COMMONWEALTH OF MASSACHUSETTS

SUFFOLK COUNTY

SUPREME JUDICIAL COURT

No. FAR-

APPEALS COURT
No. 2019-P-0021

COMMONWEALTH

V.

MATTHEW DAVIS

DEFENDANT'S APPLICATION FOR FURTHER APPELLATE REVIEW

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REQUEST FOR FURTHER APPELLATE REVIEW

The Appeals Court affirmed Mr. Davis's convictions in a published decision, in which its analysis of prejudice from a preserved error bore no resemblance to any past cases. Despite a dearth of other evidence, and the prosecution's repeated emphasis on the erroneously admitted evidence in its closing, the Appeals Court affirmed the convictions and six-year sentence.

Matthew Davis was convicted of armed assault with intent to murder, plus four associated charges, for a shooting at the corner of Quincy Street and Baker Avenue in Dorchester on September 15, 2015. No one, either in court or out of court, identified Mr. Davis as the shooter. In fact, the sole civilian witness was shown a photo array and picked out three photos as the potential shooter, none of which depicted Mr. Davis. The victim, who was unhurt, did not even testify. The Commonwealth offered no evidence of motive, consciousness of guilt, or any statements by Mr. Davis. No gun was ever found, nor was Mr. Davis ever linked to one. Instead, he was convicted on the strength of pieces two of circumstantial evidence.

First, the Commonwealth introduced a grainy video that allowed for a general description of the shooter: a black man with braids. Second, the Commonwealth introduced GPS points that purported to show Mr. Davis's

location and speed at one-minute intervals that morning. The speed measurements, in particular, were critical. Repeatedly, throughout its twelve-page closing argument (included in the appendix hereto, see App.24), the Commonwealth told the jury to "look at the speed," "look at not only the locations, but also the speed," "look at the speed," "look at the speed," "look at the speed," "look at the speed," "that's what the speed says," "look at the speed." The speed measurements were an indispensable part of the Commonwealth's narrative of how it had proven that Mr. Davis committed this crime.

But a representative of the company that built the GPS device conceded in his testimony that his company had never "figured out and formulated a successfully" test accuracy of the the measurements of its devices "reliably and repeatedly" (II/219). As a result, he acknowledged that the company had not "actually done any formal testing to ensure the speed is accurate" (II/79). The defense lodged detailed objection to the GPS evidence, focusing specifically on the untested speed measurements (II/97). Those measurements were inadmissible, but they were repeatedly stressed in the Commonwealth's closing, in a case with almost no other evidence.

¹ Herein, the appendix to this application is cited as "App.", the trial transcript is cited by "Volume/Page", and the record appendix filed in the Appeals Court is cited as "R.A."

The panel affirmed nonetheless, reasoning that any error was harmless because "the Commonwealth's case did not depend on" the speed measurements. App.14. That is (a) not true, and (b) not the law. While the case did not depend solely on the speed measurements, it did depend crucially upon them, so the law requires reversal. If the speed measurements were unimportant, no one told the trial prosecutor who argued the case to the jury and repeatedly touted them. And no one told the appellate prosecutor, who regarded that evidence as so blatantly prejudicial that she did not even argue harmless error in a 45-page brief. As a published opinion, this case raises the prejudice bar unreasonably high and sets a troubling precedent for the future.

Further appellate review should be granted to correct this wayward precedent and end an injustice that will otherwise cost Mr. Davis six years of his life.

STATEMENT OF THE CASE

On May 16, 2016, a Suffolk County Grand Jury returned indictment SUCR2016-353, charging Defendant Matthew Davis with five counts: armed assault with intent to murder, G.L. c. 265, § 18(b), attempted assault and battery by discharging a firearm, G.L. c. 265, § 15F, carrying a firearm without a license, G.L. c. 269, § 10(a), possession of ammunition, G.L. c. 269, § 10(h),

and carrying a loaded firearm, G.L. c. 269, § 10(n). (See R.A.17-23.)

The case was tried to a jury from October 4-11, 2017 (Lauriat, J., presiding). Mr. Davis was found guilty of all offenses as charged and was sentenced to six years to six years and one day in state prison. He filed a timely notice of appeal (R.A.75), and the case entered in the Appeals Court on January 10, 2019.

Argument before a panel of that Court (Hanlon, Lemire, Hand, JJ.) occurred on December 11, 2019. In a published decision issued on June 11, 2020 (Hand, J.), that Court affirmed Mr. Davis's convictions.

STATEMENT OF FACTS

The panel's decision elides the weakness of the Commonwealth's case. Its opening summary of facts assigns immediate guilt to Mr. Davis, and the balance of its opinion reveals the weakness of the case in drips and drabs. Its opinion notes that there was "attention paid in the Commonwealth's closing to the issue of the defendant's speed," but never acknowledges just how critical this evidence was to the prosecution's case.

A. The Evidence.

Mid-morning, on September 15, 2015, multiple shots were fired at the corner of Baker Avenue and Quincy Street in Dorchester. Responding officers found a blue sedan crashed into a light pole, unoccupied, with

multiple bullet holes in the front window and the driver's door wide open (I/236-237; see R.A.39). The 911 call reporting the shooting was received at 10:28:24 AM. (III/59, 61). The Commonwealth sought to establish Mr. Davis's identity as the shooter using only two pieces of evidence: a video and GPS coordinates.

The video -- which was "grainy," as the Appeals Court acknowledged -- shows a black male with braids, in a red long-sleeved shirt, standing on the sidewalk and extending his hand toward an oncoming car. This is perhaps the clearest depiction of the shooter on it:



That individual then runs up Baker Avenue and out of frame, and the blue sedan enters the frame before hitting a pole and coming to a stop. The driver then gets out and runs away down Quincy Street.

At the time of the shooting, Mr. Davis was wearing a GPS device made by a company called BI, Incorporated ("BI"). James Buck, BI's Manager of Product Development, testified at both a voir dire (II/20) and before the

jury (II/153). He described the workings of the GPS device, a model referred to as the "ET1" (II/22, 47).

According to Buck, the ET1 records the wearer's location and speed once per minute and sends the data over a cellular network to BI's headquarters in Colorado (II/33-34). BI's technology is proprietary, so it has never been subject to study or peer review (II/75-76, 205-206). Further, the devices are not subject to independent purchase and testing because they can only be obtained by clients with whom BI has a contractual relationship (II/76, 206).

Buck described the testing that BI has done of the ET1's accuracy. To test the accuracy of its location measurements, the ETI is placed in a single, stationary location over the course of six hours and the accuracy of the readings is measured against that known location (II/40, 175). The only location used for testing is the roof of BI's headquarters in Boulder, Colorado, in an area with no neighboring buildings over three stories tall (II/72-73, 174). Testing is only done on "nice days" -- "no clouds, no nothing" (II/173). The testing under these "prime conditions" (II/173) is the only testing of the ET1 that has ever been done (II/92). It has never been tested while in motion, in a city environment, or anywhere other than a rooftop (II/207-208).

As to the speed measurements, the ET1 has <u>never</u> been tested at all. Buck testified that he did not "think [BI has] actually done any formal testing to ensure the speed is accurate" (II/79). That is because BI has not "figured out and formulated a way to successfully [test speed] reliably and repeatedly" (II/219). So BI has done no experiments on the accuracy of the speed measurements of the ET1 (II/93).²

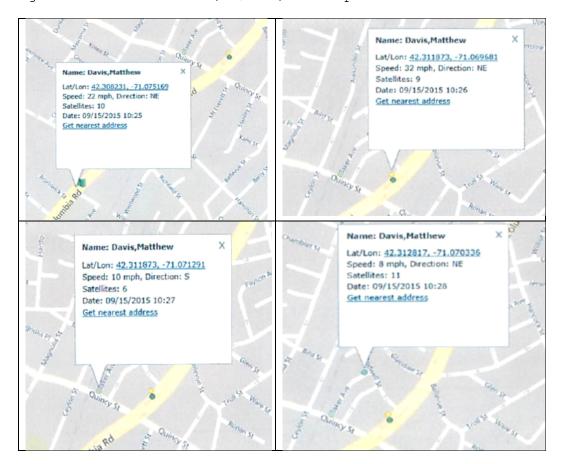
Buck also made clear that BI does not actually prepare any maps itself; it just collects the latitude-longitude data. When a client requests a person's location for a specified period, BI "packages up all the latitudes [and] longitudes in that time frame [and] sends it off to a mapping company" (II/166). The mapping company then sends back the map with the requested latitude and longitude coordinates (II/166, 170).

