

## SUBJECT 3: Training Programmes

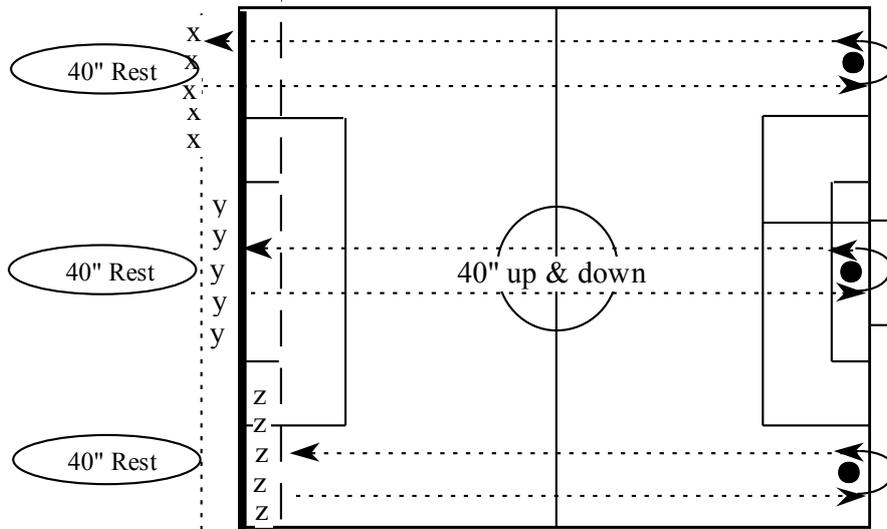
### MACROCYCLE IV

#### *2007-08 Top-Referees' Fitness Programme: The Road to Excellence*

#### **WEEK 41**

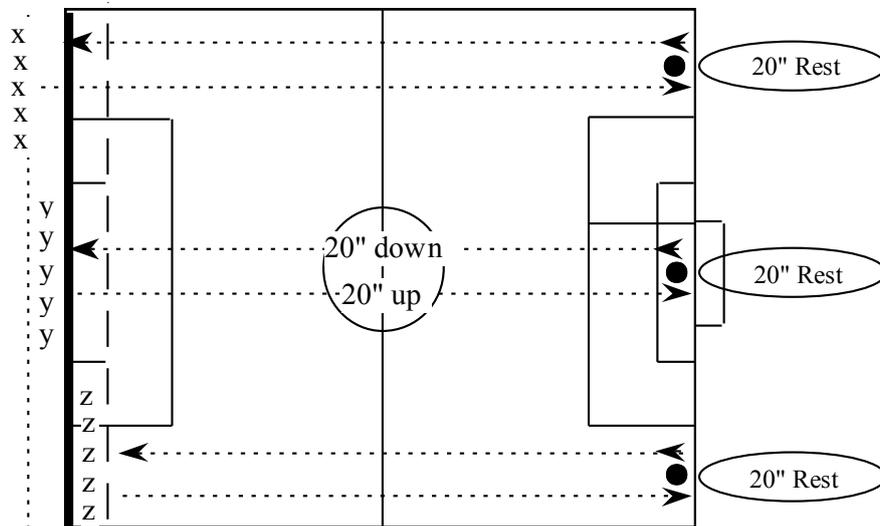
#### **Macrocycle IV, week 1 (Training week 19)**

- Mon: \* Act. Rec. - 50' recovery session in a fitness centre  
Tr. 70
- Tue: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> ( $\pm 1$  km)  
Tr. 71
- \* Warm up - 20' of jogging, dynamic exercises and stretching
- \* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises
- \* High Int. - Set 1 Two lines are marked approx. 5 meters away from each side of one of the goal lines. The referees are divided into 3 groups based on their fitness level. The referees in the group with the best fitness (x) have to run the longest distance ( $\pm 210$  m), while the group with the weakest runners (z) covers a shorter distance (about 190 m), and the intermediate referees (y) start on the goal line and cover an intermediate distance (about 200 m)
- All referees start at the end with the 3 lines and run together at a given speed to the opposite goal line, and immediately back to the starting position (40"). After a given rest that equals the running time (40"), they start the second run. A signal may be used to indicate when the referees have to reach the opposite line and the home position
- Referees do this first exercise 10 x (15' max).
- 3' recovery



- Set 2: All referees start again at the end with the 3 lines and run at a given speed to the opposite goal-line (20"). After a given rest that equals the running time (20"), they run back to the starting position (trial 2)

Referees do this second exercise 10 x (7')



- All together, this high intensity exercise takes  $\pm 25'$   
(15' Set 1 + 3' recovery + 7' Set 2)

\* Tip - Differentiating the whole group into 3 teams should guarantee that the relative exercise intensity for each referee does not vary too much. If there is an extreme difference in fitness level between referees, the distances between the goal line and the 2 other lines can even be further extended (e.g. 10 meters). Another possibility is to divide the referees in even more groups (and use even more than just 3 starting positions)

\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 75'

Wed.: REST DAY

Thu.: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> ( $\pm 1$  km)  
Tr. 72

