

## Mixed Two Person Offshore Keelboat Working Paper

### **Introduction:**

Following the 2018 Annual Conference Working Groups, supported by the Executive Office, were established to provide the Board with some key guiding principles for the event. These principles will now be reviewed by the Events Committee, Equipment Committee and the Oceanic and Offshore Committee.

This paper was first circulated to the Events Committee on 8 March 2019. The initial high-level feedback from this paper has been collated and will be circulated separately. The intention at the Mid-Year meeting is for this paper to be discussed and following the Mid-Year meeting a Working Party will be established to take forward the relevant topics in accordance with the Events Committee terms of reference and make any recommendations to the Council at the 2019 Annual Conference.

The Events Committee will also work closely with both the Equipment Committee and Oceanic & Offshore Committee on matters relating to those committees' terms of reference. Both the Equipment Committee and the Oceanic & Offshore Committee will be reviewing this paper, providing their feedback and then working on recommendations for the 2019 Annual Conference.

**Alastair Fox**  
**Director of Events**

### **1. Background**

Submission 037-18, approved at the 2018 Annual Conference, confirmed the introduction of the Mixed Two Person Keelboat Offshore event and stated:

- With an Olympic events slate which includes offshore keelboat, World Sailing is definitely showing the diversity of our sport.
- Historically, keelboats have a long legacy of being raced in the Olympic Games. Adding an offshore keelboat will restore this important tradition.
- Over 50% of the sailors in the world compete in offshore keelboats. This event would attract competitors who do not normally sail Olympic classes and athletes could be a great range of size and weight.
- This new event will draw large spectator interest. We only have to note the appeal of Vendee Globe and Volvo Ocean Race to see this.
- Supplied equipment at the Games will reduce costs and World Sailing can look at different models for ensuring participation costs are as low as possible.
- The next two Olympic Games hosts, Paris 2024 and LA 2028, are supportive of an offshore keelboat event in their Games.
- An offshore keelboat offers a unique broadcast opportunity with a long-distance race as a part of the race format. An offshore keelboat will provide a good media platform for broadcast equipment (both current and what will be available in 2024).

### **2. Equipment Working Group & Qualification Working Group**

## 2.1 Introduction:

Submission 058-18 confirmed the key equipment criteria for the Mixed Two Person Keelboat Offshore event:

- Boat concept: Displacement mono-hull (non-foiling), short-handed deck layout
- Length: 6 – 10 metres hull length
- Performance: Good all-round performance in 4 to 40 knots
- Sails: Proper sail inventory for all conditions. Sloop rig with spinnaker
- Supplied equipment

## 2.2 Key Principles:

The following key principles have been adopted by the Equipment Working Group & Qualification Working Group:

- (a) The Mixed Two Person Keelboat Offshore event has to be an event aimed at testing the Offshore sailing skills of the athletes and should not allow an equipment arms race
- (b) A 'long list' of equipment that meets the equipment criteria for the Mixed Two Person Keelboat Offshore event should be approved at the 2019 Annual Conference in November
- (c) By approving a long list of equipment that meets the equipment criteria World Sailing will be able to ensure that the most diverse number of MNAs and the largest possible group of sailors will be able to train and plan for the Olympic Games
- (d) The approved long list of equipment will provide event organisers, MNAs and sailors with opportunities to train, compete at events and host Olympic Qualification Events in equipment that is readily available and affordable in their continent
- (e) The equipment selected for the Paris 2024 Olympic Games, in accordance with the equipment criteria, should be selected as late as possible in 2023
- (f) There should be a quota of between 14 and 20 boats for the Paris 2024 Olympic Games

## 2.3 Olympic Equipment Decisions:

Rather than select a specific piece of equipment at the November 2019 Annual Conference, World Sailing should select an approved long list of existing equipment that matches the key criteria for the Mixed Two Person Keelboat Offshore event. Boats that are included on this list can then be used for training and qualification opportunities.

