

EWS

European Athletics Officials Newsletter

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EDITORIAL

As we welcome a new year allow me a few moments to look ahead at what promises to be a packed year for European Athletics, with re-scheduled events from last year plus those already planned, and the Tokyo 2020 Olympic Games scheduled for later this summer.

All of this comes with a large caveat that the world is successful in overcoming the ongoing coronavirus pandemic and that the vaccine programmes being rolled out are efficient and successful. Either way, my feeling is that athletics in 2021 will be conducted under strict sanitary protocols and to that effect we at European Athletics are working hard to deliver guidelines that will allow our events to take place in safe conditions.

lust as we have not stopped in our planning and work to deliver European Athletics events this year, I am sure that the work that you as officials and volunteers have undertaken during the last year will hold you in good stead as we approach a return to events.

We all know that officials and volunteers are a vital part of our sport so I am taking this opportunity to thank you all for your continued engagement and dedication to our sport and I ask you to remain updated on the latest protocols so that you can play your part in delivering a successful year of European Athletics events starting with the European Athletics Indoor Championships in Torun, Poland. I wish you all a successful and, most of all, a safe 2021.

Dobromir Karamarinov, **European Athletics Interim President**

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RULE OF THE MONTH

Shot Put infractions: an open debate



Several shot put styles—glide, rotational, reverse, shuffle developed over the years. The glide technique came to prominence in the 1950s and was the technique of choice for many years. This technique involves a linear push out from the back to the front of the circle to the front while facing away most prevalent nowadays.

The quick development of the rotational technique, first in the US and then worldwide, meant new throwing action by Technical Officials starts all around the world.

passing over the rim at the back of the circle;

throwing the circle, and also touching it quite leg often. The lower part of the body - have been takes the attention of judges at the start of the action whereas previously, with the glide technique, it was often focused on the upper part of the body to check the correct position of the implement.

THE ROTATIONAL TECHNIQUE

First, it is important to realize that from the sector. The rotational style this technique has been divided into appeared in the 1970s and is the six phases in coaching literature according to foot contacts and key movements. For a right-handed thrower, these phases are defined as: (1) First double support — defined by bilateral foot contact at the back of methods of the evaluation of the the circle; (2) First single support at right foot off and characterised by a single foot contact at the back of the circle; (3) Flight — The start of the propulsive phase in starts with left foot off and defined as the rear part of the circle led to the absence of ground contact; (4) athletes and coaches, as you would Second single support - starts at expect, trying to utilise all the right foot down and characterised by available ground space with the feet a single foot contact in the middle of



(5) Second double support — starts with left foot down and Table 5. The velocity of the shot at the key phases for the athletes who utilised the rotational technique is defined by bilateral foot contact at the front of the circle close to the stopping board, and, (6) Flight release characterised by the absence of foot contact at the front of the circle until loss of contact with the shot.

The literature on this method has paid attention to technical features of the phases, not being always in agreement, focusing above all on the aspects related to velocity (and the release velocity of the shot), release height and angle, all considered fundamental for the best possible performance. Many observations carried out on elite and non-elite athletes have allowed us to collect a lot of data and verify the causality between the various phases and other interactions but probably do not allow us, as we will see later, to obtain a definitive answer to our question.

For a relatively complete list of works relevant to this topic, look at the appendix to Michael Schofield, John B. Cronin, Paul Macadam & Kim Hébert-Losier (2019): Rotational shot put: a phase analysis of current kinematic knowledge, Sports Biomechanics, DOI:10.1080/14763141.2019.1636130, which is considered to be a compendium of the leading articles produced up to that moment.

I would also like to mention, both for its wealth of data and for its important graphics: Dinsdale, A., Thomas, A., Bissas, A., Merlino, S. (2017). Biomechanical report for the IAAF World Championships London 2017 Shot Put Men's. Leeds Beckett University.

The tables on this page are taken from these works.

Table 3. The duration of	phases and shot velocities	reached at the end of	each phase in elite throwers.
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Phase	Duration (s)	Shot velocity (m/s)
First double support	0.28-0.70	2.24-2.93
First single support	0.40-0.58	1.67-2.51
Flight	0.04-0.14	0.80-1.46
Second single support	0.17-0.25	1.45-2.95
Second double support	0.10-0.20	7.02-13.32
Release	0.02-0.07	12.30-14.13

Velocity data are the magnitude of the velocity vector and are not directionally specific. Data sourced from: (Ariel et al., 2004; Byun et al., 2008; Coh & Jost, 2005; Čoh & Štuhec, 2005; Čoh et al., 2008; Gutierrez-Davila et al., 2009; Luthanen, 1998; Schaa, 2010; Stepanek, 2009).

Table 11. The duration of the key phases for the athletes that utilised the rotational techniques

Right leg push- off to left leg push-off (s)	Left leg push- off to right leg touchdown (s)	Right leg touchdown to brace leg touchdown (s)	Brace leg touchdown to release (s)
0.447	0.100	0.193	0.167
0.433	0.067	0.206	0.220
0.420	0.080	0.180	0.206
0.400	0.093	0.187	0.193
0.426	0.087	0.173	0.180
0.587	0.040	0.233	0.227
0.407	0.067	0.226	0.200
0.446	0.074	0.193	0.193
0.487	0.040	0.200	0.193
0.513	0.067	0.200	0.226
0.454	0.046	0.254	0.206
	off to left leg push-off (s) 0.447 0.433 0.420 0.400 0.426 0.587 0.407 0.446 0.487 0.513	off to left leg push-off (s) off to right leg touchdown (s) 0.447 0.100 0.433 0.067 0.420 0.080 0.400 0.993 0.426 0.087 0.587 0.040 0.407 0.067 0.446 0.074 0.513 0.067	Right leg push- off to left leg push-off (s) Left leg push- to tright oright leg touchdown (s) touchdown to brace leg touchdown (s) 0.447 0.100 0.193 0.433 0.067 0.206 0.420 0.080 0.180 0.400 0.093 0.187 0.426 0.087 0.173 0.587 0.040 0.233 0.407 0.067 0.226 0.446 0.074 0.193 0.487 0.040 0.200 0.513 0.067 0.200