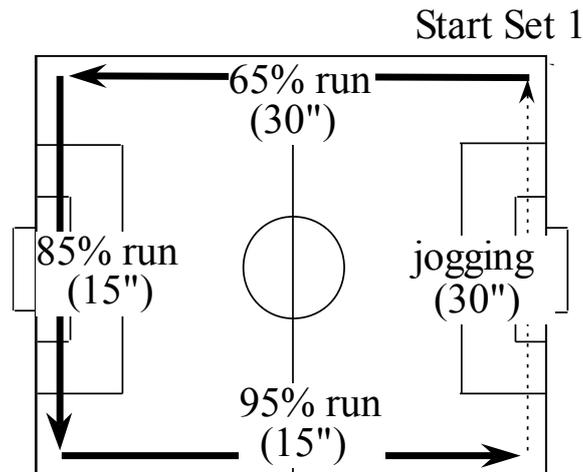
\* Warm up - 20' of jogging, dynamic exercises and stretching

\* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises

\* Speed End. - Set 1: Field exercise  
Referees start running at 65% SP<sub>max</sub> (half pace) to cover the length of the field of play, then accelerate up to 85% SP<sub>max</sub> (3/4 pace) over the width of the field, and finally accelerate to the other side of the field at 95% SP<sub>max</sub> (almost maximal) of their running speed. Across the width of the field, referees continue 'jogging'

- 6 laps of  $\pm 90''$  each

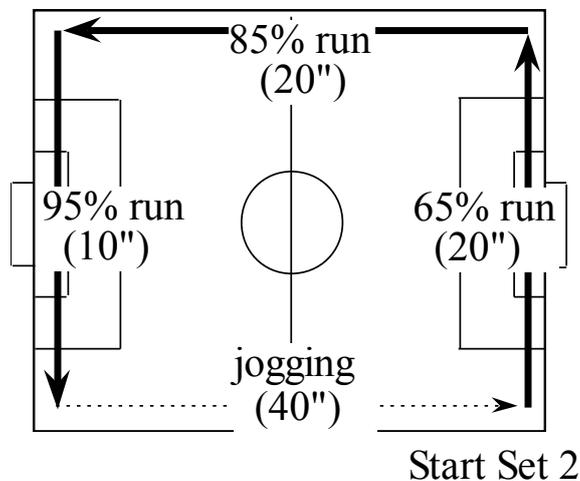
- 4' recovery



- Set 2: Field exercise

Referees start running at 65% (half pace) to cover the width of the field, then accelerate to 85% (3/4 pace) over the length of the field, and finally accelerate to the other side of the field at 95% (almost maximal) of their running speed. Finally, referees continue 'jogging' the length of the field

- 6 laps of  $\pm 90''$  each



- All together this exercise takes  $\pm 22'$   
(9' Set 1 + 4' recovery + 9' Set 2)

\* Match - 10' of match play or 10' of medium intensity jogging  
(80% HR<sub>max</sub>)

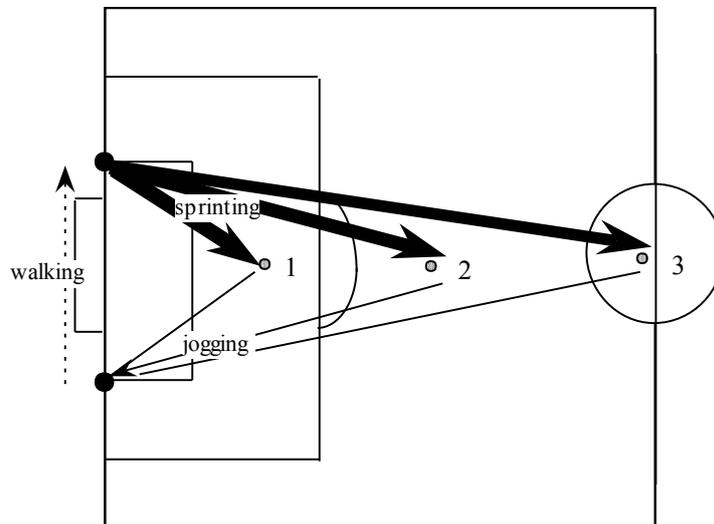
\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 82'

Fri.: REST DAY

Sat.: \* Warm up - 20' of jogging, dynamic exercises and stretching  
Tr. 73

- \* Speed
- Set 1:
    - 1) 11 m sprint, 11 m jogging, walking to the start, 4 reps
    - 2) 25 m sprint, 25 m jogging, walking to the start, 2 reps
    - 3) 50 m sprint, 50 m jogging, walking to the start, 1 rep
  - 5' recovery and stretching
  - Followed by a 2<sup>nd</sup> Set of 7 sprints



- The total exercise time is 15'. The total sprint distance is 288 m

- \* Cool down - 5' jogging and walking, followed by 10' extensive stretching

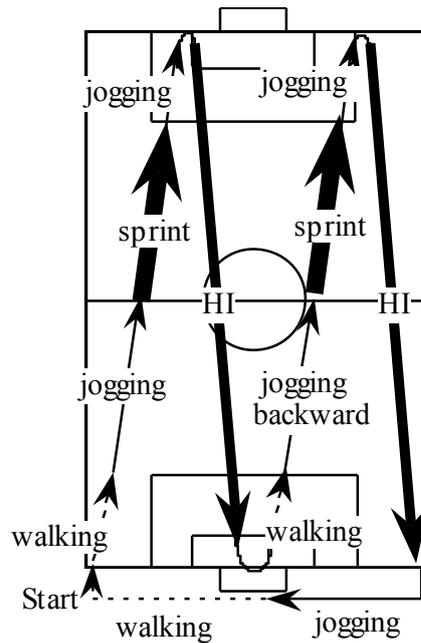
Total duration: 50'

