

IAAF Level II Race Walking Judges Course

Race Walking Technique 1

Race Walking

Race Walking is the agonistic expression of the brisk, or better, fast walking:

- From a biomechanics view, it's a complex movement
- It's fixed by the strictly observance of rules
- A correct race walking technique permits to improve the performance



Technical Model of Race Walking

WHY IS NECESSARY A CORRECT RACE WALKING TECHNIQUE ?

Race Walking is a technical discipline:

- Learning of a correct race walking technique is a fundamental prerequisite to develop and to get top-level performance
- A correct race walking technique permits to integrate physiological aspects with energy cost (economy race walking)

Technique Violations



- **Loss of contact**

“Race Walking is a progression of steps so taken that the walker makes contact with the ground, so that no visible (to the human eye) loss of contact occurs”

- IAAF Handbook [Rule 230]



- **Bent knee**

“The advancing leg shall be straightened (i.e. not bent at the knee) from the moment of first contact with the ground until the vertical upright position”

- IAAF Handbook [Rule 230]

Inefficient Technique

Inefficient technique depends on:

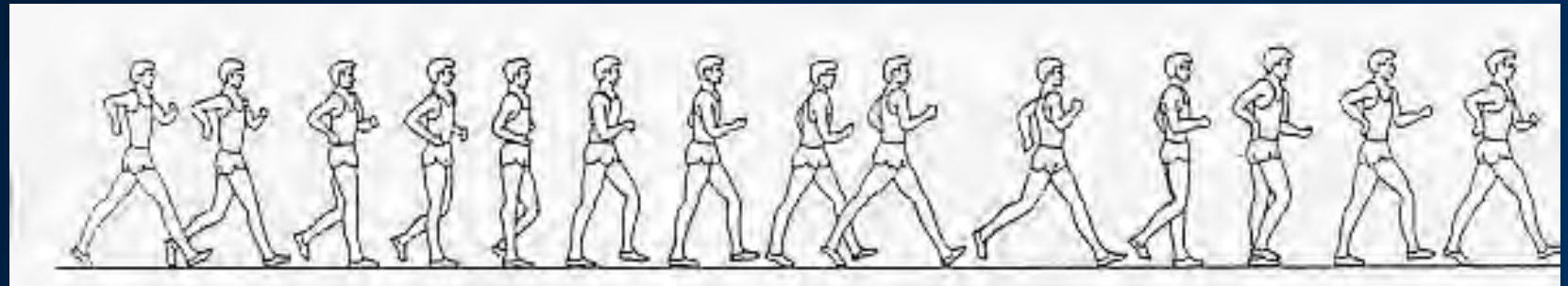
- Poor neuromuscular coordination
- Dominance of muscular districts causes inefficacy
- Inadequate flexibility



reflect unfavourable biomechanics

Race Walking

Sequence



Double
Support

Single
Support

Double
Support

Single
Support

Sequence with knee movement



1



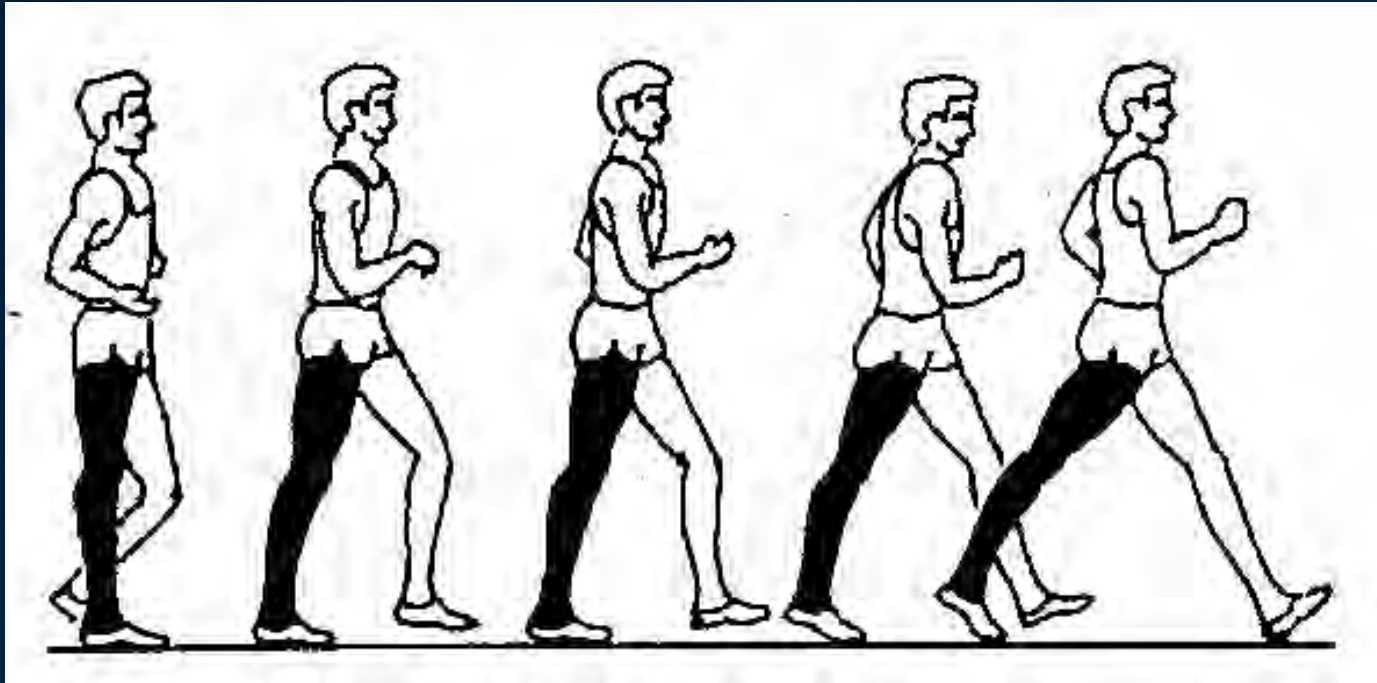
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3

