

**Prosecuting
Guidelines for
Speed Measuring
Equipment and
Traffic Light
Violation
Monitoring
Equipment**

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



**Prosecuting Guidelines for
Speed Measuring Equipment and
Traffic Light Violation Monitoring Equipment**

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as amended	
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TCSP Guidelines

To make provision for the operational guidelines in order to ensure the accuracy and reliability of measurement results for fair prosecution. The decision whether or not to prosecute however still remains in the discretion of the prosecutor.

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DEFINITIONS

Definitions.—(1) In this prosecuting requirement document, unless the context otherwise indicates

“SME”, in relation to - Chapter 1

- (a) [Para. 1.1(iii), 1.12 (iii), 1.13 (i), 2.1(a) (i)(ii),
in relation to - Chapter 2
- (b) [Para. 2.1(i)(ii),
means - Speed Measuring Equipment in
relation to - Chapter 3
- (c) [Para. 3.1 3.2(b) (i), 3.3(b)
in relation to Chapter 4
- (d) [Para. 4.1 (b), (c) (ii)

“TLVME”, in relation to - Chapter 1

..... [Para. 1.1(iii), 1.2 (iii), means - Traffic Light Violation Measuring Equipment

“DPP”, in relation to - Chapter 1

..... [Para. 1.6(iv), 1.8 (i), 1.9 (iii), 1.10, 1.11, means - Director Public Prosecutions

“SANS”, in relation to - Chapter 1

..... [Para. 1.7(i)(ii), means - South African National Standards

“CPA”, in relation to - Chapter 7 [Para. 7.1(b), means

- Criminal Procedures Act

“High voltage”, in relation to Chapter 2

..... [Para. 2.2(b) (iii), means - A power cable exceeding 22 000 Volts.

“An accredited laboratory”, - accredited by the South African National Accreditation Service (SANAS)

“Radar Categories”,

“Class A1”, in relation to Chapter 2

..... [Para. 2.1(a) means - A radar speed measuring equipment that is designed for measuring only the “down-the-road” speed of a vehicle i.e. no correction using the cosine of the angle between the direction of travel of the vehicle correction and the position of the speed measuring equipment is applied.

“Class A2”, in relation to Chapter 2

..... [Para. 2.1(a) means - A radar speed measuring equipment that is designed for measuring only the speed of a vehicle at an angle to the direction of travel of a vehicle where a correction using the cosine of the angle between the direction of travel of the vehicle correction and the position of the speed measuring equipment is applied.

“Class B1”, in relation to Chapter 2

..... [Para. 2.1(b) means - A radar speed measuring equipment that is designed for “down-the-road” measurement of the speed and distance of a vehicle i.e. no correction using the cosine of the angle between the direction of travel of the vehicle correction and the position of the speed measuring equipment is applied.

“Class B2”, in relation to Chapter 2

..... [Para. 2.1(b) means - A radar speed measuring equipment that is designed for measuring the speed and distance of a vehicle at a pre-determined fixed angle to the direction of travel of a vehicle and where a correction using the cosine of this angle is applied.

“Class C”, in relation to Chapter 2

.....[Para. 2.1(b) means - A radar speed measuring equipment that is designed for measuring the speed, distance and angle (between the direction of travel of the vehicle and the position of the speed measuring equipment) of a vehicle and where a correction using the cosine of the measured angle between the direction of travel of the vehicle and the position of the speed measuring equipment is applied.

CHAPTER 1

GENERAL OPERATIONAL REQUIREMENTS

1.1 Operator requirements - The operator of any Speed Measuring Equipment shall —

- (i) be a traffic officer appointed in terms of the road traffic legislation; and (iii) be in possession of an operator's certificate for the specific type of SME and, if applicable, TLVME.

1.2 An accredited laboratory - shall calibrate or verify -

- (i) all speed measuring equipment;
- (ii) all time or time interval measuring equipment;
- (iii) Any equipment after repairs to components that effects the speed measuring capability where done;

at least every 12 months and shall issue a calibration certificate. If the 12 month year calibration period has expired, equipment must be recalibrated before it may be used for prosecution purposes.