Athlete	Right leg push- off (m/s)	Left leg push - off (m/s)	Right leg touchdown (m/s)	Brace leg touchdown (m/s)	Right leg take- off (m/s)	Brace leg take- off (m/s)	Release (m/s)
WALSH	2.38	1.36	1.61	2.91	11.39	12.99	14.15
KOVACS	1.71	2.25	2.43	1.61	9.99	11.07	13.84
ŽUNIC	2.10	2.06	1.01	1.77	10.85	12.40	13.68
STANEK	2.08	2.93	1.86	2.34	11.32	12.98	13.88
HARATYK	2.09	1.48	1.57	2.10	10.77	13.50	13.65
CROUSER	1.65	1.63	2.20	1.35	13.43	12.82	13.72
WHITING	2.15	1.99	1.47	2.10	13.42	12.49	13.49
BUKOWIECKI	2.52	1.79	0.93	1.11	8.70	11.59	14.02
GILL	1.34	1.24	1.23	2.76	9.79	11.29	13.72
HILL	1.84	1.58	2.05	0.51	10.16	10.58	13.46
GAG	1.83	1.71	1.01	1.93	10.35	12.15	13.24

THE CASE

The quick development of the rotational technique has meant that cases of probable fouls for stepping on the rim of the rear of the circle (which is more difficult to accomplish with the glide method) have



become the subject of debate among the competition officials due to the extreme difficulty of verification, comparable to the discus or hammer throw and occurs more frequently in the shot put than in the other 'rotational' throws.

With the release of the 2018 edition of its Rules, the IAAF (now World Athletics) decided to regulate the situation by providing an important clarification: "However, it will not be considered a failure if the touch (of the rim) is made without providing any propulsion and occurs during any first rotation at a point completely behind the white line which is drawn outside the circle running, theoretically, through the centre of the circle."

And in the so called 'green text' (the application notes to the Rules) it is specified that ... "The addition of the note to Rule 32.14.2 of the Technical Rules applies to rotational techniques used by athletes in shot put, discus throw or hammer throw. It should be interpreted that any 'incidental' touch of the top of the rim or the ground outside in respect of the back half of the circle during the first rotation should not, of itself, be regarded as a failure. However it is clear that any technique which thereby obtains an advantage through leverage or propulsion would constitute a failure."

According to the WA Rules it's clear how the focus should be during the first rotation, after the take-off of a leg from the ground and its rotation: the supporting leg remains on the ground and acts as a pivot. But how can we understand if that pivot provides illegal propulsion or leverage?



stopboard is assisted by a certain force towards the second question could enlarge the scenario but... direction of throw of the left foot-pivot on the ground, which remains the only additional propulsive possibility of the shot putter. The primary power is generated from the ground in the form of ground reaction forces as a result of the leg action. The link system works from the proximal body segments (legs) to the distal segment (hand).

CONSIDERATIONS



Three questions are now raised in our mind: can this ground reaction force be considered as a propulsion or if the pushing foot touches rear sector of the circle?

And if the answer is positive, then how much this pressure on the rim is measurable and does it affect the propulsion that comes exclusively from the ground of the circle? And if the force is measurable, when could this be considered an unfair advantage for the athlete compared to other competitors?

Let's start from the beginning. We highlighted how the first single support begins with right foot off and finishes when the left foot loses ground contact. This movement can be considered a linear translocation comparable to the one that occurs during free climbing when moving horizontally From the analysis of table 2 and 3 it can be understood on a vertical wall looking for a better grip.

To 'create' a movement we need a force that makes possible the take-off of the right foot and the creation of a phase of flight preparatory to the final phases. As in the case of the discus, the thrower creates linear momentum (the product of a system's mass multiplied by its velocity) To adhere to the summation of speed principle, it would by the shifting of the Centre of Gravity to the left. An make sense to increase velocity successively through each increase in the length of horizontal movement of CG would phase; however, this pattern is not observed at an elite be effective to gain the linear momentum.

The role of the pivot foot in this first phase, seems to be Several studies reported fluctuating patterns of shot reduced to a support and then pushes to guarantee the flight phase and its take-off from the ground. It can therefore be said that there is a propulsion and the thrower is theoretically susceptible to fouling if the foot touches the rim but it remains doubtful that this can be considered a technique, as considered necessary by the The deceleration of the shot during the flight phase is application notes in the WA Rules

If this concept were to be slavishly applied, any touch of the rim at this stage should be considered a foul.

The movement of the athlete towards the centre and the We therefore need more elements. The answer to the

In the coaching literature, no measurement of the force applied to the ground has been written about. The majority of the shot put literature has used manual digitization of cinematographic video methods for in-competition kinematic analyses.

But above all, there is no measurement of the distribution of force on the forefoot that allows us to say that this phase, however minimal, when the front part of the foot that touches the rim has an important part, over the force applied, and plays a decisive role in the preparatory push to the flight phase.

and therefore prohibited when Moreover, the contact time can be estimated in a minimum fraction of a second (a portion of what we can the upper part of the rim in the read in table 1 and 2) and therefore does not facilitate the leverage that the Rule wants to punish.

> The second answer does not therefore provide a decisive element. Although it has not given a positive result, we can move on to the third question to check if there are aspects that can support one decision or the other by using the concept of 'unfair advantage', which we often find in WA Rules.

> One of the available data points is the shot advancement speed in each of the phases into which the rotational technique has been divided.

> how the velocity of advancement, estimated between 1.5 m/s and 3 m/s, decreases (or grows insignificantly) in the flight phase of most of the athletes and then rises predominantly in the last two phases, thus theoretically without any decisive incidence in the first phase.

