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### INTRODUCTION

India has one of the largest road networks in the world, of 3.314 million kilometres, consisting of National Highways, Expressways, State Highways, Major District Roads, Other District Roads and Village Roads. About 65 per cent of freight and 86.7 per cent passenger traffic is carried by the roads.¹ According to the Maruti Suzuki weblog, more than 100,000 Indians are dying every year in road accidents. More than a million are injured or maimed. Many years ago, a study found that road accidents cost the country some Rs. 550 billion every year.² These problems are not confined to India alone. Reports suggest that speed and drinking has been major causal factors contributing to deaths on the highways in the United States.³ These disturbing estimates necessitate prosecuting speeding and drinking motorists before they cause harm to themselves or others. Successful prosecution may well depend upon the means for determining when an offense is committed. Scientific research has provided these means.

This paper is an attempt to examine the admissibility of evidence obtained from remote electronic traffic devices. To this end, it explains in part I the law of evidence and its underlying goals. In part II, it examines how far these foundational requirements are satisfied and the extent to which it should be admissible under the civil and criminal law. Part III analyses the various objections that have been raised against the legitimacy of such tests. Part IV concludes the paper by arguing that this sort of evidence should

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<sup>&</sup>lt;sup>1</sup>Department of Road Transport and Highway's Annual Report 2007-08

<sup>2&</sup>lt;http://www.marutisuzuki.com>, last visited 20.07.2010. It is pertinent to note the chaotic conditions prevailing conditions on Indian roads, in the words of Hon'ble Mr. Justice V. R. Krishna Iyer in Rattan Singh v State Of Punjab, (1979) 4 SCC 719. He observed:

<sup>&</sup>quot;More people die of road accidents than by most diseases, so much so the Indian highways are among the top killers of the country..."

<sup>&</sup>lt;sup>3</sup>Nadar, Unsafe At Any Speed (7<sup>th</sup>edn., 1965)

be admitted in traffic cases to facilitate the apprehension and ultimate conviction of those who have refused to consider the safety of others.

### 1. LAW OF EVIDENCE: UNDERLYING GOALS

Several scientific methods have been developed to determine the speed of a moving vehicle. Robert Greenwald points out that the most common speed detection devices used by law enforcement agencies are the radar speedometer and the photo traffic camera. But before discussing the admissibility of evidence obtained by remote electronic traffic devices, one must first comprehend the underlying goals of the law of evidence. Rules of evidence are divided into two categories: intrinsic and extrinsic rules. Intrinsic rules are concerned with facilitating the pursuit of truth. In contrast, extrinsic rules are concerned with advancing other policies as exemplified by the rules regarding privilege. The rules concerning admissions of evidence obtained from remote electronic traffic devices are intrinsic rules because they focus on the pursuit of truth. And going by this, judges consider foundational requirements which are focused on the pursuit of truth when determining whether to admit evidence. These three factors are as follows?

- 1) Materiality and relevance
- 2) Authenticity
- 3) Competence

Materiality and relevance are closely connected because evidence cannot be relevant without being material. Material evidence must relate to a substantive issue in the case, or in other words, be "material to the question in controversy". Relevant evidence is "evidence having any tendency to make the existence of [a material fact] more probable or less probable than it would be without the evidence". Authenticity relates to whether the evidence itself is authentic. Finally, competence refers to whether the evidence violates "any legislative or evidentiary exclusionary policy". In this background, the admissibility of evidence obtained by remote electronic traffic devices in civil and criminal cases may be examined.

<sup>&</sup>lt;sup>4</sup>Robert Greenwald, 'Scientific Evidence In Traffic Cases', The Journal Of Criminal Law, Criminolgy and Police Science, Vol.59, No.1, 1968, p. 57, last viewed 20.07.2010

<sup>&</sup>lt;sup>5</sup>Lisa Dufraimont, 'Evidence Law and the Jury: A Reassessment,' 53 McGill L. J. 199, 205 (2008).

<sup>&</sup>lt;sup>6</sup>John Henry Wigmore, Evidence in Trials at Common Law 689 (Peter Tillers ed., 1983).

<sup>7&</sup>lt;a href="http://aja.ncsc.dni.us/htdocs/EvidenceObtainedfromRemoteElectronicTrafficDevices.pdf">http://aja.ncsc.dni.us/htdocs/EvidenceObtainedfromRemoteElectronicTrafficDevices.pdf</a>, last viewed 20.07.2010.

