



**In the Missouri Court of Appeals  
Eastern District**

**DIVISION FOUR**

STATE OF MISSOURI,	)	No. ED98051
	)	
Plaintiff/Respondent,	)	Appeal from the Circuit Court of
	)	the City of St. Louis
vs.	)	
	)	Honorable David L. Dowd
MELVIN PATTON,	)	
	)	
Defendant/Appellant.	)	Filed: October 8, 2013

**INTRODUCTION**

Defendant Melvin R. Patton was convicted by jury in the Circuit Court the City of Saint Louis of two counts of murder in the first degree, section 565.020, RSMo 2000, one count of assault in the first degree, section 565.050, RSMo 2000, one count of burglary in the first degree, section 569.160, RSMo 2000, and three counts of armed criminal action, section 575.015, RSMo 2000. The trial court sentenced Patton to consecutive sentences of life without probation or parole on the murder counts, concurrent sentences of life on the assault count and armed criminal action count, and a concurrent sentence of fifteen years on the burglary count. On appeal, Patton argues that the trial court erred by admitting evidence of the location of cell sites used by his cell phone near the time of the crime. The State introduced this evidence to suggest that Patton was in the vicinity of the crime scene at the time of the shootings. Patton contends that locating a phone in relation to the cell sites to which it connected is a subject for expert testimony, and that a *Frye*

hearing was necessary before the cell site data could be admitted. Additionally, Patton argues that the trial court erred in admitting photographs of the victims' family, because the prejudicial effect of the photographs outweighed their probative value.

We hold: (1) the trial court did not abuse its discretion by declining to require a *Frye* hearing before admitting historical cell site data; (2) the trial court erred by failing to require an expert witness to testify as to the location of Patton's phone in relation to the cell sites to which it connected; (3) this error does not require reversal, because the evidence of Patton's guilt is otherwise overwhelming; and (4) the admission of family photographs was not so prejudicial as to affect the outcome of the trial. We decline to exercise our discretion to review Patton's unpreserved claim of error regarding the State's closing arguments. We affirm the judgment of the trial court.

## **FACTS**

In the early morning hours of April 21, 2010, a hooded gunman entered a home at 3815 Pennsylvania Avenue in the Saint Louis and shot Jane Smith, her cousin Robert Johnson, and Smith's girlfriend Mary Williams.<sup>1</sup> Smith's son, John Davis, looked on as the gunman shot his mother and Williams. Smith and Johnson died from their wounds.

At trial, both Williams and Davis testified that they recognized the gunman as Davis's father, Melvin Patton. Williams testified that she could see Patton's face despite the hood, and recognized his voice. Williams further testified that Davis grabbed Patton during the shootings and said, "Daddy, no, please don't kill my momma." Davis testified that he recognized his father's eyes and mouth. Additionally, Stephen Showers, Patton's cellmate before trial, testified that Patton confessed the shootings to him.

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<sup>1</sup> We have changed the names of the minor child "John Davis," and the victims "Jane Smith," "Robert Johnson," and "Mary Williams" to respect their privacy.

In his defense, Patton claimed that he was sleeping in Cahokia, Illinois, at the house of his cousin Marlon Tillman at the time of the shootings. Tillman and his ex-girlfriend Sarah Morice both testified that Patton was at the house when they went to sleep on the night of the shootings and when they woke up the next morning. Patton testified to this effect as well.

The jury found Patton guilty of two counts of murder in the first degree, one count of assault in the first degree, one count of burglary in the first degree, and three counts of armed criminal action. The trial court sentenced Patton to two consecutive sentences of life without probation or parole for the murders, two concurrent life sentences for assault and armed criminal action, and a concurrent sentence of fifteen years for the burglary. This appeal follows.

