

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF KANSAS**

UNITED STATES OF AMERICA,

Plaintiff,

v.

ALBERT DEWAYNE BANKS, et al.

Defendants.

Case No. 5:13-cr-40060-DDC

MEMORANDUM AND ORDER

Earlier in this case, defendants Johnson, Taylor, Thompson, Ponds and Madkins filed motions arguing that the Court should suppress wiretap evidence collected by Kansas Bureau of Investigation (“KBI”) agents during the investigation that lead to this prosecution (Docs. 346, 349, 356, 362, 377). Among other arguments, their motions asserted that Kansas’ wiretap statute, K.S.A. § 22-2514 *et seq*, prohibits agents from intercepting communications outside of the territorial jurisdiction of the judge who authorized the wiretaps, in this case, Judge David Platt of Kansas’ Eighth Judicial District. The Court agreed.

In its ruling following last August’s suppression hearing, the Court articulated the legal standard that governs this aspect of defendants’ motions. At the parties’ joint request, the Court memorialized this preliminary ruling in a written order (Doc. 517). Relying upon the Kansas Court of Appeal’s application of Kansas’ wiretap statute in *Kansas v. Adams*, 576 P.2d 242 (Kan. Ct. App. 1978), the Court identified three ways that a wiretap could fall within Judge Platt’s territorial jurisdiction: either the monitoring station (the location where law enforcement first hears the intercepted communications), the intercepting device, or the tapped phones, must have been physically present within Kansas’ Eighth Judicial District at the time a call was

intercepted. In this case, the first option was nullified because the monitoring station was located at the KBI headquarters in Shawnee County, Kansas—outside the Eighth Judicial District. The government has never invoked the second option—the location of the intercepting device. This left the third alternative—the location of the tapped phone—as the only possible basis for the government to justify intercepting calls under Judge Platt’s wiretap order. Accordingly, this Court ordered that it would suppress the wiretap evidence, except for those calls the government could rescue under *Adams*’ third jurisdictional alternative, *i.e.*, unless the government could prove that the tapped phones were physically located within Kansas’ Eighth Judicial District at the time of interception. The Court continued the trial and its accompanying deadlines to permit the government to marshal evidence necessary to respond to defendants’ suppression motion and for defendants to present additional argument.

The Court granted the government’s request to subpoena cell-site location information from Sprint, Verizon, and T-Mobile under 18 U.S.C. § 2703(d) (Doc. 417). Cell-site data includes “records of calls made by the providers’ customer . . . and reveals which cell tower carried the call to or from the customer.” *United States v. Davis*, 754 F.3d 1205, 1211 (11th Cir. 2014). “The cell tower in use will normally be the cell tower closest to the customer It is therefore possible to extrapolate the location of the cell phone user at the time and date reflected in the call record.” *Id.* Having obtained the cell-site data, the government now seeks to discharge its burden to establish the location of the intercepted phone calls by showing that some phone calls “pinged” (*i.e.*, connected to) certain towers in and around the Junction City area. The government theorizes that, if a cell phone pinged one of these towers, a very high likelihood exists that the cell phone was physically located within the Eighth Judicial District when it connected to the tower.

Defendants have filed two joint motions challenging the admissibility of the cell-site evidence. Defendants' first motion argues the Court must exclude the cell-site data because it constitutes inadmissible hearsay and violates the Confrontation Clause of the Sixth Amendment to the United States Constitution (Doc. 543). Defendants' second motion argues the government's method to establish a cell phone's location using cell-site data fails to meet Federal Rule of Evidence 702's criteria governing the admissibility of expert testimony (Doc. 544). The government filed a response to each motion (Docs. 552, 554), and defendants filed joint replies (Docs. 560, 561). On February 9 and 10, 2015, the Court conducted a hearing on defendants' joint motions. On February 16, defendants filed a motion asking the Court to reconsider the legal standard it articulated in Doc. 517. That motion argues that the location where law enforcement first heard the intercepted phone calls is the only relevant "location of interception" for purposes of a judge's wiretap authority.

The Court addresses the arguments contained in defendants' motions and the other challenges to the reliability of cell-site data defendants raised at the hearing, below. After carefully considering the testimony, evidence, and arguments presented by the parties, the Court concludes cell-data that establish that a phone connected to certain towers in the Junction City area are sufficient to prove, by a preponderance of the evidence, that the phone was inside Kansas' Eighth Judicial district at the time of the call.

Analysis

A. Defendants' Motion for Reconsideration

One week after the Court conducted a hearing on these motions, defendants filed a Motion for Reconsideration (Doc. 574). It asked the Court to reconsider its conclusion that a Kansas judge has jurisdiction to authorize wire interceptions if either the monitoring station, the

interception device, or the tapped phone is located within that judge's judicial district. The Court reached this conclusion by reasoning that a Kansas judge may authorize interception of wire communication in his judicial district, and these locations are the places where interception occurs. Defendants contest the second part of the Court's reasoning, arguing that Kansas law holds that "interception" occurs only where law enforcement first hears the call, *i.e.*, the monitoring room. This is a critical point. If defendants' interpretation is correct, the Court must suppress all of the wiretap evidence because, in this case, the monitoring station was located at the KBI headquarters in Shawnee County, outside of Judge Platt's judicial district.

Defendants' argument relies primarily on the Kansas Supreme Court's decision in *Kansas v. Gibson*, 874 P.2d 1122 (Kan. 1994). In that case, the Kansas Supreme Court considered whether a Kansas judge sitting in Riley County (part of the Twenty-First Judicial District) had the power to authorize the use of a pen register that included a "slave unit" physically located in Pottawatomie County (part of the Second Judicial District). *Id.* at 1123. The slave unit is a device that connects the target's phone line to law enforcement's phone line, thereby allowing law enforcement to operate the pen register from a remote location. *Id.* at 1129. Without a slave unit, the pen register would need to be stationed at an "appearance point" (the green boxes visible at intervals along a road "where buried [telephone] cable is brought above ground for accessibility"). *Id.* The slave unit routes the electronic signal from the target line to the place law enforcement has set up the pen register. *Id.* The pen register then records and decodes the phone numbers associated with calls placed to and from the target line. *Id.* at 1122, 29.

