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R. v. Drake, 2025 NSSC 204

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SUPREME COURT OF NOVA SCOTIA
Citation: *R. v. Drake*, 2025 NSSC 204

Date: 20250602
Docket: CRH No. 522066
Registry: Halifax

2025 NSSC 204 (CanLII)

Between:

His Majesty the King

v.

Adam Drake

DECISION
***Voir Dire* #4 Admissibility of Expert Video Analysis Evidence**

Judge:	The Honourable Justice Scott C. Norton
Heard:	May 26, 2025, in Halifax, Nova Scotia
Decision:	June 2, 2025
Counsel:	Carla Ball, KC and Tanya Carter, for the Crown Michael Lacy, and Jennifer MacDonald for Adam Drake

By the Court:

Introduction

[1] Adam Drake (the "Applicant") is indicted on a charge of second-degree murder of Pat Stay, contrary to s. 235(1) of the *Criminal Code*. The trial, with a jury, commenced on May 12, 2025.

[2] The Applicant objects to the admission of a 22 second segment of video tape prepared by Lynne Fox, a forensic digital media technician employed by the Halifax Regional Police ("HRP"). The Applicant says that the video should not be admitted because (a) Lynne Fox is not a qualified expert; and (b) the video has been altered to an extent that is not substantially accurate. In the alternative, the Applicant argues that the prejudicial effect of admitting the evidence outweighs the probative value.

[3] A *voir dire* was conducted in the absence of the jury on May 26, 2025. The Crown presented evidence through the examination of Lynne Fox. Ms. Fox was cross-examined by counsel for the Applicant. The Applicant had their own expert attend for the examination of Ms. Fox but chose to call no evidence. At the conclusion of the *voir dire,* I reserved my decision. I provided a bottom-line decision to the parties on June 2, 2025, with written reasons to follow. These are my reasons.

Background

[4] Pat Stay was fatally injured at a night club in Halifax called the Yacht Club Social in the early morning hours of September 4, 2022. At this point in the trial the jury has seen the presentation of video surveillance evidence from inside the club from various cameras at different times. Exhibit 8 is a composite exhibit of all the original video seized by police from the club. The authenticity and continuity of the video evidence is not disputed and in fact is the subject of an Agreed Statement of Facts that has been filed before the jury. As it relates to the incident giving rise to the charge, the key video is from Channel 7 which recorded images in the area where it appears Mr. Stay suffered his fatal injury.

[5] One of the critical questions for the jury will be to decide whether it can be proven beyond a reasonable doubt, using largely the video evidence, whether the Applicant caused the injury.

2025 NSSC 204 (CanLII)

[6] The Crown asserts that the purpose of the impugned evidence is to provide the jury with a copy of the video that provides a clearer image of the area in which the incident took place and permit them to draw their own inferences about culpability.

[7] The Crown seeks to qualify Lynne Fox as a forensic video analyst capable of giving opinion evidence about the enhancement of video surveillance.

Evidence

[8] The Crown presented evidence through the examination of Lynne Fox. Ms. Fox was cross-examined by counsel for the Applicant. The Applicant had their own expert attend for the examination of Ms. Fox but chose to call no evidence.

[9] Exhibit VD4-2 is the 22-second video titled “Contrast Stretch” prepared by Lynne Fox using the software program Amped FIVE. Exhibit VD4-4 is the original video obtained from the club (marked Exhibit 8 in the trial).

[10] Ms. Fox explained that using the software program called Amped FIVE, she selected a 22-second segment from the original video from Channel 7 starting at 00:35:35 and going forward 22 seconds, then used the software program’s “crop” and “smart resize” tools to isolate the area pertaining to the incident. She then applied the software tools “Contrast Stretch” and “Parametric Curves” to improve the contrast of the video.