1.3 A Land Surveyor, registered with the SA Council for Professional and Technical Land Surveyors, an accredited laboratory or suitable qualified person shall

- (i) Validate all distance checking markers for validation of SME's where applicable.

1.4 Speed Zone Requirements - No prosecution may be instituted where

- (i) the speed measurement was taken within 300 meters of the commencement of the speed limit zone.

1.5 Speed measuring equipment - All SME's shall comply with

- (i) the relevant part of SANS 1795 (applicable to equipment acquired after the republication of SANS 1795 - 1 January 2006

1.6 Documentation required at SME sites - A copy of the following must be available at all times

- (i) an appointment certificate, (see 1.1)
- (ii) a valid calibration certificate;
- (iii) the operator's certificate; (see 1.1)

The driver shall be afforded the opportunity to view the speed measuring equipment, if stopped by a traffic officer.

1.7 An issuing or traffic authority that wants to use a camera for prosecution purposes -
Where the alleged offender is not immediately stopped and charged - shall

- (i) obtain written permission from the DPP for the roads or sections of roads where it intends on doing such prosecutions, whether such cameras are fixed or mobile.

1.8 Operational requirements relating to automatic SME's or TLVME -

(a) Automatic operation-

- (i) Only speed measuring or traffic light violation monitoring equipment installed in a secured housing may be used for automatic operations for prosecution of speed violations and/or traffic light violations
- (ii) If the automatic operations referred to in paragraph 1.8(i) is not in a secured housing; the SME must be setup and remain under the constant supervision of a traffic officer /metro Police Officer.
- (iii) Above installations shall be checked for correct operation, correct camera alignment and damage at least every seven days. These results shall be recorded.

CHAPTER 2

REQUIREMENTS FOR PROSECUTION USING RADAR

2.1 Site selection and setup for different classes of Radar-

(a) Class A1 and A2 - The equipment may only be used where there are -

- (i) no metal road signs or vertical flat surfaces larger than 1 meter in height within 15 (fifteen) degrees on either side of the aiming direction, within a distance of 200m of the antenna;
- (ii) no signals received and processed from vehicles more than 500 meters away;
- (iii) no other moving vehicle other than the measured vehicle within 600 meters from the SME in the direction of operation.

(b) Classes B1 and B2 - The equipment may only be used where there are -

- (i) no metal road signs or vertical flat surfaces larger than 1 meter in vertical height within 15 (fifteen) degrees on either side of the aiming direction, within a distance of 100 meters of the antenna;
- (ii) no high voltage overhead power cables in the radar's field of detection for at least 100m;

If the SME is designed to measure speed and position of multiple vehicles simultaneously, the SME must be able to indicate the speed of the infringing vehicle and the distance from the SME to this infringing vehicle.

(c) Class C - No restrictions

CHAPTER 3

REQUIREMENTS 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 -
- (a) vertical and horizontal scope alignment test, at a distance of at least 100 meters must be done at the start and end of each speed measurement shift and whenever the equipment is moved to a new location.
 - (b) A fixed distance and zero velocity test shall be done -
 - (i) The validation distance must be at least 100 meters.
 - (ii) The distance error must not be more than + 0,2 meters.
 - (iv) No speed-reading must be displayed when taking a measurement of a stationary object.
- 3.2. Site selection and setup for laser** - setup and installation shall -
- (a) at all times whilst being operated be mounted on a firm and stable surface.
- 3.3. Manual operational procedures** - the following must be adhered to whilst operating the equipment:
- (a) that no measurement is locked beyond 500 meters;
 - (b) when viewed from the SME there must be a clear, visible separation between the vehicle target and any other visible vehicle;
 - (c) the measured distance mentioned in 3.3(a) must be recorded on the charge sheet, if no photographic evidence is available.

CHAPTER 4

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

- 4.1 Site selection and setup for distance over time measuring equipment** - setup and installation shall -
- (a) the sensor lines of the SME may only be installed on an even and hard road surface;
 - (b) for surface mounted sensors the operator must have a clear view of the sensors; and -
 - (i) the SME shall be tested at the start and end of each speed measurement shift, using the internal test feature;
 - (ii) 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;
 - (iii) 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;
 - (iv) the distance between the sensor lines may not be less than the distance that the equipment is designed for.