Single Support Phase

Rear Support



Rear support and push off



1

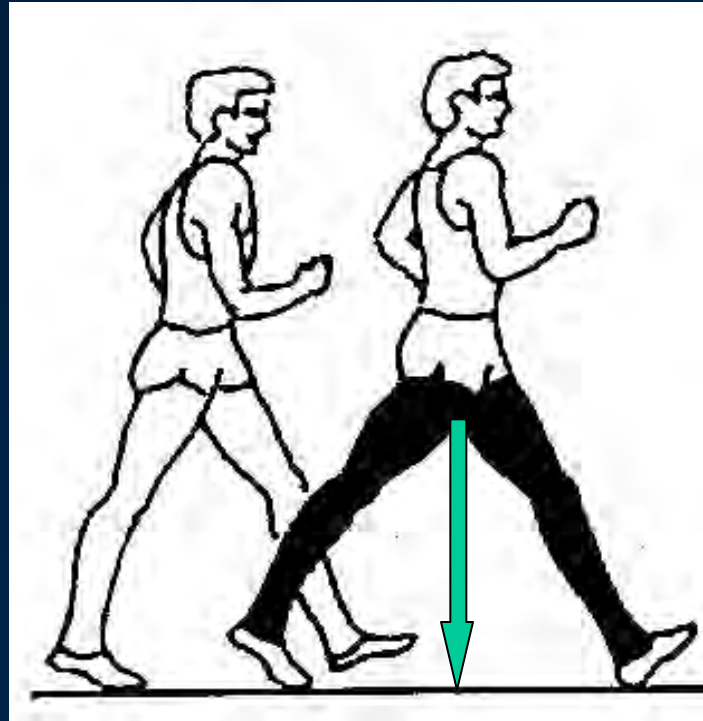


2

Rear Support Phase

Purpose and function	Major characteristics and focus of observation
<ul style="list-style-type: none">• Production of major acceleration• Production of driving force for forward locomotion	<ul style="list-style-type: none">• Intensive and progressive rolling movement over the outside edge of the support foot• Intensive push-off action of support foot with forceful plantar flexion• Support leg must remain extended from the vertical to the push-off of the ball of the foot• A complete push-off transmits more velocity and stride length• Leg action supported by an harmonious action of arms, hips and trunk

Double Support Phase



Where  is greater than 

Double support phase



Double Support Phase

Purpose and function	Major characteristics and focus of observation
<ul style="list-style-type: none">• To link finishing push-off phase with ground contact of lead foot minimizing loss of forward velocity: part of the step becoming from the push-off must be increased• To meet the requirement of the rules for unbroken contact with the ground	<ul style="list-style-type: none">• Double leg ground contact• Shoulder and hip axis are torqued relative to each other. Mind that it mustn't be a crossover: this torsion should not be exaggerated.• Intensive (but not exaggerated) arm action

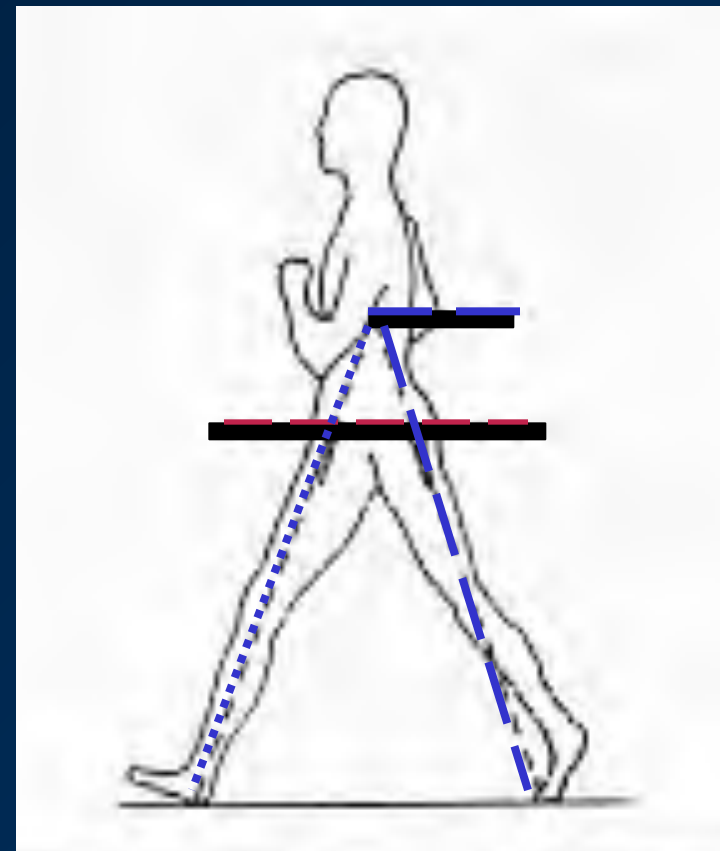
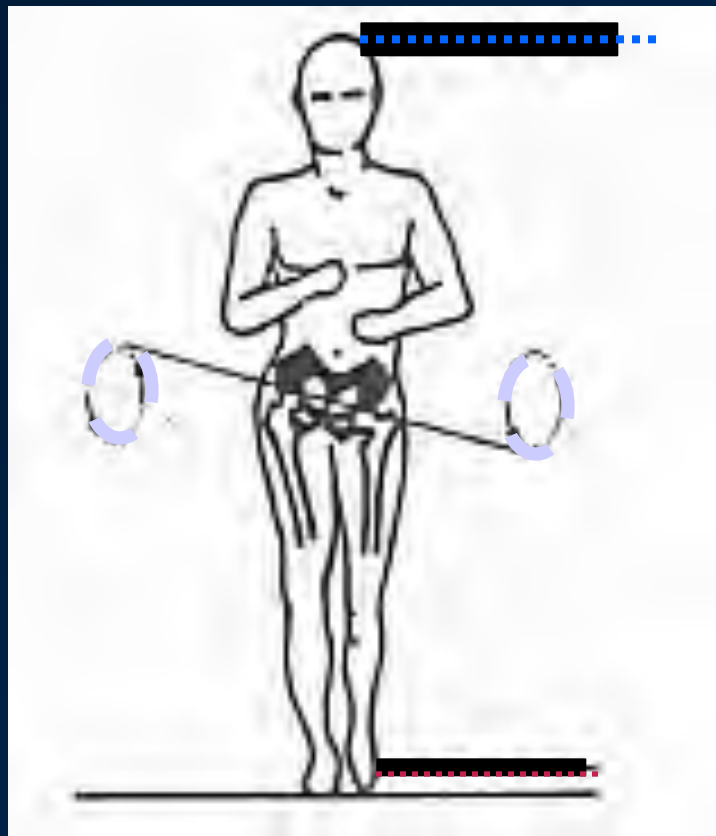
Front support phase



Front Support Phase

Purpose and function	Major characteristics and focus of observation
<ul style="list-style-type: none">• To absorb body weight at foot touchdown with minimal braking action on the horizontal velocity	<ul style="list-style-type: none">• Gentle but good visible heel touchdown with leg completely extended• Foot rolling forward over outside edge. Avoid bracing action whilst doing so: oblique position of the lead arm• The FSP begin with the heel strike of the front leg and it ends when the leg is vertical below the centre of gravity.• Brief double contact as lead foot touches ground just before back foot pushed off.