The supplied equipment for the Paris 2024 Olympic Games should then be selected as late as is possible in 2023. This will ensure that the event does not become an equipment arms race.

The Equipment Committee and the Offshore and Oceanic Committee will develop the process for finalising the equipment options in line with the Submission 058-18 criteria. In order to ensure the widest possible range of boats can be approved at the 2019 Annual Conference an open tender process will be run allowing manufacturers and MNAs to propose boats that meet the equipment criteria to be included.

Based upon an initial evaluation, possible boats that could be selected for training, Offshore events and Olympic qualification could include:

|              |           |              |
|--------------|-----------|--------------|
| A 27         | J105      | Pogo 3       |
| Dehler30     | J109      | Pogo 30      |
| Far East 28R | JPK 10.10 | Pogo 40S3    |
| Farr 30      | JPK 10.80 | Sapphire 27  |
| Figaro II    | JPK 40    | Seascape 27  |
| First 27     | L30       | SK30         |
| Italia 998   | Maxi 650  | SunFast 3200 |
| J88          | Ofcet 32  | Tizh 40      |
| J99          | Ofcet 650 |              |

The Equipment Committee and the World Sailing Executive Office are gathering additional information about other boats that could be included alongside the national distribution data of each of the boats.

The final list of boats that can be selected at the 2019 Annual Conference will be extremely diverse, will provide the opportunity for MNAs to compete in existing, affordable equipment and ensure that there are opportunities for sailors around the world to qualify for the Olympic Games.

#### 2.4 Supplied Equipment at the Olympic Games:

The equipment finally selected for the Olympic Games should be approved as late as possible. For the Paris 2024 Olympic Games this decision should be made in 2023. There is an opportunity for the Paris 2024 Organising Committee to sign a value in kind deal with the chosen manufacturer which may provide a sustainable financial model for the supplied equipment and possibly provide a legacy for the sport in that region. Alternatively, an open bid process would be run to finalise a contract with a manufacturer to supply the equipment for the Olympic Games, in accordance with the equipment criteria and other World Sailing requirements.

#### 2.5 Olympic Qualification:

The key IOC criteria for Olympic Qualification are:

- (a) Qualification systems must allow for the participation of the best athletes through a fair and transparent process within the framework of the Olympic Charter.
- (b) The principle of universality shall be reflected in qualification systems through continental representation. A maximum number of athletes per NOC will be set within each sport, discipline or event to ensure a broad participation of NOCs.
- (c) Athletes/teams shall have more than one opportunity to qualify, however the qualification systems should not necessitate extensive and expensive travel requirements. Where possible, continental events should be used.

- (d) In principle, existing events approved by IFs should be used for qualification. IFs should not impose a specific event on the Organising Committee of the Olympic Games combining a test event and qualification event.
- (e) The qualification period should cover a maximum of two years prior to the final entries deadline.

In order to ensure the maximum number of MNAs and sailors are able to participate at the Olympic Qualification Events the following key principles should be adopted:

- (f) In order to maintain the integrity of an 'Offshore' event it is important that athletes are able to train and qualify on different boats as it is the 'Offshore' skills that should be tested rather than knowledge of a specific piece of equipment which could then lead to an arms race
- (g) By approving a long list of equipment that can be used for the Mixed Two Person Offshore Keelboat event the costs of an Olympic campaign and attendance at an Olympic Qualification Event can be reduced
- (h) There should be a series of Continental Qualification Regattas that ensure that the equipment used is widely and readily available in those continents. This will maximise MNA opportunities to qualify and reduce costs.
- (i) Fleets of boats will need to be equalised and the options for achieving this are being considered.

## 2.6 Training Opportunities:

Training opportunities should not be restricted to strict one design equipment, there are plenty of opportunities for athletes to compete in a rating system class – such as IRC, ORC, etc. This will open up the list of possible boats available for training around the world. However, only one-design approved equipment would be used for qualification.

World Sailing should also ensure strict rules around first aid requirements, sea survival courses, minimum number of miles sailed by athletes, etc.

