

IN THE TERRITORIAL COURT OF YUKON
Before His Honour Judge Chisholm

REGINA

v.

DAVID CLAYTON BERNIER

Appearances:
Kelly McGill
David C. Tarnow

Counsel for the Territorial Crown
Counsel for the Defence

REASONS FOR JUDGMENT

[1] CHISHOLM J. (Oral): Mr. David Bernier is charged for having driven a motor vehicle in excess of the posted speed limit contrary to s. 139(1) of the *Motor Vehicles Act, RSY 2002, c. 153*. The main issue in this matter is with respect to the accuracy and reliability of the radar used.

[2] On June 29, 2015, the investigating officer was travelling southbound on the Alaska Highway, south of Whitehorse, when he encountered Mr. Bernier driving a pickup truck in the opposite direction. The officer believed the vehicle was moving faster than other vehicles he had encountered. He estimated it to be moving approximately 20 km/hr faster than the 90 km/hr speed limit.

[3] The officer testified that there were no other northbound vehicles at the time he activated the Stalker DUAL direction sensing radar in his vehicle. There was one southbound vehicle travelling in front of the officer's police vehicle. The radar indicated Mr. Bernier's vehicle travelling at a speed of 118 km/hr. The officer stopped and ticketed Mr. Bernier for having exceeded the posted speed limit by 16-30 km/hr.

[4] The officer indicated that he had performed two tests before using the radar that day. The internal test is, effectively, a self-test performed by the machine. It produced a pass result, indicating no internal problems with the operation of the radar. Secondly, the tuning fork test, which he performed both before and after this incident, produced what the officer considered to be proper results.

[5] Mr. Bernier called no evidence. He argues that the external test results are deficient, due to the fact the tuning forks had not been recently tested for accuracy. By extension, this should raise a reasonable doubt as to the accuracy and reliability of this radar on the day in question.

[6] There is no presumption of accuracy with respect to radar devices in the Yukon. The Crown must establish that the radar device was operating accurately. Once this occurs, the radar reading is *prima facie* evidence of the speed of the vehicle, subject to any evidence to the contrary (*Baie-Comeau (Ville) c. D'Astous*, [1992] R.J.Q. 1483 (C.A.)).

[7] In the decision of *R. v. Vancrey*, (2000), 135 O.C.C. 89, the Ontario Court of Appeal considered the adequacy of the reliability and accuracy evidence, presented at trial, of a laser speed detection unit. The Court found that there was sufficient evidence

with respect to both accuracy and reliability to establish a *prima facie* case. The Court accepted that the officer using the device was trained and experienced and that he tested the device both before and after its use, as per the manufacturer's instructions. There was also evidence that the accuracy of the laser unit had been confirmed three to four weeks earlier by comparing test results with an accurate radar unit operated by a qualified operator.

[8] In *Vancrey*, the Court also referred to *D'Astous*, which addressed the issue of the evidentiary base required for a conviction for speeding based on a radar as opposed to a laser reading.

[9] As summarized in *Vancrey*, the *D'Astous* decision held:

[18] ...that judicial notice could be taken of the fact that radar is used to measure the speed of automobiles and that the principle upon which it is based can be found in any encyclopedia. However, in each case, the Crown must still prove that the particular radar device used was operated accurately at the time. To do that the Crown must show:

- * The operator was qualified: he followed a course, he passed an exam, he has several months' experience;
- * The device was tested before and after the operation;
- * The device was accurate as verified by a test and that the tuning fork used was accurate. Once evidence is led to demonstrate those facts, then the radar reading becomes *prima facie* evidence of the speed of the vehicle, subject to evidence to the contrary, if any.

[10] In *R. v. Williams*, 2008 Carswell Ont 1504 (C.J.), the Court reiterated that if a tuning fork is used in the radar testing process, the tuning fork must be shown to be accurate.

[4] ...Specifically in this regard, the testing process must conform with the operator's manual, and if a tuning fork is involved, it must be proven to be accurate. ...

[11] The first two requirements set out in *D'Astous* — namely, a qualified operator; and testing before and after the operation of the radar — have been met in the matter before me. In order to accept the accuracy of the radar unit, I must also be satisfied that the tuning forks used by the officer were accurate.

[12] The defence relies on the decision in *R. v. Abrametz*, 2014 SKCA 84, in which the Court found that no evidence had been presented to establish that the tuning forks used to test the radar were vibrating at the proper frequency. In Saskatchewan, the court may accept certificate evidence confirming a tuning fork's accuracy pursuant to the *Traffic Safety Act*. However, no such certificate had been filed in *Abrametz*. In that case, the investigating officer agreed that whether the tuning forks were vibrating at the proper frequency was essential to the validity of his evidence. Without the certificate, this could not be established.