Hip Movement in Race Walking

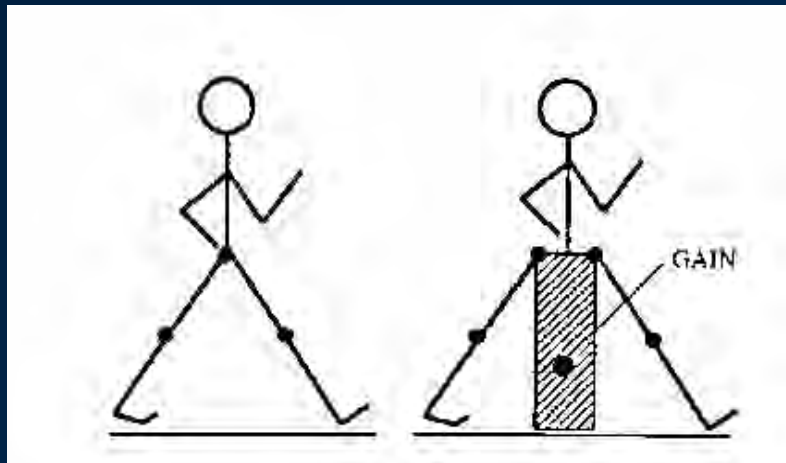
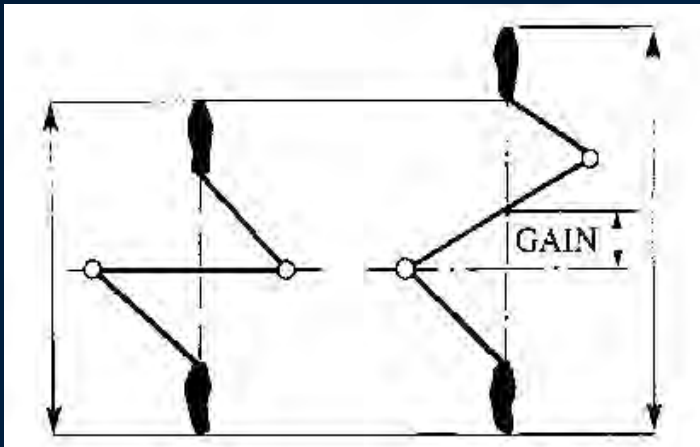


Jonath et.al. 1995

Race Walking Hip Action

During hip motion

The centre of gravity position during RW should remain at the same level. Technics allow to reduce mostly vertical oscillations



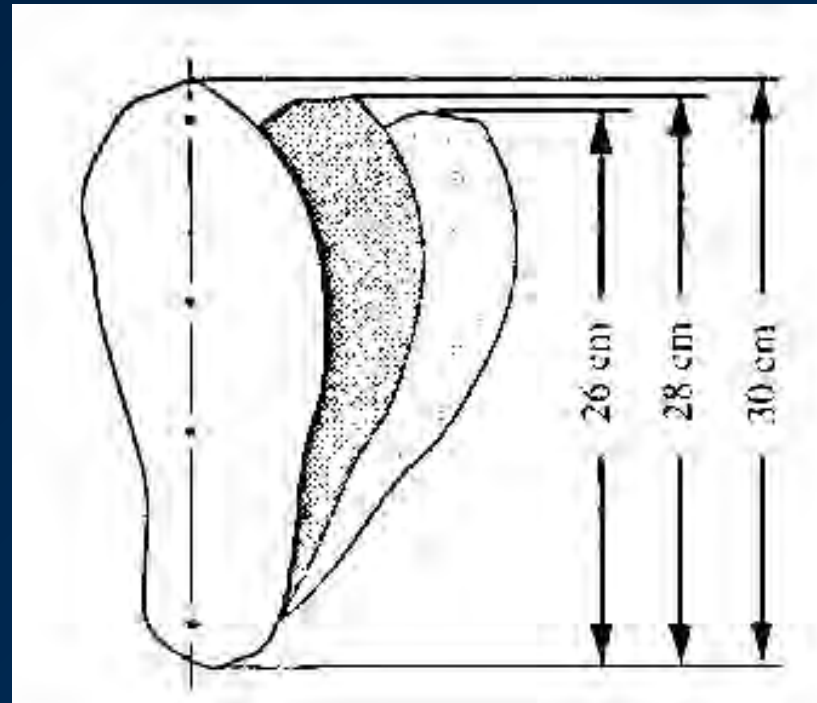
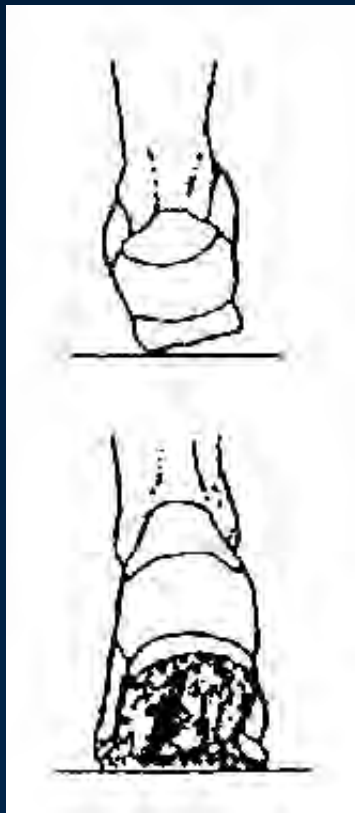
Race Walking