There are many established Offshore events that athletes and MNAs can target in order to gain the necessary experience for competing in the Mixed Two Person Keelboat Offshore event at the Olympic Games.

Established:

- Sydney – Hobart Race
- Fastnet Race
- Middle Sea Race
- Newport – Bermuda Race
- China Seas Race
- Caribbean 600

New for 2019:

- Offshore World Championships
- Baltic 500 Race
- Oakcliff Long Island Race

A full analysis of existing Offshore events is being undertaken to provide a full list of suitable events.

### 3. Field of Play / Format Working Group

#### 3.1 Key Principles:

The following key principles have been adopted by the Working Group:

- (a) It is essential to maintain the integrity of an Offshore event
- (b) The event should be one race
- (c) The longer the course, the more 'Offshore' the event will be
- (d) 3 days, 2 nights is the minimum length for the race. 4 days, 3 nights should also be considered
- (e) Although weather conditions are typically light in Marseille during the Olympic Games period it is hard to know what the conditions will be like during the Olympic Games
- (f) The stronger the wind the more 'Offshore' the conditions, however, a light wind regatta would also be a real test of 'Offshore' sailing skills

#### 3.2 Format:

The Working Group recommends the event should be made up of 1 race where the first across the finish line is the winner.

The start time should be aimed at maximising the live spectator experience, both onshore and on the water.

It is essential to know what time the first boat will cross the finish line and it is essential to ensure the finish time maximises the opportunities for the live spectator experience both onshore and on the water.

A leg in the vicinity of Marseille before the finishing line would allow the Race Management team to adjust the finishing time.

The finishing line should be set on the medal race area, under the Corniche and spectators.

In order to control to the finish time, the course has to be flexible so that in accordance with the RRS the course can be extended or shortened. It will therefore be necessary to have the following as possibilities:

- Virtual marks / waypoints
- Creating new marks on the course
- Missing or deleting marks on the course
- Changing the course to all competitors to sail directly to the finish line

#### 3.3 Courses:

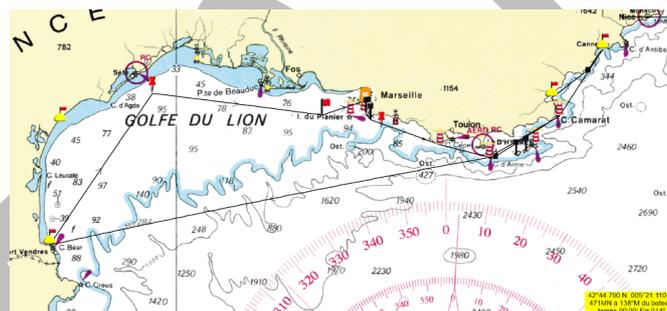
The final distance of the race will not be known until the equipment is selected and the weather forecast is known. In order to help plan the length of the race and average boat speeds should be used to set the course, for example:

| Time | Average speed | Distance |
|------|---------------|----------|
| 60 h | 5 knots       | 300 NM   |
| 60 h | 6 knots       | 360 NM   |
| 60 h | 7 knots       | 420 NM   |
| 60 h | 8 knots       | 480 NM   |

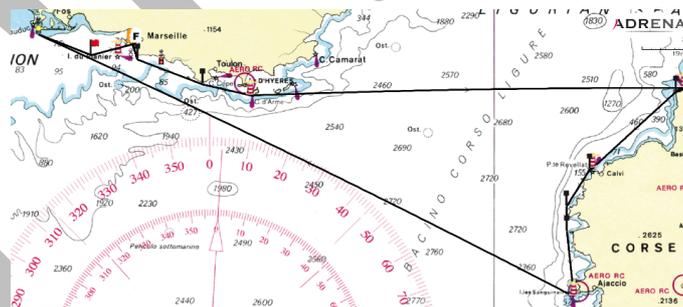
Multiple course options should be planned and the final course should not be communicated to athletes until the last possible moment. Long and short course should be planned to allow for all possible weather conditions.

