from Penzance (UK) on 8th October 1977. 23 boats on the starting line, 19 on the finishing line.

The second (1979), third (1981) and fourth (1983) editions, with respectively 32 started/29 placed, 25 started/13 placed, 42 started/26 placed, also started from Penzance (UK).

Since 1985, the race has started from France, and the participation increased to reach the record number of 70 on the starting line (1999), but also the worst retirement record, only 38 boats finished that year.

In 2001, 28 prototypes of the 32 at the start, finished placed, 23 mass production boats of the 27 at the start, finished placed.

So, in 13 editions :
- 616 competitors participated to this race,
- 455 finished placed
- 157 retired,
- four Skippers declared lost at sea.

The support from a large number of young competitors to this ocean race is explained by its low cost (compared to the most famous ocean races). The organisers faced this demand, obviously coupled with an implicit lack of ocean experience for most of the competitors, one of their goals being precisely an entrée in the professional single-handed oceanic racing.

During the last edition, one will note major progress made as far as safety is concerned thanks to a real mature taking into account of problems, including the class rules review and their strict application but also including the mandatory courses of qualification for competitors and their boats and strict checking of building and fitting out.

B – THE FIGARO SINGLE HANDED RACE :

This single-handed ocean race was created in 1970 by the newspaper «l'Aurore» yearly scheduled for a variable distance from 1,400 to 1,800 nautical miles with four legs between France, Ireland or England and Spain with two or even three Biscay Bay crossings.

Fought on Half Toners from 1970 to 1989, and on monotypes One Design of 9,14m long called Figaro Beneteau, especially built for this race from 1990 to 2002. In 2003, a new One Design, more elaborate and taking advantage of the eldest experience especially created for the single-handed ocean race by architects in accordance with racers and organisers, is going to take over the former monotype of which some models, having participated in the entire program of the series from the very beginning from 1990 to 2002 (including the double-handed ocean crossing race AG2R), display almost 80,000 nautical miles on the meter.

This race is exemplary, it is such a hard and dangerous one, because it demands constant watchfulness. Offshore dangers indeed, on transocean courses are different from these, that one could call coastal ones, let's say from 500 to 600 nautical miles, including all risks due to the coastal danger proximity, facing the single-handed navigation problems which are in priority watchfulness, sleep, navigation accuracy problems, all of these being deeply tied together.

Exemplary because its organisers, year after year, stake after stake, technology after technology, knew how to give competitors the means to practice their art in reasonable frame and surroundings of safety.

The first two editions, 1970 and 1971 took place in two legs, with respectively 12 boats started, 8 boats placed, 13 boats started, 12 boats placed. Despite the technology of those times as far as the positioning, signs and automatic pilot are concerned, none of the retirements was due to a sea accident but only to casual sea risks.

The next four editions let show, in three legs:
- in 72, 13 boats placed on 15 started,
- in 73, 4 boats placed on 14 started (violent storms in Biscay Bay without damages except for common retirement),
- in 74, 18 boats placed on 19 started,
- in 75, 12 boats placed on 13 started, the retirement was due to a collision with a freighter, boat destroyed, skipper rescued.

From 1976 to 1989, the race became a four legs one with:
- in 76, 27 placed on 27 started,
- in 77, 30 placed on 30 started,
- in 78, storm in the Sea of Ireland 30 placed on 35 started including a coastal wreck, boat destroyed skipper rescued.
- In 79, violent storm in the Sea of Ireland (Fastnet storm) Force 9 to 10 in the zone when the fleet was sailing by, 35 boats started, 30 boats placed, one wreck, skipper rescued by another competitor and four common retirements.

From 1980 to 1989, the average, on the starting line, is 40 boats, some retirements, one of which in 84 and one in 85 due to boat bottom structure. Boats lost but skippers recovered by boats of the organisation or others.

From 1990, setting up of the monotype One Design Figaro Beneteau, very strong (in 92, 27 boats started, 27 finished), including, as only incidents despite the gales in Biscay Bay or the storms in the Sea of Ireland, one coastal wreck due to a skipper's navigation error and one collision with a freighter, boat and skipper rescued.