Foot Placement



Race Walking

Foot Placement

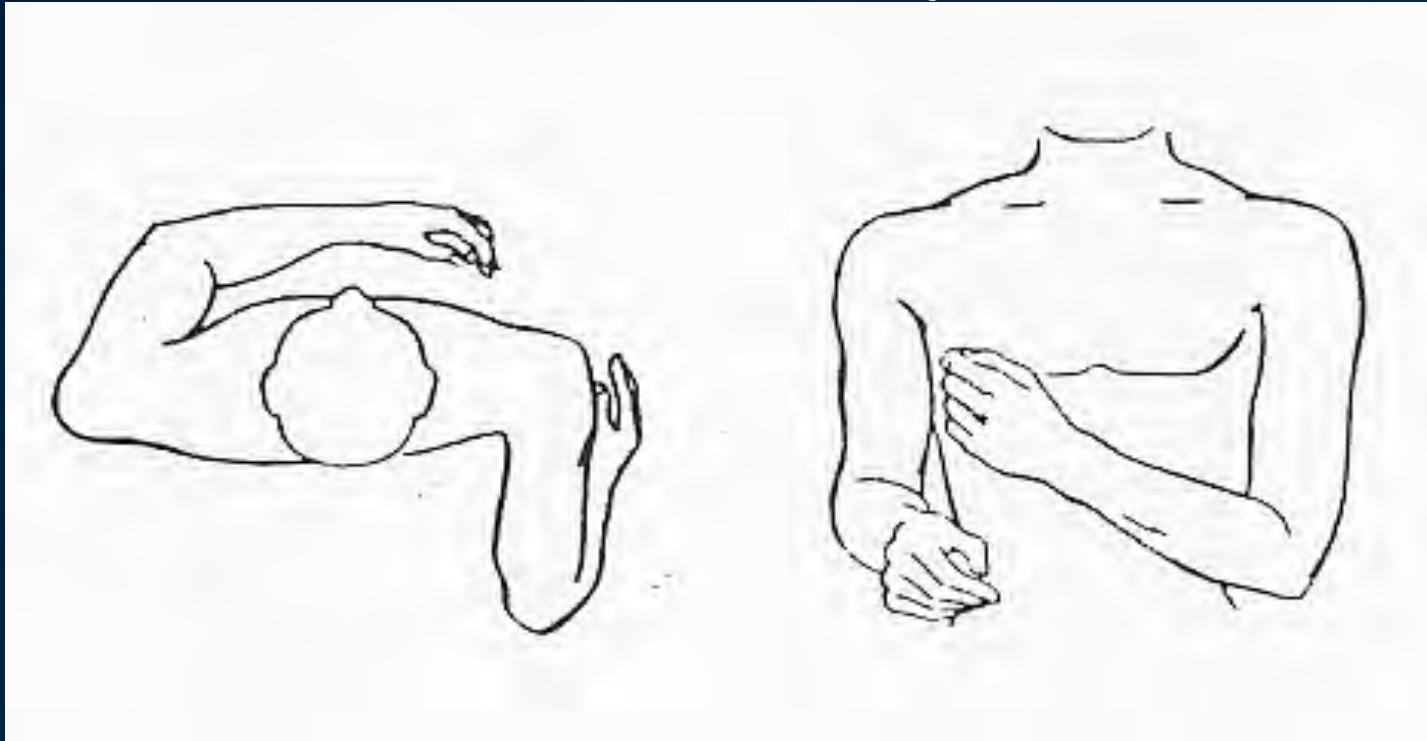


Race Walking

Arm Movement

Support movement to maintain and help the locomotion. Pay attention that hip side don't be hardened in the back, neither in the front.

Harmonic oscillations are secondary movements.

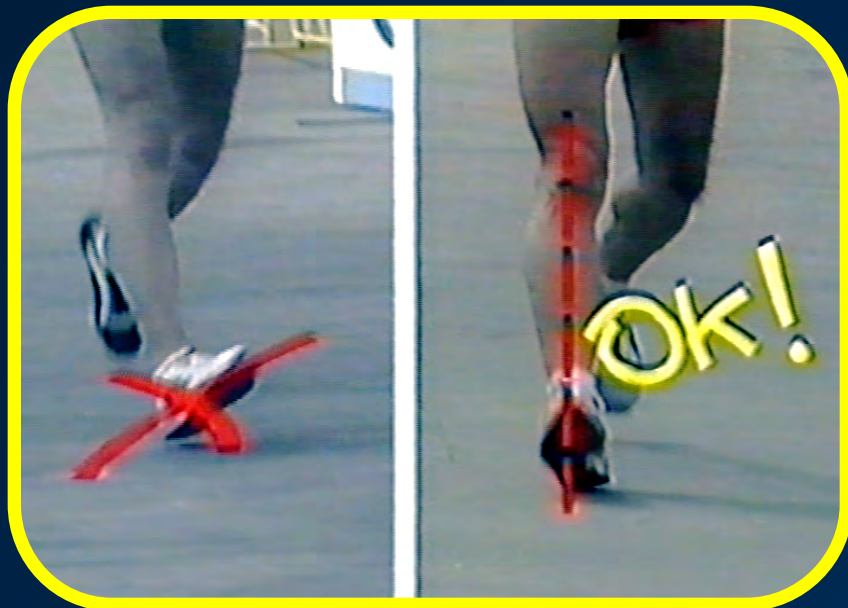


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Race Walking Technique 2

Correctness and errors

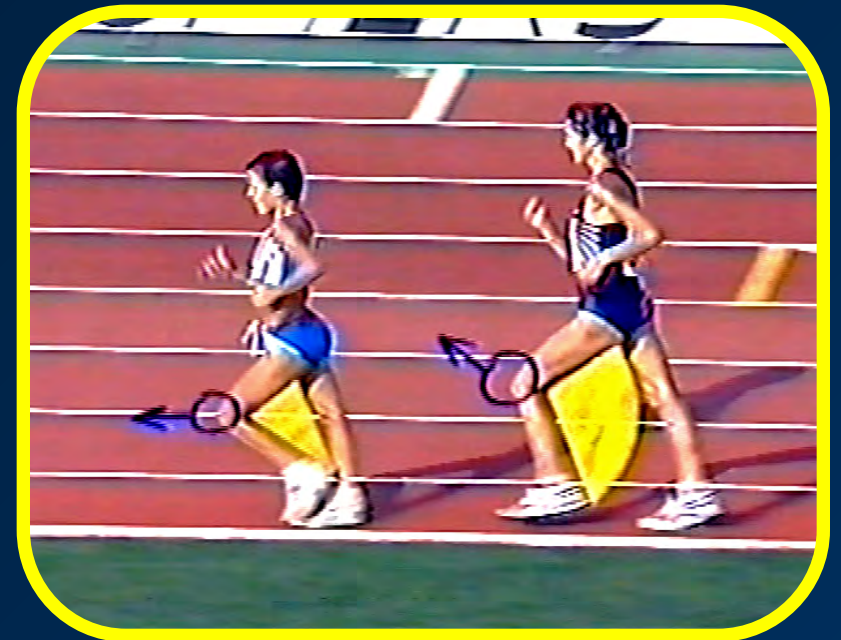
Front support



Contact with

Correctness and errors

Front leg



Push-off back

Inefficient Technique - 1

- Too much knee lift - with result of a reduction of the capacity to have a grazing advancement (preservation of horizontal speed)
- Backward lean - leads to shorter stride length
- Interruption of the line “trunk-pelvis-pushing leg”: loss of speed and lower check-up of relevant technical action - prevent an harmonious action of hips and the preservation of horizontal (speed) advancement

Inefficient Technique - 2

- Lateral hip sway – causes reduction in stride length
- High and tensed shoulders – leads to a bouncing step and loss of ground contact
- Very short steps, caused by early lift of rear foot – The effect is an emphasized no contact phase