Sun.: Those referees who don't have a game to officiate in the weekend, may do some intermittent activities such as playing badminton, football, squash, or tennis

**WEEK 42****Macrocycle IV, week 2 (Training week 20)**

- Mon.: \* Act. Rec. - 50' recovery session in a fitness centre  
Tr. 74
- Tue.: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> ( $\pm 1$  km)  
Tr. 75
- \* Warm up - 20' of jogging, dynamic exercises and stretching
- \* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises
- \* High Int. - Set 1: Referee A performs a HI run clockwise from the midline to the corner flag, then across the goal line to the other corner flag, and finally to the other side of the midline. In the meantime, Referee B has to cross the midline by walking or jogging. He has to arrive at the other side when Referee A arrives. When they meet, their roles change, i.e. Referee B performs a HI run counter-clockwise the same trajectory, while Referee A recovers by walking / jogging back to the starting position. The second HI-run of referee A is done on the other side of the field so that he has to take the turns on his L-shoulder. All together this exercise is done 5 full laps, or 10 HI-runs for each of the referees  
All together, this first run takes  $\pm 10'$  (1600 m HI running alternated with 600 m recovery for each referee)  
- 3' recovery  
- Set 2: perform another 5 full laps (or 10 HI-runs for each of the referees)  
- All together this exercise takes  $\pm 22'$   
(10' Set 1 + 2' recovery + 10' Set 2)





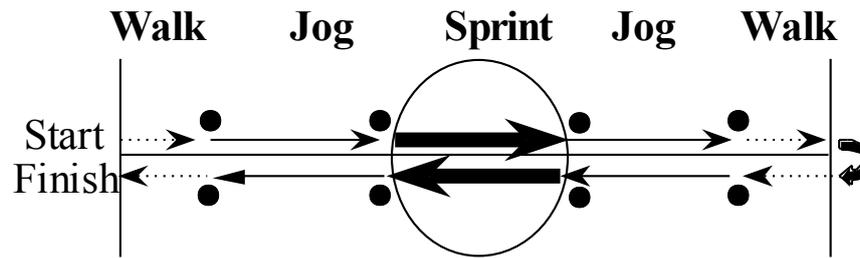
- Field exercise: Set 2: again 4 laps of  $\pm 3'$  each
- All together this exercise takes  $\pm 28'$   
(12' Set 1 + 4' recovery + 12' Set 2)

- \* Match - 10' of match play or 10' of medium intensity jogging (80% HR<sub>max</sub>)
- \* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 88'

Fri.: REST DAY

- Sat.: \* Warm up - 20' of jogging, dynamic exercises and stretching  
Tr. 77
- \* Speed - Set 1: Centre circle sprint, 5 x back and forth (5')  
- 5' recovery



- Set 2: Centre circle sprint, 5 x back and forth (5')
- The total exercise time is 15'. The total sprint distance is 360 m

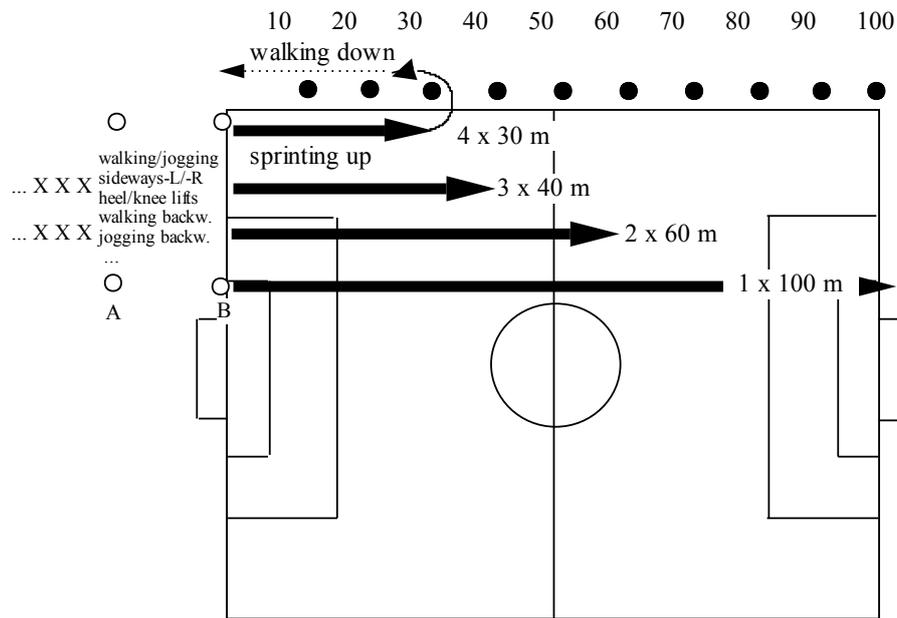
\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 50'

Sun.: Those referees who don't have a game to officiate in the weekend, may do some intermittent activities such as playing badminton, football, squash, or tennis