<sup>8</sup>Ibid at 7, p.48.

### 1.1 CIVIL LAW CONTEXT

In civil cases, courts should always be inclined to admit evidence obtained by remote electronic traffic devices. Indeed, the only time the courts should not be admitting the evidence is if it is clearly fabricated, which is highly unlikely. If there are minor disputes as to the authenticity of the evidence, the court should err on the side of admitting it, but allow the defendant to raise those arguments during the trial stage to dispute the weight of the evidence.

At this juncture, it is important to analyze whether the evidence obtained by remote electronic traffic devices satisfies the three foundational factors of materiality and relevance, authenticity and competence. Analyzing the evidence in the light of these three factors, it becomes clear that the evidence obtained by remote electronic traffic devices should almost always be admitted.

Firstly, the evidence of this type satisfies the materiality and relevance factors because the photos or videos are contemporaneous depictions of the moment the violation occurred. The evidence is thus material to the legal issue and also relevant because the existence of the photograph or video makes it more probable that the violation occurred. 10 Evidence of this type also satisfies the authenticity test. Since this type of evidence is contemporaneous direct evidence, which records the moment in controversy and proves an issuable proposition in the case without needing intermediate inferences. In other words, they can be termed as "silent witnesses" and the courts can almost invariably rely upon them when the government verifies the fairness and accuracy. To corroborate the government can bring in a photographic or video expert who can testify that nothing was tempered.11 Finally, when considering the competence, the probative value of the evidence outweighs the potential prejudice against the defendant. As discussed earlier, photos or videos being contemporaneous direct evidence have a very strong probative value. Weighed against this is the potential prejudice against the defendant. Here, it is unlikely that the defendant would be unfairly prejudiced by the admission of the evidence. Although it is true that videos in particular may cause viewers to overvalue the evidence, the fact that in civil matters, such biases are not as prevalent because these cases deal with small traffic infractions. It is difficult to imagine that a photo or video of a car driving through a red light can cause too much sensationalism in the viewer. 12 Moreover, the concern about the bias is also nothing but a too alarmist approach with studies suggesting that magistrate judges have dismissed charges with great

<sup>9</sup>Ibid.

<sup>10</sup> Ibid, p.6.

<sup>11</sup> Ibid 7.

<sup>12</sup> Ibid, p.7.

frequency, and so although there have been very few studies on the bias of individual judges, it is probably safe to assume that it seems unlikely that admitting the evidence would unfairly prejudice the defendant.<sup>13</sup>

Current case law supports admitting evidence obtained by remote electronic traffic devices and suggests that minor authenticity disputes should only go towards the weight of the evidence instead of its admissibility. These cases serve as a guide as to how minor challenges to the evidence's authenticity. In general, courts would do better to admit the evidence and then have the parties raise points about the authenticity in court instead of excluding the evidence altogether. Indeed, appellate courts have shown a "great reluctance" to limit the trial court's discretion, particularly because of the subjective nature of the weighing. Amoreover, appellate courts frequently affirm a lower court's decision to find a violation even when the defendant's protestation over an admission of a photo-speed recorder or that the device was being used for the first time. In contrast, appellate courts are more likely to reverse when the trial court finds the evidence insufficient, as exemplified by one appellate court that reversed the trial court's finding that the dispute about the technician's response regarding calibration of the device was enough to find no violation.

Overall, case law dealing with both evidence obtained from remote electronic traffic devices as well as cases just dealing with video tape evidence both support the proposition that courts should admit this type of evidence, but allow defendants to raise minor disputes about the authenticity at trial.

### 1.2 CRIMINAL LAW CONTEXT

The balance struck in civil cases involving evidence obtained from remote electronic traffic devices changes in criminal cases. In this situation also, courts should admit the evidence, allowing defendants to dispute authenticity issues in trial.<sup>18</sup>

In criminal law cases, the same three foundational requirements of materiality and relevance, authenticity, and competence must still be satisfied. As discussed earlier, video tape evidence is by its nature "extremely persuasive, vivid, and unforgettable." This satisfies the first two requirements.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid 7, p.9.