Practical suggestions for Coaches

- It's impossible the diffusion and the development of Race Walking without Coaches & Judges
- The race walker can't train himself without the technical guide of a coach
- Coach have to give simple technical indication
- Use intellegible language
- One correction (adjustement) at a time
- Use the audio-visual media as a supplementary way to correct and support the technical action

Take Home Messages (1)

- Continuous contact with the ground
- Double contact clearly visible (to the human eye)
- Support leg should be straightened from the moment of the first contact with the ground until the vertical upright position
- Emphasize the push off phase
- Grazing step
- Right stride (correlated to the anthropometry of the athlete, his/her speed, his/her technical “maturity”)
- Harmonious movements of arms, shoulder and trunk

Take Home Messages (2)

- Rotations of the hips
- Upright trunk
- Relaxed head position
- The advancing leg makes contact with the ground not too far from the perpendicular projection of the centre of gravity
- Progressive foot approaching to the ground
- Complete push-off

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Application of Competition Rules Race Walking –Rule 230

Objective

To have a clear understanding and widespread knowledge of Race Walking as relevant to IAAF Competition Rules

Consider the two principles

- Continual contact with the ground (ie: loss of contact)
- To straighten the knee at first contact with the ground (ie: bend knee)

Nomination of the Chief Judge

No. of Judges needed in a competition

Chief Judge Deputy

Recorder

Structure of the rule 230b
3rd - Protest

When an athlete can make an appeal

Notification of the appeal to the Chief Judge



Structure of the rule 230b 4th – Warning & Disqualification

- When an athlete has received **red cards**
- Information to the athlete
 (“Warning Posting Board”)
- When an athlete is disqualified
- Process of disqualification

Structure of the rule 230b 5th – Start

Organisational process of the start

- Gun signal
- Standard orders (Rule 162.3)
- Pre call in the case of large number of athletes

Structure of the rule 230 6th – Safety & Medical

Obligations of the organiser with regard to the safety of the athletes and officials

- Roads closed for traffic
- Start and finish within daylight
- Presence of medical staff
- Operational effectiveness of safety judge

Structure of the rule 230b
7th – Drinking/Sponging & Refreshment

Organisational process of the

- Drinking / Sponging
- Refreshments
- Handling of the personal refreshments

Structure of the rule 230b 8th – Course and Measurement

Minimum and maximum measurements of the
road course



Reminder of the Rule 240.3 and its criteria for
measurements

Structure of the rule 230

9th – Race conduct

- Formalities when leaving the course temporarily
- Transponder: see Rule 240.10

Other technical Rules

- International Walking Judges (Rule 116)
- Referees (Rule 125)
- Umpires (Running & Race Walking events – Rule 127)
- Lap Scorers (Rule 131)
- Clothing & Numbers (Rule 143)
- World records (Rule 260)

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Interpretation of the rule – Part 1

Objective

- To be able to react in unusual situations appropriately
- To be able to interpret the Competition Rules as they are meant to be understood

Factors influencing the interpretation of the rule

- Rule 230 is clear enough but its application may depend on external factors
- Type of course
- Type of event
 - individuals (World, Olympics)
 - by team (World Cup, others)
- Understanding of the rules by the athlete
- Weather condition

Application of Walking Rule

When to show a yellow card/paddle to the athlete
(caution)

- for loss of contact
- for bent knee



When to fill out the **Red Card**
(previous warning)

- **Red Card** for loss of contact
- **Red Card** for bent knee

Judge's Red Card			
Distance:	20 km.		
Men/Women			
Judge's No.:			
Bib Number			
Reason: <small>(If the knee, where the card)</small>	<input type="checkbox"/>	Hour	Minutes
	<input type="checkbox"/>	Hour	Minutes
Judge's Signature:			

Red Card Prerequisites

Judge's Red Card			
Distance:	20 km.		
Men/Women			
Judge's No.:			
Bib Number			
Reason: <small>Write the rule which the coach</small>		Flag	Minute
		Flag	Minute
Judge's Signature:			

1. The infringement must be observed by the human eye
2. When the athlete is taking an advantage



Caution or Warning?

Reasons for Caution



Allow the athlete to correct himself

The caution is the only help allowed for the athlete

Red Card

Red Card is the one determining disqualification of the athlete (namely the 3rd one)

Red Card is the “last final decision”
not a “first instinctive reaction”

Red Card is given when the athlete continues to break the rules of race walking.

Red Card need as fundamental requisite for decision absolute certainty

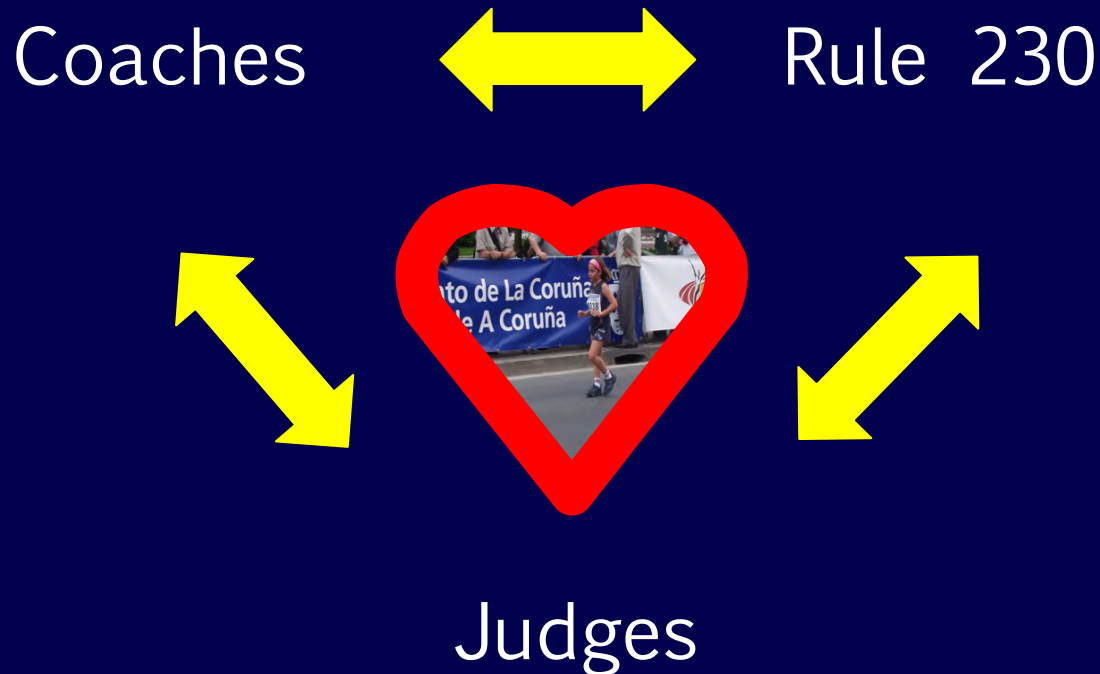
Could we ever improve judging ?

