

**TECHNICAL COMMITTEE FOR
STANDARDS AND PROCEDURES FOR
TRAFFIC CONTROL AND
TRAFFIC CONTROL EQUIPMENT
(TCSP)**

Prosecuting Guidelines
for
Speed Measuring Equipment (SME)
and
Traffic Light Violation Monitoring Equipment (TLVME)

JANUARY 2006

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**GUIDELINES FOR PROSECUTION
WITH REGARD TO SPEED AND TRAFFIC LIGHT PROSECUTIONS**

- 1.1. **The provisions in this document are operational guidelines only and non-compliance does not influence the accuracy or reliability of measurement results. The decision whether or not to prosecute remains in the discretion of the prosecutor.**
- 1.2. The operator for purposes of these guidelines is a traffic officer appointed in terms of road traffic legislation.
- 1.3. The operator shall have attended and passed a course on speed measurement and, if applicable traffic light monitoring, as approved by the National Training Committee.
- 1.4. That the operator shall be in possession of an operator's certificate for the specific type of SME and, if applicable, TLVME.
- 1.5. An accredited laboratory shall calibrate -
 - 1.5.1 All speed measuring equipment;
 - 1.5.2 All distance measuring equipment; and
 - 1.5.3 All time or time interval measuring equipment,at least once every six months and shall issue a calibration certificate. If the six month calibration period has expired, equipment must be recalibrated before it may be used for prosecution purposes.
- 1.6 All distance checking markers for validation of SME's shall be checked and validated by a Professional Land Surveyor, registered with the S A Council for Professional and Technical Land Surveyors or an accredited laboratory at least once every twelve months. A certificate of the validation shall be issued.
- 1.7. No prosecution may be instituted where the speed measurement was taken within 300 metres of the commencement of the speed limit zone, except with permission from the Director of Public Prosecutions.
- 1.8. That maintenance and repair of equipment and accessories that will result in the calibration seal being broken, shall only be attended to by the manufacturer, distributor, or their appointed agent, in accordance with the SANS 1795 and the equipment shall be recalibrated thereafter.

A person qualified to effect repairs to equipment, which is authorized in writing by the manufacturer, distributor or an appointed agent of the manufacturer of such equipment, may effect repairs in accordance with the manufacturer's instructions.
- 1.9. All results required to be recorded shall be recorded in an appropriate register.
- 1.10. A copy of the following must be available at all times at attended sites where SME's are being operated:
 - 1.10.1 A valid calibration certificate; and
 - 1.10.2 The operator's certificate.

- 1.11 The driver shall be afforded the opportunity to view the speed-reading and the documents referred to in 1.10, if stopped by a traffic officer.
- 1.12 The authority responsible for the speed measurement shall have the following documents available at their offices –
 - 1.12.1 a certificate showing compliance with the relevant part of SANS 1795 (applicable to equipment acquired after the re-publication of SANS 1795 2006?); and
 - 1.12.2 certificates for any distance required in terms of this guideline.

**2. GUIDELINES FOR PROSECUTION WITH REGARD
TO SPEED MEASUREMENTS BY RADAR EQUIPMENT
NOT LINKED TO A DATA AND IMAGE CAPTURING DEVICE**

2.1 SITE SELECTION

When selecting a site for a speed measurement exercise, the following must be adhered to:

- 2.1.1 Site selection must be done during daytime for day and night-time operation.
- 2.1.2 There shall be no large, stationary, or metal objects (e.g. patrol vehicle, bus shelter) within a radius of 50 metres in front of the radar SME.
- 2.1.3 There shall be no metal road signs or vertical flat surfaces within 15 (fifteen) degrees on either side of the aiming direction, within a distance of 200 metres of the antenna.
- 2.1.4 The equipment may only be used where there is a clear view, any obstruction taken into account, within 45 degrees of the direction of aim over a distance of 600 metres.
- 2.1.5 There shall be no high-tension cables within a radius of 100 metres of the antenna.
- 2.1.6 There shall be no discharge type lamps (e.g. sodium or neon) in operation within 45 degrees of the direction of aim within 100 metres of the antenna.
- 2.1.7 (a) Equipment modified or permanently set that no signals are received and processed from vehicles more than 300 metres away may be used on straight roads. Vehicles used to test the modification are vehicles with a tare of not more than 750 kg.