**WEEK 43**
**Macrocycle IV, week 3 (Training week 21)**

- Mon.: \* Act. Rec. - 50' recovery session in a fitness centre  
Tr. 78
- Tue.: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> (± 1 km)  
Tr. 79
- \* Warm up - 20' of jogging, dynamic exercises and stretching
- \* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises
- \* Ext. Speed - Set 1 using a dynamic start over a 5m course:
- > 4 maximal 30m sprints (± 4.5")  
with 30" recovery (walking back)
  - > 3 maximal 40m sprints (± 6")  
with 40" recovery (walking back)
  - > 2 maximal 60m sprints 60 m (± 9")  
with 1' recovery (walking back)
  - > 1 maximal 100m sprint (± 15")  
with 1'30" recovery (walking back)
  - > Jog 1 lap of the pitch (± 2'30")
  - > Duration Set 1: ± 11'30"
- Set 2:
- > 1 maximal 100m sprint (± 15")  
with 1'30" recovery (walking back)
  - > 2 maximal 60m sprints (± 9")  
with 1' recovery (walking back)
  - > 3 maximal 40m sprints (± 6")  
with 40" recovery (walking back)
  - > 4 maximal 30m sprints (± 4.5")  
with 30" recovery (walking back)
  - > Jog 1 lap of the pitch (± 2'30")
  - > Duration Set 2: ± 11'30"
- The total duration of this extended speed session is ± 23'



\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 73'

Wed.: REST DAY

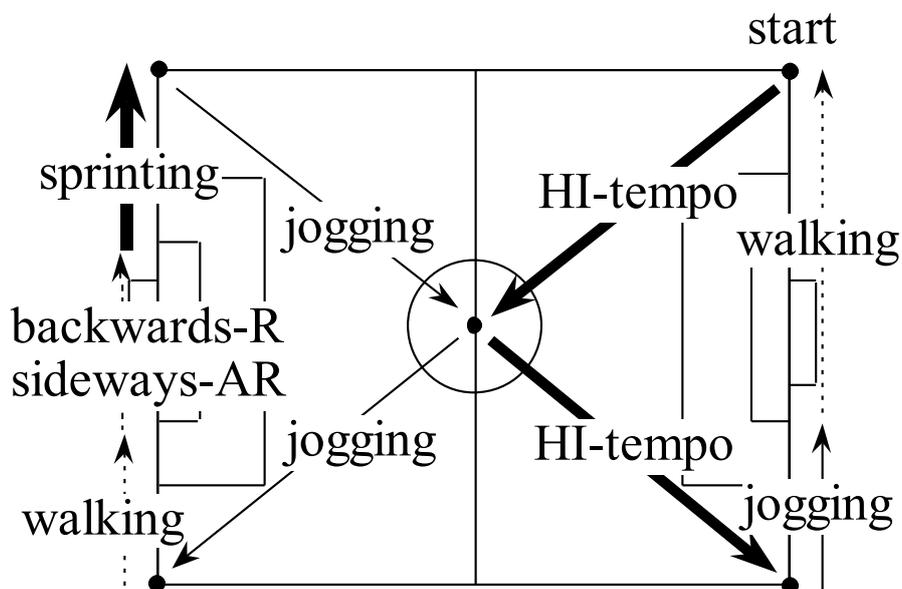
Thu.: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> (± 1 km)

Tr. 80

\* Warm up - 20' of jogging, dynamic exercises and stretching

\* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises

\* Speed End. - Set 1: Field exercise, 5 laps of ± 2' each  
- 4' recovery  
- Set 2: Field exercise, 5 laps of ± 2' each  
- All together, this exercise takes 24' (including recovery)



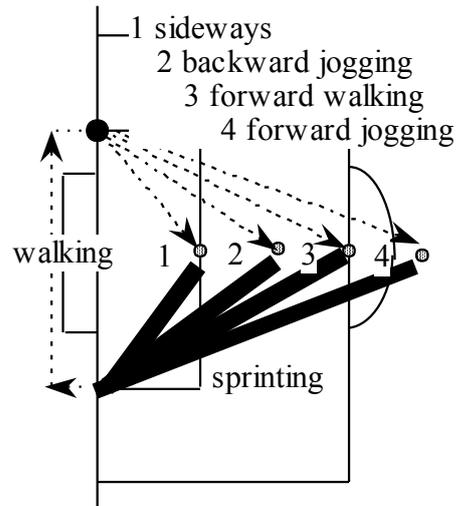
\* Match - 10' of match play or 10' of medium intensity jogging (80% HR<sub>max</sub>)

\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 84'

Fri.: REST DAY

Sat.: \* Warm up - 20' of jogging, dynamic exercises and stretching  
 Tr. 81 \* Speed - Set 1: Sprint exercise using the dimensions of the penalty box,  
 - 12 sprints; 3 x sprint 1, 3 x sprint 2, 3 x sprint 3 and 3 x sprint 4  
 - Using the following dynamic starting movements:  
   Sprint 1 - side-stepping  
   Sprint 2 - backwards jogging,  
   Sprint 3 - walking  
   Sprint 4 - jogging  
 - 5' recovery, stretching, and drinking break.  
 - Set 2: Repeat the 3 x 4 sprints



- The total exercise time is 15'. The total sprint distance is 384m

\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 50'

Sun.: Those referees who don't have a game to officiate in the weekend, may do some intermittent activities such as playing badminton, football, squash, or tennis