> level.

velocity in the phases leading up to double support, and ~86% of the final release velocity to be gained from the second double support onwards. A representative shot velocity profile can be observed in Figure 1 (a throw from the 2017 World Championships in Dindsale et al. cit.).

noteworthy and consistent with current literature. This deceleration pattern is a trait of elite throwers. Deceleration of the shot corresponds with the development of hip-shoulder separation that is likely to be conducive to increased shot velocity through proceeding phases.

ICIALS NEWS



In any case, it would seem to lack that unfair advantage suggested by an increase in speed through an incorrect style as there is an interval between the two relevant phases. The data collected so far does not show a consistent increase but seem to be specific to every athlete, and the speed remains very low when compared to that of the second part of throwing action. Thus, there is no specific evidence, one way or the other.

The current data has a selected number of variables through the motion or during specific phases. Therefore, an understanding of the movement between phases is difficult and understanding the interdependency between the various segments is challenging.

I believe future research should aim to report kinematic and kinetic data waveforms of all segments and variables (e.g., mechanical energy) so informed recommendations can be made.

CONCLUSIONS

In conclusion, we can say that, based on available scientific evidence, there are no data that allows us to say that an incidental touch of the rim during the first rotation guarantees a decisive advantage to athletes.

Likewise, there are no measurements that allow us to understand whether longer lasting pressures on the rim (0.3-0.6 seconds) can accomplish additional leverage and provide unfair propulsion to the athlete. In such cases the use of the video could give some support but without always being decisive.

Looking at the Rule book, eliminating only the reference to propulsion would make permissible more daring techniques of putting pressure on the rim, but this does

not correspond to the history and ethos of the shot put and potentially would lead to further deregulation.

Going back to the old formulation would lead many of the currently leading athletes to drastically change their throwing technique (maybe with a decrease of some distances in the short term) but it would certainly be of great help in evaluating the correctness of the throw.

The current wording appears perhaps the most balanced, taking into account both incidental touches as well as accentuated pressures. The method by which the impact of pressure on the rim can be judged, and its decisiveness, is still lacking, as well as establishing that it is a 'technique'. In the absence of scientific data, this remains entrusted to human eye and to the assessment of the judge, with possible different applications and evaluations, as often happens in these cases.

This is an additional motivation for not being upset as technical officials if the Jury (or Video Referee) overturn our decisions, after looking the action in slow motion, assuming it is available to use. And it is also a reason for officials to be open with athletes and admit they can only do their job according to what they see in real time.

By Luca Verrascina

Competition Rules – Follow-up

World Athletics announced a change in its footwear rules, effective from 4 December, and now allows prototype shoes to be worn in races. Such 'development shoes' can be worn before they are generally available to other athletes as long as World Athletics has approved their use.



However, these shoes will not be permitted at World Athletics Series events or the Olympics Games.

The amendment followed requests by major shoe manufacturers and the industry body that represents them, the World Federation of the Sports Goods Industry ('WFSGI'). Shoes can have a maximum of 12 months in the 'development period'.

The amended rules relating to footwear can be found at: www.worldathletics.org/about-iaaf/documents/book-ofrules



NEWS

BEST PRACTICE

The Role of the Chief Judge in Race Walking events

The role of the Chief Judge (CJ) is a appointment prestigious and consider myself extremely fortunate to have been Chief Judge at the European Championships, European Cup, World Championships and Olympics.

It is not just showing the red card to athletes and here I would like to share my experiences about what the role entails.

After each competition, I review what went well and what didn't, and what could be improved upon so that I am ready for the next one or I can share my experiences with other judges should they ask for my advice or assistance.

Likewise, prior to my first appointment as CJ I sought the opinion and call room staff, start team, lap scorers, uniform is not provided. Likewise, their guidance of other judges and technical timekeepers, photo finish personnel own paddles, armband, clipboard and officials so that on the day, I as the CI and the technical staff looking after pens/pencils. and the judging team were prepared the red card delivery system. and ready to our best.

Unlike the judges, the CJ does not will be working with I then write to accommodation, I would also arrange actually judge the walkers except for them and congratulate them on their transportation of judges between the the last 100 metres of the race (which I appointment, and ask when are they hotel and the race venue to ensure will expand on that later) and instead due to arrive and he is effectively the manager of the competition race walking officials on the day. information, I can then set up Under his control would be the judges meetings for the judges, site visits and and their secretaries, Penalty Zone Manager and support would also advise judges to bring The site visit gives us an opportunity to staff. He may also be required to deal certain items with them such as black meet with other technical officials and with the Referee, Technical Delegate, trousers and white polo shirt in case a review the circuit. At the venue, I host



Once I know the team of judges that I circuit depart With venue. Recorder, liaise with any technical partners. I

Depending on the location of the relation in to our the that all judges are on site sufficiently this early to meet their requirements.

> Before the first race, I would arrange a visit for all judges to the race venue. a meeting of the judging team and go through a list of things I expect of them.

> The first thing is to synchronise our watches and to ask that from this point on we only speak in English as that is the international language that we should all be using. Judges paraphernalia checked is and distributed if required at this time i.e. judges' record sheets, red cards, armbands, paddles, pens, pencils and clipboards etc. As mentioned earlier, I always bring my own with me and I would advise all judges to do the same.





Communication between the CJ, Chief understand that speed is of the Judge's Assistant (CJA) and Recorder is essence whilst being mindful of the vital so it is very important to check athletes on the circuit. the communication method to be used at this time and ensure it is working European Athletics has for some years properly. It is usually a two-way radio now employed ATOS to provide the system on a restricted channel.