Defense counsel sought to exclude Buck's testimony on Daubert/Lanigan grounds, emphasizing the absence of testing of the ET1 as to location in an urban environment

² While omitting all of the foregoing about the lack of testing from its decision, the Appeals Court asserted that Buck "had driven around with an ET1 monitor, and had compared his rate of travel with the speeds determined using the ET1 monitor's data." App.9 n.10. That is not accurate. Buck in fact admitted that he never tracked his speed in "enough detail" minute-by-minute to know when he was traveling at certain speeds to compare against the ET1 readings. See II/80-81. Thus, the device was not even tested "informally," as the Appeals Court asserted. App.9.

and as to speed in <u>any</u> environment (II/97-107). The parties filed written submissions (see R.A.26, 32), and the judge held a voir dire (see II/20-109). The judge then allowed Buck's testimony in full, and admitted the ET1 maps, all over detailed objection (II/108-109, 179).

As to Mr. Davis in particular, Buck described how he collected the data in question, "request[ed] that it be sent out and mapped," and "eventually receive[d] some maps back based on the data that [he] had compiled" (II/178-179). The maps that were admitted purported to depict Mr. Davis's location from 10:25 to 10:32 AM on September 15, 2015 (II/56-60). They show the following "general locations" (II/189) and speeds:





That was the entirety of the Commonwealth's evidence: Mr. Davis was a black male with braids wearing the ET1 device with the above location and speed measurements. The Commonwealth had no other evidence linking Mr. Davis to the shooting. No one ever identified him as the shooter; no motive; no link between Mr. Davis and the victim; no forensic evidence; no firearm was found at his home; he made no statements; and there was no consciousness of guilt evidence.³

 $^{^3}$ The Commonwealth offered evidence of a red sweatshirt that was found a week later in a pile of clothes in Mr. Davis's bedroom. But he was never seen actually wearing it, and the shirt itself tested negative for gunshot primer residue (III/43-44, 65-68).

The Commonwealth also offered the testimony of a witness named Ilene Rock (III/8). Ms. Rock testified that, at the time of the shooting, she was standing near the corner of Bodwell Street and Columbia Road. She testified that she "heard some noise" and "shortly thereafter" she noticed a black male with braids, wearing a red shirt, run past her with his hand in his pocket (III/10). The man came within five or six feet of her, running down Bodwell Street toward Columbia Road (III/11-12). As he ran past, she noticed him take a right on Columbia toward Quincy Street (III/12).

Ms. Rock went to the police station for a photo array (III/13). She made different notations on three of the eight photos:

- "maybe the person I saw" (R.A.68).
- "This might be him 80%" (R.A.71).
- "This is possibly the man I saw running" (R.A.73). None of those three photographs depicted Mr. Davis (compare R.A.45 with R.A.69).

B. The Commonwealth's Closing Argument.

The Commonwealth's closing argument is reproduced in the addendum hereto in full. Occupying twelve transcript pages, it focused almost exclusively on the GPS evidence. The prosecutor implored the jury to look "not only at the locations ... on the map" but to "also look at the speed." App.30. When one "look[s] at not

only the locations, but also the speed, a bigger story" emerges. App.30. The Commonwealth used the speed measurements, in combination with the locations, to construct a "drive-run-drive" narrative of Mr. Davis's conduct that morning.

At first, at 10:25 and 10:26 AM, Mr. Davis is traveling at 22 and 32 miles per hour on Columbia Road; according to the prosecutor, "[t]his is someone who is driving." App.30. In the following two minutes, "this is where the significance of the speed and the location really starts to matter." App.30. At 10:27 and 10:28 AM -- when the GPS points are near the scene of the shooting -- the speed measurements are 10 and 11 miles per hour. App.31. Those speeds are "consistent with someone who is running down the street." App.31. And that running narrative is also consistent with the video, which shows the shooter running down the same street. App.31. Ms. Rock also saw the shooter running. The prosecutor asked the jury to "compare her testimony to the GPS points, to the speed of the GPS points." App.32 (emphasis added).

Thereafter, at 10:29 AM, the prosecutor told the jury to again "look at the speed"; it was "inconsistent with being on foot, consistent with being in a car." App.32. Overall, the combination of the location and speed data gives rise to "coincidences [that] are just too, too massive to possibly fathom." App.32. Mr. Davis

was the shooter because "[t]hat's what the points say, that's what the speed says." App.32. "[L]ook at the points, look at the speed." App.33.

The jury returned guilty verdicts on all counts and Mr. Davis was sentenced to six years to six years and one day in state prison, which he continues to serve.

ISSUES PRESENTED

- I. Whether the admission of speed measurements from a device that, concededly, has never been tested "reliably" constituted prejudicial error in a case built on circumstantial evidence, and where the prosecutor repeatedly emphasized the untested and inadmissible speed measurements in closing argument.
- II. Whether maps generated by an out-of-court declarant are testimonial hearsay where they are used to prove the defendant's location and speed.

ARGUMENT

Admission of the speed measurements was prejudicial error.

The Appeals Court assumed, without deciding, that the admission of the speed measurements was error. See App.14. That assumption was correct -- the ET1 is untested, proprietary technology that is not subject to peer review and thus cannot be considered reliable and admissible in a court of law.

As the Appeals Court acknowledged, Mr. Davis never challenged the reliability of GPS technology in general; he challenged only the reliability of the ET1 device in particular. Of course, it is not enough to just say that

a device uses GPS technology and so all of its readings are accurate, unchallengeable, and admissible ipse dixit. Numerous cases recognize the blackletter principle that "[w]here a measuring device is at issue, the courts in Massachusetts have required the party proffering a measurement at trial to present sufficient evidence to satisfy a threshold showing that the device is accurate." Commonwealth v. Podgurski, 81 Mass. App. Ct. 175, 186 (2012) (collecting cases). Thus, even where a particular general technology is reliable, the proponent of evidence still has the burden to show that the particular device is reliable in its application of those generally (and indisputably) valid technologies. In fact, this Court has held exactly that as to technology for measuring speed. See Commonwealth v. Whynaught, 377 Mass. 14, 18-19 (1979) (taking judicial notice that radar is "an accurate and reliable means of measuring velocity" while imposing a "requirement pertaining to the accuracy of the particular radar instrument" at issue). So even if the ET1 was accurate as to location, that "does not necessarily mean that the

⁴ See *Commonwealth v. Patterson*, 445 Mass. 626, 648 (2005) ("[T]he procedure that we adopted in *Lanigan* includes ensuring not only the reliability of the abstract theory and process underlying an expert's opinion, but the particular application of that process."), overruled on other grounds by *Commonwealth v. Britt*, 465 Mass. 87 (2013)

calculation of traveling speed that was presented was also reliable." App.13.

This analysis is model-specific. That is plainly shown by this Court's recent opinion in Camblin, which involved a Daubert/Lanigan challenge to a specific model of breathalyzer, the Alcotest. 478 Mass. at 469. Importantly for present purposes, this Court focused on the reliability of the Alcotest in particular, rather than the general reliability of alcohol breath testing. The Court concluded that the reliability of the Alcotest had been established by testing conducted by two governmental agencies, both NHTSA and its European counterpart. Id. at 476. The Alcotest itself also has a "dual testing capability" that ensures accuracy in each individual test. Id. at 477. And the Commonwealth submitted multiple "peer-reviewed articles addressing the reliability of the Alcotest." Id. at 479.

No such testing, government regulation, peer review, or publication has ever been done as to the ET1. In particular, Buck acknowledged that he had not "formulated a way to successfully [test the speed measurements] reliably and repeatedly" (II/219). Daubert/Lanigan principles, and common sense, make it impossible to deem evidence "reliable" if it has never been tested "reliably." And the Commonwealth admitted in its brief that "no other entity has access to the ET1 to

conduct testing on its reliability" (CW's Br. at 36). If the proponent of evidence never tests its proprietary system, and keeps it under lock and key such that no one else can test it either, that evidence cannot be deemed reliable. It therefore cannot be admissible in a proceeding to adjudicate guilt or innocence and deprive someone of their liberty. The admission of the ET1's untested speed measurements was error.

