



World Para Powerlifting

Appendix 7: Scoring System Requirements

Version 1.1

1 Introduction

To receive a level of service in the area of results and technology congruent with the professionalism, integrity and intent of World Para Powerlifting (WPPO), there must be set guidelines in place for Local Organising Committees (LOCs) of Recognised Competitions to follow.

The WPPO Scoring System is formed of the following:

- On Venue Results (OVR);
 - Followed using Para Sports Results and Information Services (PARIS) or equivalent applicable to that Competition (PRIS, CRIS, PPRIS or other);
- Timing and Scoring System (T&S);
- Para Powerlifting Competition and Operations Management System (PowerCOMS);
- Lift Video Replay System (LiftVRS).

At all Games, WPPO Championships and WPPO Sanctioned Competitions, an electronic timing system must be used.

2 Para Sports Results and Information Services

The Para Sports Results and Information Services (PARIS) must be used by the LOC and its technology supplier to:

- understand the needs to provide information before, during and after a Competition;
- operate and execute the specific needs of the sport of Para Powerlifting;
- work to fill the needs of different functional areas and roles to provide a successful Competition.

The specific definition of procedures related to requirements will assist in the successful implementation of the technical solutions. This is mandatory for the LOC and its technology suppliers in order to develop and implement functional systems that will meet World Para Powerlifting's expectations and requirements.

It is important for the LOC and its technology supplier to realise that the PARIS (or the other document applicable) does not provide all specifications necessary to create the software applications needed to deliver the required services.

At other Games in which Recognised Competitions of World Para Powerlifting take place, their specific Results and Information Services must be used in consultation and approval of World Para Powerlifting:

- Paralympic Games: Paralympic Results and Information Services (PRIS);
- Para Pan American Games: Para Pan Games Results and Information Services (PpRIS);
- Commonwealth Games: Commonwealth Results and Information Services (CRIS);
- Others as required.

3 On-Venue Results System

3.1 The provision of information to spectators at the Competition venue is a critical part of the success of the Competition, keeping those who know the sport informed and those that are new to the sport enlightened and entertained. The On-Venue Results System (OVR) will show the Competition information and results on the scoreboards as per PARIS (or the other document applicable) such as:

- Athlete's name, country, weight, lift attempts, lift attempt decisions and biographical facts;
- Athletes' lift attempt order, lift attempt changes, applicable records and rankings.

3.2 Scoreboard(s): Scoreboard(s) must be set up and displayed in a practical and visible place on the FOP.

- The Scoreboard(s) must be high quality "video style" from minimum six (6) metres wide by four (4) metres high, placed on the backdrop, normally centred from two and a half (2.5) metres from the stage/floor, with the ability to show the same feed across multiple Scoreboards as one (1) image or split images/feeds between Scoreboards.
- The specific number of Scoreboards is per the Technical Agreement/Requirements for each specific Competition.
- Additional Scoreboards should be placed on the sides of the backdrop and stage.

3.3 Real-Time Display System (RTDS): The provision of information to Athletes, Team Officials and Technical Officials at the Competition venue, specifically in the Warm-up and Call Areas, is critical to the technical operations of the Competition. The RTDS will show the Competition information as per PARIS (or the other document applicable) such as:

- Athlete's name, country, weight, lot number, lift attempts and lift attempt decisions;
- Athletes' lift attempt order, lift attempt changes, applicable records and rankings.

This information is critical to the technical operations of the Technical Officials to manage the Athletes and their Team Officials as well as for the Athletes and their Team Officials to strategise their lift attempts.

- The specific number of RTDS displays is per the Technical Agreement/Requirements for each specific Competition.
- The RTDS display must be LED displays (or similar) from twenty (20) to seventy (70) inches.
- Positioned in the Warm-up/Call Areas and FOP, and placed as needed.

4 Timing and Scoring System

4.1 The Timing and Scoring System (T&S) is formed of the Attempt Boards. The Attempt Boards are displays that show important information for the technical operations of the Competition, Event and Rounds, connected to the Para Powerlifting Competition and Operations Management System (PowerCOMS) and OVR.

4.2 The number and position of Attempt Boards differ depending on the Competition Level.

- The Attempt Boards must be LED displays (or similar) from forty (40) to seventy (70) inches.
- Positioned:
 - Field of Play (FOP):
 - Entrance: On the backdrop, facing the Left and Right Referees.
 - Exit: On the backdrop, facing the Left and Right Referees.
 - Front Corner: Facing the Chief Referee.
 - Warm-up/Call Areas:
 - Entrance of FOP: Near entrance doorway to FOP.
 - Other: Placed as needed.

4.3 The Attempt Board must display:

- Athlete Information:
 - Name (Family and Given Name);
 - IPC/NPC Code (flag optionally);
 - Lot Number;
 - Headshot Photo;
 - Event Bodyweight Category;
 - Codes of Exception(s).

- Lift Information:
 - Lift Attempt (Round) Number;
 - Competition Timing Clock;
 - Rack Height;
 - Lift Attempt Weight;
 - Lift Attempt Weight Loading Chart (Displayed as Coloured Discs);
 - Record Indicator.

- Lift Attempt Result Information:
 - Referee Good/No Lift Decisions (White/Red Lights);
 - Referee No Lift Decision Sequences (Turquoise, Blue, Orange and Purple Lights).

- Lift Challenge Information:
 - Lift Challenge Indicator;
 - Lift Challenge Decision;
 - Lift Attempt Result Information (As Described Above).