Although I am usually working with issued a yellow paddle or red card to experienced championships, I still remind them of a sent automatically to the Recorder. number of important things. The impartiality of the judge is of The CJ will also receive real time by my team so that communications paramount importance so I remind updates of who has received red cards are clear and concise. My normal judges to set aside any prejudices or therefore this system speeds up both wording to use would be: "Recorder to favouritism and not to engage in the delivery of red cards and the CJ, please disqualify athlete number conversations with spectators about the race (either face-to -face or on man mobile phones). For the same reasons, I ask that they view the athletes before they issue a yellow paddle. By this, I mean that I do not expect yellow paddles to be issued on the first lap as we should be watching them first and then making a decision. Also, wherever possible, a yellow paddle should be shown to the athlete before writing a red card and — it is a small but important point in my experience — I also ask judges to write numbers in a certain fashion as certain digits can be mistaken, such as a 1 and 7 also 4 and 9 The wrong number could lead unfortunately to disgualification of the wrong athlete.

meet on race day and to leave the issues. I was CJ at the 2013 World the dreaded red paddle. hotel for the race venue. For the first race, I prefer to be on site approximately one hour before the approximately one hour before the Recorder due to a broken cable. ask to be notified who is being start of the race and we must consider Similarly, at the 2014 European disqualified, and whether or not it will the travel time to the competition Championships, the Recorder wasn't be me as CJ or if the CJA will do it as venue, mode of travel, where we are receiving the red card information. likely to be dropped off and whether or not we have to walk part of the way. In each case, I quickly deployed a In events such as the European Cup volunteer to cycle the circuit collecting. It may seem cruel but it can make for and World Cup where there are red cards and have them returned to interesting viewing. It is also not several events on one day I would the Recorder as we tried to ensure surprising then that the Penalty Zone check with the LOC that food and that no athlete has to be disqualified also gets lots of on-screen attention refreshments are available during the after they have crossed the line. day and whether or not we have to stay on site.

duties during the race, the timely that the DQ board is accurate and that, rule', World Athletics Rule 54.4.1, delivery of red cards to the Recorder is should it be required, athletes are formerly IAAF Rule 230.4(a), the Rule vital so a meeting with the judges' either directed into the Penalty Zone states the CJ has the power to secretaries and red card delivery team or are disqualified as soon as possible disqualify an athlete in the last 100 is also arranged. Red cards can be after they receive four red cards. Prior metres delivered by runners, cyclists and even to the event, I will have arranged with progression obviously fails to comply

red card delivery system. Judges enter the number of the athlete they have judges at major into a mobile handset and this data is



the disgualification of athletes.

Although the electronic systems are ensure that I have identified the used at international events I like to correct athlete in the race and take up Finally, on the site visit I set a time to have a back up in place in case of any an appropriate position to show them Championships when no red card information was being received by the In televised events the TV crew often

During the event, as CJ I would position I mentioned earlier about the CJ myself near the DQ board and work judging the in the last 100 metres of a In order for the CJ to carry out his closely with the Recorder to ensure race. Often referred to as the '100m skaters and I try to ensure that they the Recorder the language to be used with Rule 54.2 of the Technical Rules,



1234, Taylor, Great Britain." The CJ would then repeat this message back to ensure that it has been understood correctly: "CJ to Recorder, instruction received please disqualify athlete number 1234, Taylor, Great Britain."

and The assistants PΖ manager would also be receiving these messages and, where appropriate, will also confirm their understanding.

always double Т check before I actually disqualify anyone to

they want to capture the moment on camera.

during a televised race.

when their mode of



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regardless of the number of previous disqualified upon the receipt of three Time Penalties athlete.

athletes advantage in the home straight. athletes would finish the race, younger Knowing that they hadn't received athletes would not be disheartened enough red cards to get disqualified with disqualification and in team the potentially could take a liberties competitions, and almost run past their opponents penalised as a whole with the athlete without fear of disgualification.

Consequently, upon hearing the bell, I move to a position in the last 100 metres that is away from the pit lane and close to the finish, where the action really can heat up. Although as CJ I have the ability to disqualify an athlete under the '100m rule', where possible I try to employ the common practice of bringing three judges into the home straight. Judges are then instructed to issue a straight red for results as long as they finish the race. any transgressions on the last lap. The actions of these judges should then The PZ rule has now been introduced support the CJ if he has to exercise his into all age groups and is now used at 'special power'.

100 metres, it isn't practical for him to athlete receives a fourth red card then be disqualifying athletes who have they will be disqualified. received three of four red cards. As such, when I move to the last 100 The PZ itself is usually around 10 metres, I instruct one CJA to move to a metres position by the DQ board to carry out approximately 80 metres from the such tasks. I have never had to finish line. The PZ rule has already disgualify an athlete in the home proven to add excitement to race straight although during 2017 World walking events and although Championships I came close. The relatively new rule, having been CJ at athlete concerned received a third red the 2019 European Cup, I elected to card as they entered the home straight employ a Penalty Zone Manager (PZM) and consequently I disgualified them rather than oversee its operation before they crossed the finish line.

Whereas athletes would previously be of time.

red cards the CJ has received on that red cards they are now sent to the PZ Race distance up to and including:

for a time penalty dependant on the This rule was introduced to prevent length of the race. The idea behind the from taking a distinct introduction of the PZ was that more the team is not still eligible to be part of the team



European, world and Olympic level.

As the CJ is concentrating on the last When the PZ is in operation, if an

situated long and а myself.

Another change to the rules of race The PZM would be on the same walking was the introduction of the restricted radio channel as the CJ and Penalty Zone (PZ). This rule was Recorder and, on hearing the relevant initially brought in to assist with the instruction, would direct an athlete development of younger athletes. into the PZ for the appropriate length

- 5km 30 seconds
- 10km -1 minute
- 20km 2 minutes
- 30km 3 minutes
- 50km 5 minutes

With the PZ being managed by a separate team, the CI can concentrate on the disgualification of athletes with particular emphasis on the last 100 metres. When the PZM is notified that an athlete is to serve a time penalty then they will direct the athlete into the PZ. It is worth noting that the time penalty only begins once the athlete has entered the PZ. During the 2018 World Team Championships, an athlete was directed into the PZ but took his time crossing the threshold, his coach counted down the time penalty and shouted to his athlete to leave the PZ.