In the end, in 2000, 49 boats started, 48 placed, in 2001, 38 boats started, 38 placed, in 2002, 38 boats started, 38 placed.

In 33 editions:
- 1176 competitors sailed the Figaro Single Handed Race.
- 175 retired for different common reasons.
- Five wrecks with boats lost.
- No lost of human lives,

This very satisfying level of safety is essentially due to:
- a progressive awareness of the event difficulty from the competitors,
- a very complete approved safety gear,
- a very strict fleet reporting,
- a fleet flanking at sea,
- good luck that may change what could be a proper drama in a common accident.

C - THE «ROUTE DU RHUM»:

The «Route du Rhum», on France / Guadeloupe course, was created by the Frenchman Michel Etevenon in 1978. He wished to open his event to all Open boats whatever their length might be in reaction to the size limitation of sailing boats fixed by the new O.S.T.A.R. rules of that time.
However, he had to include these size limitations as early as the 1990 edition.

2002 will be the 6th edition of this great single-handed ocean classic.
- In 78, 36 boats started, mixed fleet, multihulls and monohulls, 27 finished, 8 retired, one of which due to a collision. One lost at sea, boat not recovered.
- In 82, 50 boats started, once again very mixed fleet, multihulls and monohulls, 31 finished, 19 retired including 2 multihulls due to irreversible capsizing and 2 due to collision.
- In 86, 33 boats started, mainly multihulls. 15 boats finished. 17 retired including one wreck, one capsizing, 3 collisions, in all cases skippers rescued.
  One boat recovered, Skipper lost at sea.
- In 90, 27 boats started, 20 finished, 7 retired due to different breakdowns.
- In 94, 23 boats started, 14 finished, 9 retired including 2 irreversible multihull capsizing and the lost of a monohull keel, the other ones are due to different breakdowns.
- In 98, 35 boats started, 28 finished, 7 retired due to different breakdowns.

It is worth mentioning that, in this race which course is to cross the Atlantic Ocean via the trade winds at the highest speed, the exuberance with boat size of the early years which cost the lives of two competitors, gave way, not to wisdom, but to the retirement number due to breakdowns. We here arrive at a case which can be called a mechanical sport where competitors must take into account not only their own form and wachtfulness but also their machine.

In 6 editions,
- 204 competitors,
- 135 finished,
- 67 retired
- 2 declared lost at sea.

The safety of this great classic is tied to the governing rules or the ones which will govern the boats invited to participate (like its cousin, the «English Atlantic crossing»).

III –SINGLE-HANDED AROUND THE WORLD OCEANIC RACES

A – THE SINGLE-HANDED AROUND THE WORLD RACE WITH STOP OVER:

Called the «Boc Challenge» then «Around Alone», single-handed ocean race around the world in four legs.

- 1982: created by David White, 17 boats started in 1982, two competitors rescued by other competitors taking into account the very unreachable zones of intervention.
  One boat lost for grounding (Gipsy Moth V), skipper rescued
  Two boats sunk, skippers rescued

- 1986: 25 boats started.
  One Skipper declared lost at sea, boat recovered.
- 1990: New age for onboard electronics but also and because of it, the limits are pushed back.
  One retirement due to a collision with a growler, boat recovered, another one due to dismasting, boat recovered.
- 1994: 20 boats started. One dismasting and capsizing, abandon ship and skipper rescued.
  Also abandon ship due to grounding, skipper rescued.
  One Skipper declared lost at sea, boat lost.
- 1998: 16 boats started. One retired due to capsizing, abandon ship, skipper rescued. One dismasting, the skipper sailed the boat back to port. One harmless grounding but retirement from the leg.

In 5 editions:
- 98 competitors,
- many retirements,
- skippers saved by other skippers,
- six boats lost,
- One Skipper declared lost at sea, boat found
- One Skipper declared lost at sea, boat lost.