## **DISCUSSION**

In his first point, Patton argues that the trial court erred by admitting evidence regarding the location of cell sites used by his cell phone in the time period surrounding the crime. The State introduced this evidence to establish that Patton was in the vicinity of the crime when it was committed, and not sleeping at his cousin's house as he claimed. Patton contends that locating a phone in relation to the cell sites to which it connected is a subject for expert testimony, and that a *Frye* hearing was necessary before cell site data could be admitted. Patton filed a motion in limine to this effect, and timely objected at trial. Therefore, we review for abuse of discretion. *See Elliot v. State*, 215 S.W.3d 88, 92 (Mo. banc 2007). "The trial court abuses its discretion when the ruling is clearly against the logic of the circumstances or when it is arbitrary and unreasonable." *State v. Davis*, 32 S.W.3d 603, 608 (Mo. App. E.D. 2000). "Our review of the trial court's ruling is for

prejudice, not mere error, and we will reverse only if the error was so prejudicial that it deprived the defendant of a fair trial.” *State v. Burton*, 320 S.W.3d 170, 176 (Mo. App. E.D. 2010). “Trial court error is not prejudicial unless there is a reasonable probability that the trial court’s error affected the outcome of the trial.” *State v. Pickens*, 332 S.W.3d 303, 318 (Mo. App. E.D. 2011) (quoting *State v. Johnson*, 207 S.W.3d 24, 34 (Mo. banc 2006)).

We begin with Patton’s contention regarding *Frye*. Missouri courts employ a test based on *Frye v. United States*, 293 F. 1013, 1014 (D.C. Cir. 1923), to determine the admissibility of scientific evidence.<sup>2</sup> *State v. Keightley*, 147 S.W.3d 179, 187 (Mo. App. S.D. 2004). Under this test, scientific evidence may be admitted only if the procedure is “sufficiently established to have gained general acceptance in the particular field in which it belongs.” *Id.* (quoting *State v. Davis*, 814 S.W.2d 593, 600 (Mo. banc 1991)). While some confusion exists on this point, a *Frye* hearing is generally not required when the evidence at issue is not in fact “scientific”—that is to say, it does not involve scientific procedures or techniques. *See McReynolds v. Mindrup*, 108 S.W.3d 662, 666 (Mo. App. W.D. 2002), *abrogated on other grounds by McDonagh*, 123 S.W.3d at 153 n.9.

Here, the State presented a map showing the locations of the cell sites to which Patton’s phone connected and the times at which those connections occurred. The State argues that this is not scientific evidence, because creating the map involved no more than reading Patton’s cell phone records and transferring that information to a map of the

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<sup>2</sup> We note that *State Bd. of Registration for Healing Arts v. McDonagh*, 123 S.W.3d 146, 153 (Mo. banc 2003), holds that the *Frye* test is no longer applicable to civil cases. But *McDonagh* is silent as to criminal cases. *State v. Taylor*, 298 S.W.3d 482, 500 n.8 (Mo. banc 2009). Thus, we continue to use the *Frye* rule in the instant case. *State v. Daniels*, 179 S.W.3d 273, 281 (Mo. App. W.D. 2005).

greater Saint Louis area. In this limited instance, we agree. Reading the coordinates of cell sites from phone records and plotting them on a map is not a scientific procedure or technique, and the *Frye* standard is not applicable.

We turn next to Patton's contention that the location of a cell phone in relation to the cell sites to which it connected is a subject for expert testimony. As this issue is relatively new to Missouri courts, we begin with a bit of background information. A cellular phone essentially operates as a two-way radio. Aaron Blank, *The Limitations and Admissibility of Using Historical Cellular Site Data to Track the Location of a Cellular Phone*, 18 Rich. J.L. & Tech. 3, 5 (2011). The phone transmits and receives signals throughout a network of cell sites (towers), which are interspersed throughout a geographic area. *Id.* The coverage area of cell sites generally overlaps, so that a single phone might simultaneously be covered by more than one site. *Id.* at 6. When a call is placed, the phone connects to the cell site with the strongest signal. *Id.* Numerous factors affect a cell site's signal strength, including: (1) the number of other available sites; (2) network maintenance or repairs; (3) the cell tower's height; (4) the tower's height above sea level; (5) the tower's wattage output; and (6) the number, angle, direction, and height of the tower's antennas. *Id.* at 7. Signal strength may also be affected by environmental and geographical factors, such as weather, topography, and level of urban development. *Id.* Finally, signal strength may be influenced by the cell phone itself, including its wattage output, broadband capability, whether the phone is located indoors or outside, and the distance between the phone and the cell site. *Id.* Thus, a single cell site may have a range as short as one mile or as large as thirty miles, covering 2,700 square miles of territory. *Id.* at 5. In the course of their business, cellular companies generally keep

historical data regarding the cell sites to which a phone connected and the date, time, and duration of those connections. *Id.* at 7, 13.