In *Gibson*, investigators set up the pen register at a location inside the Twenty-First Judicial District. *Id.* at 1122. The trial court concluded that the slave unit was an indispensable

component of the pen register system, and the issuing judge thus lacked jurisdiction to authorize its installation outside of his judicial district. *Id.* at 1130. The Kansas Supreme Court reversed, holding (1) that the slave unit was not an essential component of the pen register, and (2) the judge who authorized the pen register had jurisdiction to do so because the call data was routed, recorded, and decoded within his judicial district. *Id.* at 1131-32. In other words, the judge had jurisdiction to authorize the pen register because the actual data collection took place within his judicial district.

In reaching its conclusion, the Supreme Court drew comparisons to case law addressing the territorial limitations on a judge's jurisdiction to authorize wiretaps. *Id.* at 1126, 1131 (noting that although "[t]he scheme described in the wiretap provisions is more elaborate," a "similar analysis based on the monitoring location seems appropriate in the present pen register case."). Defendants contend that *Gibson*, in comparing the law governing these two investigative techniques, "implicitly rejected" the notion that interception can occur at more than one place. Had it not, defendants assert, the Kansas Supreme Court would not have devoted several pages to determining whether interception occurred at the slave unit.

The Court disagrees with defendants' interpretation of *Gibson*. First, different statutory schemes govern wiretap and pen register authorizations. For pen registers, the event that must occur within the authorizing judge's jurisdiction is the "installation and use" of the pen register. K.S.A. § 22-2527(1). In contrast, for wiretaps, "interception" must take place within the authorizing judge's jurisdiction. *Id.* at § 22-2516(3). Whatever *Gibson* decided about where the "installation and use" of a pen register occurs under § 22-2527(1), it did not actually decide where "interception" occurs under § 22-2516(3). Thus, as an initial matter, the Court concludes that *Gibson*'s actual holding does not govern the wiretap question now before it.

To their credit, defendants acknowledge this. Nevertheless, they assert, *Gibson* implies strongly that its analysis should also govern wiretap cases. Defendants are correct that *Gibson* relied on the logic of wiretap cases to conclude that the location of the pen register device determines authorizing judge's jurisdiction. But the Court does not interpret *Gibson* to suggest that, in the wiretap context, the location of the monitoring room is the only relevant jurisdictional fact. Even if *Gibson* held that the monitoring room is the only jurisdictionally relevant location for purposes of pen registers (an arguable interpretation), it does not follow that such a limitation necessarily applies to wiretaps. This is evident from *United States v. Burford*, which *Gibson* cites with approval. 755 F. Supp. 607, 610 (S.D.N.Y. 1991) (discussed in *Gibson*, 874 P.2d at 1128-29). In *Burford*, a federal district court concluded that a New York judge had jurisdiction to authorize pen registers linked to phones in Maryland because the pen registers themselves were "installed and used" at the DEA headquarters in downtown Manhattan. *Id.* at 611. But *Burford*'s holding about the jurisdictionally relevant location with respect to pen registers did not preclude it from also concluding that, in the context of wiretaps, "[j]urisdiction vests *either* in the location where the conversations are actually heard or where the mechanical device is inserted." *Id.* (emphasis added).

Second, neither *Gibson*, nor the cases it cites, provide unequivocal support for defendants' argument. In this case, some of the phones were located within Judge Platt's judicial district, but the monitoring room was not. In *Gibson*, and the wiretap cases it cites, the monitoring location was within the issuing judge's jurisdiction, but the tapped phones, or other equipment, were not. *See id.* at 1123; *Burford*, 755 F. Supp. at 610 (S.D.N.Y. 1991) (monitoring station was located within the judge's jurisdiction, but some of tapped phones were located outside of it); *United States v. Rodriguez*, 734 F. Supp. 116, 120 (S.D.N.Y. 1990) *aff'd*, 968 F.2d

130 (2d Cir. 1992) (same); *Evans v. Georgia*, 314 S.E.2d 421, 424 (Ga. 1984) (same). In this sense, the facts presented in those cases are the converse of the facts here. Each of these cases concludes what this Court already has acknowledged—if the monitoring station is located within a judge’s jurisdiction, then that judge may authorize wire intercepts, even for phones located outside the judge’s district. To its surprise, the Court has been unable to locate any written decision addressing the situation presented here—the converse of *Gibson*, *Burford*, *Rodriguez*, and *Evans*. As a result, none of these cases resolves squarely whether a judge may authorize interception of phones located in his district even though the monitoring room is located outside of it. The Court is therefore left with the task of deciphering whether, as defendants assert, these cases imply such a limitation.

The cases suggest conflicting answers to this question. All agree that a judge may authorize wiretaps if his jurisdiction extends to the location law enforcement monitors the calls. But the cases differ on the question whether the location of the tapped phone, the location of the intercepting device, or both also suffice as a basis for intercepting a call within a given judge’s jurisdiction.