<sup>&</sup>lt;sup>15</sup>Com v Buxton, 205 Mass. 49, 91 N. E. 128 (1910)

<sup>16</sup> People v Pett, 13 Misc. 2d 975, 178 N. Y. S.2d 550 (Police Ct. 1958)

<sup>&</sup>lt;sup>17</sup>City of Wilmington v Minella, 879 A.2d 656 (Del. Super. Ct. 2005)

<sup>18</sup> Ibid 7, p. 10

However, while civil cases typically involve unsensational evidence such as photos of a car running a red light, criminal cases are likely to involve videos of a car chase or other potentially provocative images. Studies indicate that viewers are generally likely to accept the contents of the video as truth. <sup>19</sup> In addition, there have been studies which exhibit that viewers are more likely to see a confession as more voluntary and correspondingly that the defendant is more guilty when the video shows only the defendant as opposed to when it shows both the defendant and the police officer eliciting the confession. <sup>20</sup> However, a critical difference between video-taped confessions and video obtained from remote electronic traffic devices is that law enforcement cannot significantly alter the placement of the camera. Thus, even if there were a bias in car chase or arrest scenarios, there seems to be little that can be done to avoid it.

Such instances are more spontaneous, and it would seem strange to pause the chase in order to have a police car drive to the side of both vehicles or to have a helicopter flying overhead in order to get a wider view and avoid a potential bias. Even if the concerns about the bias have greater strength because the viewer is a lay juror instead of the more experienced and trained judges in the court, the party will have the opportunity to counteract this bias through giving his or her version of events at trial with the added benefit that he or she will be much more likely to tell the truth because of the admission of this evidence. In the end, as contemporaneous direct evidence, these videos hold great probative weight, and as such, courts should continue to admit them into evidence when balancing it against its prejudicial effects.<sup>21</sup> Thus, while the potential prejudicial effect of the evidence has greater weight in the criminal context, overall, the evidence should still be introduced because it satisfies the foundational requirements.

# 2. FOR AND AGAINST: A BRIEF OUTLINE OF THE CURRENT VIEWPOINTS ON EVIDENCE OBTAINED FROM REMOTE ELECTRONIC TRAFFIC DEVICES

### 2.1 STRICTLY LEGAL VIEWS

At this juncture, it is important to consider the legal effect of the radar speedometer because it is here that judicial notice is most prevalent. Most courts have accepted the

<sup>19&#</sup>x27;Comment, Computer Simulations and Video Re-Enactments: Fact, Fantasy and Admission Standards', 17 OHIO N. UNIV. L. REV. 145, 146 (1990).

<sup>&</sup>lt;sup>20</sup>Sharon Begley, 'Video cameras, Too, Can Lie, or at Least Create Jury Prejudice', WALL ST. J., Jan. 31, 2003, at B1.

<sup>21</sup> Ibid

view that "the usefulness of radar equipment for testing the speed of vehicles has now become so well established that testimony of an expert to prove reliability of radar in this respect is not necessary and courts will take judicial knowledge of such fact". Where judicial notice has not been taken, the scientific theory upon which the use of the radar speedometer is based must be shown by expert testimony. Once the scientific theory is established by expert testimony, the practical effect is usually the same as if the court had taken judicial notice of the theory.<sup>23</sup>

The Courts have developed several requirements as to what has to be shown by the prosecution prior to admission of even judicially recognized evidence. Generally, the courts require answers to two questions: (1) How accurate was the machine functioning at the time the accused's speed was checked, and (2) was the radar speedometer properly operated?<sup>24</sup> The courts have accepted the view that "judicial notice does not extend to accuracy or efficiency of any given police radar instrument..., whether the instrument itself is accurate and is accurately operated, must necessarily be demonstrated to the satisfaction of the trier [of fact]...."<sup>25</sup>.

## 2.2 EVIDENCE OBTAINED FROM REMOTE ELECTRONIC TRAFFIC DEVICES AND THE HEARSAY RULE

The radar speedometer works in a manner in which the speed of a moving vehicle is recorded on a graph hooked to a speedometer. Usually the speedometer is placed on a fender or in the open trunk of a police car called the 'radar car' which is parked alongside the road. Down the road in one or both directions from the radar car will be one or two other police cars known as 'pickup cars'. These cars and the radar car operate back and forth by radio. When a speed violator passes the radar car, the radar operator or another police officer in the radar car radios the pickup car down the road, and this latter car apprehends the speeder.<sup>26</sup>

Donigan and Fisher point out that all evidence which is not founded upon the personal knowledge of the witness from whom it is elicited and which consequently does not depend for its credibility and weight upon the confidence which the court or jury may have in him is hearsay.<sup>27</sup> And evidence which falls in this bracket is not admissible in

<sup>&</sup>lt;sup>22</sup>Everight v Little Rock, 230 Ark. 695, 697, 326 S.W.2d 796, 797 (1959).

