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# **Introduction**

The booklet will be, we hope, a simple guide for those working as a Photofinish Judge. As with any skill, the best way to develop your expertise is to work in the role. Obviously it is helpful if you have some idea of what to do – and why. For example you may have been on a course, or worked at meetings in other roles, or even in a photofinish room. Nevertheless, we all had our own first time working in photofinish, so we will all be more than willing to help you on your way.

Photofinish is often thought of as very technical, or just for computer experts. However, basic operating is really quite simple. It naturally helps if you are at least familiar with a keyboard and looking at a screen, but someone else will have sorted out all the technical bits – that's why we have chiefs and technicians.

It also can sometimes be seen as a 'closed shop' where newcomers find it difficult to get involved. Now though, as more tracks, Counties or even Clubs buy their own equipment, the need for operators, at all levels of meeting, continues to grow. You should realise, however, that rather like starters, photofinish officials are not regularly taken around with Club teams, so you will need to make sure people know you are interested. If you make yourself available there are plenty of opportunities.



References throughout this text are made to the UK: Athletics publication *Rules for Competition*. This rule book is published every two years and is available from:

### **UK Athletics Book Centre**

5 Church Road, Great Bookham, Surrey KT23 3PN www.ukathleticsbookcentre.co.uk Tel: 01372 452804.

For disabled athletes the official International Paralympic Committee (IPC) *Athletics Rules and Regulations* with supporting documents are available from:

http://ipc-athletics.paralympic.org/Rules

A simplified version of rules for disabled athletes related to the UKA rules is included in the UKA rule book.

It is wise to read the relevant event rules before a competition which includes events for disabled athletes.

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# **Photofinish systems**

**Athletics Officials' Guide: Photofinish** 

Effective operators need to be aware of the basic elements of a photofinish system, without understanding all the detail. All systems work on basically similar principles, although they can appear very different, and may require differing approaches by the operator.

The most common system in UK is **FinishLynx**. The **Seiko** system is almost identical, and the **Swiss Timing/Omega** system is very similar. **Timetronics** uses a slightly different philosophy.

All systems need to able to record a start time, capture an image of the finish, and store this data labelled as an identified race. From this the precise time of each finishing athlete is determined, and hence the finishing order. These times and places are then made available as the 'result' of the race.

For any system to be approved, the start time must be captured automatically. Labelling the race is usually done using a pre-loaded list, although it can be done race by race.

Capturing the finish image is usually done manually in FinishLynx; Timetronics is usually set to do this automatically.

In FinishLynx the race data is then passed on to be read, and the result published. In Timetronics the initial reading is done on the capture machine, and then passed for publication of the result on a second machine.

On all systems the result can be printed (with or without pictures), or passed electronically to another system for dealing with the results.

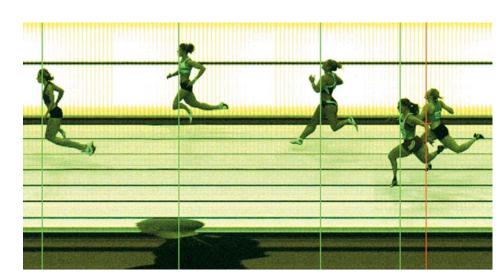
# Photofinish operational skills: FinishLynx based

Those in bold are essential right from the start.

Other skills may take more time to acquire.

# **Button Operator**

- Capture the finish image by holding down the button while every athlete finishes.
  Releasing the button stops the capture, which can be done in longer races. Do not
  try to be too clever, as there is almost unlimited computer memory, and any excess
  is easily removed later. When there are lapped runners, take everyone who passes,
  from the leader onwards just in case.
- Keep the team informed, eg by calling "Alt P", "Alt F", "All in" etc. (You may be the only one who can see out. Anyone who cannot see will rely on you for information.)
- 3. Check the start line for numbers, and empty lanes (DNS)- tell the reader
- **4.** Watch and confirm if a race is recalled, or if it continues to run despite what sounds like a recall (echoes!) tell the capture operator
- 5. Check for DQs made at the start tell the reader
- 6. Check for drop outs identify if possible tell the reader
- 7. Check that the capture computer is ready for the next race you can see on the track clues may be gender, size, start point.

