

8.15: Boat Path

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 at 11.25 and shorter shall be monitored with applicable buoy and cumulative deviation tolerances applied.
- Titled Events (World or Confederation) - All passes at 14.25 and shorter shall be monitored with applicable buoy and cumulative deviation tolerances applied.

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.

Entry Gate

The Entry Gate Deviation will be observed, and significant deviation communicated to the boat driver.

Buoy

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

If the Buoy Deviation is **NEGATIVE** (path away from the skier) and is greater than **25cm**:

- ~~20cm for Class R~~
- ~~25cm for Class L~~

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

If the Buoy Deviation is **POSITIVE** (path towards the skier) and is greater than **25cm**:

- ~~20cm for Class R~~
- ~~25cm for Class L~~

The skier has the following options:

- Accept the score that was achieved within tolerance.
- Take a re-ride. The skier can improve. However, for a score of less than 6, if the deviation occurred at the last buoy the skier scored, the skier cannot improve over that score. The original score is not protected.
- For a completed pass, "Continue at Risk" as outlined below.

Cumulative Deviation

The Cumulative Deviation is the sum of the Buoy Deviations.

- If the Cumulative Deviation is **NEGATIVE** out of tolerance (away from the skier), an optional re-ride will be awarded. The skier can improve. The score is protected to the point the pass is not out of tolerance to the positive.
- If the Cumulative Deviation is **POSITIVE** out of tolerance (toward the skier), the skier has the following options:
 - Accept the score that was achieved within tolerance.
 - Take a re-ride. The skier may improve. However, for a score of less than 6, if the deviation occurred at the last buoy the skier scored, the skier cannot improve over that score. The original score is not protected.
 - For a completed pass, "Continue at Risk" as outlined below.

Cumulative Deviation is out of tolerance when the deviation exceeds the following based on score:

SCORE		Cum Dev
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

Multiple Buoys out of Tolerance

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

Continuing at Risk

If a skier decides to continue at risk to the next pass on a mandatory re-ride and does not complete the next 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 the original pass.

Mandatory Re-rides

There shall be no more than two mandatory re-rides for boat path deviation in a single pass. If during the second mandatory re-ride the boat deviation would require another mandatory re-ride, 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 (Ranking List L)

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 utilized.

Monitoring with End Course Video:

Entry Gate

The Entry Gate Deviation will be observed, and significant deviation communicated to the boat driver.

Buoy

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

- If the deviation is more than 25cm Away from the Skier, an optional re-ride may be awarded. The skier can improve. The score is protected to the point the pass is not out of tolerance to the positive.
- If the Deviation is more than 25cm Toward the Skier, the skier has the following options:
 - Accept the score that was achieved within tolerance.
 - Take a reride. The skier may improve unless the deviation occurred at the last buoy the skier turned, in which case, the skier cannot improve over the score they would have earned had that buoy deviation been in tolerance. In either case, the original score is not protected.
 - For a completed pass, "Continue at Risk" as outlined below.

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 tournaments 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 (8.15) 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 centerline of the course may be subject to disciplinary action.

ADD TO RULE 23.12(a) Slalom – For World Records, the maximum individual buoy deviation cannot exceed 20cm.