<sup>&</sup>lt;sup>23</sup>Ibid 4, p.63.

<sup>&</sup>lt;sup>24</sup>Hardaway v State, 202 Tenn. 94, 302 S.W.2d 351 (1957) where judicial notice taken if radar speedometer is tested for accuracy from time to time, and when properly operated.

<sup>&</sup>lt;sup>25</sup>State v Tomanelli, 153 Conn. 365, 372, 216 A.2d 625, 629 (1966).

<sup>&</sup>lt;sup>26</sup>Ibid 4, p. 58.

<sup>&</sup>lt;sup>27</sup>Donigan And Fisher, The Evidence Handbook (1965) 27.

### RMLNLU LAW REVIEW

the court of law.

Questions regarding the hearsay rule arose in the case of  $People\ v\ Offerman.^{28}$  In this case the court ruled that the testimony of each of the officers as to the test results would be hearsay because

"...it seems clear that when Officer Kelly testified that the reading on the dial in the radar car corresponded to the reading of the speedometer in the pickup car, he was relying upon what Officer Chaplin had told him over the radio, and when Officer Chaplin testified that the reading on the dial in the radar car corresponded with the reading on the speedometer of the pickup car, he was relying on what Officer Kelly told him over the radio. Thus, the testimony of each as to the reading on the instrument of the car of the other was hearsay."

In *State v Dantoni*<sup>29</sup>, the same question was raised, but the court reached a different conclusion. The Court in this case held:

"Each officer testifies as to independent facts. The patrol car officer testifies as a fact to the speed of the patrol as shown by his speedometer. The radar operator testifies as to the recording of the electric speedometer and the graph machine and of his own visual observation of the car making the test. Radio communication is merely incidental. The fact of the speed of the patrol car and the recording of the electric speedometer, the graph machine, the observation of the radar operator remain the same without the benefit of radio communication."

The view in the *Offerman* case is questionable. Woodbridge points out that if both officers are in court and subject to cross examination, it is hard to see how the testimony is objectionable.<sup>30</sup> It is submitted that the hearsay rule seems to be overly technical in this situation; hence it should be done away with.

### **CONCLUSION**

To conclude, it may be stated that the regularity with which highway deaths occur hardly ever arouses the average citizen to care for his own safety. Therefore a duty is cast on the law enforcement agencies to make our streets safer. Scientific evidence in this regard is necessary to facilitate the apprehension and ultimate conviction of those who have refused to consider the safety of others.

If we go on to summarize the main points in this paper, we find that in order to make

<sup>&</sup>lt;sup>28</sup>204 Misc. 769, 774, 125 N.Y.S.2d 179, 182 (1953).

<sup>&</sup>lt;sup>29</sup>31 N.J. Super, 105, 109, 105 A.2d 918, 921 (1954).

<sup>30</sup> Woodbridge, 'Radar in the Courts', 40 Va. L. Rev. 809, 815 (1954).

evidence obtained from remote electronic traffic devices admissible there are three foundational rules that need to be satisfied i.e. materiality and relevance, authenticity and competence. In the context of civil law, since the photos are contemporaneous depictions of the moment the violation occurred it satisfies the three factors. If there are minor disputes as to the authenticity of the evidence, the court should still admit it, but allow the defendant to raise those arguments during the trial stage to dispute the weight of the evidence. As far as criminal law is concerned, the three foundational requirements are squarely satisfied. The critics have opined that evidence obtained from radar speedometer is hearsay evidence but this is very well refuted in  $State\ v$   $Dantonio^{31}$ .

The increasing deaths on the streets have now reached figures only previously heard of in the battlefields. The interests of society in scientific methods for crime detection must ordinarily, therefore, be raised above the inviolability of the person of the individual. Evidence obtained from remote electronic traffic devices helps to establish some semblance of order in an area requiring tighter controls with each passing day.

The author humbly submits that that there are no provisions in the Indian Evidence Act, 1872, which recognize such kind of evidence. Therefore it is suggested that the legislature should come up with suitable amendments where no law exists especially in the context of judicial pronouncements which have approved of such evidence.

<sup>31</sup> Ibid 29.