The prejudice to Mr. Davis from the admission of the speed measurements is patent. Preserved errors are nonprejudicial only if the court can be "sure that the error did not influence the jury, or had but very slight effect." Commonwealth v. Flebotte, 417 Mass. 348, 353 (1994). There need only be "a reasonable possibility that the error might have contributed to the jury's verdict." Commonwealth v. Alphas, 430 Mass. 8, 23 (1999) (Greaney, J., concurring). That standard is easily met.

The ET1 data was critical to the Commonwealth's case. Aside from a grainy video, that was all it had.

⁵ Of course, the standard is not whether the appellate court is itself convinced of the defendant's guilt. "Appellate courts do not sit as triers of fact. Any test concerning reversible error that requires an appellate court to determine whether a defendant is actually innocent is conceptually flawed because such a test converts the appellate function into the jury function." Alphas, 430 Mass. at 21 (1999)(Greaney, concurring). Instead, "[t]he crucial thing is the impact of the thing done wrong on the minds of other men, not on one's own, in the total setting." Kotteakos v. United States, 328 U.S. 750, 764 (1946).

The speed evidence was not cumulative or tangential; it And key. the Commonwealth stressed measurements as key in its closing. They formed the entire foundation for its drive-run-drive narrative, to try to align Mr. Davis's conduct with that of the shooter. Repeatedly throughout a relatively brief twelve-page closing, the prosecutor urged the jury to "look at the speed" or otherwise emphasized those measurements to the jury. The closing is appended here. See App.24. One could fairly view the phrase "look at the speed" as its theme. See App.30-33 (saying "look at the speed" five separate times). The prosecutor stressed the speed to argue that Mr. Davis was running, just as the shooter was running. The prosecutor clearly argued this evidence as exceedingly harmful to the defense. Its admission cannot now be deemed harmless, particularly in a case with such little other evidence. The Appeals Court's contrary conclusion is indefensible.

What matters is the effect the speed data had on the case as it was tried to this jury. See *supra* note 5. The Commonwealth made the speed important; speed was an equal partner with location in the prosecution's story of guilt. But the speed alone allowed the prosecutor to argue that Mr. Davis was running — just like the shooter had run away on the video, and just like the man Ms. Rock had seen run by her. See App.31-32. After the speed

was used to such great effect, to now call its admission harmless would be profoundly unjust.

Consider what evidence the Commonwealth had without the speed. In the dense urban environment of Dorchester on a weekday morning -- an area with a significant African-American population -- Mr. Davis matched a vague description. Like the shooter, he is a black man with braids. And he was near the scene of this crime, just down the street from his own home, around the time that it took place. But, crucially, the Commonwealth put on no evidence whatsoever of precisely what time the shooting actually occurred -- it was equally likely that the shooting occurred at 10:26 or 10:28 AM, when Mr. Davis was blocks away. Commonwealth v. McCauliff, 461 Mass. 635, 642 (2012) ("Conflicting inferences of equal likelihood do not provide proof beyond a reasonable doubt.").6 Indeed, Mr. Davis argued below that the location information, aligned with the 911 call, was

 $^{^6}$ All one can reasonably infer is that the shooting was before 10:28:24 AM, as that was the time of the 911 call. But every minute matters. If the shooting was before 10:25, Mr. Davis's whereabouts are entirely unknown. If it was at 10:25, Mr. Davis was many blocks away. If the Commonwealth wants to use purportedly precise, minute-by-minute GPS data to establish a defendant's presence at the scene of a crime, it ought to have a corresponding obligation to establish precisely when that crime occurred. The only effort to ascertain the time of the shooting was done by the defense, and actually suggested that Mr. Davis was not at the scene at the relevant time. See D's Br. at 21-22.

actually exonerating. See D's Br. at 21-22. That the GPS points place him at the scene for one minute that morning does not allow one to infer his guilt without any evidence of when the shooting occurred. Plus, "[m]ere opportunity to commit the crime or presence at the scene of the crime without other evidence is insufficient." Commonwealth v. Merola, 405 Mass. 529, 533 (1989).

Moreover, the only civilian witness identified three other suspects out of a photo array. And any fair assessment of the evidence also has to consider what is missing: motive, any identifying witness, forensics, a weapon, consciousness of guilt, or any statements by Mr. Davis. Without the speed, the evidence was not even legally sufficient. With the speed, the prosecutor could align both Mr. Davis's location and his conduct (i.e., the running) with that of shooter. The measurements put the case over the top, as the trial prosecutor clearly recognized by frequently touting their importance. Without them, this case had undeniable paucity of proof.

This matters even beyond the six years of Mr. Davis's life at stake in this case. The Appeals Court's precedential opinion holds that an error cannot be prejudicial unless the Commonwealth's case "depend[s] on that [tainted] evidence." That has never been the law. The Commonwealth's case need not depend solely on

tainted evidence for it to be prejudicial, particularly if the case depends heavily or (as here) critically on that evidence. If the error in this case is not prejudicial, few will be. This opinion simply sets too high a bar to reversal, as cases seldom turn on any single piece of evidence. Instead, to establish prejudice a preserved error need only have had something more than a "very slight effect" on the jury's verdict. Flebotte, 417 Mass. at 353.

It is one thing to misapply a standard and another altogether to change it. The Appeals Court's published opinion adds a novel "depends on" requirement for prejudice, changing the previously settled *Flebotte* standard. It raises that standard to unprecedented heights. If allowed to stand, this case will alter the prejudicial error standard for all cases going forward. This is not some obscure or minor matter. Raising the prejudice standard touches every case with a preserved error. Further appellate review should be granted, both to fix the error in this case and to ensure that it does not taint future cases.

II. The maps admitted in evidence were testimonial hearsay.

The device manufacturer, BI, Incorporated, does not make maps; it collects data. As Mr. Buck testified, when a law enforcement agency asks to see a person's location for a specified time period, BI "packages up all the

latitudes [and] longitudes in that time frame [and] sends it off to a mapping company" (II/166). As to Mr. Davis's case in particular, Buck described how he collected the data, "request[ed] that it be sent out and mapped," and "eventually receive[d] some maps back based on the data that [he] had compiled" (II/178-179). Those maps were then admitted in evidence.

The Appeals Court's conclusion that these maps were not hearsay is wrong. The Court held that, because "the contained information that could have determined from" the ET1 data "before the data was used to generate the maps," they were not hearsay. See App.18 (emphasis added). But that is not how the maps were actually generated, nor is it how this analysis works. The Court offered a novel formulation of the prohibition against hearsay -- because an out-of-court statement perhaps could have been generated another way, it is admissible. But the test for whether a statement is hearsay is not whether a court can imagine a non-hearsay way the same statement could have been made; it is whether the statement that was actually admitted in evidence was itself hearsay. Here, it clearly was.

There is no question that the maps purporting to show the location and speed data from Mr. Davis's ET1 device were prepared in anticipation of trial (making them testimonial) and offered for the truth of what was asserted in them (making them hearsay). The maps make an

assertion: that the raw latitude-longitude data from BI translates to the particular geographic locations reflected on the maps. Someone from the mapping company needed to testify to, and be cross-examined about, that statement. Absent that, the maps were hearsay.

Oddly, the Appeals Court said that Mr. Davis did "not raise ... whether the admissibility of the maps entered into evidence required a witness to establish how the maps were created from the data collected by the defendant's ET1 monitor." App.18. To the contrary, that was Mr. Davis's exact argument: "there was no one in court to testify to the statement implicit in converting BI's data into points on a map. As a result, there was an indispensable declarant missing at Mr. Davis's trial." D's Br. at 38. See also D's Br. at 31 ("[T]here

⁷ The Appeals Court held that the maps were not testimonial because "the information represented on the maps came not from a 'declarant,' but from the GPS receiver, and was simply transmitted by the manufacturer to the mapping company." App.19. That is wrong. The maps themselves make a factual statement: that the latitude and longitude data received from BI correspond to the points on the map. The Appeals Court simply assumes the reliability of that process of translating data into points on a map, harkening back to the outdated analysis of Ohio v. Roberts, 448 U.S. 56 (1980). Reliability is irrelevant. The confrontation clause "commands, not that evidence be reliable, but that reliability be assessed in a particular manner: by testing in the crucible of cross-examination." Crawford v. Washington, 541 U.S. 36, 61 (2004). And the notion that there is no declarant when measurements or analysis come from a machine was roundly rejected by the Supreme Court in Melendez-Diaz v. Massachusetts, 557 U.S. 305, 317-321 (2009).

was a declarant missing -- no one from the mapping company testified at Mr. Davis's trial."). The Appeals Court's attempt to sidestep the core of Mr. Davis's argument by describing it as having somehow been waived is as troubling as it is incorrect.