In *Evans*, the Georgia Supreme Court interpreted “interception” under the federal Title III statute, 18 U.S.C. § 2510 *et seq* (the Kansas statute defines this term identically), to occur where law enforcement first hears the intercepted communications, *see* 314 S.E.2d at 425-26, but interpreted its state wiretap statute to confer jurisdiction to the district where the intercepting device is placed. *Id.* at 426-27. As the Court discussed, *Burford* interpreted Title III to allow both alternatives. 755 F. Supp. at 61 (“Jurisdiction vests either in the location where the conversations are actually heard or where the mechanical device is inserted.”). The Tenth Circuit has cited *Burford*’s interpretation of Title III with approval, but it declined to hold

explicitly that the location of “interception” also includes the location of the tapped phone. *United States v. Tavaréz*, 40 F.3d 1136, 1138 (10th Cir. 1994) (citing *Burford*, but also noting “[b]ecause it is unnecessary to the disposition of this case, we do not address whether the location of an ‘interception’ also includes the location of the target telephone.”). The district court’s language in *Rodriguez* appears to support the notion that interception under Title III occurs only where the calls are overheard and monitored. *United States v. Rodriguez*, 734 F. Supp. 116, 121 (S.D.N.Y. 1990) *aff’d*, 968 F.2d 130 (2d Cir. 1992) (“It is the capacity of the wiretap to hear and to disclose the contents . . . of the communication which brought it under Title III, and which supports the logic of recognizing the jurisdiction of the court at the place where the wiretap is overheard and monitored.” (citation omitted)). Yet when the Second Circuit affirmed the district court’s order in *Rodriguez*, it recognized that interception also occurs at the location of the tapped phone. *United States v. Rodriguez*, 968 F.2d 130, 136 (2d Cir. 1992) (“[F]or purposes of § 2518(3)’s jurisdictional requirement, a communication is intercepted *not only where the tapped telephone is located*, but also where the contents of the redirected communication are first to be heard.” (emphasis added)). In sum, many of the cases cited by *Gibson* favor recognizing the principle that interception also occurs where the tapped phone is located. At a minimum, none foreclose this interpretation explicitly.

The Court, therefore, returns to *Kansas v. Adams*, the only case to address squarely the jurisdictional limits on judge’s wiretap authority under Kansas state law. 576 P.2d 242 (Kan. Ct. App. 1978). It held:

Where there is interception of telephonic communications, and the locations of the telephone as to which the intercept is conducted, the intercepting device and the monitoring are within the same judicial district, a district judge sitting in another judicial district has no power under K.S.A. [§] 22-2516(3) to authorize the interception.

Id. at 138. The Court cannot imagine any reason that the Kansas Court of Appeals would have mentioned all three locations—the tapped phones, the intercepting device, and the monitoring location—unless each one had its own jurisdictional significance. Nothing in *Gibson* or the cases it cites provides a firm basis for the Court to depart from this conclusion. Consequently, the Court affirms its initial interpretation of Kansas wiretap law as set forth in Doc. 517.

The Court realizes that in 1978, when the Kansas Court of Appeals decided *Adams*, technology presented a simpler geographic equation. Wireline phones did not move around, much less while people were talking on them. In today’s world of wireless phones and text messages, applying a legal standard that hinges on a phone’s location is a daunting task. But it still is the job that the Kansas legal standard requires the Court to discharge, and so, the Court heard the best evidence the parties could muster on this subject.

B. The Government’s Theory of Cell-Site Data as Proof of Location

According to the government, the KBI intercepted about 67,000 phone calls during its investigation. The government concedes that the Court’s order suppressing calls intercepted outside the Eighth Judicial District rendered all but around 7,000 of the intercepted calls inadmissible. Trying to prove that these remaining calls are admissible, the government sought to establish the following proposition: if a call pinged certain towers in and around the Junction City area, then the call originated somewhere within the Eighth Judicial District. In other words, the government asks to prove admissibility on a tower-by-tower basis. The government concedes that a connection to a tower located within, but near the border of the Eighth Judicial District cannot establish that the phone was located in the District because a significant portion of those towers’ coverage areas extend beyond the District. Cognizant of this problem, the government excluded these border towers from their offer of proof.

The government illustrated its theory that certain calls are admissible by introducing three maps as exhibits. Gov. Exs. 1-3. The maps displayed the counties comprising the Eighth Judicial District and the counties immediately surrounding them. They also displayed the location of the cell towers in the area. After excluding the towers located outside the Eighth Judicial District and those located inside the District but near its border, the government identified a cluster of towers in and around Junction City, which is located in Geary County, Kansas. Geary County is the northern-most of the four counties comprising the Eighth Judicial District. The government identified each of these towers (the “Junction City Towers”) with a number corresponding to the number of intercepted calls or texts routed through it. As presented in Government’s Exhibit 1, those towers are:

- Tower #378—1026 Grant Ave, Junction City, Kansas (Geary County)
- Tower #146—120 Hudson Dr., Junction City, Kansas (Geary County)
- Tower #11—1501 Old Highway 40, Junction City, Kansas (Geary County)
- Tower #3563—239 E. 7th Street, Junction City, Kansas (Geary County)
- Tower #80—6629 Easy Jacks Rd., Junction City, Kansas (Geary County)
- Tower #4240—920 W. Spruce St., Junction City, Kansas (Geary County)

At the suppression hearing, the government called two expert witnesses. Its first witness, Russell Pope, holds a B.S. degree in electrical engineering from the University of Kansas. He has worked as a radio frequency engineer at T-Mobile for 18 years. In this capacity, Mr. Pope and his team of engineers are responsible for installing cell sites and optimizing coverage and performance across his assigned region. Understanding the relationship between a cell phone’s location and its ability to connect with a given cell tower is a critical component of Mr. Pope’s job. Notably, Mr. Pope is responsible for cell-network design and optimization in the Junction

City area and, consequently, possesses a sophisticated understanding of the geographical area and cellular network encompassing the Junction City Towers.

Mr. Pope provided the following explanation about how cell phones connect to cell towers. Cell towers are equipped with both a transmitter and a receiver component. The tower is always transmitting a radio signal. Cell phones, even when not in use, connect to the radio signal emanating from a tower. The signal transmitted from the tower to the cell phone is called the “downlink.” A cell phone will search for the strongest, or “dominant,” downlink signal and will attach to it. When a user places a phone call or sends a text message, the cell phone sends a signal, or “uplinks,” to a tower. The tower the cell phone pings when a user places a call is the tower with which the phone has established a downlink connection at the time the call was placed. In simpler terms, a cell phone communicates with the tower transmitting the strongest signal over that phone’s location. By far, Mr. Pope explained, the most important determinant of signal strength is the tower’s physical proximity to the phone. This fact forms the central premise underlying the government’s theory: if a cell phone connected to a tower, it must have been in the general proximity of that tower.