A copy of the certificate verifying the modification or setting has to accompany the equipment at all times.
- (b) Equipment not modified as referred to in paragraph (a), shall only be used where rises and bends in the road take all vehicles further than 300m out of the measuring area of the SME.
- 2.1.8 The SME shall at all times whilst being operated be mounted on a firm and stable surface and if mounted in or on a vehicle, the vehicle must be stabilized before the SME is used.

2.2. SETTING UP THE DEVICE

- 2.2.1 Ensure that the display is legible and functional.
- 2.2.2 Depress the test buttons and ensure that the readings obtained are as per the manufacturer's specifications.
- 2.2.3 Verify operation using tuning fork method, where applicable.
- 2.2.4 Check that the site is interference free by using a radar detector supplied by the supplier/manufacturer of the radar equipment.
- 2.2.5 The tests in paragraphs 2.2.2 to 2.2.4 must be done at the start and end of each speed measurement shift and whenever the instrument is moved.

2.3. OPERATION

- 2.3.1 The SME shall at all times whilst being operated be mounted on a firm and stable surface and if mounted in or on a vehicle, the vehicle must be stabilized before the SME is used.
- 2.3.2 If an unexplained spurious reading is observed, operation must be ceased immediately.
- 2.3.3 Ensure that no speed measurements are taken if any moving vehicle other than the measured vehicle is within 600 metres from the SME in the direction of operation unless 2.1.7 (b) is met.

3. GUIDELINES FOR PROSECUTION WITH REGARD TO SPEED MEASUREMENTS BY LASER EQUIPMENT

3.1. PREPARATION FOR MOBILE SME's

Prior to the machine being used, the following checks must be carried out and recorded:

- 3.1.1 A vertical and horizontal scope alignment test, at a distance of at least 100 metres must be done at the start and end of each speed measurement shift and whenever the equipment is moved.
- 3.1.2 A fixed distance and zero velocity test shall be done:
 - (a) The validation distance must be at least 100 metres.
 - (b) The distance error must not be more than $\pm 0,2$ metres.
 - (c) No speed-reading must be displayed when taking a measurement of a stationary object.
- 3.1.3 If any of the above tests are not met, the SME shall not be used for prosecution purposes.

3.2. SITE SELECTION FOR MOBILE OPERATION

When selecting a site for a speed measurement exercise, the operator must have a clear and uninterrupted view of the road and the vehicle measured for the duration of the measurement.

3.3. SETTING UP THE DEVICE

- 3.3.1 The SME shall at all times whilst being operated be mounted on a firm and stable surface and if mounted in or on a vehicle, the vehicle must be stabilized before the SME is used.
- 3.3.2 Ensure that the display is legible and functional.
- 3.3.3 Verify correct operation using the self-test function.

3.4. MOBILE OPERATION

The following must be adhered to whilst operating the equipment.

- 3.4.1 For approaching or receding vehicles, readings must be taken by aiming at the general area of the number plate of the vehicle, or if it is a motorcycle, its headlamp or rear lamp.
- 3.4.2 Ensure that you have:
 - (a) a clear and uninterrupted view of the vehicle measured, and
 - (b) that no measurement is locked beyond 500 metres.
- 3.4.3 When viewed from the SME there must be a clear, visible separation between the vehicle target and any other visible vehicle.
- 3.4.4 The measured distance mentioned in 3.4.2(b) must be recorded on the charge sheet, if no photographic evidence is available.