The evidence against Mr. Davis was quite weak -- he was a black man with braids, and he was wearing the ET1. That was all the Commonwealth had. But the data on that device was unreliable and inadmissible. The speed measurements especially had never been tested before, and the data was plotted on maps created by an out-of-court declarant and yet offered for their truth. The maps were the foundation for the prosecutor's repeated emphasis on the speed measurements in closing argument. The unreliable evidence was central to the prosecution's case. Prejudice from this error is clear, but the Appeals Court changed the prejudice standard to affirm. This conviction, and errant published opinion, cannot stand.

CONCLUSION

Given the magnitude of the prejudice here, the years of Mr. Davis's life at stake, and the precedent set by this decision, this Court should grant Mr. Davis's application for further appellate review.

Respectfully submitted,

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June 19, 2020

CERTIFICATE OF SERVICE

I, David Rangaviz, counsel for the defendant herein, do hereby certify that I have, on this date, served the foregoing application for further appellate review upon the Commonwealth by directing an electronic copy to:

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June 19, 2020

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19-P-21 Appeals Court

COMMONWEALTH vs. MATTHEW DAVIS.

No. 19-P-21.

Suffolk. December 11, 2019. - June 11, 2020.

Present: Hanlon, Lemire, & Hand, JJ.

Armed Assault with Intent to Murder. Assault and Battery.

Attempt. Firearms. Electronic Surveillance. Global

Positioning System Device. Evidence, Videotape,

Photograph, Authentication, Identification, Scientific test. Practice, Criminal, Probation. Practice, Criminal, Required finding.

 $I_{\underline{ndictments}}$ found and returned in the Superior Court Department on May 16, 2016.

The case was tried before Peter M. Lauriat, J.

<u>David Rangaviz</u>, Committee for Public Counsel Services (<u>Connor M. Barusch</u>, Committee for Public Counsel Services, also present) for the defendant.

Andrew Doherty, Assistant District Attorney, for the Commonwealth.

HAND, J. A Superior Court jury convicted the defendant, Matthew Davis, of armed assault with intent to murder, G. L. c. 265, § 18 (b); attempted assault and battery by means of

discharging a firearm, G. L. c. 265, § 15F; carrying a firearm without a license, G. L. c. 269, § 10 (\underline{a}); and carrying a loaded firearm without a license, G. L. c. 269, § 10 (\underline{n}). On appeal, he argues that the video recording evidence against him was not properly authenticated; global positioning system (GPS) data from a monitoring device on his ankle was not reliable; maps in evidence that correlated to GPS data violated the confrontation clause of the Sixth Amendment to the United States Constitution and the prohibition against hearsay; and the evidence was insufficient to convict him. We affirm.

1. <u>Background</u>. We summarize the facts as the jury could have found them, reserving certain details for later discussion. Mid-morning on September 15, 2015, near the intersection of Quincy Street and Baker Avenue in the vicinity of the Dorchester and Roxbury sections of Boston, the defendant fired at least seven shots from a semiautomatic handgun at a moving car. Two bullets pierced the windshield, and the car crashed into a light

 $^{^1}$ The defendant also was convicted of possession of ammunition without a firearm identification card, G. L. c. 269, § 10 (h) (1); this charge was dismissed on the Commonwealth's motion. Last, the defendant pleaded guilty to being an armed career criminal on the charge of possession of a firearm without a license.

^{2 &}quot;A global positioning system (GPS) device is an electronic monitor designed to report continuously the probationer's current location" (citation omitted). <u>Commonwealth</u> v. <u>Thissell</u>, 457 Mass. 191, 191 n.1 (2010) (<u>Thissell II</u>).

pole. The driver, who was the car's only occupant, was unhurt. Immediately after the crash, the driver got out of the car and ran away. The defendant continued on to his home nearby.

At the time of these events, the defendant was being supervised by the Federal probation department, and was subject to GPS monitoring; he wore a GPS monitoring device attached to his ankle. The GPS monitoring system revealed that the defendant had been at the intersection of Quincy Street and Baker Avenue, the location of the shooting, at 10:27 A.M. on the day of the shooting, about a minute before the Boston Police Department received a report about the shooting.

2. <u>Discussion</u>. a. <u>Video evidence</u>. Shortly after the shooting was reported, Sergeant Thomas Carty and another detective went to the scene and canvassed the area for witnesses and surveillance video recordings. From the sidewalk, Carty saw a surveillance camera mounted on the outside of One Baker Avenue between the first and second floors. He spoke with a resident of that address, viewed a video recording taken by the surveillance camera (surveillance video recording), and learned that the camera had been pointed at the intersection of Quincy Street and Baker Avenue at the time of the shooting. Neither the resident nor Carty knew how to download the surveillance video recording to a thumb drive or digital video disc.

Instead, Carty used his cell phone's video recording function to

record the resident's surveillance video recording. Over the defendant's objection, Carty's copy (cell phone video recording) of the surveillance camera's recording was played for the jury.

Although the cell phone video recording is grainy, that video showed, among other things, what appears to be a dark-complexioned man in a red shirt or sweatshirt, with dark hair in multiple below-shoulder-length braids and a grey hat or cap. The video depicts the man running toward an intersection and raising his arm while holding what appears to be a handgun. As the man holds the gun with his arm extended, a blue coupe drives into the frame from the opposite direction and collides with a light pole at the corner of the intersection. The video depicts a large black and white sign with red lettering to the right of the damaged coupe, as well as several cars parked across the street from the point of the collision.

On appeal, the defendant contends that because the underlying surveillance video recording was not authenticated, the cell phone video recording should not have been admitted in evidence. He argues that authentication of a surveillance video recording requires either a percipient witness to the recorded events or the testimony of someone with a working knowledge of the surveillance system. We acknowledge that authentication of a surveillance video recording is "typically . . . done through one of [these] two means" (emphasis added), Commonwealth v.

Connolly, 91 Mass. App. Ct. 580, 586 (2017). However, we disagree that these are the only possible ways by which such a video may be authenticated. See Commonwealth v. Chin, 97 Mass. App. Ct. 188, 202-204 (2020). Here, the surveillance video recording was properly authenticated through other means.

"'The requirement of authentication . . . as a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the matter in question is what its proponent claims.' Mass. G. Evid. § 901(a) (2011). See Commonwealth v. Nardi, 452 Mass. 379, 396 (2008); Commonwealth v. LaCorte, 373 Mass. 700, 704 (1977); M.S. Brodin & M. Avery, Massachusetts Evidence § 9.2, at 580 (8th ed. 2007). See also Fed. R. Evid. § 901(a) (2010) (same). 'The role of the trial judge in jury cases is to determine whether there is evidence sufficient, if believed, to convince the jury by a preponderance of the evidence that the item in question is what the proponent claims it to be. If so, the evidence should be admitted, if it is otherwise admissible.' M.S. Brodin & M. Avery, Massachusetts Evidence, supra."

Commonwealth v. Purdy, 459 Mass. 442, 447 (2011). "Evidence may be authenticated by circumstantial evidence alone, including its '[a]ppearance, contents, substance, internal patterns, or other distinctive characteristics.' Mass. G. Evid. . . . § 901(b)(1), (4) [2011]. Fed. R. Evid. § 901(b)(1), (4) (2010)."

Commonwealth v. Siny Van Tran, 460 Mass. 535, 546 (2011).

Carty testified that he saw a car, with its driver's side door open, that had crashed into a pole at the intersection of Quincy Street and Baker Avenue. The cell phone video recording depicted a car with its driver's side door open at that

location. Carty also testified that the surveillance camera was aimed at that intersection.

In addition, Carty testified that still photographs were fair and accurate representations of the scene of the shooting and crash. Among these photographs were three of a blue coupe — the same color and body style as that of the car in the cell phone video recording — that had crashed into a light pole bearing signs designating Quincy Street and Baker Avenue. Two of the three photographs depicted a sign in front of the crashed car; the sign advertised a church, and was black and white with red lettering. In the cell phone video recording, the same sign is visible in front of the car. The last of the three photographs depicted vehicles across Quincy Street that also appeared in the cell phone video recording.