After educating the Court about how cell phones connect to cellular networks, Mr. Pope explained candidly the strengths and limitations of relying on cell-site data to infer the location of a cell phone. The proposition that a cell phone will connect to the nearest tower is not always correct. Because a phone selects a tower based on signal strength, any factor that affects signal strength can influence whether a phone receives a signal from the nearest tower. According to Mr. Pope, such factors include: (1) a service outage at the nearest tower, causing the phone to connect to a different tower; (2) imperfect signal “handoff,” which might occur when a call is placed in transit and the phone “drags” an initial tower’s connection into another tower’s service

area; (3) call congestion, where too many phones are already connected to the nearest tower; (4) physical barriers, both geographic and human created ones; (5) differences in elevation (6) weather; or (7) any other barrier that obstructs a tower's signal, causing a phone to connect to a different tower. But while acknowledging that non-distance factors can influence which tower a cell phone uses, Mr. Pope nonetheless maintained that there was a "very high probability" a phone would connect to the nearest tower. He added that there is an even higher probability that the phone will connect to either the closest or the next closest tower. On cross-examination, Mr. Pope estimated that, even accounting for all factors that can affect a tower's signal strength, a phone fails to connect to the nearest tower for about 2% of calls placed.

The government's next witness, Don Berkley, had a nearly identical background to Mr. Pope's. Mr. Berkley also holds a B.S. in electrical engineering from the University of Kansas and, since 1998, has been employed by Sprint in a position analogous to the one Mr. Pope holds at T-Mobile. Mr. Berkley testified that although Sprint uses slightly different technology, the "radio waves and everything works pretty much exactly the same." With one exception, he testified that he would not have answered counsels' questions any differently than Mr. Pope did. The lone exception is that Mr. Berkley estimates that a phone connects to the non-nearest tower for even less than 2% of calls placed.

The governments' two experts agreed: if cell-site data showed that a cellular phone connected to one of the Junction City Towers, then it was highly likely that the phone was physically located in the Eighth Judicial District. The Court must now determine whether their testimony is sufficient to establish, by a preponderance of the evidence, that a phone was physically located within Kansas' Eighth Judicial District if it pinged one of the Junction City

Towers. The Court does so, below, and also addresses the litany of objections defendants have asserted.

C. Admissibility Issues

1. Hearsay

Defendants' first motion argues that the Court should not consider cell-site information because it constitutes inadmissible hearsay. As a result, defendants contend, the government can only admit the cell-site data, if at all, by authenticating the cell-site data as a business record under Federal Rule of Evidence 803(6). Defendants assert such authentication is not possible for the T-Mobile data. Unlike Sprint, T-Mobile no longer possesses the cell-site data that was responsive to the Court's § 2703(d) Order. But the government nevertheless obtained the cell-site data because T-Mobile provided it to the government contemporaneously with the interception of T-Mobile calls. Defendants assert that, because T-Mobile no longer has the cell data in its possession, no witness can verify it as a business record.

The government makes three arguments in response: (1) the Court is not bound by the rules of evidence, including the rule against hearsay, because whether certain phone calls are admissible constitutes a "preliminary question" under Rule 104; (2) computer-generated data are not "statements of a declarant," so they cannot be hearsay; and (3) even if computer generated-data are hearsay, they are nevertheless admissible under the business records exception.

Federal Rule of Evidence 104(a) governs the application of evidentiary rules to preliminary questions. The rule provides, in full:

The court must decide any preliminary question about whether a witness is qualified, a privilege exists, or *evidence is admissible*. In so deciding, the court is not bound by evidence rules, except those on privilege.

(emphasis added). Rule 104(a), and the case law interpreting it, are clear: a motion to suppress evidence presents a preliminary question. *United States v. Merritt*, 695 F.2d 1263, 1269 (10th Cir. 1982) (“The purpose of the suppression hearing was, of course, to determine preliminarily the admissibility of certain evidence allegedly obtained in violation of defendant’s rights.”). Thus, even if defendants had succeeded in establishing that cell-site data constitutes hearsay, the Court would nonetheless admit the data for the narrow purpose of resolving defendants’ motion to suppress. Defendants note correctly that *Merritt* encourages courts considering preliminary matters to require sufficient indicia of reliability before relying on hearsay evidence. *Id.* at 1270. The Court addresses reliability issues below. *See infra*, Part E. For now, the Court concludes that the rule against hearsay does not present a threshold bar to the Court’s consideration of the cell-site data. The Court notes that should the government seek to admit this evidence testimony at trial, it must comply fully with the requirements of Rule 702, *Daubert*, and the Federal Rules of Evidence more generally.

Defendants persist, however. They argue that, alternatively, the Court should characterize the government’s evidence as conditionally relevant, rather than evidence relating to a preliminary question. Rule 104(b) instead of Rule 104(a) governs conditional relevance questions. *See F.D.I.C. v. Medmark, Inc.*, 902 F. Supp. 1430, 1434 (D. Kan. 1995) (citations omitted). This distinction is important, defendants assert, because unlike Rule 104(a), Rule 104(b) prohibits a judge from considering evidence otherwise inadmissible under the Federal Rules of Evidence when making a conditional relevance determination. Doc. 561 at 4-5 (citing Charles A. Wright & Arthur R. Miller, *12 Fed. Prac. & Proc. Evid.* § 33:30 (2d ed. 2014))

Defendants’ argument claims that the government’s cell-site data and expert testimony are relevant only if they can reliably assist the Court in determining whether tapped phones were

physically located in the Eighth Judicial District. This type of conditional relevance attack on expert testimony—*i.e.*, the governments’ evidence is only relevant if it satisfies the conditions of scientific validity, reliability, and relevance to the facts of this case—is implicitly addressed in a *Daubert* analysis. When the Court screens expert testimony for scientific validity, reliability, and relevance under *Daubert* or Rule 702, it performs a function similar to screening of evidence for conditional relevance under Rule 104(b). *See Isely v. Capuchin Province*, 877 F. Supp. 1055, 1066 (E.D. Mich. 1995). As explained below, the Court is not obliged to conduct a *Daubert* analysis before receiving expert testimony on a motion to suppress, and, even if it were, it finds that the testimony of the government’s experts passes *Daubert*’s test. *See infra*, at Part E.