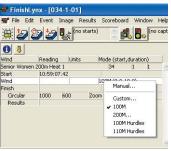


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# **Capture Machine Operator**

- 1. Be ready for the next race start correct camera, correct race loaded, correct settings (wind gauge etc). There are three icons which take you to last race/the schedule for selection/next race. Sometimes you will need to skip races because they are not needed (don't save them as you skip them); sometimes you need to select a race out of order - use the middle (schedule) icon and select.
- 2. Confirm good start. If no start tell Chief immediately. If false start, reset only when confirmed.
- 3. Arm beams at the correct points Alt F for every finish, Alt P every lap (or as instructed by Chief), Alt R if you need to restart the clock running.
- 4. When all are in, save the race using File > Save As and confirm after checking the name is correct. Then do File > Close to make that race available, and get ready for the next one yourself.
- 5. Keep the race schedule loaded up to date.
- 6. Monitor picture quality adjust camera if necessary (or get it adjusted). When the light is variable, try to keep the gain between 50 and 100. If it goes outside this range, the iris needs opening (if too high) or closing (if too low).
- 7. Set clock to time of day in longer gaps in the programme (with automatic over-ride).







Wind Settings					
100m	10 secs				
110/100H	13 secs				
150m	10 secs after delay	delay 5 – 8 secs			
200m	10 secs after delay	delay 10 secs for fast men, more for slower runners			

# **Read Machine Operator**

- 1. Load the required race. When you select File > Open it should already be set to look for it in the correct directory. If you have trouble finding it in the list (depending on how they are labelled) you can also use File > Open Recent
- 2. Check the picture. Autocrop (see below), but make sure you lose no athletes if the picture is murky.
- 3. Time each athlete, preferably in order, by placing the cursor on the torso. Use lanes or bibs to identify athletes. You can change between these using the tool bar above the image (see below). With the cursor in place, and the athlete identified, press ENTER.

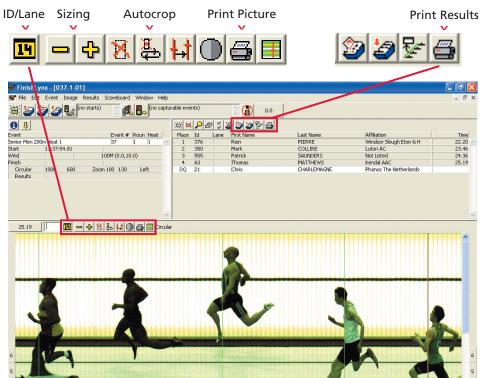
If in lanes, check which lanes are in use before starting.

If not in lanes, and leg numbers are obscured/missing, you may need to read those you can, and come back to the others. This is when any judges' result can be really useful! Knowing Club vests, or even recognising athletes, can also help.

You can enlarge or decrease the picture size if it helps using the tool bar above the image (see below).

For wheelchair races athletes should be placed in the order in which the axle of the leading wheel reaches the vertical plane of the nearer edge of the finish line. For athletes running with a guide runner you are only looking for the torso of the athlete NOT the guide. The athlete must cross the line in front of the guide or the athlete will be disqualified.

Always time as accurately as you can, in case thousandths are needed for fastest losers.



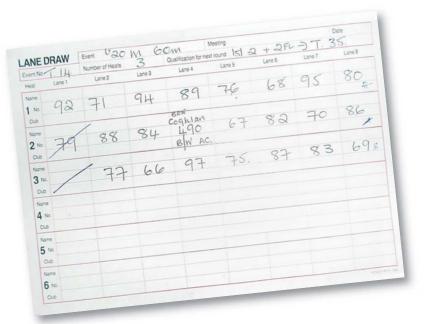
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**Athletics** 