5 Para Powerlifting Competition and Operations Management System

5.1 The Para Powerlifting Competition and Operations Management System (PowerCOMS) controls and manages the entire Competition, each Event and Rounds, respecting the necessary Technical Rules and Regulations and their procedures, and consists of:

- Referee and/or Jury Devices;
 - Three (3) or six (6) devices (depending on Referee or Jury Lift Challenge Format) for which each Referee and/or Jury Member will input their lift judgement decisions immediately after the lift.
 - Each device must have five (5) pressable buttons clearly labelled:
 - Good Lift (White);
 - No Lift – Body Sequence (Turquoise);
 - No Lift – Down Sequence (Blue);
 - No Lift – Stop Sequence (Orange);
 - No Lift – Press Sequence (Purple).
 - Must function with the respective Lift Challenge format.
 - Must have a vibrate function should the Referee and/or Jury not press any button(s) after five (5) seconds.
 - Must lock the Referee and/or Jury decision after it is provided.
 - Preferred wireless, integrated with LiftVRS and Attempt Board mini-displays (tablets from twenty [20] to thirty [30] centimetres).

- Referee and/or Jury Decision Receiver;
 - Receives the Referees and/or Jury Members' lift decisions from their devices.
 - Displays the final lift decision with:
 - Overall individual Referee and/or Jury decisions: Good (White) or No Lift (Red);
 - Specific individual Referee and/or Jury decisions if No Lift:
 - Body Sequence (Turquoise);
 - Down Sequence (Blue);
 - Stop Sequence (Orange);
 - Press Sequence (Purple).
 - Always displayed in the correct order:
 - Referee: Left, Chief, Right;
 - Jury: 1, 2, 3.

- Technical Announcer Terminal;
 - Centralises the Event and Round information for the operation/flow of the Rounds for the Technical Announcer.
 - Displays:
 - Athlete's name, NPC code, age group, lot number, bodyweight category, lift attempt weight and overall decision, and best and total lift rank;
 - Records;
 - Referee and Jury lift decisions;
 - Competition Timing Clock time;

- Lift Challenge request and outcome.
- Competition Timing Clock;
 - Configurable to various times, specifically thirty (30), twenty (20), three (3) and two (2) minutes, to set the countdown to competition and lift attempt times. In increments of one (1) second.
 - Includes lift attempt warning sounds: one (1) minute (single warning) and zero (double warning).
 - Controllable through a device with various buttons:
 - 3 mins;
 - 2 mins;
 - Start;
 - Stop;
 - Next.
- Lift Challenge Card Receiver;
 - Positioned as close as possible to the Marshall or Jury Member 1.
 - Displays Lift Challenge Countdown Clock.
 - Capable of reading (receiving) magnetic Lift Challenge Cards to initiate process.
- Lift Feedback Display;
 - Displays the Referees lift decisions from their devices.
 - Displays the final lift decision with:
 - Overall individual Referee: Good (White) or No Lift (Red);
 - Specific individual Referee and/or Jury decisions if No Lift:
 - Body Sequence (Turquoise);
 - Down Sequence (Blue);
 - Stop Sequence (Orange);
 - Press Sequence (Purple).
 - Always displayed in the correct order:
 - Referee: Left, Chief, Right;
 - Displays Lift Challenge Countdown Clock.
 - The specific number of displays is per the Technical Agreement/Requirements for each specific Competition.
 - The displays must be LED displays (or similar) from forty (40) to seventy (70) inches.
 - Positioned in the Warm-up/Call Areas and placed as needed.
- Electronic Marshall (eMarshall) Terminal and Athlete/Team Official Terminals;
 - Terminal for Marshall to digitally manage the Athletes' lift attempt and rack height changes.
 - Athlete/Team Official Terminals for their role to follow the Rounds and digitally manage their lift attempt and rack height changes.
 - Preferred wireless as tablet (suggested size ten [10] inches).

- The specific number of o Athlete/Team Official Terminals is per the Technical Agreement/Requirements for each specific Competition.

5.2 PowerCOMS must output to various displays and system (OVR – Scoreboards, T&S - Attempt Board, etc.) and communicate between itself.

6 Lift Video Replay System

6.1 The Lift Video Replay System (LiftVRS) consists of:

- Three (3) cameras;
 - Positioned as close as possible to the position of the Chief Referee, Left Referee and Right Referee’s viewpoints on a camera stand at least ninety (90) cm in height from the stage floor with minimal cabling.
 - The cameras’ feed must be connected to the Referee and/or Jury Terminals, Scoreboards and broadcast.

- Three (3) Referee and/or Jury Terminals (Tablets);
 - Positioned as close as possible to the Referees or Jury Members.
 - Displays Lift Challenge Time and outcome.
 - Displays cameras’ feed (lift clip from the respective angle), controllable from the Operator’s computer, functioning as per the Technical Rules and Regulations.
 - Preferred wireless as tablet (suggested size ten [10] inches).

- One (1) operator’s computer;
 - Positioned at the LiftVRS Operator’s positions which connects and controls the cameras, terminals, Scoreboard and broadcast.

6.2 The LiftVRS must serve multiple purposes, specifically video archiving for later use for the Lift Educational Video Database (LiftED) and technical, developmental and scientific analysis purposes.

- Received as files and/or through hard drive from LOC and/or their supplier after each Event.

6.3 The right camera (Right Side Referee) of the LiftVRS must be shown in the Warm-up and Call Areas through displays.

- The specific number of LiftVRS displays is per the Technical Agreement/Requirements for each specific Competition.
- The LiftVRS displays must be LED displays (or similar) from forty (40) to seventy (70) inches.
- The feed should replay the Athlete’s attempt until the next Athlete is called to the Field of Play for their lift attempt.
- Positioned in the Warm-up/Call Areas and placed as needed.

7 Version History

Version	Date	Comments
1.0	2022-03-07	Initial document creation.
1.1	2022-08-24	Update to reflect changes in the Technical Rules and Regulations.