[11] Ms. Fox testified that one of the benefits of using Amped FIVE is that it creates a written report of every action taken by the digital media technician so that anyone can conduct a peer review on the report and duplicate the work. The written report produced by Amped FIVE for Ms. Fox’s preparation of the 22-second video segment was marked as Exhibit VD4-3. The report provides the following explanations of the filters applied by Ms. Fox in the course of preparing the impugned video segment:

> Range selector: *Selects a range of frames in a video. Supports the trimming of the original video stream with no transcoding.*
>
> Crop: *Crops of region of interest of the image.*
>
> Smart Resize: *Resizes the image with a smart zoom algorithm preserving better details.*
>
> Contrast Stretch: *Improves the image contrast by expanding the range of intensity values. Supports a sensitivity threshold to tune the filter effect.*

2025 NSSC 204 (CanLII)

> Parametric Curves: *Adjusts the tonal values by setting the gain in four portions of the luminance range.*

[12] Ms. Fox summarized these filters to say she took the original video and then cropped it to show the area of interest, enlarged that area and added brightening and contrast. She explained that the program does this by taking a pixel and duplicating the pixel around the original which provides more depth to the image.

[13] She testified that there are no changes to the actual video when compared to the original.

[14] In cross-examination she stated that the filters chosen are to make the image look clearer and agreed that this involves a subjective component.

[15] She did not have any information available to her about the source video. She did not know how many frames per second the source video was recorded. The frames per second at which it played back was recorded on the metadata of the source video.

[16] She agreed that surveillance video uses compression technology by which an actual image, called an "I" frame, is repeated or borrowed to create a "P" frame as opposed to all of the data being afresh for each frame.

[17] She agreed that poor lighting can increase the compression and caused artifacts which can appear like specks or blocks and can obscure image clarity and can make it difficult to track movements.

[18] In this particular case, there were 49 "P" frames between "I" frames. She agreed that is a lot.

[19] The original video and the video she prepared with Amped FIVE played at the same frame rate.

[20] She was asked by the Crown to be able to see the video slower in a more step-by-step fashion. She decided to apply the filters for clarity.

The Legal Test for Admissibility of Expert Evidence

[21] The parties agree that the admissibility of the impugned video prepared by Lynne Fox is determined by the application of the test in *R. v. Mohan*, [1994] 2 S.C.R. 9. The first stage of admissibility addresses relevance, necessity, the

2025 NSSC 204 (CanLII)

absence of an exclusionary rule, and whether the witness is a properly qualified expert. The second stage of admissibility of expert evidence involves a discretionary gatekeeping function. The trial judge undertakes a balancing analysis to determine whether the evidence ought to be admitted, given its potential benefits and associate risks. The trial judge considers such factors such as probative value and prejudice, necessity, reliability and the absence of bias.

[22] The Applicant does not take issue with the relevance and necessity of the impugned evidence.

[23] Is Lynne Fox a properly qualified expert for the purpose of explaining to the jury the processes that were used to create the impugned video?

[24] There is no question that Lynne Fox has knowledge of the use of video analysis and the use of Amped FIVE software beyond the understanding of the average juror. According to her CV (Exhibit VD4-1) and testimony, she has worked with this software since June 2021, using the software virtually daily in her work for HRP. She has attended educational programs that included interactive education on the use of the software, in particular at the Ontario Forensic Video Analyst Association Annual Training events in 2022, 2023, and 2024 and the Amped User Days in 2022.

[25] The Applicant focused his argument on the fact that Ms. Fox had not received formal certification and does not have the training to allow her to explain how the software works. They argued that while Ms. Fox was proficient in the use of Amped FIVE, she was not an expert in Amped FIVE.

[26] With respect, although Ms. Fox has not been independently tested or certified, I am satisfied from the evidence that she has received systematic learning that goes beyond mere anecdotal observation, transient personal experience or modest study: *R. v. Wilcox*, 2014 QCCA 321. She has demonstrated through training and experience a sufficient expertise to explain to the jury what steps she took in using the software to produce the impugned video. No evidence was led to critique her use of the Amped FIVE program in producing the impugned video.

[27] It is important to consider the expert's training and experience in relation to the scope of the proposed evidence. Expertise is a matter of depth and breadth. In my view any alleged deficiencies in her expertise are matters of the weight of her expert evidence, not its admissibility. It is only where deficiency in training is pronounced enough to undermine the claim to superior knowledge in a specialized

2025 NSSC 204 (CanLII)

area that they should preclude admissibility: *R. v. Thomas* (2006), 207 CCC (3d) 86.