As in the instant case, prosecutors may wish to present evidence of a site to which a defendant's cell phone connected in order to prove that the defendant was near that location at a certain time. However,

the problem with using historical cell site records under this evidentiary theory is that they were never intended to and do not indicate location of the [cell phone] in relation to any cell site. At best, these records can only narrow location to the geographic coverage area of the originating and terminating cell sites, rather than pinpoint the specific location of the cell phone. It cannot be determined that the cell phone was closest to the site processing the call because factors other than geographic location can affect signal strength.<sup>3</sup>

*Id.* at 16 (alteration in original) (footnotes omitted) (internal quotation marks omitted).

Courts across the country differ on the question of whether an expert is required to testify regarding the location of a cell phone relative to the tower to which it connects. *See, e.g., Wilder v. State*, 991 A.2d 172, 199-200 (Md. Ct. Spec. App. 2010) (Plotting defendant's location according to cell site records "required some specialized knowledge or skill . . . that is not in the possession of the jurors." (alteration in original) (internal quotation marks omitted)); *but see, e.g., Perez v. State*, 980 So.2d 1126, 1131-1132 (Fla. Dist. Ct. App. 2008) (holding that expert is not required "to explain the concept of a cell

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<sup>3</sup> Tracking cell phone location by real-time triangulation or GPS—more precise methods—are beyond the scope of this discussion. Likewise, we do not address more advanced methods of historical cell site tracking, such as radio frequency area surveys. *See, e.g., Matthew Tart et al., Historic Cell Site Analysis—Overview of Principles and Survey Methodologies*, 8 *Digital Investigation* 1, 193 (2012) (reviewing techniques for collecting radio frequency data for historic cell site analysis and concluding that "[a]rea [s]urveys around the location of interest ... provide the most accurate and consistent method for detecting servicing [c]ells at a location").

site and how it generally related to cellular telephone company records.”). However, in *State v. Manzella*, 128 S.W.3d 602, 609 (Mo. App. E.D. 2004), this Court held that there was no abuse of discretion where the trial court “determined that testimony regarding cellular towers was outside the realm of common knowledge,” and barred a witness from testifying based on his experience as a cell phone customer. Also, we note that expert testimony is widely used in other courts to present historical cell site data. *See, e.g., Commonwealth v. Bryant*, 67 A.3d 716, 722 (Pa. 2013) (noting expert to be introduced regarding cell site location data); *People v. Hollinquest*, 119 Cal. Rptr. 3d 551, 559-60 (Cal. Ct. App. 2010) (noting expert testified regarding cell site location data); *State v. Marinello*, 49 So. 3d 488, 509-10 (La. Ct. App. 2010) (same); *Francis v. State*, 781 N.W.2d 892, 895 (Minn. 2010) (same); *Wilson v. State*, 195 S.W.3d 193, 200-202 (Tex. App. 2006) (examining qualifications of expert witness who testified on tracking cellular calls); *Pullin v. State*, 534 S.E.2d 69, 71 (Ga. 2000); *United States v. Evans*, 892 F. Supp. 2d 949, 951-57 (N.D. Ill. 2012) (examining expert’s qualifications and methodology in locating phone in relation to cell site); *United States v. Machado-Erazo*, No. 10–256–08(RMC), 2013 WL 2932399, at \*3-8 (D. D.C. June 17, 2013) (same); *United States v. Jones*, No. 05–0386 (ESH), 2013 WL 246615, at \*2-5 (D. D.C. Jan. 23, 2013) (same).