However, the coach had obviously started the count when his athlete was directed into the PZ and not when he actually entered. The CI had noticed all this and stopped the athlete leaving and ensured that they served the appropriate time penalty. A Recorder will note the time of entry into the PZ and a timekeeper will then count down until the athlete is allowed out. The athlete is given a 10-second warning so they are ready to leave as soon as the time penalty is served. I have experienced situations where an athlete refuses to enter the PZ. In such instances, we have advised them that they will be disqualified on a technicality (Rule 54.7.6) and subject to further disciplinary action. If however, officials have been unable to direct an athlete into the PZ for any reason then the appropriate time penalty will be added to their finishing time.





were allowed in the PZ but this has during the normal course of the race. received any. since been amended and if you look This is, perhaps, something to be back at the conditions experienced at discussed in more detail at a later Part of the CJ duties is to write a postthe 2019 European Cup and World date. Championships there was the potential of athletes dehydration.

anti-doping violation then it cannot be reviewed and refined before the next said that the water was tampered with. race.

the toilet whilst in the PZ and always looking for consistency and to threatened to go there and then. As a ensure that the correct protocol has have since discussed this matter with Simple consistency can be where all other judges and we feel that a toilet judges have issued yellow and / or red should not be in the PZ and instead cards against the same athlete or,

suffering The final results of the race should not European be declared until the CJ has notified federation. the referee that all disgualifications As I said to one senior World Athletics have been actioned. At the end of an The report will highlight what went official, I would rather see an athlete event, as CJI work with the Recorder to well and what perhaps didn't and disqualified than have them collapse get the judging statistics and hold a provide key learning points for the due to dehydration. However, only post-race review or debrief. If events next event. A key part of these reports water is provided in the PZ and this are over several days I hold a meeting is to appraise the performance of the must be supplied by the LOC in sealed at the end of the first day to see if officials who make up the judging bottles. Should an athlete be subject to there were any issues that need to be team.

In Doha last year, one athlete needed In reviewing the judging statistics I am and bad. consequence, a toilet was introduced been followed, such as a yellow paddle in to the area PZ for later races there. I has been issued before a red card.

Initially, no water or refreshments the athlete should be made to go alternatively, where an athlete has not

event report for the governing body, whether it is World Athletics. another Athletics or

As I alluded to at the start, we must all learn from our experiences, both good

By Steve Taylor Race Walking Judge Level 3



TRIVIA QUIZ

- 1. How many throwing events are there in athletics at the Olympic Games for each gender?
- 2. How many laps around a standard outdoor athletics track is a 10,000m race?
- 3. In what event did Dick Fosbury win a gold medal at the Mexico City 1968 Olympic Games?
- 4. Colin Jackson won what colour medal in the 110m hurdles at the Seoul 1988 Olympic Games?
- 5. Who ran under four minutes for the mile for the first time on 6 May in 1954.
- 6. What is the opening event in the women's heptathlon?
- 7. In what year was the triple jump for women first contested at a Summer Olympics?

- 8. Prior to Usain Bolt, who was the last man to win the Olympic 100m and 200m sprint double?
- 9. How many hurdles are there in a 400m hurdles race?
- 10. Who has the record for the most World Athletics Championships titles?
- 11. Who is the only sprinter in history to be crowned 100m world champion four times?
- 12. How many false starts are currently allowed in sprint events at major championships before offending the athlete is disgualified?
- 13. How many gold medals did Jesse Owens win at the Berlin 1936 Olympics Games?
- 14. Jonathan Edwards won an

Olympic gold medal and holds the world record in which event?

- 15. In the 4x400m, how many metres are run in lanes before the runners break to the inside lane?
- 16. Who currently holds the men's 100m Olympic title?
- 17. When did women first compete in athletics at the Olympic Games?
- 18. Where were the Olympic Games held in 2016?
- 19. Which male sprinter won the 200m title at the 1996 Olympic Games? Atlanta?
- 20. Where will the Olympic and Paralympic Games be held next year?





TECHNOLOGY IN FOCUS

Wave light technology has a shining future !

We spoke to Bram Som just before Christmas. Bram is What is the history of the wave lights? busy finishing off his to-do list, so he can relax over the holiday period and can start afresh in 2021 because 2020 has been a strange year from Bram, like for all of us, but also a busy year. Certainly in the second half, when lots of events made use of the wave light technology offered by WaveLight Technologies, the company that Bram founded together with Jos Hermens, the CEO of leading sport management agency Global Sports Communication.

But before we dive into the background of the wave light technology, let us first introduce Bram Som. He is the 2006 European 800m champion. Later in in his career, he became well-known at international meets for his pacing abilities in middle distance races. Bram is also race director of Next Generation Athletics, an



international meet in Nijmegen, the Netherlands, and coaches many athletes on various levels. He was, for example, the former coach of Kenya's Faith Kipyegon who won the 2016 Olympic Games 1500m gold.

A busy second half of 2020?

Yes! We were in Valencia, Monaco, Hengelo, Brussels and Oslo. Many records were broken:

- Impossible Games, Oslo, 11 June: 1000m men | 2:16.46 (National Record) Filip INGEBRIGTSEN (NOR); 25,000m men | 1:12:46.50 (European Record) Sondre Nordstad MOEN (NOR).
- Monaco Diamond League, 14 August: 1,500m men | 3.28.68 (European Record) Jakob INGEBRIGTSEN (NOR); 1,000m women | 2.29.15 (African Record) Faith KIPYEGON (KEN); 5,000m men | 12.35.36 (World Record) Joshua CHEPTEGEI (UGA).
- Brussels Diamond League, 4 September: 20,000m men 56:20.02 (World Record) Bashir ABDI (BEL); One Hour men | 21.330m (World Record) Mo FARAH (GBR); One Hour women | 18.930m (World Record) Sifan HASSAN (NED).
- NN World Record Day, Valencia, 7 October: 5000m woman | 14:06:62 (World Record) Letesenbet GIDEY (ETH); 10,000m men | 26:11:00 (World Record) Joshua CHEPTEGEI (UGA).
- FBK After Summer Competition, Hengelo, 10 October: 10,000m woman | 29:36:67 (European Record) Sifan HASSAN (NED)

The first wave light system was developed by the company Sport Technologies for an athletics club in Zeewolde, the Netherlands.