[13] In the matter before me, the officer testified that the radar unit he used had last been serviced in 2008. He indicated that the tuning forks had been certified but he was not certain when this had occurred. No certification had been done in the year or so he had been using the tuning forks prior to June 29, 2015. He did not testify to the manufacturer's recommendations with respect to the frequency of periodic maintenance for the tuning forks.

[14] Unlike Saskatchewan, there is no obligation in the Yukon to file the certificate of accuracy of a tuning fork. Also, unlike the Northwest Territories, there is no obligation in

the Yukon that a tuning fork be certified within the one-year period before or after the alleged speeding contravention (s. 341 of the Northwest Territories *Motor Vehicles Act*).

[15] The evidence the Crown has led with respect to the alleged accuracy of the radar in question includes the internal and the external tests. The external tuning fork test produced expected results on the radar when tested by the investigating officer; that is to say, a numeric difference of 24 between the respective frequencies of the two tuning forks. The Crown submits that these results demonstrate the proper functioning of the radar.

[16] As I understand it, the Crown also submits that since the radar produced the numeric results expected during this tuning fork test, these numeric results also establish the accuracy of the said tuning forks.

[17] I am unable to accept the circular reasoning that the results registered by the radar guarantee the accuracy of the tuning forks. Indeed, it was the radar's accuracy that was being tested through the use of the tuning forks. There must be some independent assurance as to the accuracy of the tuning forks.

[18] The officer did not profess to have any experience with respect to the intricate workings of the tuning forks. He learned how to perform the tuning fork test in order to confirm radar accuracy, but apparently had no training to allow him to test the frequency of tuning forks. In other words, he could not verify the accuracy of the tuning forks.

[19] Also, as noted, there is no indication when the tuning forks were certified and no indication as to the frequency of certification the manufacturer recommends. I have received no confirmation that the tuning forks' certification was still valid on the day of this alleged offence.

[20] The defence also questioned the officer with respect to the effect of scratches on a tuning fork. The officer conceded that the smallest of scratches on a tuning fork could affect its accuracy. This is consistent with academic literature the Court of Appeal referred to in *Abrametz*, which was, in part, put and agreed to by the officer in the matter before me.

[21] I refer to para. 25, pages 107-109, of that decision:

[25] While the following observations by A. Shakoor Manraj, Q.C. and Paul D. Haines in *The Law on Speeding and Speed Detection Devices*, 3rd ed. (Markham: LexisNexis Canada Inc., 2007) are not evidence in the instant case, they are consistent with the officer's evidence regarding the role of tuning forks and the kind of maintenance they require:

Ideally, the radar unit should be calibrated by testing its speed registration mechanism against moving vehicles of known speed. This, however, is impractical and is why tuning forks are substituted. When a tuning fork, corresponding to a specific velocity, is set in vibration in the midst of the pulsed wave train being emitted by the radar's transmitter, that portion of the wave train being reflected back to the receiver by the tuning fork is compressed to the same extent as a portion of the reflected wave train would be if it were bouncing back from a moving vehicle traveling at the same specified velocity. ...

Consequently, all tuning forks should be routinely checked by a certified technician with the proper gauging instruments. A surface scratch of only 1/20,000 of a centimetre was enough to cause an inaccurate reading by eight kilometres in a test incident. ...

Consequently, tuning forks that are to be used for calibration testing must be periodically checked for reliability and

certified for use during a specified time interval with available documentation, so that the operator of the radar system may inspect them for time lapse and, if need be, request replacements.

(pp. 107-109)

[22] The officer was unable to say whether there were scratches or chips on the tuning forks in question, as he had not specifically looked at them with this in mind.

[23] The Crown also argues that evidence obtained by radar may be bolstered by speed estimation evidence of an officer. Although the Crown submits that the visual observations the officer made of Mr. Bernier's rate of speed prior to using the radar bolster the evidence of the radar, I must still be satisfied beyond a reasonable doubt that he was travelling between 16-30 km/hr over the speed limit, as specified in the charge.

[24] Having considered the evidence as a whole, I am not satisfied as to the accuracy of the radar unit and therefore I am unable to conclude beyond a reasonable doubt that Mr. Bernier was travelling at the rate of speed alleged. Therefore, the charge against him is dismissed.

CHISHOLM T.C.J.