- 4. Deal with wind speed, if you need to enter it, by clicking in the box. Don't forget to save!
- Deal with DNS, DNF and DQs by right clicking Place or Id for the athlete and selecting Status and DNS etc. For DQs, times are not issued, but timekeepers appreciate a copy.
- Save the read race use File > Save not File > Save as and print the number of copies required, using the print icon above the results box. The Chief will decide whether you wait until judges and timekeepers results have been crosschecked.
- 7. Where there is more than one camera, look at all pictures in difficult cases.
- 8. The picture quality can be improved by selection Image > Adjustments. The Gamma bar is often the most helpful.
- 9. You may need to add results for DNS, DNF or missed athletes. Click in an appropriate space in the picture, add the ID and then change the result as needed. You can also add/correct athlete names. To enter any data directly into the results box, click in the field until the cursor appears, type in, and press ENTER or TAB to retain your typing.
- 10. To print pictures: for the whole race picture, use the print icon above the picture (see picture on page 7); to print just part, draw a box around your selection with the right mouse button held down, then select Print from the menu that appears. You will need to adjust the print size. We print selections for the judges. We need whole pictures if there is a record.
- 11. You may need to keep the evt file updated don't forget to save any changes.
- 12. Sometimes autocropping leaves in large areas of waste space eg shadows or other movement on the picture. We can manually crop by using the right mouse button and selecting **Crop**
- 13. If the lane bars at the side have been correctly set, you can pick up the lane using the cross hair on the cursor.

# Reader/Checker/Verifier

- 1. Work with the Read Machine Operator. Verify the cursor is correctly positioned.
- 2. From the Start lists, or from the scheduled result list on screen, identify each runner by lane or ID as appropriate.
- 3. Check the full result against the judges and timekeepers results. If there are discrepancies, check the picture. The Chief may wish to verify the result. Ensure Referee or Chief Timekeeper is aware of any changes made.
- 4. You will need to complete a 'ticks and crosses' sheet if there is lapping. Use this to identify to the operator when reading which athlete images need timing.
- 5. You may be able to get partial, or even complete results visually. In a sprint, the lane of the winner can be a good starting point. In a distance race, identifying runners without leg numbers is useful, as is noting the IDs of pairs where one will be obscured on the picture.

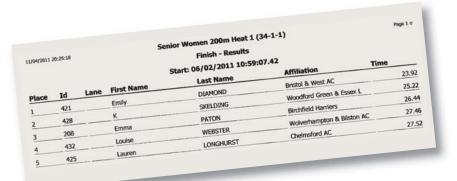


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# **Communicator**

- Receive all information coming to Photofinish. This may be by runner, telephone, on a string and clip, by radio. It could include start lists, revisions, judges results, timekeepers results.
- 2. Check that incoming information is identified and collated.
- 3. Check any outgoing information for correct identification, etc.
- 4. Deal with the distribution out from Photofinish. Any of the same methods may be needed.
- 5. Establish tidy filing systems as required by the Chief.
- **6.** Photofinish may need to confirm qualifiers. It is always useful to check fastest losers in case equal times need to be resolved by thousandths.
- 7. Assist with 'ticks and crosses' in distance races with lapping.
- **8.** Assist with visually identifying problems, eg lapping, drop-outs, missing leg numbers.



# **Chiefing**

Many Chiefs will be able to complete many of these tasks themselves; others will rely on technicians. However, the Chief is *responsible* for each of these.

- Checking that the system is correctly set up and functioning correctly
- Checking that each camera is correctly on line.
- 3. Checking that the picture quality is the best that can be obtained.
- Checking that the beams are accurately positioned, without interfering with the picture.

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**Athletics** 

- 5. The completion of a satisfactory Zero Control Test.
- Liaison with the start team to ensure starts are checked when they move.
- 7. Liaison with Chief Timekeeper and Referee over exchange of results.
- 3. Liaison with Seeding over start lists.
- 9. Liaison with Results over publication.
- 10. Ensuring that files are prepared and loaded, and maintained during the meeting.
- **11.** Arranging the team duties. Offering the appropriate level of assistance to each member.
- 12. Ruling on difficult decisions.
- 13. Monitoring picture quality, communications, timetable issues throughout.
- **14.** Monitoring performance throughout.

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# **Data files**

FinishLynx can use three types of data file. All are CSV (comma separated variable) files with specific names. They can be created in Excel or in Notepad. They are normally saved in the directory used for saving races.