Yes, but we ought to consider
the walker at the center
of all the world of Race Walking.



Could we ever improve judging ?

Yes, but we need the help from all the world of Race Walking



Consistency

- Consistency in both style and criteria
- Consistency in all aspects of judging
 - Showing paddle in professional manner
 - Documentation
 - Interpretation of the rules
 - Dealing with athletes

Goal & Consistency

Our future most important goal is
to have consistent judging

Correct
disqualifications



Fast Time

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Interpretation of the rule – Part 2

Objective

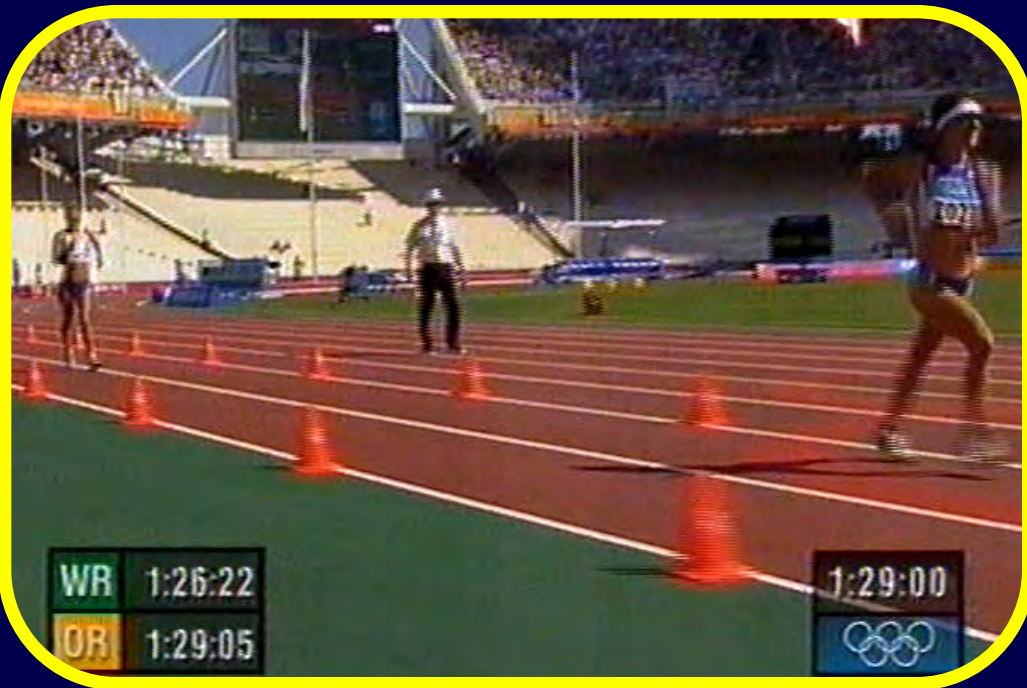
- To be able to react in unusual situations
- To be able to interpret the Competition Rules correctly

Correct position of the judge

Position which present a clear viewing of the legs of competitors

On track

Outside lane where the raised inner kerb will not block the view of the competitor's feet



Correct position of the judge

Position which present a clear viewing of the legs of competitors



On road

- Clearly see the contact with the surface of the road
- Look at the competitors from an angle of 45° when he/she is moving towards the Judge

Key danger areas (track & road)

During the acceleration
at the start



While passing another
walker



Key danger areas (track & road)

During the finishing sprint



In the middle of the group



Key danger areas (track & road)

Turn arounds,
and narrow
courses



Hill areas



Key danger areas (track & road)

Sharp turns



Aid and refreshment areas



Other difficult situations

- Large number of competitors
- Mixed events (men and women)
- Mixed events (seniors and juniors)
- (Circuit) to the stadium
- Last lap on track events

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Competition Management – Part 1

Objective

To identify the duties
of the competition personnel
before, during and after
a competition

Walking officials

- Chief Judge
- Walking Judges
- Deputy Chief Judge
- Recorder
- Posting Warning Board assistant

Chief Judge – Most important duties (1)

- Conduct a pre-race meeting to assign the Judges to their respective judging areas and to explain the judging procedure to be used
- Make sure all the judges have all the necessary judging material including:
 - warning cards
 - record cards
 - Paddles
 - course map showing each judge's assigned position list of starters' numbers
 - arm bands etc.

Chief Judge – Most important duties (2)

- Make sure that the card collecting system is correctly prepared
- Notify competitors of their disqualification as soon as possible after verifying that three red cards from three separate judges have been received, and inform the referee after the event
- Sign the judging summary sheet and check with the event Referee to ensure that the official results are correct
- Conduct a post-race meeting to review the race, present the judging summary sheets for analysis and discuss any problems

Judges – Most important duties

- Participate at pre-race meeting
- To follow the instructions received from the Chief Judge
- To caution a competitor who is in danger of breaking the rules and to record that caution
- To warn the competitor for breaking the rule
- To complete the red Judging card accurately and to pass it to the Recorder
- Participate at post-race meeting and relevant discussion

Deputy Chief Judges - Duties

- Participate at pre-race meeting
- To follow the instructions received from the Chief Judge
- To disqualify a competitor according to the instruction of the Recorder/Chief Judge
- To inform the Recorder of the time of disqualification
- Participate at post-race meeting and relevant discussion

Recorder - Duties

- Participate at pre-race meeting
- Collect the Judges' warning cards and record the information on the Judging Summary Sheet and/or checking the electronic data collection system
- Notify the Warning Posting Board Operator of warnings, and check the electronic WPB,
- Immediately notify the Chief Judge & Deputy Chief Judge when three warning cards from three different Judges have been handed in
- Participate at post-race meeting and relevant discussion

Warning Posting Board Assistants - Duties

- When notified by the recorder, place the red marks, immediately, in the relevant blank space(s) beside the offending competitor's number
- Check continuously with the Recorder for the correctness of the electronic Warning Posting Board

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Competition Management – Part 2




Objective

- To understand the planning, execution and evaluation of competition briefing
 - Pre-Race Meeting
 - Post-Race Meeting
- Workshop to familiarise with the use of judging sheets

Pre-Race meeting participants

- Chief judge
- Deputy chief judge
- Walking judges
- Recorder(s) & Posting Board Assistant(s)


