

8.15: Boat Path/End Course Video

The Boat shall follow, as closely as possible, a straight path on the centreline of the course. This path shall be maintained from the entrance pre-gates and continue for as long as the skier is in the course.

Boat Path Measurement System

A Boat Path Measurement System, (BPMS) is required for:

- **Record Capability(R), Rankings Lists(L), and Pro events.**

All passes shall be monitored and applicable buoy and cumulative deviation tolerances with re-ride situations applied at 11.25 and shorter.

- **Titled Events (World or Confederation)**

All passes shall be monitored and applicable buoy and cumulative deviation tolerances with re-ride situations applied at 14.25 and shorter.

For passes with line lengths longer than defined above the CJ and the Event Judges will decide the appropriate course of action should out of tolerance situations arise.

BPMS may be RTK-GPS or Video based. The use of RTK-GPS systems is preferred and strongly recommended. The BPMS will be installed and calibrated according to the homologation guidelines under the responsibility of the Homologator.

The Chief Judge will assign a Judge or Driver to monitor the BPMS. **Re-rides will be awarded for any path that exceeds the tolerance for Buoy and/or Cumulative Deviation, Subject to the rule above.**

Boat Path Deviation

a) Definitions:

NEGATIVE: Deviation is considered NEGATIVE when the boat is away from the skier.

POSITIVE: Deviation is considered POSITIVE when the boat is toward the skier.

b) **Buoy**

The Buoy Deviation is the maximum deviation toward the skier measured from when the pylon is at the buoy to 5 metres after the buoy. It is also used to calculate the Cumulative Deviation.

The maximum individual buoy deviation cannot exceed 25cm.

For a World Record application, the maximum individual buoy deviation cannot exceed 20cm.

c) **Cumulative Deviation**

Cumulative Deviation is the sum of the Buoy Deviations. Cumulative Deviation is out of tolerance when the deviation exceeds the following based on score:

SCORE		Cum Deviation
0.25 - 1	B1	
1.25 - 2	B2	28 cm
2.25 - 3	B3	35 cm
3.25 - 4	B4	40 cm
4.25 - 5	B5	45 cm
5.25 - 6	B6	49 cm

d) **Multiple Buoys out of Tolerance**

If the boat path is out of tolerance (buoy or cumulative) at more than one buoy in a single pass, then the FIRST out of tolerance occurrence is applied first.

Re-ride situations:

a) **Pass not complete,**

1) **If the Deviation is NEGATIVE out of tolerance (away from the skier)**

The skier has the following options:

- The skier is entitled to an optional re-ride.
- The skier can improve.
- The maximum score not out of tolerance to the positive is protected.

2) If the Deviation is POSITIVE out of tolerance (path towards the skier):

The skier has the following options:

- Accept the score that was achieved within tolerance.
- **Take a re-ride. The Skier can improve up to the original score.**
- The maximum score not out of tolerance to the positive is protected.

b) Pass complete

1) If the Deviation is NEGATIVE out of tolerance (away from the skier)

- The skier may proceed to the next pass.
- **The skier is entitled to an optional re-ride.**
- **The pass is protected.**

2) If the Deviation is POSITIVE out of tolerance (path towards the skier):

The skier has the following options:

- Accept the score that was achieved within tolerance.
- The maximum score not out of tolerance to the positive is protected.
- Take a re-ride. Skier can improve.
- Continuing at Risk to the next pass (see below)

Continuing at Risk

If a skier decides to continue at risk to the next pass on a re-ride and:

a) Does not complete the pass, the score awarded will be the higher of:

- The score from the original pass that was in tolerance; or
- The score from the 'continue at risk' pass as though it were at the original speed and rope length.

b) Completes the pass, and that pass is out of tolerance for boat path deviation, the skier shall be entitled to no more than two additional mandatory re-rides for that specific pass. The skier does not have an option to continue at risk to the next pass.

Limitations on Re-rides for "Positive Deviation"

There shall be no more than two re-rides **for positive boat path** deviation in a single pass. If during the second re-ride the boat deviation would require another re-ride **for positive deviations**, then the score awarded will be the highest score achieved in tolerance from the original pass or from either re-ride. The driver shall be warned that the driving is not acceptable, and that he may be replaced.

BPMS failure

If during a competition event, a required BPMS fails, end course video (monitored in the Judges' tower) may be used until such time as BPMS is re-established. The Homologator shall note in the Homologation Dossier the event(s) when failure occurred.

Exception: BPMS Not Available – Use of End Course Video

Where use of BPMS is not feasible, the Chief Judge may alternatively, with the concurrence of the Chief Homologator, use End Course Video for monitoring boat path. A Judge or Driver shall be assigned to monitor all passes using end-course video and award re-rides. The end course official and the Chief Judge (or the Chief Judge's designee) must agree on any determination. With this situation, the homologation level will be Ranking List(L). The Homologator shall note in the Homologation Dossier the reason(s) that BPMS was not utilised.

Monitoring with End Course Video:

Buoy

Boat Deviation is observed when the pylon is at the boat guides.

End Course Video Requirements

When end course video is used, at a minimum, video shall be recorded for all passes 11.25m and shorter. See Rule 25 – Homologation Guidelines for video set up and required towboat visible markings.

For competitions where RTK-GPS is functioning as intended with WaterSkiConnect functioning, the Chief Judge with the concurrence of the Chief Homologator, may choose not to use End Course video as back up or reference. In instances of potential world records, it is recommended that a standalone end course camera be used as a backup.

Path Review – BPMS / End Course Video

All passes are subject to review for compliance to rules **(1.09)** **(8.01)** and this rule including boat path cumulative deviation. Any passes that do not conform may result in the associated score being modified or removed from the IWWF standings lists. Further consistent or repeated non-adherence to the basic principle that the boat shall follow, as closely as possible a straight path on the centreline of the course may be subject to disciplinary action.