4.2. Operational procedures - the following must be adhered to whilst operating the equipment –

- (a) the condition of the surface sensors 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;
- (b) 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;
- (c) 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 and record it.

CHAPTER 5

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

5.1. Preparation using distance-over-time measuring equipment - prior to the instrument being used for speed prosecution purposes, the following checks must be done -

- (a) verify correct operation, using the built-in test function;
 - (b) perform a distance check according to manufacturer's instructions over a validated distance of not less than 500 meters;
 - (c) the operator must be in possession of a calibration certificate for the distance between the validation markers;
 - (d) the test in paragraph 5.1(b) 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;
 - (e) record the results of the abovementioned tests.
 - (f) 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 - in selecting a site the following must be adhere to -

- (a) 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.
- (b) the target vehicle must be visible at all times.

5.3. Operational procedures - the following must be adhered to whilst operating the equipment -

- (a) a written record of all proceedings and incidents during a shift shall be kept.
- (b) when measuring the target vehicle's speed, the distance measured shall not be less than 500 meters.

CHAPTER 6

GUIDELINES FOR PROSECUTION WITH REGARD TO DATA CAPTURING AND RECORDING DEVICES FOR SPEED MEASUREMENTS

6.1. General requirements applicable to both manual and automatic SME operations

(a) the photograph/image shall at least record the following for speed measuring equipment -

- (i) the date of offence
- (ii) the time of offence
- (iii) the speed measured
- (iv) the location description

The vehicle must be clearly identifiable as the offending vehicle.

(b) a 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, or where AARTO is in place, in accordance to AARTO legislation -

- (i) every photograph/image is to be adjudicated by a peace officer before Prosecution is initiated to ensure that all the requirements of paragraph 6.1(a) has been complied with; and
- (ii) 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
- (iii) that the information on the photograph/image and the information on the ENatis system must correlate with regard to the make and type of vehicle, except during adverse weather condition and after sunset Night is specified as between sunset and sunrise as defined in the CPA; and
- (iv) 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; and
- (v) 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.

6.2. General requirements applicable to TLV operations -

(a) the photograph/image shall at least record the following for traffic light violation monitoring equipment -

- (i) date of offence;
- (ii) time of offence;
- (iii) the yellow interval time of the traffic light preceding the red-light time;
- (iv) the elapsed red-light time at time of the photograph/image;
- (v) a view of the whole width of the traffic lane(s) and intersection;
- (vi) at least one functioning traffic light must be visible in the photograph / image indicating the interval of the intersection.

(b) at least two photographs/images indicating the position of the vehicle of the accused must be taken -

- (i) the first image must show the vehicle approaching or entering the intersection after a delay time has lapsed at the start of the red-interval of the intersection;

- (ii) at least a second image taken a fixed time or distance from the first image indicating the vehicle moving through the intersection during the red interval; and the location description.
- (c) A letter of notice to prosecute shall be posted to the licensed owner of the motor vehicle within 30 days of the date of the offence to inform him/her of the offence and requesting him/her to contact the authority who issued the letter or where AARTO is in place , in accordance with AARTO legislation.

CHAPTER 7

AVERAGE SPEED LIMIT PROSECUTIONS OVER EXTENDED DISTANCES

7.1 General requirements applicable to prosecution over extended distances - if

equipment is used to capture an image of a motor vehicle to calculate the average speed of such motor vehicle over an extended distance:-

- a) At least two images with description of location must be recorded, one at the start location and one at the end location.
- b) The following must appear on the image
 - i) date of offence
 - ii) time of offence
- c) The information on the image and the information on the National Register of Vehicles should correlate with regard to the make and type of vehicle. The provisions of this subsection will not apply to images taken in adverse weather conditions and between sunset and sunrise.

7.2 The distance between the start location and end location shall be determined by a suitably qualified person and shall be repeated only if the road changes due to construction.

7.3 Speed limit signs together with average speed enforcement information signs must be displayed at the approach of an average speed over distance enforcement section.