B – THE SINGLE-HANDED AROUND THE WORLD RACE WITHOUT STOP OVER AND ANY ASSISTANCE:

Called the «Vendée Globe», single-handed race around the world without call and without assistance created by Philippe Jeantot in 1989, start and finish in the Sables d'Olonne, Vendée, France.

- 1989: 13 boats started.
  7 arrived placed, 3 came back after sailing around the world but not placed because of stop over or different assistance.
  3 retired , including one dismasting and one capsizing.
- 1992: 14 boats started.
  7 arrived placed, 1 came back after sailing around but not placed because off technical stop over.
  2 retired and sailed back to the Sables d'Olonne because of problems, 1 retired because of injuries (broken ribs), 1 retired because of a broken rudder, 1 retired because of keel attachment problems.
  One Skipper declared lost at sea.
- 1996: 16 boats started (15+1).
  6 arrived placed, 2 came back after sailing around the world but not placed due to a technical stop over (broken rudder)
  1 retired and sailed back to the Sables d'Olonne with a jury rig after dismasting, 2 retired for technical reasons.
  2 retired after capsizing,1 retired after capsizing and wreck, one retired after losing the keel and wrecked.
  One Skipper declared lost at sea, boat seen for some time then lost.
  Several requests of SAR authorities' intervention
- 2000: 24 boats started.
  15 arrived placed, 3 came back after sailing around the world but not placed because of technical stop over.
  6 retired because of different breakdowns.
  No request of SAR authorities' intervention.

In 4 editions:
- 67 competitors,
- A big number of retirement
- skippers saved by other skippers and by the intervention of the SAR authorities,
- four boats lost,
- One Skipper declared lost at sea, boat found.
- One Skipper declared lost at sea, boat lost.

IV – ANALYSIS AND RESPONSES

A – ACCIDENT ANALYSIS OF THE FIRST THREE VENDÉE GLOBE EDITIONS:

42 boats left to race in the together 89, 92 and 96 editions, 29 ones came back to the Sables d'Olonne placed (i.e. without stop over and without assistance) or not placed (came back on their own after stop over or technical assistance).

13 did not come back to the Sables d'Olonne.

Amongst these 13:

1°) 8 accidents in which skippers saved and boats recovered:

- 2 keel breaking: Now the rules stipulate that the ISO 9000 proceedings apply on the material ageing and on the safety ratio calculation as well to modify boats and to build new boats.

- 2 rudder (steering) breakings: same as above,

- 1 hull structure delaminating: same as above.

- 1 boat laid flat, unable to right up: the respect of minimum stability standards now specified by rules exclude, now on, any accident of this kind . Note the boat we are talking about sailed back on her own to a safe place after the assistance action from another competitor in the race.

- 1 dismasting: permanent risk on a sailing boat depending of a number of factors, including first the skipper's action, for which it is quite difficult to legislate. Note that, from all times in sailing navigation history, boats dismasted and quite always managed to reach a port by their own means. That was the case here.

- 1 health problem: the skipper's physical preparation is studied more and more. On the other hand, skippers follow medical formation sessions for distance medical assistance.

2°) 3 accidents in which skippers saved and boats lost.

- 1 boat upside down after breaking the fin of the keel, retired. We should note that the skipper added up 1 ton of ballast without changing the fin of the keel. Therefore the comments are the same as above in 1°), first dash on ISO 9000 proceedings application.

- 1 boat stuck upside down and abandoned :same comments as above in 1°)

- 1 boat sunk after leaking and breaking watertight bulkheads: The new rules set both the increase of watertight bulkheads number and the ISO 9000 proceedings application as mentioned above for all structural elements of the boat.

3°) 1 accident in which Skipper lost and boat found and recovered.
Boat found, nobody on board. No comment.

4°) 1 accident in which Skipper and boat lost.
The boat and the skipper never gave sign of life to the Race Office. The search launched found nothing, immediately, of any kind. However, the upside down boat was seen by a plane a few weeks later, without any sign of life on board. One may bet on any assumption but we are able to say straight away that several days after something happened the boat was still afloat, upside down, but afloat.