4. GUIDELINES FOR PROSECUTION WITH REGARD TO SPEED MEASUREMENTS USING DISTANCE-OVER-TIME MEASURING EQUIPMENT (FIXED DISTANCE/VARIABLE TIME)

4.1. SITE SELECTION

- 4.1.1 The sensor lines of the SME may only be installed on an even and hard road surface.
- 4.1.2 The operator must have a clear view of the sensor lines.

4.2. SETTING UP THE DEVICE

- 4.2.1 Ensure that the display is legible and functional.
- 4.2.2 Ensure that only accessories approved by the manufacturer are used.
- 4.2.3 The SME shall be tested at the start and end of each speed measurement shift, using the internal test feature.

- 4.2.4 Two independent measurements must be obtained, using at least three separated sensors. If four sensors are used, they must be separated by at least 100mm. The speed measurement results may not differ from one another by more than 3% and the lesser of the two measurements must be used for prosecution purposes.
- 4.2.5 The distance between the sensor lines may not be less than the distance specified by the manufacturer.

4.3. OPERATION

- 4.3.1 The condition of the sensor lines must be checked at the start and end of each shift, and the distance between the sensor lines must be measured in the case of surface sensors.
- 4.3.2 If two or more vehicles are in the measurement area between the sensor lines at the same time, the measurement is to be rejected, except on the case of lane specific sensors.
- 4.3.3 In the case of sensors mounted on the surface, the operator shall, observe the condition and position of the sensors from the side of the road, every hour.

5. GUIDELINES FOR PROSECUTION WITH REGARD TO SPEED MEASUREMENTS USING DISTANCE-OVER-TIME MEASURING EQUIPMENT (VARIABLE DISTANCE/VARIABLE TIME)

5.1. PREPARATION

- 5.1.1 Prior to the instrument being used for speed prosecution purposes, the following checks must be done:
 - 5.1.1.1 Verify correct operation, using the built-in test function.
 - 5.1.1.2 Perform a distance check according to manufacturer's instructions over a validated distance of not less than 500 metres.
 - 5.1.1.3 The operator must be in possession of a calibration certificate for the distance between the validation markers.
 - 5.1.1.4 The test in paragraph 5.1.1.2 must be repeated at the end of an operator shift, or each time after a wheel was changed, or when tyre pressure was inflated/deflated.
 - 5.1.1.5 Record the results of the abovementioned tests.
- 5.1.2 Only vehicles clearly marked or identifiable as official traffic or police vehicles may be utilized for this equipment, except with the permission of the Director of Public Prosecutions.

5.2. SITE SELECTION

5.2.1 The equipment may be used on any suitable road or in any traffic condition, provided that the operator has (where applicable) a clear view of identifiable markers next to or on the road.

5.2.2 The target vehicle must be visible at all times.

5.3. OPERATION

5.3.1 A written record of all proceedings and incidents during a shift shall be kept at all times.

5.3.2 When measuring the target vehicle's speed, the distance measured shall not be less than 500 metres.

6. GUIDELINES FOR PROSECUTION WITH REGARD TO DATA CAPTURING AND RECORDING DEVICES FOR SPEED MEASUREMENTS AND TRAFFIC LIGHT VIOLATIONS (EQUIPMENT SUCH AS WET FILM CAMERAS, VIDEO CAMERAS, DIGITAL CAMERAS)

6.1. GENERAL REQUIREMENTS APPLICABLE TO BOTH UNATTENDED AND ATTENDED OPERATIONS.

6.1.1 The photograph/image shall at least record the following for Speed measuring equipment:

- (a) date of offence;
- (b) time of offence;
- (c) the speed measured;
- (d) where sensor lines are installed, a view of the whole width of the traffic lane(s) covered by the sensor lines;
- (e) where any other sensors e.g. laser or radar are used, an image of the area with an angle of view sufficient to ensure that the speeding vehicle is clearly identified in relation to the measuring position and other vehicles which may be nearby; and
- (f) the location code.