Its main use initially was for training purposes. The second system was installed in Nijmegen (the club of Bram).

The technology's name was inspired name by the 'Mexican wave', the well-known and popular motion like an ocean wave of spectators celebrating in a stadium.

In 2018, the system was tested with approval from World Athletics for the first time in an International meet at the FBK Games in Hengelo.

More tests followed at the home track of Bram in Nijmegen during the Next Generation Athletics meeting and in London during the Night of the 10000m PBs, which incorporated also the European Cup 10000m. Since 2020, the use of electronic lights or similar appliances during competition has been officially sanctioned.

How can the system be used? How is it installed?

It is very easy to install. It can be permanently installed at a track with cabling running through the curb or the drainage system along the track.



It also can be made to fit with underpasses for runways and for the steeplechase water jump diversion. There is also a so-called 'Universal System' available which can temporarily be installed alongside the track. This system consists of 400 multi-color two-sided LED lights and is weatherproof. Colours of the lights: green, white, blue and red.

The system is operated using a web-based application.

Figure: Hardware set-up WaveLight Technology. Source: www.wavelight-technologies.com

When used for training purposes, 10 different programmess can be run simultaneously. Athletes can start at every 100m mark and the mile starting line.



The system gives coaches a great way to manage several organiser the required race strategy and pace. The athletes with different levels at the same time by using lap WaveLight team then programme the lights. Of course, the times, doing race simulations and performing interval system supports athletes and the pacemakers. Meet training.

Coaches no longer have to watch their stopwatches all the time but can spend more time on observing the athlete such as looking at the running technique. Other creative training programmes are possible e.g. kids can chase the lights and experience the pace of Mo Farah. Tests, like the famous 12-minute "Cooper Test", can also be performed.

When used for competition, the system can be coupled with the starting gun.

However, this is seldomly used at this moment. More often the system is started manually. Depending on the wishes of organisation and athletes, different lights can be programmed. Athletes like to have a pacing light somewhat faster than record pace (e.g. eight metres ahead of the record) and the public is keen to know if an athlete, or athletes, is on record pace. Therefore, you could see potentially see two colours e.g. blue and green.

What is your role and why should we embrace this new Innovation?

"For events, I am the link between the WaveLight team and the organizer," commented Bram. "I discuss with the

organiser the required race strategy and pace. The WaveLight team then programme the lights. Of course, the system supports athletes and the pacemakers. Meet organisers invest quite a lot money in attracting the right athletes to set up a record race so this system can assist the attempt. However, this is still no guarantee that a record will be broken. There are many more variables which determine whether an athlete will break a record or not, of course."

More importantly for Bram, and he mentions this several times, is the storytelling! The LED lights tell a story to the public and to the television watchers. It makes clear what the pace is, how fast a race is and if a particular record can be broken. If not a world record, it can be an area record or a national record. During a race there could be several stories.

Bram mentions the Diamond League in Monaco. "In Monaco, some public were allowed, and they had a good eye on what was going on and how fast the athletes were running because of the wave light technology. And the public enthusiastically supported the athletes.

"The races in Valencia were remarkable and everything was done by the organisers to make the race accessible to watch and easy to follow."



Joshua Cheptegei (UGA) setting a 5000m world record at the Diamond League meeting in Monaco



Letesenbet Gidey (ETH) during her 5000m world record in Valencia

Any dreams?

"Yes of course! For instance, using the technology for indoor meetings! However, the challenge for indoor meets is the fixation of the cables along the track along the curb." Bram is also dreaming about extending the technology to other sports like swimming, cycling and skating and introduce this technology in public spaces to inspire recreational runners.

Think, for example, about installing a ribbon of lights along a 1km long cycle path which can be operated using a public app.

One thing is sure, we will see 'the lights' much more during 2021. The lights tell a story and are one of the most recent and visible innovations in Our Sport for Life!

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By Niels van der Aar





EVENT OF THE MONTH

DNA back in the spotlight



After its hugely successful international introduction at the 2019 European Games in Minsk, European Athletics is developing plans for further expanding its innovative Dy-

namic New Athletics project during the next 12 months.

However, Minsk 2019 saw changes to competition rules that are used in other European Athletics major events in an effort to bring an exciting and engaging format to life, for both the spectators watching in the stadium and also on TV.



The changes that were inaugurated in Minsk – which were especially important for the field events, the mixed 4x400m and The Hunt – are outlined below but it's important to remember the rationale behind DNA.

Mixed 4x400m relay



- Each team is to be composed of two men and two women. The running order is decided by the Team.
- Team composition to be announced by the time final declaration
- Running order can be changed for 2nd, 3rd and 4th leg during the race
 The waiting athlete has to take his/her position latest the previous
- The waiting athlete has to take his/her position latest the previous runner enters the home straight

Extensive market research by European Athletics revealed that the target group of a younger audience wanted:



- A team-based competition combining male and female athletes
- A focus on what were perceived to be the most exciting disciplines
- A short and compact setting, both in terms of venue and time
- An easy-to-understand format which was exciting and unpredictable right the way through to the end of the very last event
- A way of the fans connecting with the event via digital media
- A linear competition, which means just one event happening at a time



In addition, a crucial element that gets away from the format of many international meetings is the aspect of headto-head competition rather than just a focus on pure performance



The DNA contest in Minsk showed emphatically that the concept works, both with fans in the stadium and in front of the televisions.



Hosts Belarus and Ukraine started The Hunt level on points and battled all the way to the line in the final event before the latter prevailed.



Adding to the excitement, there was an equally enthralling battle for the bronze medal between Germany, who eventually finished third, and Czech Republic.



However, Minsk 2019 provided just one of many templates for DNA competitions. An important feature of the concept is its flexibility with individual competitions being able to be tailored to almost all circumstances, such as schools or club competitions, or whether a competition is to be held indoor or outdoors, or if there are time constraints.

