# Detailed Comments relating to Operational Protocols

## For

## Athletics Throws/Horizontal Jumps Events

30 March 2015

**To comply with IAAF Rule 137 it is essential that the details of the Check Measures are recorded on the Recording Sheet and signed off by the Referee. The recording sheets should be marked "EDM".**

Where reference to Fine mode is made it relates to measurement to mm (3decimal places of a metre).

An effort has been made to make these comments non-specific to Model/Make of instrument. However where Function Keys are used they generally apply to the Athletics Software supplied with Leica Instruments by CR Kennedy Pty Ltd

**Check all equipment** (incl. Batteries are charged and **take spare to site**)
**Set up in safe position** (at least 30 minutes prior to Warm-up). Ensure clear sighting of centre, rim and all measures can be made from a safe/protected position.
Ensure all settings are correct (ATR is ON (icon should appear on screen), Correct Reflector/prism is nominated, Log is ON & sufficient space is available)

**Establish Base points/Centre - Use Manual Centre option** (for Throws).
Circles can be distorted and for consistency a standard method of establishing the centre is preferred. A false centre (with relation to the sector) can be achieved under the alternative method if the rim is distorted and points are selected elsewhere on the rim.

**Check Rim measurements on both sides of the sector,** in fine mode (ie; measure to mm). Both distances should be similar and (close to) 0.000m.

>   **Note (i)** – By undertaking these measures a number of potential errors will be detected:
>
>   a)  That the centre is not offset
>   b)  That truncation is being correctly applied
>   c)  Potentially, the correct event has been selected/circle is correctly configured
>
>   **Note (ii)** – The state of the rim can be such that the actual measurement will vary from 0.000m. Selection of the spot on the rim and placement of the prism can have an effect on this measurement. Avoid obviously distorted sections of the rim.

**Establish Check Point** so that it is positioned at least where most throws will fall – preferably further out, closer to expected best. (At far end of Pit for Jumps).
Selecting a position close to the best (or majority of throws) will maximise the effectiveness of the Check Measure in detecting possible variations in EDM v Tape measure allowing for the tape to be physically checked before competition rather than have queries arise during/after competition.

**Why use Fine measurement mode for Rim and Check Point measures?**
By obtaining the measurement of the Rim and the Check Point a clear indication of the degree of variation is obtained. A single mm can cause a coarse measurement to display as a variation of 1cm due to truncation. It also gives an indication of the size of the adjustment that may be required to the manual centre point. At the same time a check of the software truncation process is apparent.

**Check that Log file is On and accepting stored measures.** Most instruments do not indicate that the LOG File is full nor do they confirm that a Store/Send instruction has in fact resulted in an entry in the LOG File only that it has been "sent".

**Measure each attempt and store including fouls.**

- o Why Should I Store Each Measurement?

- o The ability to save each measurement (including fouls) helps in resolving recording errors or protests. It is an electronic record of the actual measurement so it is free of any misreading of the display or error in writing the distance on the recording sheet. By noting down the stored point number of the first and last throw of the event, it is simple to compare EDM (logged) distances with those on the recording sheet.

- o Why Should I Measure and record Fouls/failures?

- o A measure lost is difficult to replace. Offering another throw is frequently unsatisfactory. Protests may not be made immediately and even if they are the mark may have been lost. It takes little time to measure a failure as the prism is already in place and the operator should have sighted the prism before becoming aware that the attempt is a "failure".
- o The Referee can indicate that a measure is not required if he is confident that a later protest/query will not be raised e.g. the athlete clearly walked out front.
- o "Flat" Javelin calls should be "marked" at the position where the front of the Javelin was on impact and measured in case of a delayed protest. This no more difficult than close call landings.

- o  Why Should I Re-measure duplicate sequential measurements?

- o It is possible to call a previous measurement before a new distance has appeared upon the screen.
- o It is possible that the instrument does not detect the prism and the operator can take the previous distance as the one that should have been measured (especially if the previous one has not been stored).
- o For more abundant caution the time it takes to re-sight and measure is not significant.
- o A later check can be made on the LOG and from other recorded data e.g. angle, it can be readily determined if the measurements were taken from different locations.

**Prism operator is to go to "Mark" at all times (including "flat" Javelin) and NOT move away UNTIL waved off by EDM operator.**

**Operator to complete all recording procedures before waving Prism off (Store, call, call-back, Oral protest)** The EDM Operator has sole responsibility of ensuring that all measurements are made and recorded. Until the measurement is called, called back, stored and there has been time for the distance or validity of the throw queried (protested) it is essential that the "mark" is maintained. It is, at best, a bad look if an official is searching for a "mark".

A good example of the need to retain a "mark" is the experience at the London Olympics in the Women's Hammer where the foresight of an official saved the day when a "duplicate sequential" measure was discarded initially incorrectly. (See also above "Duplicate Sequential Measurements".)

**On changing operator and/or event** – Check correct event and centre point are being used. This should entail Centre and Rim measures. (Especially relevant for those instruments that retain centre).

At last year's Australian Championship more than one instance occurred when a changeover, under tight time constraints and with operators not totally familiar with the different models in use, resulted in measurements being initially taken using the wrong event software. Had a quick check been done of the circle centre (the result would have been a measure equal to minus the radius of the incorrect circle not the correct radius) or at the rim (result would have been a measure equal to the difference between the two circles' radii not zero).

Graham Dwight  30 March 2015