"Here, the jury could rationally have concluded" from Carty's testimony about the car and surveillance camera and from the authentication of still photographs that correlated with the cell phone video recording, "applying a preponderance of the evidence standard," that the surveillance video recording was authentic. Siny Van Tran, 460 Mass. at 546. The judge did not abuse his discretion in admitting it. Connolly, 91 Mass. App. Ct. at 585.

b. <u>GPS evidence</u>. At the time of the shooting, the defendant wore an "ExactuTrack 1," a GPS monitoring device (ET1

monitor) manufactured by BI, Incorporated (manufacturer).

Before trial, the defendant filed a motion in limine to preclude the Commonwealth from introducing evidence through the testimony of its expert, James Buck, of the defendant's location and rate of travel as determined using the ET1 monitor. The defendant argued that the prosecution had not shown that, with respect to the accuracy of its positioning data or determinations of speed, "GPS technology" was sufficiently reliable to meet the Daubert-Lanigan standard governing the admissibility of scientific and technical evidence. See Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993); Commonwealth v. Lanigan, 419 Mass. 15 (1994). See also Commonwealth v. Camblin, 478 Mass. 469, 469-470 (2017) (Camblin II).

Before ruling on the motion, the trial judge conducted a voir dire of Buck.⁵ During the voir dire, the defendant focused

 $^{^{\}rm 3}$ Buck was the manufacturer's manager of product development.

⁴ The motion went to the reliability of GPS technology, generally. It did not, as then presented, challenge the reliability of the ET1 monitor, specifically. At trial, the defendant's focus shifted to include a challenge to the reliability of the ET1 monitor; on appeal, the defendant explicitly limits his challenge to the reliability of the ET1 monitor.

⁵ On voir dire, Buck testified that the ET1 monitor was comprised of a GPS receiver, a battery, and a cellular connection used "to call in the data" to the manufacturer's data storage facilities, and that the manufacturer purchased each of these components from outside vendors.

on the ET1 monitor, challenging (1) the reliability of the location information derived from it in "urban" or "dense urban" settings, and (2) the speed determinations made using the monitor. In his voir dire testimony, Buck provided an overview of how GPS monitoring technology works, including an explanation of how physical factors that slow the travel of GPS satellite signals can impact the reliability of the resulting positional data. Buck also testified that using a "Doppler effect," GPS data could be used to estimate a GPS receiver's speed.

According to Buck, the ET1 monitor sampled the available satellite signals every fifteen seconds; the receiver

⁶ Buck testified that there are twenty-four active satellites circling the earth, half of which are "overhead" at any given time; the position of each satellite is known; each satellite emits a unique and identifiable signal; and, triangulating the positions of a minimum of three satellites, it is possible to identify the receiver's geographic position by latitude and longitude. This testimony was consistent with the Supreme Judicial Court's "review of the origins of GPS technology" in Thissell II, 457 Mass. at 198 n.15, wherein the court concluded that GPS evidence is sufficiently reliable.

⁷ Specifically, Buck testified that GPS positioning accuracy increases as the number of legible signals increases, and that accuracy decreases with any delays in the time it takes for a satellite's signal to be received. To the latter point, Buck testified to several factors that can slow or block a satellite signal, including its being reflected from cars, windows, and buildings in its path.

⁸ Buck's explanation of how the Doppler analysis was applied was not detailed.

"select[ed] the best" of those samples and logged it in once per minute; the results were then reported back to the manufacturer once every thirty minutes. Buck testified that the data was then sent from the ET1 monitor over an encrypted cellular network and stored on the manufacturer's servers.

Finally, Buck testified that the positional accuracy of the ET1 monitor had been tested under ideal conditions at the manufacturer's facility, with an accuracy rate of ninety-eight percent within sixteen feet and fifty percent within three feet. The manufacturer had not tested the ET1 monitor in Boston. He testified that the manufacturer's testing of the accuracy of the monitor's speed estimates was done "informally." 10

After the voir dire, the trial judge denied the defendant's motion to exclude Buck's testimony, and later permitted Buck to testify about GPS, the ET1 monitor, the data gathered from the defendant's monitor, and about maps generated using GPS time and positioning data received by the ET1 monitor worn by the defendant.

⁹ Using its software, the manufacturer could also direct the monitor to "dump all the location data" on demand, or to provide location information once per minute.

 $^{^{10}}$ Buck, for example, had driven around with an ET1 monitor, and had compared his rate of travel with the speeds determined using the ET1 monitor's data.

On appeal, the defendant disclaims any challenge to the scientific basis or accuracy of GPS technology, generally; instead, he contests the reliability under the <u>Daubert-Lanigan</u> standard of the positional and speed determinations made using the manufacturer's monitor. 11

GPS evidence of defendant's location. Because GPS evidence, "at its core, is scientific evidence, [its] reliability . . . had to be established before . . . it could be admitted." Commonwealth v. Camblin, 471 Mass. 639, 640 (2015) (Camblin I), S.C., Camblin II, 478 Mass. 469, citing Lanigan, 419 Mass. at 25-26. As the proponent of the evidence, the Commonwealth bore the burden of demonstrating that the evidence was more likely than not reliable. See Camblin II, supra at 476. Under the Daubert-Lanigan standard governing the admission of scientific testimony, see Camblin II, supra at 469-470, citing Daubert, 509 U.S. 579, and Lanigan, supra, where there is a challenge to the validity of such evidence, the judge must make "a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue." Lanigan, supra at 26, quoting Daubert,

 $^{^{11}}$ We understand the defendant's challenge to be to the reliability of the ExactuTrack 1 model, rather than to the individual unit that the defendant wore.

"considers a nonexclusive list of five factors[,] . . .

[including] 'whether the scientific theory or process (1) has been generally accepted in the relevant scientific community;
(2) has been, or can be, subjected to testing; (3) has been subjected to peer review and publication; (4) has an unacceptably high known or potential rate of error; and (5) is governed by recognized standards.'" Camblin II, supra at 475-476, quoting Commonwealth v. Powell, 450 Mass. 229, 238 (2007).

Relevant to our discussion, however, "general acceptance in the relevant scientific community . . . continue[s] to be the significant, and often the only, issue." Camblin II, supra at 475, quoting Lanigan, supra. We review the judge's ruling for an abuse of discretion. See Camblin II, supra.

Because "GPS technology . . . is widely used and acknowledged as a reliable relator of time and location data," 12

¹² Other jurisdictions have also concluded that GPS data is reliable. See, e.g., <u>United States</u> v. <u>Espinal-Almeida</u>, 699 F.3d 588, 612-613 (1st Cir. 2012), cert. denied, 569 U.S. 936 (2013). See also <u>United States</u> v. <u>Jones</u>, 565 U.S. 400, 428-429 (2012) (Alito, J., concurring) (noting smart phones equipped with GPS technology accurate enough to determine traffic conditions in real time); <u>United States</u> v. <u>Mathews</u>, 928 F.3d 968, 978-979 (10th Cir.), cert. denied, 140 S. Ct. 460 (2019) (no abuse of discretion where Federal District Court declined to hold preliminary <u>Daubert</u> hearing before GPS expert testified; no showing that GPS data product of unreliable method); <u>State</u> v. <u>Brown</u>, 424 S.C. 479, 489 (2018) (noting reliability of GPS technology not genuinely disputed). In fact, some courts have deemed the reliability of GPS data to be a fact of which a judge

Commonwealth v. Thissell, 457 Mass. 191, 198 (2010) (Thissell II), there was no abuse of discretion in the judge's admission of Buck's testimony that GPS data placed the defendant in particular locations at particular times. See Camblin II, 478 Mass. at 475; Commonwealth v. Patterson, 445 Mass. 626, 640 (2005) ("Lanigan's progeny make clear that general acceptance in the relevant community of the theory and process on which an expert's testimony is based, on its own, continues to be sufficient to establish the requisite reliability for admission in Massachusetts courts regardless of other Daubert factors" [emphasis added]). Notwithstanding Buck's testimony that "the technology that [the manufacturer] produce[d]," including firmware used in the ET1 monitor, software used on the manufacturer's server, and "in particular the GPS device in this case" was "proprietary technology," in its totality, Buck's testimony demonstrated that the manufacturer's method of determining a monitor-wearer's geographic position at any given time was no more than the application of existing and scientifically-accepted GPS monitoring technology -- a technology that has been accepted as reliable. See Thissell II, supra (GPS technology "is widely used and acknowledged as a reliable relator of time and location data"). Cf. Camblin I,

may take judicial notice. See <u>United States</u> v. <u>Brooks</u>, 715 F.3d 1069, 1078 (8th Cir. 2013).