According to weather forecasts, potential course areas could be:

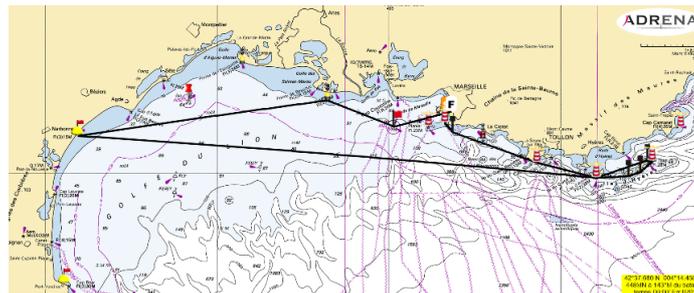
- (a) Long Course West: Occitanie (500 nautical miles)



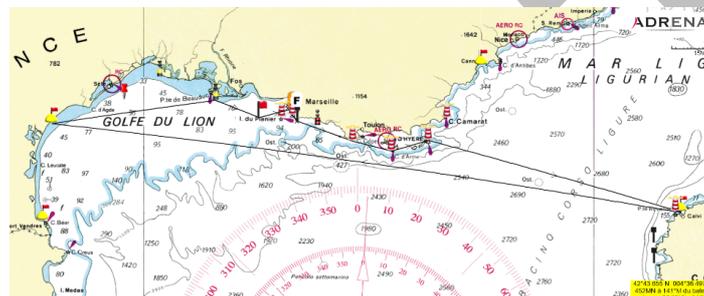
- (b) Long Course East: Côte d'Azur and Corsica (500 nautical miles)



(c) Short Course West (250 nautical miles)



(d) Short Course East (250 nautical miles)



3.4 Event Management:

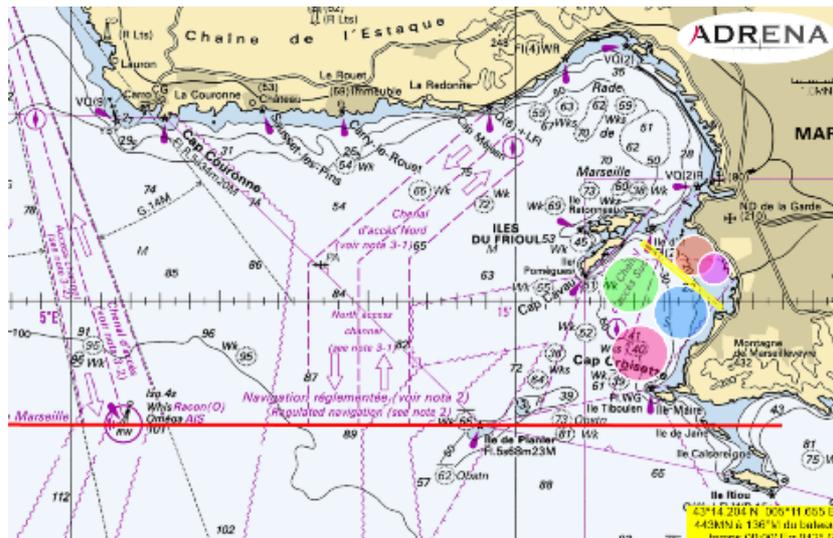
The World Sailing Executive Office and Paris 2024 are reviewing the venue plans for the Offshore event. There are two proposals – a separate, dedicated Offshore venue close to the old town of Marseille or in the Olympic Marina that will host the other Sailing events. Paris 2024 are reviewing the implications of both options with the City of Marseille and will report back to World Sailing. In both instances, the objective will be to minimise the incremental cost of berthing a fleet of one-design keelboats, whilst ensuring that spectators have the opportunity to see and potentially interact with the boats as is typically the case at Offshore sailing events.

The Race Management team must have access to a fast catamaran within the Field of Play to be able to manage the event and make any changes of courses.