Further study suggests that there could be DNA competitions in conjunction with major indoor championships, and the Spanish federation have already committed to having a national inter-club DNA competition in January to further develop the project.

Street athletics also offers many additional possibilities for DNA competitions, and inevitably there will be further rule adaptations.

Nevertheless, regardless of the formats that are delivered in the future, as a compliment to existing championships, Dynamic New Athletics is expected to become part of the European Athletics DNA as a complement to its current athletics portfolio.

Answers to the Trivia Quiz (see page 8)				
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 20.	Shelly Ann Fraser Pryce 0 4 Triple Jump 500m Bolt 1928			



NEWS

Developing the generic skills of officials

Decision-making under pressure

Recent surveys have shown that most of you have Define the added skills of anticipation and awareness identified decision-making under pressure as fundamental to your role as a sports official.

Therefore, we would like to share below tips for you to better understand pressure and how you can manage it in your role to be effective sport officials.

Recognise the importance of observation skills and how to improve them to enhance your decisionmaking.

As a sports official the most important skill you must develop is that of observation; if you can't process what you have seen, then how can you make a decision? The importance and quality of your decision-making will have a profound effect on the outcome of the event. Emphasis should be put on your focus and concentration as well as your observation skills, and decision-making activities which enable you to observe and recall events, including the detail, of who is involved, what happened and in what order.

Evaluate how you process information as an individual.

We all process information in different ways - we are as different on the inside as we are on the outside. The way we process information will be affected greatly by our

preferred learning style - visual, auditory or kinaesthetic — as well as our own values and beliefs. You shall ask yourself what your preferred learning style is and identify how you process information.

Appraise what you see, how you recognise it, and what you do about it.

Sport officials make many decisions throughout an event; most decisions are made in a spilt second and in quick succession. This not only puts them under pressure at times but this pressure is accentuated by the need for those decisions to be correct.

There is a logical order of the process:

SEE – You know when you have seen a situation.

THINK - Ask yourself, what have I seen?

RECOGNISE – Through the 'thinking' process you will be able to recognise what you have seen and what decision you will need to take.

ACT - Make the decision according to the above process.

and how to use them effectively to support correct decision-making.

Anticipation and awareness are essential for many sport officials in order to react at the speed they are expected to by the athletes, make a decision and for that decision to be correct. The skills of anticipation and awareness come with experience, but understanding the mechanics and what and when you need to recall information may also help:

- What might happen next?
- Where do you need to be next?
- What do you need to think about next?
- Pull on your previous experience and that of others.

The above will give you areas to focus on and be prepared for; they may not take place, but they are your 'Plan B' and by identifying the above as possible considerations you will always be one step ahead in your decision-making.

Explain what causes pressure, where it comes from and coping strategies to deal with it.

What causes pressure may be different from one situation to the other, but there will be commonality when it comes to the coping strategies, some of the areas covered may include the following:



- Control unwanted thoughts.
- Manage emotions.
- Maintain composure.
- Keep objectivity.
- Disrupt unwanted behaviour.
- Refocus to task.
- Improve consistency.
- Positive mental attitudes.
- Affirmations.
- Trigger words or actions.
- Constant talking.

Experience and assess your decision-making under pressure.

How do you learn to officiate under pressure? The answer is, you don't! Nobody performs well 'under pressure'. The reason why top officials shine when the stakes are highest is not because they can do it under pressure but because they eliminate the pressure and officiate in an 'ideal mental state'. Thus, we hope the above will help you achieve the idea mental state for officiating.



NEWS

VENUE OF THE MONTH Toruń Arena

From the 4-7 March 2021, Torun in the north of Poland will host the 36th edition of the European Indoor Championships. lt is a hugelv anticipated event after a year without almost competitions, due to the pandemic that hit Europe and the rest of the world. The event will take place in the Torun Arena, a full-size, multifunctional sports and entertainment hall.

The official opening of the facility took place on 10 August, 2014. The Arena permanent seats for has 5192 spectators. Apart from the main arena, there are a lot of facilities in the same building that will serve as the additional rooms/offices needed for the Championship.

Apart from the Arena building, 500 metres away, there is an outdoor athletics facility, the Municipal Stadium Grzegorz Dunecki, that can also be used as a training facility and also an indoor tennis facility next to it that will be refurbished to allow training of the athletes.

We, the Technical Delegates, Edmund March and Gemma, visited the facilities for Championships. At the moment of that the first time in February 2020, on the visit, back in November, the plan was occasion of the Copernicus Cup, a to have spectators but this decision meeting Athletics Indoor Tour. It was a perfect the opportunity to see the Arena with a real athletics competition going on, Briefly, here are some of the decisions even though it was a one-day meeting. Before and after the meeting, we also visited the stadium and training facility • Reduce the number of non-essential and decided on the different technical areas needed for the Championships: call room, teams' areas, combined event restroom, etc. We also talked about the various flows, not just athletes but also material, officials, volunteers and media, but then, barely a month after our visit on 11 March 2020, the World Health Organization declared COVID-19 to be a pandemic.



Due to this fact, we organised a second site visit during November 2020, where we had to review all the decisions taken in February, and see everything with 'COVID-19 glasses': physical distancing, severe control of the number of people inside each room, use of masks etc. With all these in mind, we went section-by-section to check that our decisions would comply with the regulations, at that stage knowing the uncertainty of the conditions that we could have in 2021 during the included in the World has had to be redefined according to Poland. situation in

taken:

- people.
- Include a TIC pass for team leaders to strictly control the number of people at the TIC.
- Add a controlled access for athletes and team members to access the warm-up area. This would be located in a big room inside the arena, probably using bar/QR codes

to allow access only to the athletes that have to compete in the specific session of the day.