471 Mass. at 645 (<u>Daubert-Lanigan</u> hearing required to examine reliability of "new breathalyzer technology"). The fact that the positioning information derived from the ET1 monitor was, like all GPS information, subject to variations in accuracy depending upon atmospheric conditions, intervening obstacles, or reflection of the satellite signals from buildings, windows, or cars, went to the weight of the evidence, not to the fundamental reliability of the GPS technology as employed in the ET1 monitor. See <u>Sacco</u> v. <u>Roupenian</u>, 409 Mass. 25, 30 (1990) (challenges to expert opinion that may affect weight of testimony should be brought to jury's attention during cross-examination); <u>Rothkopf</u> v. <u>Williams</u>, 55 Mass. App. Ct. 294, 299 (2002). The judge did not abuse his discretion in allowing the Commonwealth to introduce evidence of the positional data. See Camblin II, supra at 476.

ii. <u>GPS evidence of speed</u>. That GPS is a "reliable relator of time and location data," <u>Thissell II</u>, 457 Mass. at 198, does not necessarily mean that the calculation of traveling speed that was presented was also reliable. 13 Cf. <u>Patterson</u>, 445 Mass. at 648 ("The question of the reliability of ACE-V [analysis, comparison, evaluation, and verification] as applied

¹³ The speed determinations at issue here purported to show the actual speed at which the device was traveling at given points in time, and not merely an average speed determined using the GPS location data.

to single latent [fingerprint] impressions is distinct from the question of the reliability of ACE-V as applied to simultaneous impressions"). However, even assuming, without deciding, that the Commonwealth's evidence in this case failed to establish the reliability of the speed calculations introduced into evidence, the admission of this evidence requires reversal only if (in light of the defendant's objection to it) the resulting error is prejudicial. See Commonwealth v. Sullivan, 478 Mass. 369, 375-376 (2017), citing Commonwealth v. Cruz, 445 Mass. 589, 591 (2005). We conclude that it was not. Despite the attention paid in the Commonwealth's closing to the issue of the defendant's speed and the inferences that the jury could draw from this evidence about the defendant's mode of travel at different points in time, the Commonwealth's case did not depend on that evidence. The critical issue was where the defendant was at the time of the shooting, not his rate of travel before and after that time. We are confident that any error in the admission of the GPS-based calculations of the defendant's speed "did not influence the jury, or had but very slight effect," and so was not prejudicial. Sullivan, supra at 376, quoting Cruz, supra.

c. Maps created using GPS data. In preparing for the defendant's trial, the manufacturer arranged for an outside mapping company to create a street map identifying each of the

latitude and longitude points reported by the defendant's ET1 monitor in each of the seven minutes before, during, and after the shooting. The manufacturer then added a "dot" to each map representing the defendant's location at the reported point for that time. On appeal, the defendant argues that, because a representative of the mapping company did not testify, the maps violated the prohibition against hearsay and the right to confrontation.

"Hearsay requires a 'statement,' i.e., 'an oral or written assertion or . . . nonverbal conduct of a person, if it is intended by the party as an assertion.'" Commonwealth v.

Thissell, 74 Mass. App. Ct. 773, 776-777 (2009) (Thissell I),

S.C., Thissell II, 457 Mass. 191, quoting Commonwealth v.

Whitlock, 74 Mass. App. Ct. 320, 326 (2009). See Mass. G. Evid.

§ 801(a) (2019). In Thissell I, this court concluded that,
where the maps and logs at issue were generated by a GPS device,
and an observer examining those maps and logs could readily see

¹⁴ The "dots" were text boxes on each map including the defendant's name, the date and time, the latitude and longitude coordinates, the estimated speed of the device, and the number of satellites from which data was received at that time.

¹⁵ While Buck's testimony about how the maps and the data visible on them were created was somewhat unclear, the parties appear to agree that this was the net result.

the location of the person wearing the GPS device, the maps and logs were not hearsay. See Thissell I, supra at 777.

In Thissell II, the Supreme Judicial Court declined to reach the question whether the maps generated using GPS data were hearsay evidence, 16 but, noting that "[c]omputer-generated records create unique problems in the context of the rule against hearsay," the court observed that "[s]ome courts have distinguished among types of computer records (similar to the ones at issue here) by classifying them as computer generated or computer stored -- computer-generated records being records generated solely by the electrical or mechanical operation of a computer, and computer-stored records being generated by humans and containing statements implicating the hearsay rule." Thissell II, 457 Mass. at 197 n.13. The court noted that "[b]ecause computer-generated records, by definition, do not contain a statement from a person, they do not necessarily

¹⁶ On review, the court concluded that, in the context of the probation revocation proceeding at issue, it was sufficient to determine that the records were reliable. See <u>Thissell II</u>, 457 Mass. at 197. See also the court's general discussion of computer-generated records, id. at 197 n.13.

 $^{^{17}}$ The court also noted the existence of "records that constitute a hybrid of both processes" Thissell II, 457 Mass. at 197 n.13.

implicate hearsay concerns." 18 Id., citing Mass. G. Evid. \$801(a)\$ (2010).

Here, the evidence about the process of translating the location information from the ET1 monitor into a map, while not as well-developed as it might have been, leads us to conclude that the GPS maps and logs here are not hearsay. See Thissell.nm. According to Buck's testimony, the process of translating the location information from a given ET1 monitor into a map involved the manufacturer's retrieving from that ET1 monitor the latitude and longitude coordinates identified and stored for the desired time period, and sending those data to a mapping company. The mapping company, in turn, used the coordinates to identify a physical location, generated a map of the area to which those points corresponded, and provided the map to the manufacturer. The manufacturer highlighted the defendant's location with "dots" at each coordinate point.

The evidence was that, with the exception of the defendant's name, the information included on the maps introduced at trial, including in the "dots," was generated by the monitor. Accordingly, other than the defendant's name as

 $^{^{18}}$ In such cases, authentication, and not hearsay, is the primary consideration. <u>Thissell II</u>, 457 Mass. at 197 n.13. The defendant here does not challenge the maps' authentication.

included in the "dots," the maps contained information that could have been determined from that monitor-generated data before the data was used to generate the maps. We therefore conclude that, with the exception of the maps' use of the defendant's name, the maps were not hearsay. 19 See Thissell II, 457 Mass. at 197 n.13. See also Commonwealth v. Royal, 89 Mass. App. Ct. 168, 171-172 (2016) (distinguishing between "computergenerated" records, which do not implicate hearsay concerns, and "computer-stored" records, which are hearsay). The defendant does not raise, and thus, we do not consider, whether the admissibility of the maps entered into evidence required a witness to establish how the maps were created from the data collected by the defendant's ET1 monitor. See Mass. G. Evid. § 1006 (2019). See also Commonwealth v. Bin, 480 Mass. 665, 679 (2018) (map created using cell site location information data admissible where witness testified to his placement of certain call information on map using specific computer program).

We are not persuaded by the defendant's arguments that the introduction of the maps in evidence violated the confrontation clause. First, in light of our conclusion that the maps were not hearsay, the confrontation clause was not implicated. See

¹⁹ In view of this conclusion, we do not reach the Commonwealth's argument that the maps were admissible as business records.

Commonwealth v. Pytou Heang, 458 Mass. 827, 854 (2011), quoting Commonwealth v. Hurley, 455 Mass. 53, 65 n.12 (2009) ("we have stated that 'admission of a testimonial statement without an adequate prior opportunity to cross-examine the declarant . . . violates the confrontation clause only if the statement is hearsay . . . '"). Even assuming, arguendo, that the maps were hearsay, we conclude that the confrontation clause would not apply here. "The confrontation clause bars the admission of testimonial out-of-court statements by a declarant who does not appear at trial unless the declarant is unavailable to testify and the defendant had an earlier opportunity to cross-examine him." Commonwealth v. Wilson, 94 Mass. App. Ct. 416, 417 n.1 (2018), quoting Commonwealth v. Simon, 456 Mass. 280, 296, cert. denied, 562 U.S. 874 (2010). As we discussed, supra, the information represented on the maps came not from a "declarant," but from the GPS receiver, and was simply transmitted by the manufacturer to the mapping company. To the extent that the manufacturer's placement of the "dots" on the map conferred "declarant" status on the manufacturer (a conclusion we do not reach), Buck testified about that process and was vigorously cross-examined on the subject. Cf. Commonwealth v. King, 445 Mass. 217, 236 (2005), cert. denied, 546 U.S. 1216 (2006).