Defendants’ argument also fails because the Court is not “screening” conditional evidence the government seeks to submit to the jury. Rather, it is receiving evidence necessary to resolve a preliminary question under Rule 104(a). When determining whether to admit evidence whose relevance is conditioned on the existence of a predicate fact, a court must first consider “whether the jury could reasonably find the conditional fact . . . by a preponderance of the evidence.” *Huddleston v. United States*, 485 U.S. 681, 690 (1988). According to Professors Wright and Miller’s treatise that defendants cite, the rationale for barring inadmissible evidence when screening conditional evidence is because it makes “no sense for the judge to send the case to the jury based on evidence that the jury cannot use.” Wright, *supra*, at § 5055. But as the Court has already explained, the government has not sought to present cell-site data to a jury, which must consider only admissible evidence. Rather, the government seeks to present the cell-site data to a judge, who is not bound by the Rules of Evidence when considering a motion to suppress. *Merritt*, 695 F.2d at 1269. Thus, it makes no sense to apply Rule 104(b) in this context.

2. Confrontation Clause Issues

Defendants' hearsay objection argues that not only should the Court exclude cell-site data under the rules of evidence, but also because it violates the Confrontation Clause of the Sixth Amendment to the United States Constitution. The Supreme Court has interpreted the clause to provide that "[a]s a rule, if an out-of-court statement is testimonial in nature, it may not be introduced against the accused at trial unless the witness who made the statement is unavailable and the accused has had a prior opportunity to confront that witness." *Bullcoming v. New Mexico*, 131 S. Ct. 2705, 2713 (2011). Here, the cell-site data are not "testimonial in nature," and, therefore, the Confrontation Clause does not bar their admission.

Cellular service providers collect cell-site data during the course of their normal business operations. In *Crawford v. Washington*, the Supreme Court suggested that business records are, by their nature, non-testimonial. 541 U.S. 36, 56 (2004) ("Most of the hearsay exceptions covered statements that by their nature were not testimonial—for example, business records or statements in furtherance of a conspiracy."); accord *Melendez-Diaz v. Massachusetts*, 557 U.S. 305, 324 (2009) ("Business and public records are generally admissible absent confrontation not because they qualify under an exception to the hearsay rules, but because—having been created for the administration of an entity's affairs and not for the purpose of establishing or proving some fact at trial—they are not testimonial."). In *United States v. Yeley-Davis*, the Tenth Circuit applied this analysis to cell records and concluded that, because the service providers created these records for their own business purposes, and not to prove a fact at a criminal trial, the records are not testimonial evidence. 632 F.3d 673, 678 (10th Cir. 2011). Here, the Court follows the overwhelming weight of precedent and concludes that the cell-site data offered by the government are not testimonial evidence, and hence, not subject to the Confrontation Clause.

3. Federal Rule of Evidence 702 and *Daubert*

Defendants next argue that the Court can infer a conclusion about the location of a cell phone based on cell-site data only by relying upon the government's expert testimony. But, defendants assert, the Court should not consider the government's expert testimony because it is based on scientifically unreliable principles and, therefore, produces erroneous factual conclusions. The Court agrees with the first part of defendants' argument—the government's theory requires expert testimony for support.

“The distinction between lay and expert witness testimony is that lay testimony results from a process of reasoning familiar in everyday life, while expert testimony results from a process of reasoning which can be mastered only by specialists in the field.” *Yeley-Davis*, 632 F.3d at 684 (citing and quoting Fed. R. Evid. 701 advisory committee notes (2000 amend.)). Here, the government's theory of the cell-site data's relevance for determining a given cell phone's physical location requires a fact finder to understand, among other issues: (1) how cell towers communicate with cell phones; (2) how cell towers create coverage areas; (3) the relationship between coverage areas and tower connections; and (4) the relative importance of physical proximity and non-proximity factors for determining whether a cellular phone will connect to a particular cell tower. These issues are not familiar to the Court based on its everyday experience. *See id.* (holding that the district court erred when it admitted lay testimony concerning how cell phone towers operate; such evidence required testimony of an expert “because it involved specialized knowledge not readily accessible to any ordinary person.”). Thus, the Court concludes that the government cannot prove the physical location of the cell phones with cell-site data unless it can establish a sufficient relationship between two through expert testimony.

Having concluded that, at a minimum, the government's method of proving location requires expert testimony, the Court turns to defendants' argument that Federal Rule of Evidence 702 bars the testimony of the government's experts. This rule sets forth the criteria governing the admissibility of expert testimony:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Id. Rule 702 codifies the standards for expert testimony set forth in *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993). “*Daubert* makes clear that the factors it mentions do not constitute a definitive checklist or test,” but rather, the “inquiry must be tied to the facts of a particular case.” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999).

Generally, this rule requires the trial judge to perform a “gatekeeping” role. *Goebel v. Denver & Rio Grande W. R.R. Co.*, 215 F.3d 1083, 1087 (10th Cir. 2000). “‘Faced with a proffer of expert scientific testimony . . . the trial judge must determine at the outset . . . whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue.’” *Id.* (quoting *Daubert*, 509 U.S. at 592). By examining the proffered testimony against the criteria set forth in Rule 702, the judge makes a preliminary determination of whether the proposed testimony is sufficiently valid and reliable for a jury to consider. *Id.* By performing this gatekeeping function, the trial judge can screen a jury from

expert testimony that relies on questionable science, which a jury might credit unduly solely because of the witness' "expert" status or credentials.