B –ANALYSIS OF THE BOATS OF THE 5 EDITIONS OF THE BOC CHALLENGE AND OF THE FIRST 3 EDITIONS OF THE VENDÉE GLOBE (1982 - 1996):

Three generations of 60‘ monohulls built for around the world alone racing:

1°) First generation:

The first’s Boc Challenge and Vendée Globe.
Rather sensibly built with strong material, heavy, not too much sail area.
The disproportion of these new competitions, in the hardiest seas on earth, under meteorological conditions still quite unknown in scientific terms, but from which we knew they were horrible, brought skippers, architects and builders to some wisdom.

However, one could see that strength synonymous with weight could also bring an unsafe ratio.
This is how a boat as «Fleury Michon», of which everybody agrees in saying that in 1989 she was the best boat built of the fleet, reached over her safety limit regarding the lateral stability and laid flat on the water down to 90°,staying like this in balance, masts and keel horizontal, in the middle of the South Atlantic. After cutting the aft mast to help her righting , «Fleury Michon» stayed down. She had to be assisted by Loïc Peyron, who, in performing an acrobatic under sails manoeuvre right in the 45° parallel, succeeded in righting her. Philippe Poupon got out safe, obviously retired from the race but managed to sail back to his home port on his own. Anyway, this time it was close.

2°) Second generation:

Of those boats respecting rules that became spontaneously imperative to all, thus the association was born and called to manage the Open 50’ and 60’ .
Enforced from former experiences, racers and architects offer to set the rules in order, not to send in the «shooting gallery» skippers a bit too daring, and ready to take too many risks on too wild boats.

These rules govern boat lateral stability in terms of Angle of Vanishing Stability from 105° to 115° according to boat shapes or righting moment, to draught, to partitioning of the hulls in watertight compartments and to different actions departing from the Offshore Racing Council rules, but, however, needed to be restrained.

There are boats having participated in the 92/93 Vendée Globe, in the 94/95 Boc Challenge, and in the 96/97 Vendée Globe.
These boats are much faster and more powerful than the former ones despite the rule advent limiting some of the parameters.

This phenomenon can be explained not because boats transgressed them but by two things:

- On one hand the lashing technological advances concerning the design and the control of building processes allowed boat power to increase considerably.
- On the other hand the famous «roaring 50°» gales have been demystified, are known more and more, the racers are trained and are ready to push their limits further and to take implicitly many more risks than before.

The result is the one we know, namely the very sad chapter of accidents which occurred during the 96/97 Vendée Globe, where three boats capsized under wave action including one boat lost with her Skipper and the other two capsizing because of the loss of their keel.

Once again we were behind in terms of human protection.

3°) Third generation:
From the end of the 96/97 Vendée Globe, the association of racers started work with the help of the Fédération Française de Voile, the Institut Français des Architects Navals and the organisers in order to make progress on boat safety in these kinds of races to minimise the risk of seeing those terrible accidents again. That could not be accepted both for their first reason, and also because the rescuers’ life was in danger.

It lead, at the time of the general meeting of racers on 13th December 1997, to a second version of the rules, establishing the Angle of Vanishing Stability at 120°, and some other points of minor importance, which had to be applied on 1st June 98.

In parallel, one was wondering about a new problem, namely the adaptation of the former generations in order not to reform straight away one part of the fleet, and not an insignificant one, but rather allowing them to be modified.
This is how the «anteriority clauses» were born fixing the constraints to respect for boats built before the new rules. Very difficult to manage.

C –ACCELERATION OF EVENTS:

Everything seemed to be running smoothly. However, some aware racers and perspicacious architects knew that these rules were essentially the evolution of former ones, that they did not approach the real safety problems in simple and pragmatic terms and that an acceleration was necessary if one wanted to bring lasting solutions.

Therefore, another approach seemed necessary but considered only after the 2000 Vendée Globe which started to stand out on the horizon.

The accidents occurred during the «98/99 Around Alone» rushed the things and brought the racers, with the entire architect's collaboration to put themselves seriously together as far as their own safety was concerned to set the problem in a responsible and strict way.