d. Sufficiency of evidence identifying defendant as gunman. The defendant's final challenge is to the sufficiency

of the evidence proving that he was the person who shot at the victim's car. 20 "When reviewing the denial of a motion for a required finding of not quilty, 'we consider the evidence introduced at trial in the light most favorable to the Commonwealth, and determine whether a rational trier of fact could have found the essential elements of the crime beyond a reasonable doubt.'" Commonwealth v. Quinones, 95 Mass. App. Ct. 156, 162 (2019), quoting Commonwealth v. Faherty, 93 Mass. App. Ct. 129, 133 (2018). "Proof of the identity of the person who committed the offense may be established in a number of ways and '[i]t is not necessary that any one witness should distinctly swear that the defendant was the man.'" Quinones, supra quoting Commonwealth v. Blackmer, 77 Mass. App. Ct. 474, 483 (2010). "The inferences that support a conviction 'need only be reasonable and possible; [they] need not be necessary or inescapable.'" Commonwealth v. Waller, 90 Mass. App. Ct. 295,

²⁰ At trial, the defendant's argument on his motion for a required finding of not guilty challenged the sufficiency of certain of the evidence at trial, but did not explicitly challenge the evidence that the defendant was the gunman. Where the sufficiency of the evidence is raised on appeal, we consider whether or not the issue was raised below. The difference is only in our standard of review -- as preserved error or for a substantial risk of a miscarriage of justice. See Commonwealth v. Nee, 83 Mass. App. Ct. 441, 445 (2013), citing Commonwealth v. McGovern, 397 Mass. 863, 867-868 (1986) (findings based on legally insufficient evidence create substantial risk of miscarriage of justice).

303 (2016), quoting <u>Commonwealth</u> v. <u>Woods</u>, 466 Mass. 707, 713, cert. denied, 573 U.S. 937 (2014).

The GPS evidence placed the defendant at the intersection of Quincy Street and Baker Avenue at 10:27 $\underline{\underline{A}}.\underline{\underline{M}}.$, one minute before the Boston Police Department received a report of gunshots at that intersection, and showed the path of his travel away from the scene immediately after the shooting. 21

The surveillance video recording of the shooting showed the gunman to be an African-American male with long braided hair and a long-sleeved red shirt or sweatshirt. See Commonwealth v.

Austin, 421 Mass. 357, 366 (1995) (jury capable of viewing videotape and drawing their own conclusions regarding whether individual in videotape was defendant). The defendant is an African-American male who had long braided hair on the day after the shooting; approximately one week after the shooting, Boston police officers discovered a red sweatshirt and a pair of pants containing the defendant's identification in a home at which the defendant was believed to be staying.²²

 $^{^{21}}$ According to the GPS data introduced at trial, from 10:25 $\underline{\underline{A}} \cdot \underline{\underline{M}}$. to 10:29 $\underline{\underline{A}} \cdot \underline{\underline{M}}$., the defendant followed a clockwise path in the area of the shooting, traveling along Columbia Road onto Quincy Street, through the intersection of Quincy Street and Baker Avenue and onto Baker Avenue, then on Bodwell Street, and back onto Columbia Road.

²² The home is on Fruean Place, in an area not far from the location of the shooting.

Additionally, at around 10:30 $\underline{\mathbb{A}} \cdot \underline{\mathbb{M}} \cdot$, a woman on Bodwell Street heard sounds that could have been gunshots, and then saw an African-American male with thin braids and a red shirt, with his hand or hands in his pockets, run southeast on the same path documented by the defendant's GPS monitor.²³

On these facts, and in the light most favorable to the Commonwealth, see Commonwealth v. Latimore, 378 Mass. 671, 676-677 (1979), a rational juror could conclude, beyond a reasonable doubt, that the defendant was the shooter. See Quinones, 95 Mass. App. Ct. at 162-163 (video showing "individual whom the jury could have identified as the defendant" in area of shooting at approximate time of shooting, who was later arrested wearing clothes like those worn by individual depicted in video, sufficient evidence that person in video was defendant). See also Commonwealth v. Jones, 477 Mass. 307, 316 (2017) (evidence of "flight path of the single person seen at the scene of the shooting who generally matched the description of the defendant," together with evidence that person ran away alone "clutching something in his pocket consistent with a firearm," sufficient to allow jury to infer that defendant was shooter);

²³ The witness saw the man run down Bodwell Street toward Columbia Road, then turn right and continue southwest on Columbia Road. The witness was not, however, able to identify the defendant as the man whom she had seen running down Bodwell Street.

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COMMONWEALTH OF MASSACHUSETTS

SUFFOLK, SS.

SUPERIOR COURT CRIMINAL DIVISION NO. 16-00353

COMMONWEALTH OF MASSACHUSETTS, Plaintiff,

-vs-

MATTHEW DAVIS,

Defendant.

DAY FOUR OF TRIAL PROCEEDINGS

BEFORE: The Honorable Peter Lauriat

October 10, 2017

Suffolk Superior Court

Three Pemberton Square, Room 815

Boston, MA 02108

APPEARANCES:

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On behalf of the Commonwealth.

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CAROL A. LAVALLEE, OFFICIAL COURT REPORTER

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tattoo. When she mentioned the complete lack of facial hair. Was that the shooter? Was that someone else? Was Mr. Davis in a car? Was he on foot? All these different questions could be in the forefront of your mind if you want to know what really happened that day. What really happened at 10:28 and 6 seconds.

THE COURT: Thank you, Attorney Barusch.
Mr. Feeney.

 $$\operatorname{MR.}$$ FEENEY: Good afternoon, ladies and gentlemen.

Perhaps the prosecution jumped to conclusions. Perhaps Matthew Davis is the single most unlikely person on the face of the earth.

Perhaps. But, ladies and gentlemen, that's not what the evidence has shown. Not what it has shown whatsoever.

Now, ladies and gentlemen, at the core of what this case is about it's about what and it's about who. About what happened to Mackenzie Guillaume that day, and it's about who did it.

Well, beginning first with the what

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happened where Attorney Barusch discussed briefly in her closing, and frankly as I discussed with you in my opening. There wasn't going to be a great argument, a point of contention in this case because what happened is on video. But still, ladies and gentlemen, there are still a few points that we need to discuss relative to that particular issue.

In the testimony that you've heard, and the video that you've seen, it's clear that a person was standing at the corner of Quincy and Baker, and that person fired seven shots at a moving car that was operated by one person, Mackenzie Guillaume. The person who stood there holding that gun, that gun clearly works, and having a barrel length is less than 16 inches. Their intention was clear. You saw it in the video. Their intention was to kill the person driving that car.

You've seen the pictures and you'll get a chance to continue to see the pictures. Seven shell casings, seven shots fired, two bullet holes right through the front windshield of the vehicle. The intentions of the suspect could not be any clearer, that person acted with malice and he

intended to kill Mackenzie Guillaume. That is what the suspect intended to do. And there will be no question about it, folks. You have the photos, you have the evidence.

The fact that the car was even moving makes it even worse because exactly what happened is what did happen when something like this were to occur. Normally, for a person to be shot and injured by the bullets it could crash the car that was moving at a decent rate of speed as evidenced by the significant damage caused to the car.

Now, ladies and gentlemen, the only thing that prevented this from being a murder and being consistent with what the intentions of the shooter was that day was good luck for the participant and bad aim for the shooter. That's it, nothing more, nothing less. And that's what the evidence has shown. That's what the Commonwealth has proven to you beyond a reasonable doubt.

Now, folks, the who is what the central issue in this case is about. The central issue ???? Ladies and gentlemen, the Commonwealth has proven beyond a reasonable doubt that the who essential to this case is this gentleman right

here. The person whose picture is right there on the screen right now. That's what he looked like the day after the shooting. Now, ladies and gentlemen, there are numerous pieces of evidence which will allow you to find beyond a reasonable doubt that Mr. Davis is the person depicted in that video. Numerous pieces of evidence.

But the thing is, ladies and gentlemen, it's not just one particular piece of evidence that will allow you to find without a reasonable doubt that Mr. Davis is, indeed, the shooter in this particular case.

The video standing by itself, not enough. That picture up there by itself, not enough. The GPS by itself, not enough. The red sweatshirt by itself, not enough. Not one single piece of information will allow you to find beyond a reasonable doubt that Mr. Davis is the shooter. But when you look at all of those pieces of evidence as a whole, look at them collectively, that will allow you to see beyond a reasonable doubt that the Commonwealth has met its burden in this particular case.