**WEEK 44**

**Macrocycle IV, week 4 (Training week 22)**

Mon.: \* Act. Rec. - 50' recovery session in a fitness centre  
Tr. 82

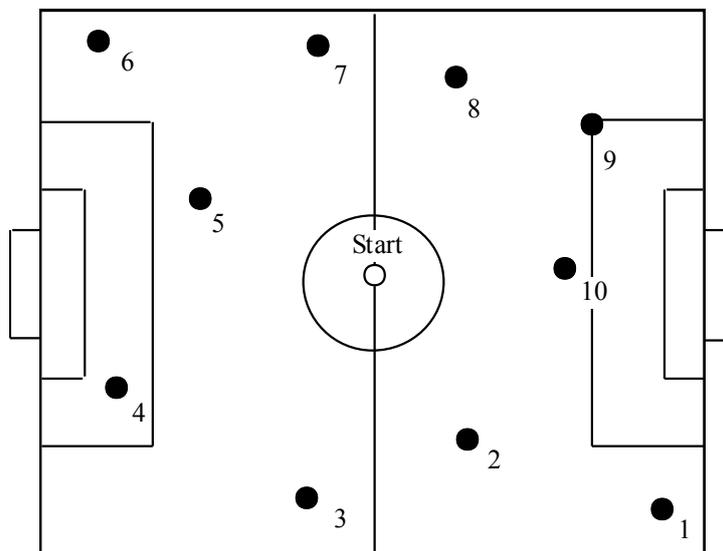
Tue.: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> (± 1 km)  
Tr. 83

\* Warm up - 20' of jogging, dynamic exercises and stretching

\* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises

\* High Int. - Set 1 takes 12' (8' HI running & 4' recovery jogging)  
 - 20" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)  
 - 40" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)  
 - 60" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)  
 - 2' at 90% HR<sub>max</sub> followed by 1' active recovery (jogging)  
 - 2' at 90% HR<sub>max</sub> followed by 1' active recovery (jogging)  
 - 60" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)  
 - 40" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)  
 - 20" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)

- 3' recovery



- Set 2 again 12' (8' HI running & 4' recovery jogging)
  - 20" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)
  - 40" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)
  - 60" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)
  - 2' at 90% HR<sub>max</sub> followed by 1' active recovery (jogging)
  - 2' at 90% HR<sub>max</sub> followed by 1' active recovery (jogging)
  - 60" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)
  - 40" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)
  - 20" at 90% HR<sub>max</sub> followed by 20" active recovery (jogging)

- All together, this exercise takes 12' + 3' recovery + 12' = 27'

- \* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 77'

Wed.: REST DAY

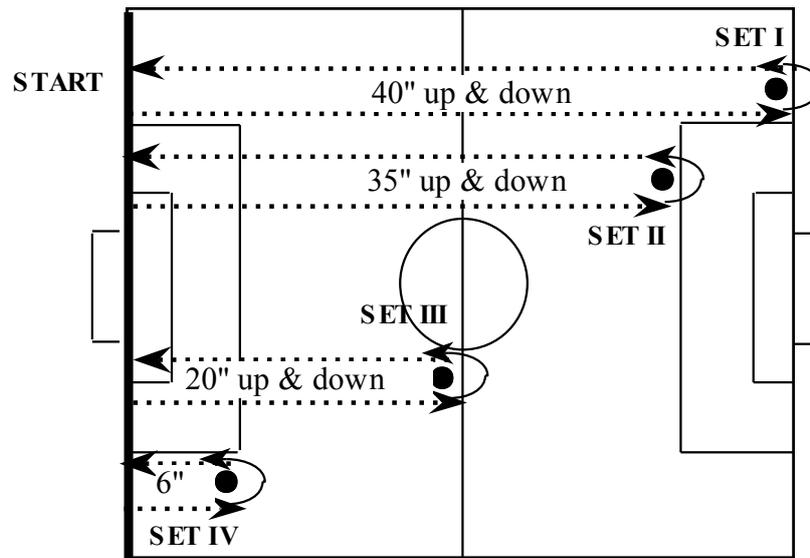
- Thu.: Tr. 84
- \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> ( $\pm 1$  km)
  - \* Warm up - 20' of jogging, dynamic exercises and stretching
  - \* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises
  - \* Speed End. - Each run is performed at 90-95% SP<sub>max</sub>
    - Between each set, there is a 2' active recovery

Set 1:

- From goal line to goal line and back ( $\pm 40''$ ),
- 1' recovery
- Repeat 5 x
- Total duration is 8'30" (incl. recovery time)

Set 2:

- From goal line to opposite penalty box and back ( $\pm 35''$ )
- 1' recovery
- Repeat 5 x
- Total duration is 8' (incl. recovery time)



- Set 3:

- From goal line to mid line and back ( $\pm 20''$ )
- 30'' recovery
- Repeat 5 x
- Total duration is 4'15'' (incl. recovery time)

- Set 4:

- From goal line to penalty box and back ( $\pm 6''$ )
- 10'' recovery
- Repeat 5 x
- Total duration is 1'30'' (incl. recovery time)

- All together, this exercise consists of 20 high speed runs and the duration of the total exercise is  $\pm 28'30''$