But here, the Court's gatekeeping duty is somewhat relaxed, for two reasons. First, as the Court already explained, the government has proffered expert testimony for the limited purpose of establishing a fact relevant to a preliminary question bearing on the admissibility of evidence. Just as Rule 104(a) dispenses with the normal bar against hearsay evidence at a suppression hearing, *see Merritt*, 695 F.2d at 1269, so too does it relieve the Court of its duty to conduct a *Daubert* analysis before considering expert testimony. *See United States v. Ozuna*, 561 F.3d 728, 736 (7th Cir. 2009) ("We see no persuasive reason to disregard [Rule 104(a)] and impose a new requirement on district court judges to conduct a *Daubert* analysis during suppression hearings."). Second, the Court, and not a jury, is the trier of fact in the context of a suppression motion. The usual concerns about unreliable expert testimony impressing a jury unduly do not arise when a judge is the fact finder. *See Attorney Gen. of Okla. v. Tyson Foods, Inc.*, 565 F.3d 769, 779 (10th Cir. 2009) (citing *Seaboard Lumber Co. v. United States*, 308 F.3d 1283, 1302 (Fed. Cir. 2002)); *see also Ozuna*, 561 F.3d at 737 (observing that the "primary rationale behind *Daubert* is not applicable in a suppression hearing") Rather, in this context, a judge enjoys "greater leeway in admitting questionable evidence, weighing its persuasive value upon presentation." *Tyson*, 565 F.3d at 779.

As a result, the Court concludes that neither *Daubert* nor Rule 702 presents a threshold bar to the admissibility of the cell-site evidence or the accompanying expert testimony, at least for the limited purpose of resolving defendants' suppression motion. But that does not mean that *Daubert* principles are irrelevant. Rather, the Court must scrutinize the expert testimony under

Daubert principles (and other indicators of reliability) to determine the appropriate weight it should receive. *Id.* 780. The Court has done so, as outlined below.

D. Standard of Proof

The sufficiency of the government's method for proving location using cell-site data depends on the standard of proof the Court applies. Neither Title III nor Kansas' wiretap statute specifies the standard of proof governing facts bearing on the jurisdictional propriety of wire interceptions. Nor could the Court locate any case law addressing that narrower question. So far, the Court has presumed that the preponderance of the evidence standard applies. However, given the importance of the standard of proof in assessing the sufficiency of the government's evidence, the Court revisits the issue here.

When they presented their first round of suppression motions, defendants met their burden to show, by any standard of proof, that substantial jurisdictional issues existed for a large portion of the intercepted phone calls. The Court lacked sufficient evidence to determine which phone calls the KBI had intercepted properly and which it had not. But the government was responsible for this problem, and it was the party who would have access to the evidence, if any existed, necessary to establish the location of the phone calls. Accordingly, the Court shifted the burden to the government to show that the KBI intercepted the calls properly. At the hearing, the Court asked both parties whether they agreed with the Court's allocation of the burden of proof and the preponderance standard it intended to require. Both parties agree that the Court properly assigned this burden to the government. But defendants now contest that the Court should require the government to meet higher standard of proof.

Depending on the reason for a defendant's request to suppress wiretap evidence, different standards of proof apply. For example, challenges to the sufficiency of a law enforcement

affidavit supporting a wiretap application are governed by the preponderance of the evidence standard. *See, e.g., United States v. Stewart*, No. 06-40160-05-JAR, 2008 WL 1884295, at *3 (D. Kan. Apr. 28, 2008) (defendant must establish by preponderance of the evidence that affidavit used to obtain a wiretap order included intentional or reckless misstatements of fact); *United States v. Small*, 229 F. Supp. 2d 1166, 1190 (D. Colo. 2002) *aff'd in part, remanded in part on other grounds*, 423 F.3d 1164 (10th Cir. 2005) (same). However, a defendant challenging a wiretap order for lack of necessity or probable cause must show by clear and convincing evidence that the issuing judge abused his discretion. *See United States v. Savala*, No. 13-CR-4514-BEN, 2015 WL 468352, at *5 (S.D. Cal. Feb. 3, 2015). In the analogous context of suppression motions based on Fourth Amendment violations, the burden is normally preponderance of the evidence. *United States v. Matlock*, 415 U.S. 164, 178 (1974) (“the controlling burden of proof at suppression hearings should impose no greater burden than proof by a preponderance of the evidence”).

Defendants argue that the government’s evidentiary burden should be higher than a preponderance of the evidence because the admissibility of the phone calls turn on an issue of jurisdiction and, as a result, demands a higher standard. Defendants’ argument that the Court should apply the standard of proof governing jurisdictional issues is a sound one. But their conclusion that the Court should apply a higher evidentiary burden to decide that question does not follow from their premise. To the contrary, the preponderance standard governs questions of jurisdictional fact. This is true for facts establishing personal jurisdiction, *see Dudnikov v. Chalk & Vermilion Fine Arts, Inc.*, 514 F.3d 1063, 1070 n.4 (10th Cir. 2008), ones establishing the location of a crime for venue purposes, *see United States v. Kelly*, 535 F.3d 1229, 1233 (10th Cir. 2008) (although venue is an element of every crime “we have consistently approached venue

differently than other ‘substantive’ elements making up a criminal offense the government need only establish venue by a preponderance of the evidence”) (citation omitted), and citizenship for diversity jurisdiction, *see Bair v. Peck*, 738 F. Supp. 1354, 1356 (D. Kan. 1990) (when challenged, a party asserting diversity jurisdiction bears the burden of proving diverse citizenship by a preponderance of the evidence). Thus, whether the Court borrows from the standard governing motions to suppress or the standard governing questions of jurisdictional fact, it reaches the same conclusion: the government must prove the phones’ location within the Eighth Judicial District by a preponderance of the evidence.