6.1.2 An information sign with regard to speed prosecution by camera must be displayed as required by the Director of Public Prosecutions, if the offender is not immediately stopped and informed of the offence.

6.1.3 The photograph/image shall at least record the following for Traffic light violation monitoring equipment:

- (a) date of offence;
- (b) time of offence;
- (c) the yellow interval time of the traffic light preceding the red-light time;

- (d) the elapsed red-light time at time of the photograph/image;
 - (e) a view of the whole width of the traffic lane(s) and intersection;
 - (f) at least one functioning traffic light must be visible in the photograph / image indicating the interval of the intersection;
 - (g) at least two photographs/images indicating the position of the vehicle of the accused must be taken;
 - (h) the first image must show the vehicle entering the intersection after a delay time has lapsed at the start of the red-interval of the intersection;
 - (i) at least a second image taken a fixed time or distance from the first image indicating the vehicle moving through the red interval of the intersection; and
 - (j) the location code.
- 6.1.4 A written notice in terms of section 341 of the Criminal Procedure Act, 55 of 1977 shall be posted to the licensed owner of the motor vehicle within 30 days of the date of the offence.
- 6.1.5 Every photograph/image is to be inspected by a peace officer before prosecution is initiated to ensure that all the requirements of paragraph 6. 1.1 has been complied with and:
- 6.1.5.1 that two or more vehicles are not in the measurement area between the sensor lines if the sensor lines are general or not lane specific, and if lane specific, the lane of violation shall be indicated; or
 - 6.1.5.2 where a laser device is used, that there is a clear unobstructed view of the vehicle to be prosecuted;
 - 6.1.5.3 where a radar device is used, that there are no vehicles other than the vehicle to be prosecuted, in the measurement area; and
 - 6.1.5.4 that the information on the photograph and the information on the NaTIS system correlates with regard to the make and type of vehicle.
- 6.1.6 If requested, a copy of the relevant photograph/image must be supplied free of charge to the alleged offender or licensed owner of the vehicle.
- 6.1.7 If a flash light is used during night-time operation, only filtered flash lights (to avoid blinding of motorists) may be used to illuminate the vehicle from the front.
- 6.1.8 In case of a traffic light offence, a letter of notice must be posted within 30 calendar days to the licensed owner of the vehicle to inform him/her of the offence and requesting him/her to contact the authorities.

6.2. UNATTENDED OPERATIONS

- 6.2.1 Only speed measuring or traffic light violation monitoring equipment installed in a permanently secured housing that has permanently installed sensors may be used for unattended operations for prosecution of speed violations and traffic light violations.

- 6.2.2 Permanently installed systems shall be checked for correct operation and damage. Installations that are operational for longer than seven days shall be checked for correct operation, correct camera alignment and damage every seven days. The results of the check shall be recorded.
- 6.2.3 Where a laser or radar SME is used, the operator shall verify that the alignment of the laser device or radar sighting device is coincident with the camera aiming point. Record the results on image. This verification shall be done before and after each period of operation. Installations that are operational for longer than seven days shall be checked for operation, scope and camera alignment and damage every seven days. The results of the check shall be recorded.

6.3. ATTENDED OPERATIONS

- 6.3.1 Where a laser or radar SME is used, the operator shall verify that the alignment of the laser device or radar sighting device is coincident with the camera aiming point. Record the results on image. This verification shall be done before and after each period of operation.
- 6.3.2 Where variable distance/variable time SME's are used the video or other recordings shall comply with the following:
 - 6.3.2.1 All relevant information must automatically be displayed on the video or other recording, including the speed of the patrol vehicle. The operator must not be able to alter any information displayed on the video or other recording.
 - 6.3.2.2 The video camera or other recording must be used to record as much information concerning the driver and his vehicle as possible, and should be kept running until the finalisation of the incident.
 - 6.3.2.3 Once the whole video cassette or other recorded medium has been utilized it must not be tampered with, and must be kept safe and secure for court proceedings.