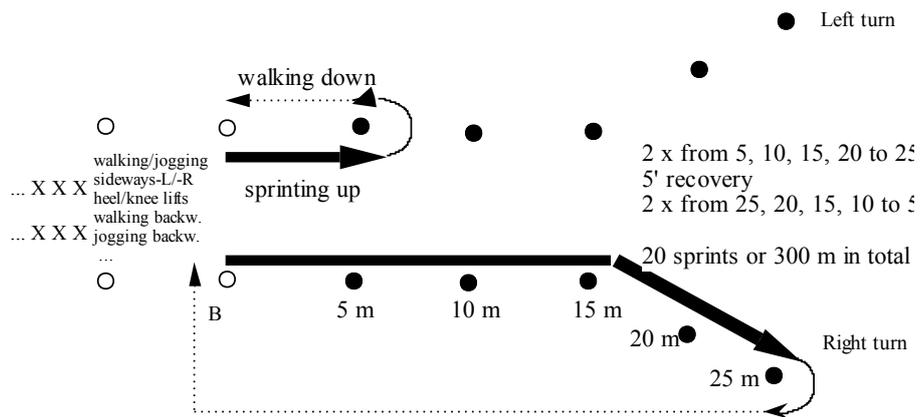
- \* Match - 10' of match play or 10' of medium intensity jogging (80% HR<sub>max</sub>)
- \* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 88'

Fri.:

REST DAY

- Sat.: \* Warm up - 20' of jogging, dynamic exercises and stretching  
Tr. 85
- \* Speed - short sprints from a dynamic position  
- 2 x 5m, 2 x 10m, 2 x 15m, 2 x 20m and 2 x 25m (change in direction to the left)  
- 5' recovery and stretching  
- 2 x 5m, 2 x 10m, 2 x 15m, 2 x 20m and 2 x 25m (change in direction to the right)



- \* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 50'

- Sun.: Those referees who don't have a game to officiate in the weekend, may do some intermittent activities such as playing badminton, football, squash, or tennis

**WEEK 45**

**Macrocycle IV, week 5 (Training week 23)**

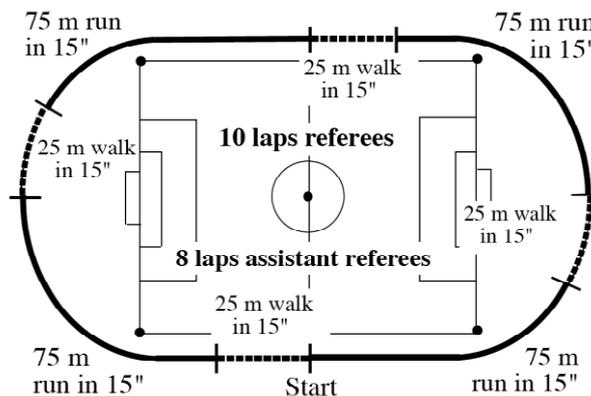
Mon.: \* Act. Rec. - 50' recovery session in a fitness centre  
Tr. 86

Tue.: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> (± 1 km)  
Tr. 87

\* Warm up - 20' of jogging, dynamic exercises and stretching

\* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises

\* Maximal Aerobic Training (VO<sub>2</sub>max Training)



- On the first whistle, referees have to cover 75 m in 15" from the start position on (1). Then there is 15" to cover 25 m walking (2). On the next whistle, referees have to run again 75 m in 15" (3), followed by 25 m walking in 15" (4)

- One full lap on a track consists of 4 tempo runs followed by 4 recovery walks

All together, the total exercise consists of 10 laps resulting in 40 tempo runs, each followed by a 15" walk

- Referees have to arrive in the 'walking area' before the whistle and may not leave the 'walking area' before the whistle

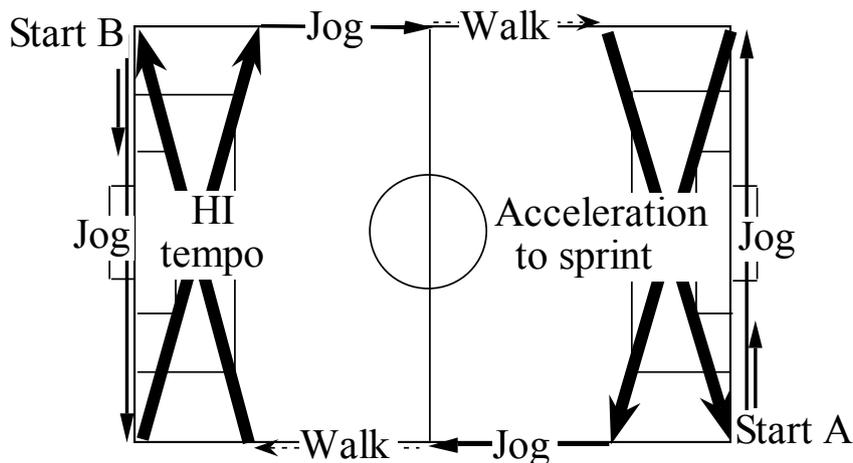
- The total duration of this VO<sub>2</sub>max exercise is 20'

\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 70'

Wed.: REST DAY

- Thu.: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> (± 1 km)  
Tr. 88
- \* Warm up - 20' extensive warming up, mobilisation and stretching
- \* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises
- \* Speed End. - Set 1: Field exercise, 5 laps or 20 high speed runs  
- This first run will take ± 11'  
- 4' recovery  
- Set 2: Field exercise, again 5 laps or 20 high speed runs  
- Again, this second run will take ± 11 minutes  
- All together, this exercise takes 11' + 4' recovery + 11' = 26'.  
- The total distance covered in high speed running is 2500 m.