#### The evt file

The evt file is the most used. It lists the events, with (optionally) information about the athletes in each race. The format is very specific, as in this example, and it must be called lynx.evt

```
; Example evt file
; any line beginning with semicolon is ignored
; the format is <event number>,<round number>,<heat
number>,<name>
; followed optionally by athlete data

1,1,1,SM 100m
,48,1,Jones, Fred,Tipton
,65,2,Smith, Jim,Bath
,2,3,Singh,Sanjit,W&B
etc
```

### The sch file

The sch file is rarely used. It is the evt file without athlete data, and it must contain the same events, but in the order in which they will be run. It must be called lynx.sch

# The ppl file

The ppl file is not essential, but very useful provided that every athlete has a unique number. The format is very specific, as in this example, and it must be called lynx.ppl

```
; Example ppl file
; The format is <number>,<surname>,<firstname>,<club>
1,Able,Andy,BRAT
2,Singh,Sanjit,W&B
3,MacDay,Jock,Glasgow
etc
```

# **Progressing through Level 2**

### Level 2a (Club)

Requires a minimum of four experiences, all on a photofinish team. Ideally all aspects of photofinish work should be covered, but reading races is mandatory.

## **Level 2b (County)** (or Home Country equivalent)

Requires a minimum of six further experiences.

- Four must be on a photofinish team. All aspects of work should be experienced, and the meetings should be at more than one venue (but not necessarily using a different system, or even different equipment).
- The remaining two experiences could be on photofinish, but a wider experience is considered advantageous. Suggestions include:
- Working with the starter/marksman team.
- Working with track team, particularly with the steward.
- Working on seeding.
- Working on Results.
- Working as a qualified Official in another discipline.

Completion of logbook questions, and pages for experiences and mentoring is also required.

### Level 2c (Regional) (or Home Country equivalent)

Requires a minimum of 10 further experiences. At least eight should be on a photofinish team, including work at different venues. The other two could be further experiences from the Lebel 2b list above. However, Officials should bear in mind that they will need to show a good level of competence in all aspects of photofinish work.

Continued completion of logbook pages is also required.

At least one satisfactory report is required, and all areas of work need to be assessed.

The award of level 2c is subject to recommendation by the TRNG.

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# **Record of experience**

A 'Record of Experience' form is a record of the meetings you attend and the duties carried out. This must be kept up to date. The form is in your logbook and further copies can be downloaded from the Officials section of your Home Country NGB website (see page 16).

Part of a fictitious sheet is shown on the next page and should give a guide as to the information that needs to be included. If you have any doubts then please talk to your Chief on the day of the meeting.

### Please note:

- You should always make a note on the form if you have had a report done on you and by whom.
- You are strongly advised to take a photocopy of the completed form before sending it to your local Officials' Secretary or keep an electronic copy .

# Sample record of experience form



Name:	Name: ANOFficial Licence Number: 1234567/12 Telephone: 01234 123456789	Licence Number: 1234567/12	<b>Telephone:</b> 01234 123456789
Address:	458 Acacia Avenue, Warmington on Sea, St	Address: 458 hoadia Avenue. Warmington on Sea, Sussex	
Postcode:	ONO3 992 Email:	Postcode: ONO3 992 Email: another@somewhere.com 2011	2011
Discipling.	Photofinish	Discipling: Photofinish	AVA

Please complete the form during the competition period and send, as requested, to the relevant Officials Secretary. This could be your Home Country Officials Secretary or the Tri-Regional Secretary, depending on your home address. Forms should be returned by September 30<sup>th</sup> in any year. Please use a separate form for off-track endurance events. You can either print and complete the form or save it to your computer and complete it. On the computer, it will expand as necessary. If you take it to competitions, you may want to ask the Referee or Chief to sign it for you.

Please describe all duties as fully as possib

	Venue	Duties undertaken (in detail)	Name of Chief / Referee	Reports on you / by you
Bracknell	nell	Button, Comms	A. Wright	
eague Reading	තු	Button, Capture Machine, Read Machine, Verifier, Comms T.Jones	T.Jones	
Bracknell	lell	Read Machine, Verifier, Comms	R.Smith	
filton k	Milton Keynes	Button, Capture Machine, Read Machine, Verifier, Comms C. Hall	C. Hall	

# **UK and Home Country Officials' contacts**

### **UK Athletics**

**Athletics Officials' Guide: Photofinish** 

Website: www.uka.org.uk/competitions/officials

### **England Athletics**

Website: www.englandathletics.org/officials

### **England Athletics Officials' Education Contacts**

North: officials-north@englandathletics.org 07968 498704.