- Think about Combined Event Restroom issues: it considered to be too small according to the preliminary entries. It is still to be decided by the LOC where to locate this room within the available space.
- Call room layout: there will be a Pre-Call Room, enlarged from the original plans, where procedures such as bag, clothing and bib checking will be done since the Pre-Call Room is a bigger space than the original Call Room.
- Due to the enlargement of the Pre-Call, Room, the shot put warm-up sector will have to be smaller.
- in order to decrease the number of officials onsite, especially umpires, Video Referees will be two appointed, one for track and one for field. There was a need to find a bigger space for the two Video Referees, so we decided to use two adjacent rooms (one of them originally planned for the Jury of Appeal) and find another room for the Jury.



EWS

'bubbles' (groups of people having (60m, 60m hurdles). contact with each other) and avoid different bubbles having to share spaces or cross other bubbles' As per European Athletics infield VIP and media the respectively. No alternative was found at the moment, so coaches' areas will remain where they were originally planned.

Additionally, the team leaders' site visit for the beginning planned of November 2020 was successfully done online. It avoided the risk of Member Federations officials travelling during the peak of the pandemic.

Restrictions the for e.g. timetable because of the lay-out

The making of the timetable followed more or less the usual specifications: to find a good balance between track and field, morning and afternoon session, qualification and final, a good use of the entire Arena and, of course, the wish list of the Polish LOC not to have all their local heroes in only one First of all, thinking about officials, as As a result, we will place the SIS or two sessions. Even if we don't have we have mentioned in the section the outside for the oval track races. EDM to think about the issue of ticket sales, COVID measures taken and we will will be used for long jump, triple jump the host broadcaster is always happy reduce the number of umpires to a and shot put. when they can show one or two medal minimum, probably keeping one of hopes each afternoon session. To them to check the breakline, maybe avoid too dense a timetable, and trying some of them in the straight track for though this can be evaluated at a later to follow the wishes of the LOC the hurdles races. regarding starting and finishing times, we added the afternoon session of a 'Day Zero, so the Championships now actually lasts three-and-a-half days.

We didn't face any serious problems keep the essential number infield, with the layout when finalising the following the old phrase: as many as timetable, with one exception: both the shot put and high jump will take place in the area close to the home straight, it's quite a tight space so we had to avoid collisions between the SP

order to maintain the so-called these two events and the short sprints one ITO both as start and as track

Clean infield

spaces. There were special concerns management guidelines, the main goal Information System (SIS). It is difficult regarding shot put and high jump is to keep the infield as clean as to think about a good location in the coaches' areas, which intersect with possible, but making sure that all Torun Arena, especially the SIS for the tribunes required personnel can perform their 60m races since it is a system that tasks efficiently.

facilities, where the space is limited.

A full review was undertaken, in and HJ finals and - generally - between the ITO so we decided to work with referee.

> Another thought in order to keep a clean infield was about the placement the EDM station and of Start needs to be near the starter and Start Referee to check any incidence quickly This is especially relevant for indoor that can occur during the procedure of a start.



Regarding other officials, we have received a proposal from the Polish federation with the number of officials per event, which will be reviewed to necessary, as few as possible.

We are aiming to not only reduce the numbers of umpires, we also checked the necessary number and positions of

No place on the stands seems suitable for any of the EDM stations so far, stage in the not desirable scenario of no-spectators allowed in the Arena.



Gemma Castano & **Edmund Gödde**



Appointed Technical Delegates





COACH'S VIEW ON OFFICIATING

Alain Blondel (FRA)

Most memorable interaction with an official:

championship, "At а sitting in the coaching

athlete was looking at some advice over 45 metres for the first time in previous level. from his coach and took the tablet many years, had his discus land on ' showing his jump in his hand to the 45-metre line. The judge pulled **Any general observations?** have a better view. The coach on didn't realise the mistake. The unfortunately a plastic one and we with human beings that have their referee waited until the athlete was had weather of 37°C, so that personal goals but are also adults, back to his position before coming instead of reading 45.01m, which and so are able to understand your to the coach and making him would have been right because the decisions as long they respect the aware, in a friendly manner, of his tape was tightened enough, rules and the philosophy behind mistake, asking him to be more stretched it so much that it read them."

NEWS IN BRIEF

Events Calendar 2021

The date of the European Athletics European Photo-finish Judges Team Championships super League to be staged in Silesia/POL has been moved to 29-30 May 2021.

All the other leagues remain on 19-20 June 2021.

Officials appointments

Further to the staging of the European Athletics Starters and Photo-finish Judges' evaluations respectively on 7 and 14 November 2020, the 2021-2024 European panels will be composed as follows:

European Starters

ROIG	Jordi	ESP
LEGRAND	Kevin	FRA
PURSER	Mark	GBR
WERRETT	Margaret	GBR
ROSCH	Sara	GER
PAGLIANO	Marco	ITA
PALKA	Robert	POL
SWIERC	Sebastian	POL

sure that all his other colleagues seconds and the athlete was registered the advice."

Least with an official:

measuring the

cautious the next time, and being 44.99m. This action took almost 20 looking this full at of incomprehension. After that, my **memorable** interaction athlete was so disappointed that he didn't throw more than 40 "At a regional competition, an metres for more than a year and zone with some colleagues, one athlete looking to throw the discus needed two years to return to his

tape, "Always think that you are dealing

NAVRATIL	Jan	CZE
ESCUDERO	Juan Ignacio	ESP
MARTINEZ	lker	ESP
JORDAN	Alison	GBR
DELGADO	Mark	GBR
HORVATH	Krisztina	HUN
O'HART	Ronan	IRL
SZCZECH	Kinga	POL

2021 Events appointments were circulated in December 2020, with a few replacements still to be finalised.

All the initially planned Technical Delegates' appointments for indoor meetings have been cancelled, due to the pandemic situation and travel restrictions. Host Member Federations were asked to appoint a national Technical Delegate instead.

Online Education Programme

The next online session dedicated to Video Referee's tasks and duties was staged on Wednesday 27 January 2021.

The date of the VDM Course and Evaluation is still to be finalised and will communicated he to the candidates at the earliest convenience.

Editorial Group

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Please do not hesitate to send us any questions or topics you would like to be discussed in the next issue. Contact:

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