The Race Management team must have access to accurate speed polars of the boats used and to excellent weather forecast information.

To ensure that the winner is the first boat across the finishing line direct umpiring should be used at the start and the finish of the race. Any penalties awarded must then be completed before crossing the finishing line.

For example, from the starting line to the latitude of the fairway mark 'Oméga' and from the latitude of 'Omega' to the finishing line (5 nautical miles).



The Jury will deal with any other protests during the race and any penalties awarded will have to be completed before crossing the latitude of 'Oméga'.

In order to manage any protest hearings the Jury should be onboard the Race Management team fast catamaran during the race. In addition, the race management team and Jury should be able to communicate with the entire fleet and one or more boats in private.

### 3.5 Safety:

The Working Group has established the following key safety principles:

- (a) The equipment selected for the Olympic Games should meet ORC Category 2 requirements: 'Races of extended duration along or not far removed from shorelines or in large unprotected bays or lakes, where a high degree of self-sufficiency is required of the boats.'
- (b) During the race boats should always be in range of helicopters
- (c) The Race Management fast catamaran should be on the Field of Play 'inside' the fleet
- (d) In case of any incidents the La Garde MRCC will be responsible for co-ordinating any necessary responses

### 3.6 Security:

The security of any Olympic event is of paramount importance. The security plans needs to be 'everywhere and nowhere'.

- (a) The level of threats and the evaluation of these can only be managed with the skills and knowledge of the French Navy
- (b) The French Navy has confirmed they will assume the overall responsibility for the Offshore event
- (c) A plan will be set up to protect the zone in which the boats are racing
- (d) This plan would create a "safe bubble" surrounding the whole fleet
- (e) Regulated zones will be defined with the authorities for when the course brings boats close to shore

- (f) The Admiral of the French Mediterranean Fleet is now working on the detailed plan.
- (g) The Admiral has proposed a meeting for the IOC, Paris 2024, World Sailing and the French Navy during the 2019 World Cup Final in Marseille

#### 4. Broadcast & Technology Working Group

##### 4.1 Introduction:

Broadcast and technology already plays a major role in the presentation of sailing at the Olympic Games. Olympic Broadcasting Services (OBS) and Swiss Timing (tracking and broadcast graphics) provide the output and aim to explain and showcase the sport to millions of people.

Olympic Sailing has solely been focused on inshore racing and the introduction of an offshore event into the Olympic programme means World Sailing have to engage with OBS and Swiss Timing around practical delivery and subsequent cost of delivery.

The expert knowledge of the working group will help to establish the core principles of the coverage of the event, alleviating any concerns OBS have, and highlighting how the technology can enhance the presentation of the sport and showcase the core principles of Olympism at large.

The World Sailing Executive Office is reviewing the costs of the broadcast and technology plans for the Offshore Keelboat event.

##### 4.2 Broadcasting:

Major Oceanic events such as the Volvo Ocean Race and the Vendee Globe demonstrate that offshore sailing can create significant broadcast and media interest.

The event can market itself as, "The Longest Endurance Event of the Olympic Games," surpassing events like the marathon and decathlon.

The 24-hour TV product has a lot of opportunities around it and it can fit in with OBS' requirements and ensure continuous storytelling.

The 2017-18 Volvo Ocean Race delivered:

- 194 hours of live coverage
- Cumulative TV news audience of 2.2 billion
- 1.9 billion social media impressions, including 200 million video views
- Digital TV (OTT) audience of 342 million
- Official race tracker hosted 111 million unique sessions
- 13.7 million social media likes
- Over 400,000 comments on Instagram posts
- Over 1 million comments on race content on Twitter and 9 million retweets
- The average viewing time per video on YouTube was over 9 minutes
- The average Facebook post reached 398,000 users
- The most popular social media video was viewed over 23-million times

##### 4.3 Broadcast Output:

In order to tell the story of the Offshore event, broadcast innovation is a must to ensure a moment of the event is not missed. The audience expects continuous storytelling and it is up to World Sailing and OBS to deliver that.

