



INTERNATIONAL  
**ICE HOCKEY**  
FEDERATION

# 2019 IIHF Video Goal Judge System Guidelines

**September 2018**

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# 1 TECHNICAL SPECIFICATION

The following are the requirements of the IIHF Video Goal Judge System that must be organized, prepared, tested and operational well in advance of the WM and WMI Competitions (IIHF Championship Regulation 4.2.7) and WM20, WM18 and WW Competitions (IIHF Championship Regulation 4.2.6) and Coaches' Challenge system of the WM and WMIA Competitions and WM20.

If arenas hosting above mentioned competitions have no video goal judge systems or permanently installed which do not fully comply to IIHF regulations, any such variations have to be reported to the IIHF in writing 6 month before the Championship as in this case the IIHF will provide the VGJ system on the expenses of the OC.

For championships which operate a video goal judge system, the physical goal judge booth behind both nets can be removed from the seating area along with the green and red lamps.

## 1.1 Video Goal Judge Booth

The video goal judge booth is to be set up in a restricted and secured area, on the upper levels of the arena, preferably at center ice position. It should be isolated and secure from the public and media.

The booth must have excellent sight lines to the complete ice surface including the bench areas to follow the play at all times. It should be large enough to provide sufficient work space including desks and chairs to accommodate 6 to 7 persons and all of the technical equipment listed in these specifications. It should be heated or air-conditioned to provide comfort with a supply of drinks and fruit. Unrestricted access with the appropriate accreditation or security device (keys, keycards) has to be safeguarded including access to any elevators / staircases, which provide the shortest connection to the ice level.

## 1.2 Equipment and Technical Set-Up

- Cameras
  - o All Host Broadcaster (HB) cameras must be available to the Video Goal Judge and recorded in the Video Goal Judge System.
  - o Two (2) above-net fixed position high resolution cameras over each goal. Each camera should be situated well above the ice, out of the field of play (arena ceiling or cat-walk), above each goal net to allow a full-screen view of the entire goal net and the complete goal crease. They should be installed slightly **in front** of each goal providing a clear picture of the goal line (with the crossbar positioned behind the goal line), the full crease area and 8 to 10 cm of ice surface inside the goal net. The positioning of the cameras should ensure the Video Goal Judge an unimpeded view of the goal line during play around the net area. The cameras must produce high definition resolution footage (at least 1080i, 50 frames per second).  
The cameras must be secured by an independent safety system preventing them from falling on the ice.
  - o Two (2) behind each net fixed position high resolution cameras. Each camera should be situated behind dasher boards directly behind the goal. They should be installed 20-40cm above the top of the dasher board providing a clear picture of the goal net and area in front of the goal net. The cameras must produce high definition resolution footage (at least 1080i, 50 frames per second).

- o Two (2) inside each net fixed position high resolution cameras. Each camera should be situated inside the goal net in a shockproof housing and have a clear view of the goal line. The cameras must produce high definition resolution footage (at least 1080i, 50 frames per second).
- o In Case Coach's Challenge is in place Four (4) – two per blue line – cameras positioned to have a clear view of puck crossing the blue line. Cameras should be positioned to minimize blind spots and minimize the possibility of players blocking the camera view of the blue line.
- Television Images

If the games are produced for TV broadcast the live broadcast picture (international signal) has to be provided in the Video Goal Judge Booth on one of the monitors and be constantly recorded.

Furthermore, additional host broadcaster videos have to be provided to view additional camera angles as seen by the various camera positions located in the arena. This video feed is controlled by the host broadcaster, providing the additional camera angles to the Video Goal Judge and integrated into the VGJ system. This feed should also be recorded constantly and always available. All videos should be in HD.

If requested, host broadcaster has to provide multiple HD-SDI connections with the live broadcast picture (international signal).
- Game time

The actual game time has to be taken from the arena official game clock either as a direct data connection to the timing controller. Game time must be clearly visible on the video monitors and must be synchronized with the actual game time shown on the Game Clock.
- Recording Unit and Action Replay Controller

The feed of each of the video goal judge cameras and Host Broadcaster (HB) cameras feed have to be constantly recorded on a recording unit equipped with a hard drive. Recorded videos have to be synchronized during playback and be available for playback in a single user interface, not split between multiple recording units. Recording unit must provide quality playback functions including tagging, fast forward and rewind, reverse, slow motion, 'freeze-frame' and frame-by-frame viewing using a jog/shuttle controller. All of these functions have to be available while recording ongoing play-action, to enable concurrent review of game situations while play continues, at any time during the course of the game. Upon request by the IIHF the system must be able to clip and share the scene used by the VGJ to make the decision.
- Monitors
  - o At least one HD (1920x1080 or higher) monitor connected to the recording unit with a minimum size of 30 inches situated in the Video Goal Judge booth. The monitors should provide on-screen display of the actual game as described above, or of relevant replays if a play is being reviewed
  - o One HD (1920x1080 or higher) TV with a minimum size of 42 inches situated in the Video Goal Judge booth showing live broadcast picture (international signal)
  - o One portable monitor with a minimum size of 12 inches situated on the off-ice officials' bench. The monitor should provide relevant replays for coaches' challenge procedure.