Having determined that the preponderance of the evidence standard applies, the Court notes that the standard is not a demanding one. The standard merely requires that there exists sufficient reliable evidence to support a conclusion that the fact in question is more likely true than not true. *United States v. Kansas Gas & Elec. Co.*, 215 F. Supp. 532, 543 (D. Kan. 1963). Stated another way, a party proves a fact by the preponderance if it establishes a 51% or greater likelihood that the factual claim is true. *United States v. Rodriguez*, 406 F.3d 1261, 1299 (11th Cir. 2005) (“a preponderance of the evidence demands only 51% certainty”) (quotations omitted).

E. Validity and Reliability of the Government’s Expert Testimony

1. Qualification of Witnesses

As an initial matter, the Court concludes that Mr. Pope and Mr. Berkeley are both qualified to render expert testimony about the relationship between cell-site data and cell phone location. A witness may qualify as an expert by virtue of his “knowledge, skill, experience, training, or education.” *Daubert*, 509 U.S. at 588 (quoting Fed. R. Evid. 702). Each witness has worked as a radio frequency engineer for well over a decade at their respective cellular service

companies, and each is responsible for installing and maintaining cell sites and optimizing cell coverage within their assigned regions. Significantly, both of their assigned regions include the Junction City area and the surrounding counties that comprise the Eighth Judicial District. Their positions require them to understand intimately the relationship between a cell phone's location and its ability to connect with a given tower in this area. Each is well versed in the science underlying cellular networks generally. More importantly, each is familiar with the precise coverage areas at issue in this motion, the Junction City Towers, and their surrounding environs.

The Northern District of Indiana reached the same conclusion in *United States v. Benford*, No. 2:09 CR 86, 2010 WL 2346305 (N.D. Ind. June 8, 2010). In *Benford*, the court concluded that a radio frequency engineer for Ericsson was qualified to provide an expert opinion about the defendant's approximate location based on cell-site data. *Id.* at *3. Like the government's witnesses, the *Benford* engineer's job required him to test the networks' coverage areas for business purposes. *Id.* at *3. The court permitted him to testify as an expert not only because of his technical knowledge but also based on his personal knowledge of the particular towers and coverage areas that his testimony addressed. *Id.* at *2-*3. The Court finds *Benford's* analysis persuasive and reaches the same conclusion as it did.

2. The Experts' Methods are Valid for the Purpose for which they are Applied

The Supreme Court has suggested a non-exhaustive list of factors for trial courts to consider when assessing whether an expert has based his testimony on reliable methods and principles, including: (1) whether the particular theory can be and has been tested; (2) whether the theory has been subjected to peer review and publication; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; and (5) whether the technique has achieved general acceptance in the relevant scientific or expert

community. *Daubert*, 509 U.S. at 593-94. The factors “may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert’s particular expertise, and the subject of his testimony.” *Kumho Tire*, 526 U.S. at 150.

The government attacked its burden in a pragmatic and persuasive fashion. It brought in the very cellular network engineers whom the wireless telephone companies have charged to build, optimize, and maintain the wireless telephone infrastructure that defendants used to transmit their telephone calls and which their motions place at issue. Those engineers credibly established some fundamental principles about things that are visible to the human eye (cell towers and transmitters) and other things that are invisible (such as the pattern of radio waves that transmit wireless communications). First, the phone company experts explained that no absolute rules govern the radio waves that wireless phone systems use. So the Court should not think about radio waves in simple terms like, “cell phones always connect to the nearest cell tower.” Second, the radio waves used by wireless phones do not operate in precise concentric circles that one can chart neatly on a map. Three, it is critically important to understand the particular facts that apply to the wireless phone system used in a particular geographic area. Understanding things like the lay of the land and the precise location of cell towers is essential.

The government’s experts testified that a particular phone connects to the nearest cell tower 98% of the time (or more—one of the two engineers testified that this probability likely is higher than 98%). To put it simply, if one knows where the cell towers are located in a particular region and knows which cell tower a particular phone used to transmit a call or text, one can reliably identify the general area where the phone was located at that moment. When asked to apply these principles to the facts of the case, both expert engineers agreed: if a cellular

phone connected to one of the Junction City Towers, it was highly likely that the phone physically was present within the Eighth Judicial District.

Defendants' have asserted a number of arguments challenging the reliability of using cell-site data to establish the location of a cell phone. First, they assert that cell signals are indifferent to the boundaries of counties or judicial districts. While this is correct as a general proposition, it reshapes the government's theory and, in the process, misapprehends it. Of course, these cell towers and the companies that installed them are wholly indifferent to the boundaries of Kansas' judicial districts. The government and its own witnesses readily concede this. But the towers are engineered to cover certain geographic areas. And if the coverage areas associated with the Junction City Towers extends exclusively, or almost exclusively, to geographic areas inside the Eighth Judicial District, then data showing that a call pinged one of those towers is strong evidence that the cell phone also was located inside the boundaries of the District when it placed or received the call.

Defendants' Exhibit 100, a cellular coverage prediction map, illustrates this concept clearly. The map predicts geographical coverage areas emanating from the cell sectors affixed to each of the Junction City towers. This map shows that the coverage areas of the cell towers the government has linked to the calls it claims are admissible do, in fact, extend exclusively, or almost exclusively, to areas within Kansas' Eighth Judicial District. This permits the Court to conclude with substantial confidence that a phone that connected to one of these towers was within the District as well.

Defendants next argue that, because various non-proximity factors can influence a phone's tower selection, cell-site data cannot establish a phone's location conclusively. But the Court understands, as the government's experts concede, that there are no absolute rules.

Vagaries like a service outages, call congestion, physical and geographic barriers, weather, or any other factor obstructing cell signal strength can cause a particular wireless communication to deviate from its dominant tendency to connect to the nearest tower. So in reaching its factual conclusion, the Court recognizes that narrow anecdotal evidence will establish exceptions to this general tendency. Defendants have identified eight of these possible exceptions. *See* Def. Ex. 102 (documenting eight unexplainable “tower skips” where a phone, likely in transit, handed off its connection from its initial tower to a distant second tower in a manner inconsistent with the nearest tower theory). But these limited examples do not disprove what the network engineers readily acknowledged from the beginning: the nearest tower theory is correct about 98% of the time. In a case that involves about 67,000 intercepted communications, as this case does, one should expect to find some exceptions to the rule.