But, folks, let's look at a couple of particular items that I just referenced.

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Beginning first with the GPS. Now, ladies and gentlemen, when you go through those maps, perhaps you'll remember from the testimony, perhaps not, but not only at the locations of the map - or other points on the map, rather, also look at the I submit to you, ladies and gentlemen, that when you look at not only the locations, but also the speed, a bigger story will come up for this particular case.

The first two points by Mr. Davis are Columbia Road traveling 22 to 32 miles an hour. And I submit to you, ladies and gentlemen, that I think from your own common sense and life experience you know that 22 and 32 miles an hour (indiscernible) you are not running that fast. This is someone who is driving down Columbia Road and at some point he most likely gets out of the That is consistent with what the evidence will show on these maps.

Now, back at 10:25 and 10:26 the vehicle is right on Columbia Road between Bodwell Street and Quincy Street. Now, this is where the significance of the speed and the location really starts to matter. At 10:27, ladies and gentlemen, the points to Mr. Davis is exactly at the corner

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of Baker Street and Quincy Street. At 10:28 the point is right at the corner of Bodwell and Baker Street, right at the end of the street. Look at the speed with which those two points occur. 10 miles an hour, 11 miles an hour, which I submit to you, ladies and gentlemen, which I submit to you, ladies and gentlemen, is consistent with someone who is running down the street. Once again, consistent with the video. Because after you see the shooting it's very clear that the shooter starts running in the direction of Bodwell Street.

Look at that particular moment, ladies and gentlemen, perhaps that's not enough. Well, what about Ms. Rock's testimony? What about her testimony? We know that she couldn't get a clean look at the face of the shooter. But what did she tell us? She was on Bodwell Street and then she sees someone running past her. Her attention was drawn to two particular things - well, three particular things, rather: the hair that is extremely consistent with that picture of Mr. Davis from the next day after the shooting; the red sweatshirt and where the person's hand was in their waist or pocket area. And also the fact that this person was running. Not like wearing

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sneakers going out for a jog, this person was running. When she heard the sirens and she put two and two together it became apparent that this person has just been involved in something right around the corner. So, compare her testimony to the GPS points, to the speed of the GPS points. Look at her testimony.

Now, folks, then go next to the next GPS We're at 10:27, 10:28. Now, we're at point. 10:29. Compare the points from 10:29 to 10:26, they're essentially identical right on Columbia Road between Quincy Street and Bodwell Street. And the next point is going up Quincy Street. towards Mr. Davis' home. Once again, look at the speed, inconsistent with being on foot, consistent with being in a car. The coincidences are just too, too massive to possibly fathom, ladies and gentlemen. All of these things coming together showing that beyond a reasonable doubt Mr. Matthew Davis was not only there, he was the person in that video shooting because that's what the GPS That's what the points say, that's what the says. speed says. That's why when we look at Ms. Rock's testimony and compare it to those points that's what makes sense.

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the Commonwealth, it is our burden, is completely consistent with his guilt.

You cannot ignore all of the evidence that you have heard. And as that car drives up Quincy Street. look at the points, look at the speed, and eventually Mr. Davis gets home. And some days later at that home the police finds that red sweatshirt. Now, Attorney Barusch references

that evidence.

Well, read the whole report, folks. The last finding of the GSR report states there is no conclusion that can be reached from the lack of presence of GSR particles. That's what the actual report says. So, take a look at that, consider

the fact that there was no GSR on the sweatshirt.

Folks, the story suggested by Attorney

Barusch is so woefully inconsistent with Mr.

Davis' innocence. The version submitted to you by

And frankly, the point that Attorney
Barusch makes about "hey, it's just a red
sweatshirt," there's validity to that. "It's just
a red sweatshirt." You're right. Perhaps some of
you in this jury box right now have a red
sweatshirt at home. Maybe you do, maybe you
don't. But, as I said, ladies and gentlemen, it's

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else. Look at the sweatshirt, compare it to the video.

Folks, when you do all of that there is but one conclusion that can be reached. That Mr.

but one conclusion that can be reached. That Mr. Davis was the shooter. It's not just the GPS. It's not the speed. It's not the points. It's not just Ms. Rock's testimony. It's not just the video. It's not the way he travels back to his home. It's not just the red sweatshirt, folks. It's all of those things together.

not just the red sweatshirt that we're looking at.

It's the red sweatshirt combined with everything

The Judge has and will continue to instruct you on how to use your common sense and life experience in application to your job here today, your job to find the facts and return a verdict that the Commonwealth has proved beyond a reasonable doubt Mr. Davis' guilt.

And it's one of those things where, you know, how do you apply your life experience and your common sense to a shooting since most people don't have life experiences with shootings, or at least I hope you do not. But, folks, it's not about your common sense and life experience, you have to witness shootings or been involved in

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shootings, that's not what that's about.

What it's about is your common sense to what you do in everyday life when you hear a When someone tells you a story, when you story. read a story in the paper, how do you determine it's accuracy, it's reliability? You look for certain things that will corroborate facts. this particular case, folks, we have a fact of a shooting happening and there's an allegation that it's Mr. Davis who did that shooting. What do we have beyond that video to corroborate that allegation? Consider everything that's there, ladies and gentlemen, everything that's there. All of those things corroborate the story that the Commonwealth has presented to you, to submit to you beyond a reasonable doubt that Mr. Davis is indeed the shooter here.

Now, folks, there was testimony from Mr. Buck who Attorney Barusch referred to as a customer service guy. Well, I'd submit to you, ladies and gentlemen, that he's a little bit more than a customer service guy. He is intimately involved in the entire work that goes into making a GPS device, and you heard his testimony about what he said. He said it could be, it's reliable

plus or minus 30 meters. But he said that it would be the absolute.

Think about the testimony he offered about how reliable he found it to be. At some point he said it was 98 percent of the time it was accurate within 15 feet.

Now, you want to consider the accuracy of the GPS in this particular case because it doesn't matter how accurate the GPS on your phone is, it doesn't matter how accurate the GPS in some other situation may be. All that matter is how accurate that GPS device on Mr. Davis' ankle was that particular day. That's all that matters. Think about his testimony, about the accuracy of that.

But, how can you corroborate that? Once again, think about the path that was being traveled by the shooter in the video, down Baker towards Bodwell. What about Ms. Rock's testimony? On Bodwell right onto Columbia Road. Look at the GPS points, folks, look at the GPS points. Down Baker, onto Bodwell, right onto Columbia Road. It's all right there, folks, it's not just one thing. It's one thing on top of another, on top of another, on top of another.

As I stated, ladies and gentlemen, this would have to be the most unlucky human being in the world who happens to be on a GPS bracelet, at the scene of a shooting and he takes the same flight as the shooter. Happens to look like the shooter, happens to have a red sweatshirt on his bedroom floor like the shooter. Folks, the chances are astronomical that his version of events is accurate.

But, folks, it's the Commonwealth's burden to prove to you beyond a reasonable doubt. And when you look at all of those factors everything corroborates each other. Each section, each piece of evidence is just like a chapter in the book, folks. Chapter 1, the video. Chapter 2, the GPS. Chapter 3, the sweatshirt. Chapter 4, Ms. Rock's testimony. Chapter 5, this picture.

And regarding that picture, folks, that's how he looked the day after the shooting: different hair, glasses all of a sudden now. You heard from his federal probation officer, you heard from Sergeant Keaveney, "that's not how he usually wears his hair, never saw him with glasses." You determine what the significance of that is. But, frankly, ladies and gentlemen,

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that's just a further factor to consider in the corroboration of the Commonwealth's overall theory of the case.

We've gone through those chapters of what the evidence is and what it showed to you, ladies and gentlemen. The last chapter is the conclusion. That's for you to decide. It's your job, it's your duty.

I stand before you and say that the Commonwealth has proven its case beyond a reasonable doubt because that is what the evidence shows. Not just one piece, or two pieces, or three pieces, or even four. But it's five and six pieces of evidence that when you view it together, folks, there is but one conclusion you can reach. That conclusion, that final chapter it is up to you. And the ending of this story for this gentleman has to be guilty. Thanks.

THE COURT: Thank you, Mr. Feeney.

Okay. Ladies and gentlemen, we are now at the final stage of this trial. You've seen and heard all of the evidence. You have been given my instructions on the law that applies to the charges brought by the Commonwealth in this case, and you've heard the closing arguments of the