The monitor must be connected in such a way as to allow on-ice officials to hold it without entering the off-ice officials' bench.

- **Communication**

To enable efficient and secure communication to the timekeeping bench and the on ice officials, the video Goal Judge Booth must be connected to the Official Scorekeeper with a direct hard line (wired) two-way communication equipped with an additional visual alarm and parallel headsets for the IIHF Referee on the ice and the Video Goal Judge in the booth.

A second hard line (wired) with two-way communication connects with the video replay director of the host broadcaster in the TV production truck.

A hard-wired yellow strobe light should be positioned on the scorekeeper bench within sight of the field of play. The strobe should be operated by the Video Goal Judge and hard wired to the Video Goal Judge booth.

### **1.3 Staffing**

- **Video Technician**

One English speaking Video Technician on site operating the system during each game. This person must be certified by the IIHF, fully acquainted with the system, possess hockey acknowledge, and be able to operate the system flawlessly and quickly. This position should be provided by the supplier of the Video Goal Judge System and this person and their qualified backup are the responsibility of the Organizing Committee.

The Video Technician should be able to provide the electronic game and video goal judge footage to the assigned Video Goal Judge immediately after each game.

- **Video Goal Judge**

The Video Goal Judge as well as the Referee Supervisor will be provided by the IIHF and assigned on a game by game basis.

## **2 Operation – Coach's Challenge**

The procedure of coach's challenge is described in IIHF Sport Regulations. To the extent practical, the replays made available to the Game Officials on the ice will be the same replays that are being utilized by the IIHF VGJ Booth Operations.

A team may only request a Coach's Challenge to review the following scenarios:

1. "Off-side" Play Leading to a Goal (IIHF Rule 78, 79, 81)
2. Scoring Plays Involving Potential "Interference on a Goaltender"
3. Initiated Review by the IIHF Video Goal Judge Booth Operations

## **3 Operation – Video Goal Judge**

The use of Video Replay of disputed goals is approved by the IIHF and is included in the Rule Book. Game Supervisors should be familiar with the policies and procedures for the Video Goal Judge replay system. The following situations as defined by rule 99 of the 2018-2022 Rule Book are the only situations that will be subject to Video Goal Judge review, and at the time of writing they were:

1. Puck crossing the plane of the goal line;
2. Puck in the goal net prior to the goal frame being displaced;
3. Puck entering the goal net at the expiration of a period;
4. Puck directed into the goal net by any part of an attacking skater's body;
5. Puck deflected into the goal net off an on-ice official;
6. Puck struck with a high stick above the height of the crossbar by an attacking skater prior to entering the goal net;
7. Puck entering the goal net after an attacking skater has interfered with the goaltender.

**Procedure:**

1. When the Referee requests a video review of a disputed goal, the referee will contact the Video Goal Judge from the official scorekeepers' bench using a telephone system which has been installed for this purpose.
2. When the Video Goal Judge requests a review, the Video Goal Judge will contact the official scorekeepers bench using the telephone system during the first stoppage of play after the incident has occurred in order to inform the Referee that the play is under video review.
3. When a video review is requested by either the Referee or by the Video Goal Judge, the public address announcer will make the following announcement: *"The play is being reviewed."*
4. If the video review is inconclusive then the Video Goal Judge will report this to the Referee who will then make the final decision.
5. Following the review and the subsequent decision one of the following announcements is to be made: *"A goal has been scored at [time]"* or *"No goal has been scored."* If the decision is that no goal has been scored, then an explanation must be provided by the Announcer using the public address system
6. A team does not have the authority to request a video review of a play.
7. If the puck enters the net and play is stopped, the Referee or the Video Goal Judge are to ask for a review during this stoppage of play. If there is no review during this stoppage of play then the result is final and no review of the play will be permitted at a later time.
8. If the puck enters the net and play was to continue, then the review would take place during the first stoppage of play following the incident. If no review is performed during this first stoppage of play then no review of the play will be permitted at a later time.
9. When a Referee or a Video Goal Judge indicate that there is to be a video review, then all players must go to their respective team benches.
10. During a video review there cannot be any music played in the arena.
11. A video review of the play may be called even though the first stoppage of play signals the end of a period or the end of a game.
12. The final decision of the Video Review **MUST** be announced the official public announcer through the public announcing system or by the Referee on ice through a wireless announcing system with an explanation of the final decision.
13. Following the announcement of the decision in the arena, the video used by the Video Goal Judge to decide on the situation must be showed on the Jumbotron screen for the benefit of the audience in attendance in the arena.