[28] The Applicant also argues that Ms. Fox is not sufficiently independent and absent bias.

[29] The independence and impartiality inquiry required to show that a witness is a properly qualified, independent, and impartial expert is not normally a significant hurdle to clear: Paciocco, *The Law of Evidence*, 8th ed., at p. 263. Unless an expert's independence is challenged, the expert's testimony recognizing and accepting the duty to the court will generally be sufficient to establish that the threshold is met. Here, Ms. Fox clearly stated her understanding that her role is to provide the court with evidence in an unbiased fashion. Once the expert has recognized this duty, the opposing party must show "a realistic concern that the expert's evidence should not be received because the expert is unable and/or unwilling to comply with that duty": *White Burgess Langille Inman v. Abbott and Haliburton Co*., 2015 SCC 23, at para. 48.

[30] Ms. Fox was cross-examined about her analysis of a still image that is not being proposed to be placed in evidence before the jury. I am not persuaded that she is unable or unwilling to comply with her duty to the court as acknowledged by her.

[31] I qualify Lynne Fox as a forensic video analyst capable of giving opinion evidence about the use of Amped FIVE software to enhance surveillance video and to show how it was used to produce the video marked Exhibit VD4-2 titled "Contrast Stretch".

Is the Impugned Video Substantially Accurate?

[32] In *R. v. Nikolovski,* [1996] 3 S.C.R. 1197, the Supreme Court of Canada identified two primary conditions that must be met before videotape evidence should be admitted into evidence:

> 28 Once it is established that a videotape has not been altered or changed, and that it depicts the scene of a crime, then it becomes admissible and relevant evidence. Not only is the tape (or photograph) real evidence in the sense that that term has been used in earlier cases, but it is to a certain extent, testimonial evidence as well. It can and should be used by a trier of fact in determining whether a crime has been committed and whether the accused before the court committed the crime. It may indeed be a silent, trustworthy, unemotional,

2025 NSSC 204 (CanLII)

> unbiased and accurate witness who has complete and instant recall of events. It may provide such strong and convincing evidence that of itself it will demonstrate clearly either the innocence or guilt of the accused.

[33] The Court continued to state that issues of clarity and quality are matters of weight for the trier of fact:

> 29 The weight to be accorded that evidence can be assessed from a viewing of the videotape. The degree of clarity and quality of the tape, and to a lesser extent the length of time during which the accused appears on the videotape, will all go towards establishing the weight which a trier of fact may properly place upon the evidence. The time of depiction may not be significant for even if there are but a few frames which clearly show the perpetrator that may be sufficient to identify the accused. Particularly will this be true if the trier of fact has reviewed the tape on several occasions and stopped it to study the pertinent frames.
>
> 30 Although triers of fact are entitled to reach a conclusion as to identification based solely on videotape evidence, they must exercise care in doing so. For example, when a jury is asked to identify an accused in this manner, it is essential that clear directions be given to them as to how they are to approach this task. They should be instructed to consider carefully whether the video is of sufficient clarity and quality and shows the accused for a sufficient time to enable them to conclude that identification has been proven beyond a reasonable doubt. If it is the only evidence adduced as to identity, the jury should be reminded of this. Further, they should be told once again of the importance that, in order to convict on the basis of the videotape alone, they must be satisfied beyond a reasonable doubt that it identifies the accused.

[34] Since *Nikolovski*, it has been held that the absence of alteration or change to a video is a sufficient condition to admissibility – but not a necessary one. In *R. v. Bulldog*, 2015 ABCA 251, the Alberta Court of Appeal concluded that "a video recording may be admitted into evidence, even if it has been altered in some way, so long as it is shown to be a substantially accurate depiction of the event in question" (para. 30).

[35] Courts have also recognized that when a video has been altered or changed through a recognized forensic process to enhance that which is recorded, the altered video may be admissible into evidence together with the original form of the evidence. In deciding whether an altered video should be provided to the jury, the focus is on whether the new version of the video "accurately portrays the subject", is a "true reproduction"; and "fairly and accurately represents" the events: *R. v. Khiar*, 2021 ONSC 4677, at para. 143.