Pre-Race meeting planning

Judge's Warning Card			
Distance:	20 km.		
Men/Women			
Bib Number			
Reason: <small>(fill the time where the case)</small>		Hour	Minute
		Hour	Minute
Judge's Signature:			
Judge's No.:			

- Distribution of all material and sheets
- Assign numbers and positions on the course to each judge
- Judge's movement on 1st and last part of the race

Post-Race meeting planning

Individual Walking Judges Record Card



**RW JUDGE
RECORD**

Bib N°	Caution		Warning		Bib N°	Caution		Warning	
	< 0r ~	Time	< 0r ~	Time		< 0r ~	Time	< 0r ~	Time

Judge N°

Signature

Event :

Distance :

Date & Place :

- Collecting, by Recorder, of all Individual Record Cards in order to prepare final “Summary Sheet”

Post-Race meeting planning

DATE		EVENT												CHIEF JUDGE'S NAME																	
6 August 2005		IAAF World Championships Helsinki 2005 - 20 km Men												Candido VELEZ (PUR)																	
Judge's Name		Nicola MAGGIO (ITA)		Americo GUTTUSCO (MOR)		Berf MULLER (GER)		Dolores ROSAS (ESP)		Anne FROBERG (FIN)		S. VERTI (W/TEAM) (MAS)		Jill HUDLEY (AUS)		Yan WANG (CHN)		Chief Judge	DQ modification	CHECK OF CAUTIONS AND DISQUALIFICATIONS											
Number		1		2		3		4		5		6		7		8		Offence & Time	Time	2	3	RC									
Athlete's Number		Caution	RC	Caution	RC	Caution	RC	Caution	RC	Caution	RC	Caution	RC	Caution	RC	Caution	RC	Time	2	3	RC										
23						19,11												19,15	1	1	0										
35		19,26				18,55		19,26											1	1	1										
78				19,00		19,17				19,39		19,58		19,06					2	2	1										
80				19,18	19,35			19,02	19,09	19,24	19,28					19,39			3	0	4										
105					2						2								0	0	0										
149		19,01								20,04									2	0	0										
156		18,54	19,19			18,55	19,04	19,11		18,58	19,08							19,22	4	0	3										
158			2				2	18,47		19,37						19,36			3	0	0										
163								19,28				19,25				19,29			3	0	0										
210												18,48				19,21	19,32		2	0	1										
212		19,26	19,34	19,40		19,10	19,48	19,31	19,35	19,31		19,39	19,45			19,21			19,48	7	0	4									
218			19,13			18,47		18,47	19,06	19,09		2		18,58	19,09	16,50			19,15	5	1	3									
224			2							19,47						19,40			2	0	0										
227												19,35							1	0	0										
240		19,25						19,40		19,48		19,39							4	0	0										
CHECK PAGE		2	4	2	3	2	1	1	5	1	3	7	0	3	8	1	2	6	0	2	1	0	1	7	0	2	2	4	0	5	17
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ASSISTANTS TO CHIEF JUDGE NAME				RECORDER'S NAME																											
Janusz KRYNICKI (POL)				Peter MARLOW (GBR)												Luis SALADIE (ESP)															
				Candido VELEZ (PUR)																											

- Discussion by Chief Judge, of the highlights of the competition
- Explanation for the reasons of the disqualifications
- Discussion and comments of all judges
- Distribution to judges and TIC of “Summary Sheet”

IAAF Level II Race Walking Judges Course

Competition Management – Part 3

Objective

- To know the correct setup for the different race walking events
- To understand the procedures of road measurement

Course selection rules

- IAAF Rule 230.10 (a) is the general requirement for the selection of the maximum/minimum course length
- IAAF Rule 240.3 indicates how road courses must be measured

Course selection

- The courses shall not be too steep in grade, especially downhill section
- The road surface should be smooth
- Not to be located further than 1 km from the stadium

Loop Course

- Avoid the need for tight turns
- Presents less viewing opportunities for the judges

Up & back course

- Easy for organisation
- Better for Media
- Better for Judges
- Road wide enough to prevent tight turns

Example of the course



Key points to be considered on the course

View of width and slope



Key points to be considered on the course



Lap Counters

Key points to be considered on the course



Good Example



Bad Example

Refreshment area

Key points to be considered on the course



Electronic



Manual

Warning Posting Board

Key points to be considered on the course



Good Example



Bad Example

Turn around

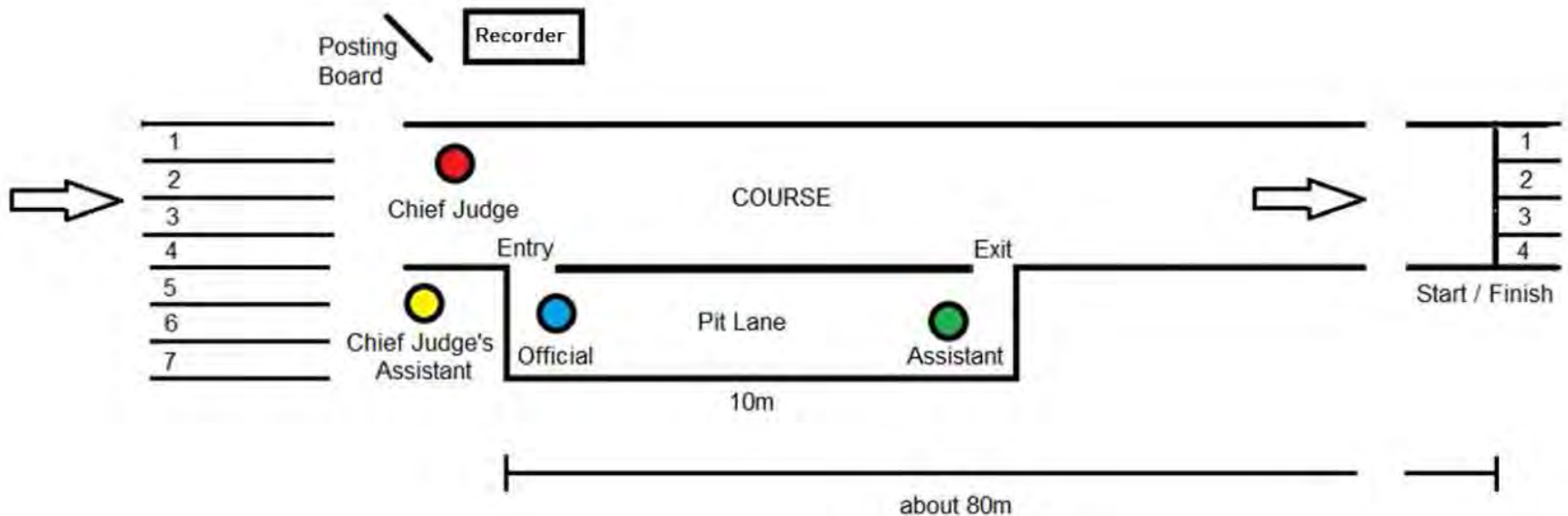
New Rule for Young: Pit Lane Rule

- » The big goal is principally aimed at reducing (if not eliminating altogether) disqualifications in U16
- » The Judges don't change their criteria of judging
- » It doesn't need a lot of additional officials
- » Is easy to manage, in particular in track events

Pit Lane Rule

» Example of Pit Lane Area

Example of set-up for a track event



Penalties

- » When one athlete receives 3 red cards he must stop in the penalty area at the first opportunity
- » Races up to 5.000m. included: stop time is 60 seconds
- » Races longer than 5.000m. up to 10.000m.: stop time is 120 seconds
- » At 4th red card: disqualified
- » If 3rd red card arrived at the late stage of the race and it isn't possible to stop the athlete shall finish and the penalty time shall be added to his official time.