Real questions:
As we have seen it above, the Open 60' and 50' race philosophy is to race around the world with the minimum of problems for the skipper's satisfaction, his sponsors and the press' satisfaction as well, for the beauty of a hard, demanding, offshore sport, with a boat whose length and safety frame are set and the same for everyone and still giving the freedom of any solution to design the most efficient boat.

In high level car competition one cannot stop the pilot to go straight ahead or turn over in a curve but the pilots and constructors oblige themselves, day after day to some harsh safety rules in order to save the pilot if any crash ever occurred. This never stopped the cars to go faster and faster and the competition to be harder and harder, and more and more interesting.

In high level sailing competitions in these kind of latitudes, one will never stop a boat to be turned over by waves or to dismast but what one wants is a positive issue for the skipper being able to sail back on his own with no outside help or assistance.

This safety frame is then fixed in concrete and simple terms :
- integrity of the hull/ deck / keel fin / ballast set together
- stability of this set, i.e. capacity to come back to the upright floating position whatever positions the weather factors have given to the whole set.
- reliability and efficiency of the equipment directly tied to safety as live raft, distress beacons and means of communications.

D - TECHNICAL ANSWERS:

1°) integrity of the hull / deck / keel fin / ballast set together:
- obligation to leave the drawings, the frame work and construction calculations with the approved controller.
- limitation of the draught in absolute value in order to stop the power inflation of sailboats with all its crowd of imprecision regarding the dynamics frame work calculations of the fin of the keel and the hull bottom and the capacity of resistance with time as well.
- obligation to justify the implementation of the calculation procedure according to ISO 9OOO standards on the mechanical resistance of the most demanded boat parts.
- If any doubt from the controller especially concerning boats having worked hard obligation is made to give the ageing calculations of materials and frame work.

- Obligation of a crash box forward, able to be destroyed if any frontal collision without endangering the boat.
- Obligation of a bigger number of watertight bulkheads.
- Obligation to have a total of an unsinkable volume equal at or bigger than 130% of the real weight of the boat.
- Respect other strain elements as mentioned by the Offshore Racing Council.

2°) Stability of this whole set:

Surely one of the most spectacular fields of progress if not the most efficient one, especially where everything concerning stability is measured.

- obligation to prove in situ that the boat once upside down is able to upright on her own.
  Throughout checking operations, the boat is set in an upside down position with a crane, all boats, without exception, go through this test, and if not passed the boat will not obtain her approval certificate.
- Increasing of the Angle of Vanishing Stability (AVS) to 127,5°.
- Increasing of the stability area ratio 5/1. In short, that means that the boats have five more chances and possibilities, due to their design (big roof, freeboards gravity centre position) to find a balance upright rather than upside down .

3°) Reliability and efficiency of the equipment directly linked to safety:

- obligation of watertight hatches allowing the skipper to go from the front of the boat to the stern, even if the boat is upside down, without flooding the compartments.
- Obligation of an escape hatch.
- Obligation of a safety device for the canting keels.
- Obligation of respecting the standards if using water ballast.
- Interdiction of canting mast in lateral plane.
- Obligation of an approved draining device.

4°) And many other details: indeed, everyone knows it, there is not only one way to bring safety but it's an accumulation of elements that will make an incident either petering and becoming anecdotal or changing into drama.

The new rules, approved on 21st May 1999 by the general meeting of the IMOCA Class and, from now on, recognised by ISAF, have drastically stated those very simple principles.

E - OTHER RESPONSES:

1°) Long qualification courses, prescribed, with no way to get round, by the organisers with the skipper/boat couple in a race configuration.

2°) Strict verification of all boats, issue of a measurement certificate, and checking of all boat safety gears at the start of each race.

3°) Permanent growth of new equipment effecting safety, perfected radar with alarms to improve the watch at sea, transponder, electronic navigation and locating devices, automatic pilot, etc...

4°) Better knowledge of the meteorological phenomena in general but more peculiarly in the fields known as dangerous, thanks to the growth of public weather report websites reachable by all competitors allowing them to foresee their positioning according to risky zones of low pressure particularly in the far south.