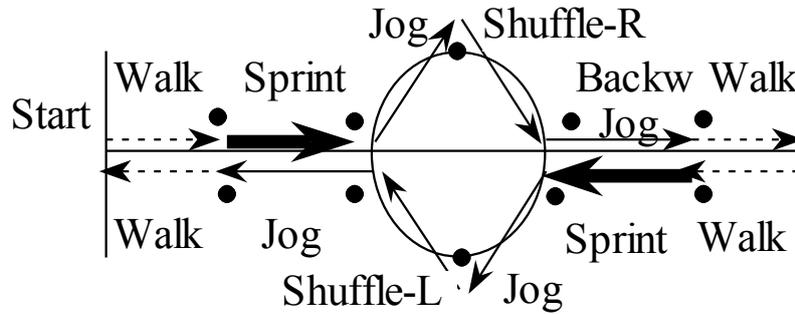


- \* Match (80% HR<sub>max</sub>) - 10' of match play or 10' of medium intensity jogging
- \* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 86'

Fri.: REST DAY

- Sat.: \* Warm up - 20' of jogging, dynamic exercises and stretching  
 Tr. 89  
 \* Speed - Set 1: Centre circle sprint, 5 x back and forth 5'



- 5' recovery and stretching
  - Set 2: Centre circle sprint, 5 x back and forth 5'
- \* Cool down - 5' jogging and walking, followed by 10' extensive stretching

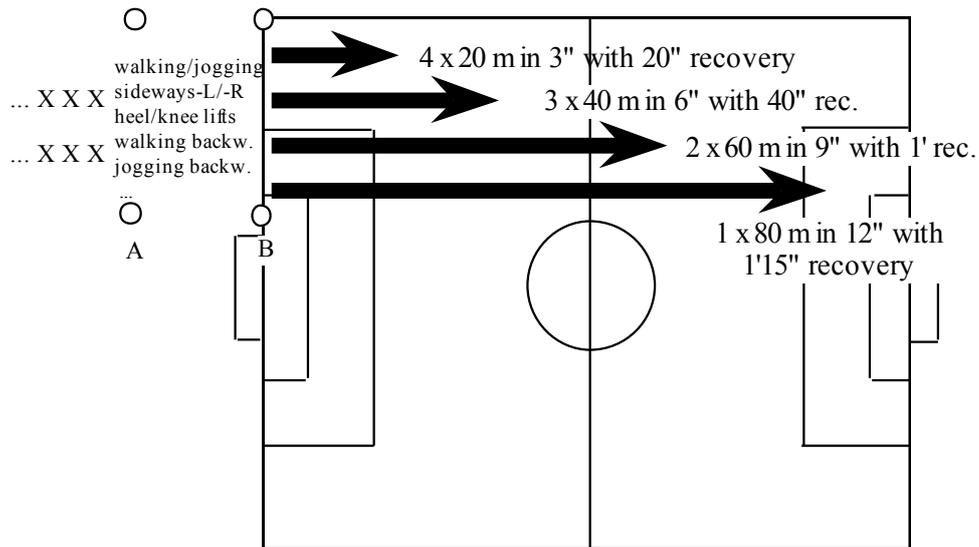
Total duration: 50'

Sun.: Those referees who don't have a game to officiate in the weekend, may do some intermittent activities such as playing badminton, football, squash, or tennis

**WEEK 46**

**Macrocycle IV, week 6 (Training week 24)**

- Mon.:** \* Act. Rec. - 50' recovery session in a fitness centre  
Tr. 90
- Tue.:** \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> (± 1 km)  
Tr. 91
- \* Warm up - 20' of jogging, dynamic exercises and stretching
- \* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises
- \* Ext. Speed Set 1: using a dynamic start over a 5m course:
- > 4 maximal 20m sprints (± 3")  
with 20" active recovery (walking back)
  - > 3 maximal 40m sprints (± 6")  
with 40" active recovery (walking back)
  - > 2 maximal 60m sprints (± 9")  
with 1' active recovery (walking back)
  - > 1 maximal 80m sprint (± 12")  
with 1'20" active recovery (walking back)
  - > Jog 1 lap of the pitch (± 2'30")
  - > Duration Set 1: ± 11'30"
- Set 2:
- > 1 maximal 80m sprint (± 12")  
with 1'20" active recovery (walking back)
  - > 2 maximal 60m sprints (± 9")  
with 1' active recovery (walking back)
  - > 3 maximal 40m sprints (± 6")  
with 40" active recovery (walking back)
  - > 4 maximal 20m sprints (± 3")  
with 20" active recovery (walking back)
  - > Jog 1 lap of the pitch (± 2'30")
  - > Duration Set 2: ± 11'30"



- The total duration of this extended speed session is  $\pm 23'$  including 5' active recovery

\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

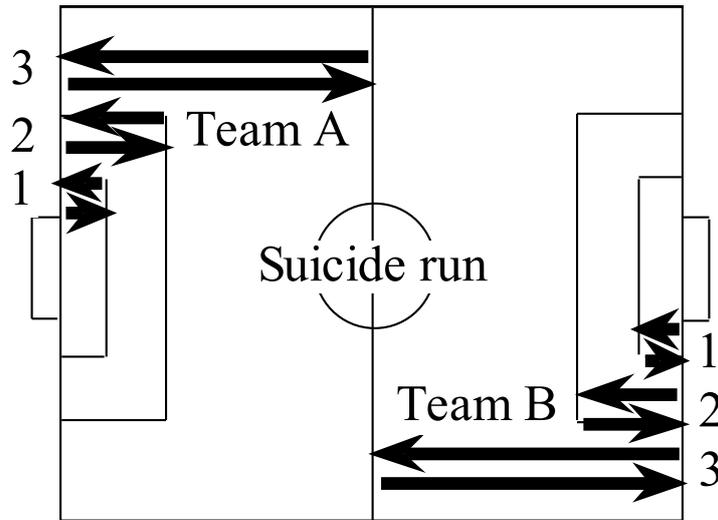
Total duration: 73'