Midlands: officials-midlands@englandathletics.org 07725 457823

South West: officials-sw@englandathletics.org 07921 049048

South: officials-south@englandathletics.org 07968 498704

Courses: www.englandathletics.org/officials-courses

For County Officials' Secretaries see page 17

### **Scottish Athletics**

Website: www.scottishathletics.org.uk

**Scottish Athletics Officials' Coordinator** 

Shona Malcolm – shonamalcolm@scottishathletics.org.uk 0131 539 7348

#### **Education contact**

Jim Goldie – jimgoldie@scottishathletics.org.uk

### **Welsh Athletics**

Website: www.welshathletics.org

### Welsh Athletics Officials' Coordinator

Neil Wheeler (Office) - neil.wheeler@welshathletics.org T: 02920 644870

### Officials' Secretary

Derek Crowder - derek.crowder@welshathletics.org

#### Area Officials' Contacts

North: Denise Harris - den.harris@btinternet.com

South: Derek Crowder – derekcrowder@btinternet.com

**East:** John Chidlow – javchidlow@yahoo.co.uk

West: Ken Bennett - kenhb@tiscali.co.uk

#### **Athletics Northern Ireland**

Website: www.niathletics.org

Officials' Coordinator (office)

Jenni Black – jenni@niathletics.org 028 9060 2707

#### Officials' Committee

**Chairman** Stanley Hall – stanleyhall37@btinternet.com **Secretary** Bob Brodie – bbrodie677@btinternet.com

# **County Officials' Secretaries (England)**

Your County Officials' Secretary (COfSec) is an important link. They can supply you with details of County events, particularly County Championships, at which you are welcome to officiate. There may well be other events within your County. Your COfSec will also be able to provide help and support during you Officiating career.

Contact details are listed below, but an up to date list can be found on the England Athletics website **www.englandathletics.org** – click 'Your area' and then on the appropriate area on the map. Then click 'Officials' and scroll down for COfSecs for your area. Your County AA website should also have details for your County.

your area. Your Co	ounty AA website shou	uld also have d	etails
Avon	Ray Gooding	0117 9562481	raygo
Bedfordshire	Paul Brookes	01582 750474	hons
Berkshire	Jill Wright	01344 885475	jill.w
Buckinghamshire	John How	01494 785623	johnl
Cambridgeshire	Al Weaver	01733 246572	camb
Cheshire	Alan Morris	07885 985172	chesh
Cornwall	Ben Penberthy	01736 850404	ben.
Cumbria	Ken Taylor	01768 772685	kt.k@
Derbyshire	Ernie Cripps	01332 512483	ernie
Devon	Keith Reed	01752 893573	kreed
Dorset	David Kitching	01305 832797	dorse
Essex	Diane Wooller		diane
Gloucestershire	George Williams	01242 602529	(edu
	Albert Gardiner	07837 874936	alber
Gr. Manchester	Mike Welford	0161 866 8253	mike
Hampshire	Eileen & Terry Williams	01252 664455	eilee
Herefordshire	Phil Wells	01544 318854	p-we
Hertfordshire	Peter Lee	07986 808033	peter
Humberside	Edwin Bellamy	01652 633422	ebell
Isle of Man	Colin Halsall	01624 852187	halsa
Kent (shared)	Maureen Fletcher	01424 855638	maur
	Gill Freeman	01322 402476	gill.fı
Lancashire	Michael Grime	01254 240739	mike
Leicestershire	Cherie D'Silva	0116 2713661	knov
Lincolnshire	Maggie Davis		mad@
Merseyside	Ron Scott	01704 566995	ronce
Middlesex	Steve Marshall	07973 253145	steve
Norfolk	Gaye Clarke	07867 543317	gaye
Northamptonshire	Graham Curtis	01536 744390	graha
North Yorkshire	Roger Everton	01904 765104	roge
Nottinghamshire	Gwen Hines	01909 591298	gwer
Oxfordshire	Alan Vincent	01295 720809	alan.
Shropshire	Margaret Afford	01952 419826	marg
South Yorkshire	Terry Bailey	01302 537853	terry.
Somerset	Mike Eastmond	01823 400076	east@
Staffordshire	Pat Lockley	01902 784903	patlo
Suffolk	Tony Cheatham	01473 311290	antho
Surrey	Peter Crawshaw	01737 761626	pete
Sussex	John Gill	01444 458953	puffi
Tyne and Wear	Chris Betts	01768 772685	christ
Wiltshire	Ray Bell	01367 240984	bellrj