The following should be as standard:

- (a) Live production
  - Race start – 1-2 hour feed – same venue and similar start area to other Olympic Classes
  - Early rounding point – consideration should be given to a course that includes the boats returning / looping back through the start area to allow further live coverage close to spectators
  - Mid-race live – a rounding point should be established for 1-2 hours of live coverage
  - Race finish
- (b) On-board cameras / audio – live 24/7
  - On-deck – fixed camera (remote controlled from the studio) to showcase the sailors working on their boats
  - Down below – fixed camera (remote controlled from the studio) to showcase life beyond the race – eating, sleeping, navigation etc
- (c) International news feeds delivered every 4-6 hours
- (d) Digital quality feed every 3-4 hours
- (e) The 24-hour product can enable Rights Holding Broadcasters (RHBs) in nations where the time zone is not favourable (e.g. for Paris, New Zealand, Australia, Japan) an opportunity to showcase the sport live during prime times
- (f) Fixed times for scheduled updates from all teams should be planned

Furthermore, the event could provide the Olympic Channel and broadcasters with an opportunity to show continuous live coverage of each boat on their digital properties. Using broadcasters digital OTT properties would also give the audience the power to pick and choose who and when they want to watch.

#### 4.4 Broadcast Operations:

Delivery of offshore broadcasting is unlike the traditional inshore dinghy broadcasting that OBS is familiar with. The competition will run for days, rather than hours so there should be two modes of delivery for live production and news / digital storytelling production. These can be split into inshore mode and offshore mode:

- (a) Inshore mode:
  - Utilising the existing OBS team based in Marseille. This team will be led by a professional sailing director with an appointed team of sailing broadcasting experts.
  - The team can cover the live productions using traditional methods such as Radio Frequency (RF) cameras, RF tracking units, RF onboard cameras.
  - 3D graphics provided by Swiss Timing will mirror the Olympic dinghy style.
- (b) Offshore mode:

- The Marseille based OBS team are not operating 24/7. The International Broadcast Centre (IBC) is a 24/7 operation centre and based on the 24-hour TV product, an offshore mode team, comprised of offshore sailing experts, should be based at the IBC to successfully supply the ad-hoc live broadcasts, international news feeds and digital quality feeds to Rights Holding Broadcasters.
- This team will be responsible for monitoring the race, generating graphics and ensuring a continuous supply of content.
- A broadcast mothership can also follow the race, providing the IBC team with content directly from the field of play
- For the live coverage of the early rounding point and mid-race live, the offshore team in partnership with the mothership can work to deliver the product utilising satellite communications.
- The Offshore 24-hour coverage is ideally suited to OTT platforms.

The Volvo Ocean Race is a prime example of these modes operating successfully. A team is posted at the Host City for the live start before operations switched to the HQ in Alicante where regular content items were disseminated to owned and operated platforms and news was distributed internationally.

#### 4.5 Boat Hardware:

The boats will have to be equipped with equipment to ensure continuous video and audio coverage of the race.

- (a) Onboard cameras will play a crucial role in the delivery of the offshore broadcast product, so the following considerations should be made for the provision of onboard cameras:
  - Autonomous with pan and tilt capabilities
  - The cameras should be mounted and levelled on each boat and be independent of each crew
  - Lens cleaning – a wipe is highly desirable but a water squirter or spinning disc may be too expensive. The lens can be coated with rainex in advance and sailors can be asked, on request, to clean the lens of the cockpit camera. These can be written into athlete requirements for the race
  - Off the shelf kit should be utilised to alleviate any pressures of cost
- (b) Audio – alongside live imagery, the ability to hear what the sailors are talking about are key to the product and can be transmitted alongside the video. The audio feed should be continuous. Wearable microphones should be considered as a way of further enhancing the production of the event.
- (c) Talkback system – microphones can be installed to enable live onboard interviews at pre-determined times.