In Missouri, “[i]t is well-established that expert testimony is admissible if it is clear that the subject of such testimony is one upon which the jurors, for want of experience or knowledge, would otherwise be incapable of drawing a proper conclusion from the facts in evidence.” *State v. Harris*, 305 S.W.3d 482, 490 (Mo. App. E.D. 2010). “A guiding principle in applying this test is that expert testimony is proper ‘[i]f the subject is one with which lay jurors are not likely to be conversant . . . . On the other

hand, if the subject is one of everyday experience, . . . then opinion testimony is properly rejected.” *State v. Marks*, 721 S.W.2d 51, 55-56 (Mo. App. W.D. 1986) (alterations in original) (quoting *Wessar v. John Chezik Motors, Inc.*, 623 S.W.2d 599, 602 (Mo. App. W.D. 1981)).

We recognize that cellular phones are a subject of everyday experience, and that little technical knowledge is required to understand that a phone will connect to the cell site with the strongest signal. Yet to opine, as the State’s lay witness did here, that the strongest signal generally comes from the closest site is misleadingly simple. In fact, it is impossible to determine from historical cell site data alone that a phone was closest to the cell site processing the call, and at best these records only indicate that a phone was located somewhere within a cell site’s geographic coverage area. *See Blank, supra*, at 16. A cell phone may be in range of several sites simultaneously, and a multitude of factors influence which site among them will have the strongest signal. *Id.* at 5-7. The technical features of the cell site, geography, and the workings of the cell phone itself may result in connections from as far away as thirty miles or as close as thirty feet. *Id.* Thus, knowing the location of the cell site to which a phone connects permits an expansive range of inferences as to where the phone actually is. We think that drawing such an inference without the aid of specialized experience or knowledge in the field of cellular communications comes too close to mere speculation.

Here, the State introduced evidence of the locations of the cell sites used by Patton’s phone in order to place Patton near the crime scene at the time of the shootings. The State’s lay witness, Emily Blackburn, used a map to show that Patton’s cell phone: (1) connected to two cell sites in the vicinity of Patton’s cousin’s house at 12 Leonard

Drive in Cahokia, Illinois, several hours before the shootings; (2) connected to three cell sites in the vicinity of the crime scene at 3815 Pennsylvania Avenue in Saint Louis near the time of the shootings; and (3) connected again to the Cahokia sites several hours after the shootings. Blackburn testified that several factors affect whether a phone connects to a particular site, but that a phone will usually connect to the closest one. The problem with this testimony is that crime scene at 3815 Pennsylvania Avenue is only about four miles as the crow flies across the river from Patton's cousin's house at 12 Leonard Drive. Such a distance is well within the hypothetical range of a cell site. To narrow down the area in which Patton's phone must have been to have connected to a particular cell site—i.e., to proffer testimony actually probative of whether Patton was in one area rather than the other—required analysis of the many variables that influence cell site signal strength. Such analysis amounts to opinion testimony that is properly the province of an expert. Thus, we hold that the trial court erred by failing to require an expert witness to testify as to the location of Patton's phone in relation to the cell sites to which it connected.

Nevertheless, we do not reverse. “When the prejudice resulting from the improper admission of evidence is only evidence-specific and the evidence of guilt is otherwise overwhelming, reversal is not required.” *State v. Barriner*, 34 S.W.3d 139, 150 (Mo. banc 2000). “In contrast, when the prejudice resulting from the improper admission of evidence is outcome-determinative, reversal is required.” *Id.* Outcome-determinative prejudice occurs when “the erroneously admitted evidence so influenced the jury that, when considered with and balanced against all of the evidence properly admitted, there is a reasonable probability that the jury would have reached a different conclusion.” *Id.* (quoting *State v. Roberts*, 948 S.W.2d 577, 592 (Mo. banc 1997)). Here, the State offered