Wed.: REST DAY

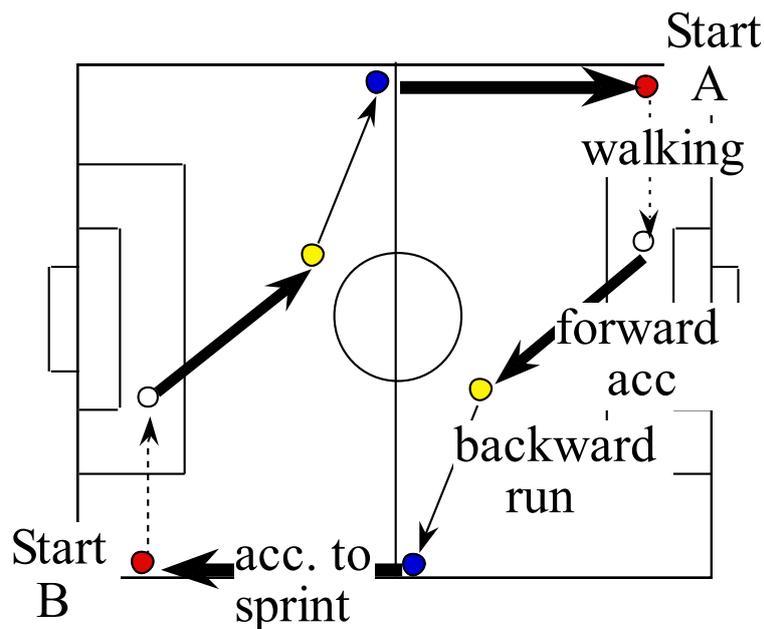
- Thu.: \* Low Int. - 5' jogging slowly building up to 70% HR<sub>max</sub> ( $\pm 1$  km)  
 Tr. 92 \* Warm up - 20' of jogging, dynamic exercises and stretching
- \* Strength - 6 x 25 sit-ups, separated by 6 x 10 push-ups, in addition to the regular set of strength and injury prevention exercises
- \* Speed End. - Set 1: 'Suicide run'  
 - Sprint from the goal line to goal area line and back  
 - Then immediately sprint from the goal line to the edge of the penalty area and back  
 - Finally, sprint to the halfway line and back  
 - 1' rest  
 - Repeat 6x  
 - For 1 run, reference time is < 25'' (very good), < 30'' (good)

In the graph, it is shown how the exercise can be performed simultaneously with 2 groups.

- 3' recovery



\* Speed End. - Set 2: 'Referee run': 9'



- 3' recovery

- All together, this training session takes 9' + 3' recovery + 9' + 3' recovery = 24'.

\* Match - 10' match play

\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 84'

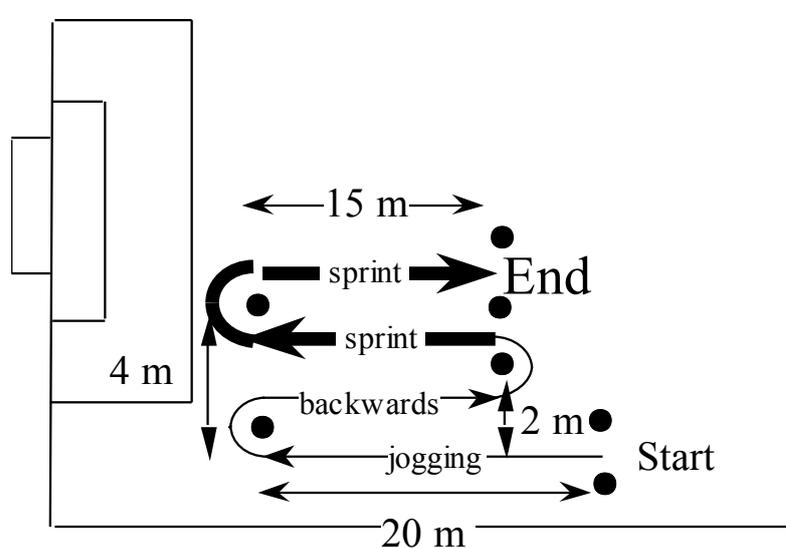
Fri.: REST DAY

Sat.: \* Warm up - 20' of jogging, dynamic exercises and stretching

Tr. 93

\* Speed/Agility - Set 1:

- 5x sprints as per the illustration below
- Slow walk back to the start after each sprint
- Start each run on every 60"
- 5' recovery and stretching



- Set 2:

- Repeat Set 1

- The total exercise time is 15', with the total sprint distance being 300m.

\* Cool down - 5' jogging and walking, followed by 10' extensive stretching

Total duration: 50'

Sun.: Those referees who don't have a game to officiate in the weekend, may do some intermittent activities such as playing badminton, football, squash, or tennis