#### 4.6 Technology:

Offshore sailing has long embraced technology to tell the story across broadcast and digital properties.

On-board reporters in the Volvo Ocean race, the use of satellite transmission and continuous filming cameras have ensured a moment is never missed.

OBS have embraced technological advances in Olympic sailing but World Sailing sees the offshore event as an exciting opportunity to embrace new media.

#### 4.7 Delivery of Broadcast Solutions:

The use of technology is crucial for the broadcast as well as telling the story to the public and for the media.

The following technology should be used as standard:

- (a) An LTE and satellite integrated telemetry system that can switch between both modes seamlessly for continuous delivery of onboard coverage for both inshore and offshore teams. The event may spend a lot of time within LTE coverage which can provide higher resolution content. The advantage of LTE is that it is a cheap method and has a wide bandwidth. Satellite coverage will decrease quality but output can be in a lower resolution.

#### 4.8 Delivery of Tracking Solutions:

Continuous live tracking will provide data and insights to best explain the race within the broadcast as well as providing fans a product that is not dissimilar to the tracking known within internationally renowned offshore races.

There are a number of options to use existing tracking technologies and graphics packages. These solutions include:

- (a) Integrate tracking signals into the LTE and satellite solution for broadcasting
- (b) AIS tracking – independent tracking but powered by the boat.
- (c) Swiss Timing / TracTrac / Yellowbrick (internally powered device)
- (d) Inshore tracking devices supplied by Swiss Timing that are used for Olympic dinghy Classes could be used for the live start, early rounding point, mid-race live and finish but these require a mobile signal as well as GPS.

Regardless of the solution used, for safety and redundancy two independent tracking systems should be used.

#### 4.9 Potential Opportunities:

- (a) Paris 2024 and WS could work together to seek VIK sponsorship support from satellite suppliers such as KVH or Inmarsat for the provision of hardware and data provision. The vendors must have the bandwidth to deliver an integrated LTE and satellite system
- (b) Communication flow from the boats to the International Broadcast Centre and then out to Rights Holding Broadcasters
- (c) OBS have the resources but World Sailing need to inform OBS how to crew and produce an offshore event
- (d) OBS would need to decide how to best cover the early rounding point and mid-race live rounding point – both the Marseille based team and IBC would have the capabilities to cover live.
- (e) If a Rights Holding Broadcast chooses not to show the 24-hour feed on their OTT platform, World Sailing can open the discussion with the RHB, OBS and the Olympic

Channel to see if the Channel can host the feed with geo-restrictions applied where appropriate, enabling accessibility to the content.

- (f) Opportunity for innovation around broadcast graphic animations for offshore mode team
- (g) The WS eSailing platform from Virtual Regatta will provide the opportunity for millions of fans to be able to compete against the real sailors in the race
- (h) 485k unique players competed in the last Vendee Globe against the real sailors and 445k unique players competed in the 2017-18 Volvo Ocean Race
  - The eSailing platform provides the opportunity for 10's of millions of players to compete simultaneously against the sailors competing in the Offshore event at the Paris 2024 Olympic Games

## 5. Next Steps

- (a) This paper has been reviewed by the Board at their February 2019 meeting. The Board would now like this paper taken forward by the key Committees and any additional experts that may be required.
- (b) The Events Committee, Equipment Committee and Offshore & Oceanic Committee should review this paper and take the forward the key concepts and prepare final recommendations for the Annual Conference.
- (c) The Board and Executive Office will engage with Paris 2024, OBS and the IOC over the Offshore Keelboat event and arrange a meeting with the French Navy in Marseille.
- (d) The Equipment Committee and Offshore & Oceanic Committee should finalise the equipment criteria as soon as possible and run a bid process to allow manufacturers and MNAs to nominate equipment that meets the criteria. The long list of equipment should be approved at the 2019 Annual Conference.
- (e) The Events Committee and Offshore & Oceanic Committee should finalise the format and qualification system.