2025 NSSC 204 (CanLII)

[36] *Khiar* is a very helpful authority as it similarly dealt with the use of Amped FIVE to produce clarified images, making them, in the words of the expert in that case, “more comprehensible”. Justice Code noted, at para. 145, that cases at the trial level that have assessed the admissibility of modern forensic video analysis filters and processes have generally held that the evidence is admissible, when adduced by a qualified expert, provided that the resulting clips are “substantially accurate” and the image is not “distorted or otherwise changed in a material way”.

[37] I have had the opportunity to compare the impugned 22-second video with the original surveillance video for the same time segment. I am satisfied that it is substantially accurate. The jury will be able to conduct the same comparison in assessing what, if any, weight to give to the impugned video. I did not observe any indicating of distortion, editing, tampering, or any other factor which might impair the accuracy of the video. The Applicant led no evidence to suggest any such concern.

[38] Further, I will provide the jury with a limiting instruction on the careful use of the impugned video evidence and its comparison to the raw video footage. The instruction is as follows:

> Members of the jury, I have a brief instruction for you before we continue with the evidence.
>
> I told you in my opening comments at the start of this trial that you are the judges of the facts, and you will return the verdict at the conclusion of the trial. The presentation and examination of the witnesses is substantially in the control of the counsel for the Crown and counsel for the defence, and I decide all questions of law and give you instructions at the end of the case. But you and you alone will decide what the facts are in this case. You will be the sole judges of the credibility of the witnesses, the reliability of their evidence, and the weight to be given to the evidence in this case. Your interpretation of the evidence, not mine or counsels', will determine the result in this case.
>
> I am reminding you of this because it is important for you to keep it in mind when you consider the latest video exhibit that the Crown has placed in evidence – which I will refer to as the Amped 5 video. This video is different than the other videos you have seen. Playing it is different than simply playing a video, for example, of what was recorded by the camera in the Yacht Club Social on the night of the incident that it is the subject of the charge before you. This video does several things that are different.
>
> First, certain features of what is displayed in the video were isolated by the use of cropping and re-sizing the video to focus on the VIP area. The contrast was also adjusted.

2025 NSSC 204 (CanLII)

> You will be able to compare the Amped 5 video to the original video for the same time sequence on Channel 7 of Exhibit 8a. You may or may not find that the Amped 5 video is of assistance to you in ultimately determining the facts of this case and whether or not the Crown has proved the charge before you beyond a reasonable doubt. I will have more to say about this in my final instructions to you.

[39] Accordingly, I find that all four of the *Mohan* criteria have been met. Turning to the second, or gatekeeper stage of the *Mohan* test, in my view the benefits outweigh the costs and as such the evidence should be admitted.

[40] Identification is a key issue and evidence that provides the jury with a clearer and more comprehensible image of the area where Mr. Stay received his fatal wound is of significant probative value and its benefit to the trial process is strong. The Applicant argues that admitting the evidence will distort rather than enhance the truth-seeking function of the trial in that the jury may place undue emphasis on videos that have been processed using Amped FIVE. With respect, I have found that the forensic analysis process applied by Lynne Fox is common sense and understandable to the jury. That processing is transparent and can be challenged and evaluated by comparing the clarified clip to the original video footage. The process used has been recorded by the software and can be replicated and critiqued by the Applicant. The Applicant is free to counter this evidence with one of its own that focuses on any other elements of the video. For these reasons the benefits to the trial processing in admitting the impugned evidence greatly outweighs any costs.

[41] In conclusion, I will qualify Lynne Fox as a forensic video analyst capable of giving opinion evidence about the use of Amped FIVE software to enhance surveillance video and to how it was used to produce the video marked Exhibit VD4-2 titled “Contrast Stretch”.

[42] I will admit as an exhibit the video marked VD4-2 titled “Contrast Stretch”.

[43] I will provide the jury with a mid trial instruction on the use of this 22-second video prepared by Lynne Fox.

Norton, J.

2025 NSSC 204 (CanLII)