02476 314990

01924 291150

01384 873989

Warw. & Birm'ham Margery Ewington

**West Yorkshire** 

Worcestershire

**Bryan Murray** 

**Roland Day** 

E	etails for your County.
	raygooding@supanet.com
	honsec.bedsaaa@hotmail.co.uk
	jill.wright61@yahoo.com
	johnhow60@hotmail.com
	cambsofficials@sky.com
	cheshireofficials@gmx.com
	ben.penberthy147@btinternet.com
	kt.k@btinternet.com
	ernie@ecripps.wanadoo.co.uk
	kreed@cleeve41.freeserve.co.uk
	dorsetcofsec@mkitching.plus.com
	diane.wooller@btinternet.com
	(education, CRB, database)
	albert_gardiner@hotmail.co.uk
	mike.welford@ntlworld.com
	eileenandterry@ntlworld.com
	p-wells2@sky.com
	peteratpeter.lee44@btopenworld.com
	ebellath@aol.com
	halsallcolin@hotmail.com
	maureenfletcher@btinternet.com
	gill.freeman53@ntlworld.com
	mike.grime@talk21.com
	knowlesdsilva1@btinternet.com
	mad@maggiedavis.plus.com
	roncoscott@aol.com
	steve.marshall@barnet.gov.uk
	gayeclark@btinternet.com
	grahamandbernadette@tiscali.co.uk
	rogereverton@talktalk.net
	gwen.hines@virgin.net
	alan.carole@freeuk.com
	margaret.afford@blueyonder.co.uk
	terry.bailey.292@tesco.net
	east@fsmail.net
	patlockley@blueyonder.co.uk
	anthonycheatham1107@btinternet.com
	peter.crawshaw@achilles.org
	puffins70@talktalk.net
	christopher.betts@btinternet.com
	bellrjg@btinternet.com
	mewington2@sky.com
	ldavies21@sky.com
	roland.day@btinternet.com
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# **Officials' Associations**



# **South of England Athletics Officials' Association**

Website: www.seaoa.co.uk

**Chairman:** Stan Burton – stanburton@seaoa.co.uk **Secretary:** Ros Alterman – rosalterman@seaoa.co.uk

**Sub-Committee Chairs** 

Track: Terry Williams – terrywilliams@seaoa.co.uk
Field: Peter Crawshaw– peter.crawshaw@achilles.org
Timekeepers: Paul Langston– paullangston@seaoa.co.uk
Photofinish: Steve Baldwin– stevebaldwin@seaoa.co.uk



### **Midlands Association for Athletics Officials**

**Website:** www.mafeo.net **Chairman:** Andrew Hulse

**Secretary:** Mauren Bullen – honsecretary@mafeo.net



### **Northern Athletics Officials' Association**

Website: englandathletics.org/naoa

**Chairman:** Janette Tomlins

Secretary: Roger McCall – mccalls@ntlworld.com Membership Secretary: Andrew Shaw – 01204 591194

## **Northern Ireland Technical Officials' Association**

**Website:** www.niathletics.org (click on 'education & officials') **Chairman:** Stanley Hall – stanleyhall37@btinternet.com - **Secretary:** Bob Brodie – bbrodie677@btinternet.com

### **Scottish Athletics Officials' Commission**

**Convenor:** Vic Hockley – hockley\_vic@msn.com **Secretary:** Brenda Stephen – bmstephen@aol.com

**Peer Group Chairs** 

Field: Bob Carter - robanncarter08@btinternet.com

**Track:** Margaret Ann MacLachlan – colin\_margaret-ann@hotmail.co.uk

**Starter/Marksman:** Dave Biggin – davebiggin@aol.com **Timekeepers:** Mike Forrest – Family.Forrest@btinternet.com

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For your notes

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**Athletics Officials' Guide: Photofinish** 