5°) Important development of means of communication within the ashore Race Office (sometimes at sea) and the competitors, allowing:

- accurate weather report broadcasts to the all fleet.
- a research and assistance co-ordination by the competitors themselves on zone if needed.

6°) The competitors awareness:
This maturity of the rules on equipment prescribed collectively by the skippers themselves together with the architects also shows the mentality evolution of each skipper, whose attitude, for most of them, changes from the blustering adventurer to a professional sportsman of high level, aware of dangers and studying the worse scenarios in advance, wishing indeed to have a full career, going to the end of his sporting life, the natural way.

Training sessions are then organised not for navigation or sail trimming, they need them no more, but sessions for competitors of the extreme learning how to control their attitude when facing high risk situations, allowing them to push the watchfulness limits further.

a) Physical preparation: which obviously did change including training sessions on sleeping management under normal conditions and, of course, in crisis situations. Studies have been carried out on stress put on competitors in the high latitudes at high speed, noisy, with icebergs and permanent fear.

b) Medical training sessions: in a frame which can be called the distance medical assistance. This prepares the competitors to operate on themselves in the worst conditions, and at several thousands of kilometres from shore.

c) Training sessions on survival in hostile environments: including of course, active survival notions when resistance is necessary while bringing the damaged boat close to an exterior intervention, but also passive survival when the life raft (or the boat) is the only waiting solution until an outside action.

CONCLUSION

In this report introduction we mentioned precursors such as Joshua Slocum, welcomed as a hero when he came back to Newport (RI) in 1898 after 3 years and 46,000 nautical miles of single-handed around the world navigation.

A century later, the winners of single-handed ocean races are welcomed the same way, like heroes, carrying fundamental values, and awarded the highest distinctions of their country and the nautical Oscars.

The Single-Handed Oceanic Racing became a discipline of its own in the sailing world such as Olympic sailing or the America's Cup.

The Single-Handed Oceanic Racing offers sensations, joys and difficulties that we will not see elsewhere and it is important to mention that behind each skipper there is an entire hidden team of technicians, collaborators, trimmers, advisers including more than 10 people.

From Atlantic crossing races in a 6.50 metres or in a 60' multihull to races going around the world, the performance search is the same and all skippers and boats are at the top of the technology. The search carried out especially in safety matters serves in time the entire cruising boating navigation.

Despite what one would think, collisions, as we have seen them, due to the lack of watchfulness at sea, are rare.
Safety has considerably improved in regards to a better boat autonomy, demanding less and less actions from the SAR authorities.

But no need to hide, in safety matters, the greatest modesty must of the utmost importance.

Of course in analysing the 11 accidents occurred on the 42 boats having participated in the first three Vendée Globe, one can state that if the current rules enforced had been applied it would have, without a doubt, saved some of them, if not all.

None of the boats of the first edition can pass the test validly therefore they cannot be admitted in the race,
Some boats of the second generation, after heavy modifications, may pass the test and be admitted in the race.
Most of the third generation ones are admitted after very little adaptations.

Boats of the fourth generation, that means boats designed according to the current rules, are fully satisfying the conditions, and yet faster.

These spectacular boats from the 6,50 metres to the 60', sail under difficult conditions which can be extreme for boats and navigators and yet little known.

New problems appeared along with the developments of the technology.

Therefore one must stay vigilant, adapt rules and advance continuously, because, unfortunately, nobody knows where the limits of reasonably is, this being, a relative notion because it evolves and changes with time as well as the use of the boat does.

The good example can be the canting keel on Open monohulls which were held to public obloquy by almost the unanimity at the very beginning and, eight years after, are used on most of the boats, advised by a number of architects, and even looked at as a safety factor in as much as it allows the boat righting under difficult conditions.

Above all, preserve safety not forgetting the preserving action of sporting fairness and innovation.
This is the mission and the duty of all single-handed oceanic race class managers.

Federation Francaise de Voile
Commission Course Oceanique
Jean-Bertrand Mothes-Massé 30/09/02