

Olympic Surfing – Teahupo’o

Alternative Technical Solutions for Judging

December 9, 2023

Premise

With the decision by the French Polynesian Government not to allow the use of the old (wooden) judging structure for safety and legal reasons, and the likelihood that any new construction on the reef will have an impact on the natural environment as well as lack the support of the local population, we have been asked to consider alternative technical solutions for judging the Olympic Surfing competition.

We believe a fair and accurate competition can be run, with different technological and operational solutions described in the scenarios below. All of these solutions are subject to further detailed feasibility analysis by the different stakeholders involved.

Option A – Judges on a Tower on Land, using Reduced Camera Platform on the reef on Existing Footings

Pending validation by the Tahitian authorities, a reduced platform would be constructed using the existing footings sufficient solely for 3 OBS (Olympic Broadcasting Services) cameras and operators, with same line of sight from the old wooden tower.

- Judges located on a tower, in a similar location to the current camera platform on the beach, with a line of sight to the wave.
- Judges in a closed room using large screens with multi-angle camera feed to see all angles of the waves based on the existing OBS production plan.
- The new aluminum tower that has been provisionally constructed on the land could be considered for this purpose.
- Camera platform on the reef and tower on the beach would have to be high enough to see over the breaking waves. The use of remote or robotic cameras on the reef platform is excluded.
- The single, fixed “field of play” camera currently in the OBS plan would remain on the beach, either on the tower or a separate highly elevated platform.

Option B – Judges on a Tower on Land without cameras on the reef

If the use of the existing footings is not possible, the alternative solution will be to place the 3 OBS cameras on top of, or very near to the judges tower on land in a location TBD.

- Use 100X Long Lens technology for all cameras with high level zoom.
- Positioned to “mimic “ the tower angles as best as possible with position of tower or second camera platform.
- Use of boom/crane or scissor lift cameras (see photo) also possible and very successfully used in professional golf coverage including the Olympics.
- Judges to have continuous or instant access to all possible OBS camera angles, as per the current plan including water/boat cameras and drones.

Additional technical, operational and technology requirements for both options:

- A. Technical Officials (ITOs) boat added to the channel lineup for priority and beach announcers, ideally in view of “takeoff zone.” Priority Judges and Board to be located on this boat. The Priority Board positioned high enough and angled to ensure the athletes visibility. Sufficient acoustics from the boat for athletes to hear messages from the ITOs boat. Should the ITOs boat not provide sufficient visibility, another boat could be positioned in the channel but further out, so it will not hidden by breaking waves.
- B. Field of Play (FOP) camera (wide view continuously live) on or near judges tower and not part of OBS production. The FOP cam to create real time view and “the feeling of the lineup” for the judges. Available on a large monitor(s) and viewable at all times.
- C. Seamless (wireless) connection from all cameras to the Main Tower for OBS and Replay System. Depending on whether a platform on the reef can be used, the four OBS cameras and two OBS boat cameras would ensure there is always a back-up image: Main Tower view plus the Lagoon view, with jetski cam and drones as additional tools.
- D. Uninterrupted radio communication and technology connection between the Main Tower Officials and the Technical Officials Boat (Priority Judge and Beach Announcer).

SUGGESTED LENS TECHNOLOGY

101X

UA125x8BESM

- Achieved both highest magnifications*2 125x and 4K optical performance
- Perfect for live sports coverage with the optical 107x zoom
- Unique optical image stabilization mechanism
- Vivid color reproduction and HDR-based rich tonal gradation for superior video production
- Natural bokeh achieved with 9blade diaphragm
- Standard feature of a built-in 16bit encoders



CAMERA LIFT / CRANE

Boom lift for 100x Cameras
that can reach up to 65'.

Not sure what availability in Tahiti on
this type of crane but likely something
close.