the cell site evidence to place Patton in the vicinity of the crime scene at the time of the shootings, rather than at his cousin's house as Patton claimed. Even without those records, however, the State presented overwhelming evidence that Patton was not only at the crime scene, but also the shooter. Two eye witnesses, one of the shooting victims and Patton's own son, identified Patton as the gunman. Also, Patton's cellmate testified that Patton confessed the shootings to him. Thus, we cannot say that Patton suffered prejudice from the admission of the cell site location evidence. *See State v. Foster*, 68 S.W.3d 530, 534 (Mo. App. E.D. 2001) (holding evidence overwhelming where several eyewitnesses who personally knew defendant identified defendant and selected defendant from lineup); *State v. Sims*, 952 S.W.2d 286, 294 (Mo. App. W.D. 1997) (holding evidence overwhelming where three eyewitnesses identified defendant, defendant matched description of perpetrator, and defendant confessed to third party).

In his second point, Patton contends that the trial court erred by overruling his objection to the State's comment on the cell site location evidence during closing arguments. Patton did not raise this issue in his motion for a new trial. Therefore, we may review only for plain error. *See State v. Pennington*, 24 S.W.3d 185, 188 (Mo. App. E.D. 2000). "Plain errors affecting substantial rights may be considered in the discretion of the court when the court finds that manifest injustice or miscarriage of justice has resulted therefrom." Rule 29.12(b). Nonetheless, "[t]he plain error rule is to be used sparingly and may not be used to justify a review of every point that has not been otherwise preserved for appellate review." *State v. Letica*, 356 S.W.3d 157, 167 (Mo. banc 2011) (quoting *State v. Chaney*, 967 S.W.2d 47, 59 (Mo. banc 1998)). Here, we decline to exercise our discretion to review for plain error, because the overwhelming evidence of Patton's guilt

indicates that that no manifest injustice resulted from the State's comment during closing arguments. *See State v. Collins*, 150 S.W.3d 340, 356 (Mo. App. S.D. 2004) ("Generally, where there is overwhelming evidence of guilt errors concerning the prosecutor's closing argument are not viewed as having a decisive effect on jury deliberations." (quoting *State v. Durbin*, 835 S.W.2d 323, 326 (Mo. App. E.D. 1992))).

In his final point, Patton argues that the trial court erred in admitting photographs of the victims' family, as the photographs were irrelevant and served only to inflame the passions and prejudices of the jurors. Patton timely objected to the admission the photographs at trial. Thus, we review for abuse of discretion. *See State v. Hawkins*, 58 S.W.3d 12, 24 (Mo. App. E.D. 2001). "The trial court has broad discretion in the admission of photographs." *Id.* "An abuse of discretion exists when the trial court ruling 'clearly offends the logic of the circumstance or appears arbitrary and unreasonable.'" *Id.* (quoting *State v. Strughold*, 973 S.W.2d 876, 887 (Mo. App. E.D. 1998)). "To be admissible, evidence must be relevant." *State v. Walkup*, 220 S.W.3d 748, 757 (Mo. banc 2007). "Beyond questions of relevance . . . appellate courts review evidentiary errors to ascertain whether they were prejudicial, that is, whether the errors are more likely than not to have affected the outcome." *Id.*

Here, we think that Patton's allegation that the photographs inflamed the passions and prejudices of the jurors is overblown. The testimony regarding the photographs centered mainly on identification of the family members depicted therein. Though we fail to see the relevance in allowing the State to identify for the jury family members who had no connection to the crime, we again cannot say that Patton was so prejudiced by these

photographs that they affected the outcome of the trial. As we have explained, the evidence of Patton's guilt was overwhelming.

### CONCLUSION

The trial court erred by failing to require an expert witness to testify as to the location of Patton's phone in relation to the cell sites to which it connected. Nevertheless, we do not reverse, because the evidence of Patton's guilt is overwhelming. Likewise, despite the questionable relevance of the family photographs, the overwhelming evidence of Patton's guilt dictates that Patton was not so prejudiced by their admission as to affect the outcome of the trial. For the foregoing reasons, we affirm the judgment of the trial court.



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Lisa S. Van Amburg, Presiding Judge

Patricia L. Cohen, J. and  
Gary M. Gaertner, Jr., J., Concur.