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Major Events Communication System

Objective

To understand the procedure of the electronic communication system for major events

System Benefits

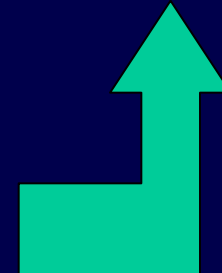
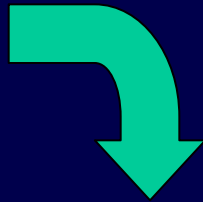
- Reduces the time needed for showing the warning on the warning board and the decision making
- Consequently reduce the time between the third warning and disqualification
- To help the athlete
- Allow coaches to know the judges decisions on the athlete
- To ensure that media and public get the latest technical news on the progress of the race

Procedures and System Components

The achievement of the objectives is going through the use of a modern data processing system which guarantees:

- Faster information
- Security of information flow
- Absolute certainty of no outside interference
- Presence of an alternative backup system for immediate use

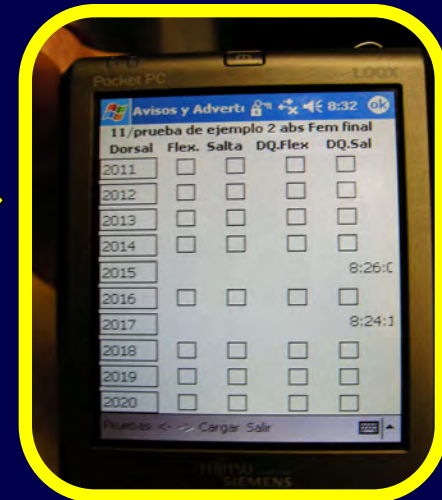
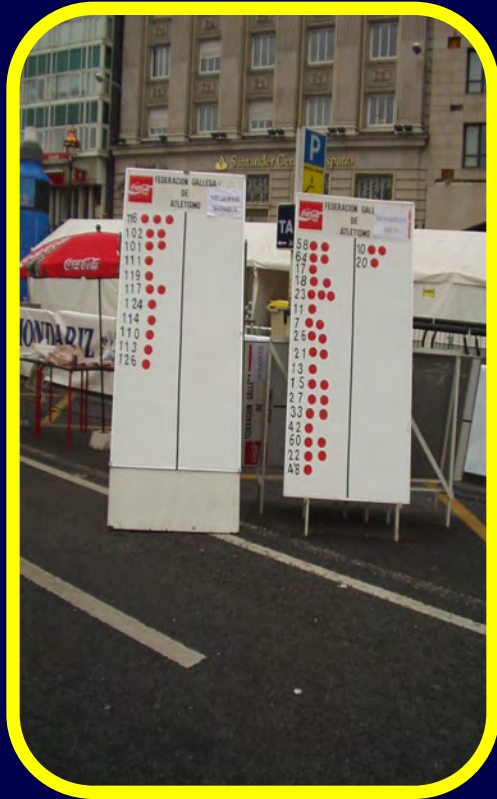
Examples of the system



Communication Systems (Seiko, Swatch)

Examples of the system

Electronic Communication Manual Board



IAAF Level II Race Walking Judges Course

Judges Efficiency

Contents

- Roles of a Judge
- An ideal Judge
- Judges Workshop
- Code of Ethics for Officials

Roles of a Judge

- The official's primary role is to act as an impartial judge and so facilitate the process of fair competition.
- This role carries with it an obligation for the official to perform with accuracy, consistency, objectivity and the highest sense of integrity.

Features of an ideal Judge

Focus: Athletes

An ideal judge...

- assumes that most of the athletes are not breaking the rules.
- is aware that a judicious use of caution can avoid an infringement of the rules by the athlete.
- avoids any prejudging of athletes.
- does not intimidate athletes.
- understands that a judges' competence is not expressed through the number of given red cards.

Features of an ideal Judge

Focus: Caution / Disqualification

An ideal judge...

- acts immediately on all judgements.
- ensures the athletes' understanding of the caution.
- indicates clearly the reason for caution / disqualification and correctly completes the appropriate cards.
- communicates only with the Chief Judge or recorder on disqualifications and queries.

Features of an ideal Judge

Focus: before and after the competition

An ideal judge...

- arrives at least 45 minutes prior to scheduled start time
- reports promptly to the Post Race Judges' Meeting

Features of an ideal Judge

Focus: during competition

An ideal judge...

- must not inform other competitors about the progress of a race.
- observes from the outside lanes and moves at times to the inside of a road, judging from a non-elevated position.
- does not time the race.
- uses only his eyes to judge the athletes.

Features of an ideal Judge

Focus: General

An ideal judge...

- appears professional (clothing, behaviour).
- is impartial to all competitors and teams.
- is always active, concentrated and attentive during competition.
- is not receptive to external comments (e.g. by spectators, coaches).
- does not have any additional responsibilities while judging.
- Does not use cameras, mobile phones and other electronic devices during competition.

Officiating Workshop

Work together with a group of course participants to discuss the following questions:

1. What makes up the authority of a Technical Official?
2. How can we guarantee impartiality in athletics?
3. What is the right manner to approach athletes?
4. Describe areas that concern safety and the role of a Technical Official.

Code of Ethics for Officials

- Respect of Human Rights
- Respect of Rules
- Respect of Athletes and Coaches
- Respect of other Officials
- Respect of Proficiency
- Respect of the Officials Image
- Respect for the Esprit de Corps

Code of Ethics for Officials

- The basic principle of the IAAF Code of Ethics for Officials is that ethical considerations leading to fair play are integral, and not optional, elements of all sports activity.
- These ethical considerations apply to all levels of ability and commitment. They include recreational as well as competitive Athletics.