Moreover, a phone’s failure to connect to the nearest tower is not necessarily fatal to the government’s theory. If a phone cannot connect to the nearest tower, it will usually connect to the next closest tower. The Junction City Towers all are clustered in a fairly tight geographic area. *See* Gov. Ex. 1. As result, if a phone connected to one of the Junction City Towers because it was the *second* nearest tower, then that call likely was still placed while the phone was inside the Eighth Judicial District. In other words, there is but a small universe of calls where the government’s nearest tower theory does not hold. Among those calls, there exists an even smaller subset of calls where a phone’s failure to connect to the nearest tower would lead the Court to conclude erroneously that a phone was inside the Eighth Judicial District.

The testimony defendants offered from their own expert witness, Lawrence Daniel, has not persuaded the Court otherwise. Mr. Daniel is a forensic analysis, with an expertise in computer, information technology, and cellular phone forensics. His testimony was mostly

consistent with the testimony provided by the government's experts. Notably, however, he lacked any personal knowledge about the cellular network and geographic area surrounding the Junction City Towers.

Fact-specific information about the networks of the relevant phone companies matters to the analysis. Mr. Daniel exhibited no familiarity with this information. Moreover, everyone agrees that terrain matters to the behavior of cell towers and cell phones. But Mr. Daniel had never visited the area where the relevant towers are located. He conceded, as he must, that he was not familiar with the relevant geographic terrain. The most that one can say about Mr. Daniel's testimony is that he established something that everyone concedes: wireless phones do not always connect to the nearest cell tower. As the Court has noted, the governing legal standard does not impose a burden requiring perfect data or absolute rules.

The main disagreement Mr. Daniel raised with the testimony of the government's experts was their assertion that the nearest tower theory erred only 2% of the time. However, Mr. Daniel did not claim that this number was clearly incorrect or that a different figure would be more accurate. He merely asserted that he is not aware of such a figure, nor is he aware of any empirical, peer-reviewed studies in the field that identify 2% as the error rate. During their examination of Mr. Daniel, defendants introduced an article, which Mr. Daniel described as a good example of a scientifically rigorous peer reviewed study. *See* Matthew Tart, et al. *Historical Cell Analysis—Overview of Principles and Survey Methodologies*, Digital Investigations 8 (2012) (Def. Ex. 101). The Court has reviewed this submission carefully. It sets forth no alternative error rate that might cast doubt upon Mr. Pope and Mr. Berkley's estimate. Instead, it merely describes and tests a number of methods for determining whether a call originated from a given area based on cell-site data. And significantly, the article seems to

accept as non-controversial the government's theory for establishing general location of a caller based on cell-site data. It notes, "[i]f it is only necessary to assess whether a phone may have been in a specific town or region of a country then a desktop exercise can be carried out, taking into account details of the site, wider network layout and physical geography" (parenthetical omitted). *Id.* at 188. In other words, if one is merely trying to place a phone in a general area, cell-site typically can answer that question. This is precisely what the government's experts have done.

The Court recognizes that the propriety of using cell-site data as evidence of a criminal defendant's location at a given time is a subject that has generated much debate amongst courts and commentators. These criticisms generally address cell-site data's inability to pinpoint precisely the location of a phone. *See, e.g., In re U.S. ex. Rel. an Order Authorizing Disclosure of Location Info. of a Specified Wireless Tel.*, 849 F. Supp. 2d 526, 534 (D. Md. 2011) ("depending upon a variety of factors the accuracy of cell-site location data may range from miles in diameter to individual floors and rooms within buildings"); *United States v. Graham*, 846 F. Supp. 2d 384, 392 (D. Md. 2012) ("historical cell site location records . . . can only reveal the general vicinity in which a cellular phone is used"); *The Two Towers: The Abuse of Mobile Phone Data*, *The Economist*, Sept. 6, 2014, <http://www.economist.com/node/21615622/print> ("Routinely collected tower data can place a mobile phone in a broad area, but it cannot 'pinpoint' it."). Nevertheless, the government's burden here does not demand much precision. Rather, the government must merely establish a defendant's location within Kansas' Eighth Judicial District—an area covering four counties and nearly 3,000 square miles—and it must do so under the non-exacting preponderance of the evidence standard. Tailoring the *Daubert* inquiry to the particular fact-finding endeavor defendants' motions require, *see Kumho Tire*, 526

U.S. at 150, the Court concludes that the scientific principles and methods relied upon by the government's experts are sufficiently reliable, valid, and well-suited for the purpose the government has introduced them here.

3. Probabilistic Proof

The most persuasive aspect of the government's evidence about the location of the subject phones has been expressed as a probability, *i.e.*, there exists a 98% (or greater) chance that a call connecting to one of the Junction City Towers came from a phone located inside Kansas' Eighth Judicial District. Intuitively, such a high probability, if true, would seem to satisfy the preponderance of the evidence standard easily. Defendants contest this point. They argue that they Court should not simply compare the nearest tower theory's 98% success rate with the 51% certainty required by the preponderance of the evidence standard and conclude that the government has met its evidentiary burden.

Defendants assert, correctly, that some courts have rejected the use of "naked" statistical probabilities to meet evidentiary burdens. *See, e.g., United States v. Burks*, 867 F.2d 795 (3d Cir. 1989) (testimony from insurance company that it receives billing correspondence through the mail "99% of the time" was insufficient to establish mailing element in mail fraud prosecution); *Guenther v. Armstrong Rubber Co.*, 406 F.2d 1315, 1318 (3d Cir. 1969) (ordering a directed verdict for defendant tire manufacturer even though plaintiff established he was injured by a tire purchased at particular store and defendant had manufactured 75-80% of tires sold by that store, noting "there was no justification for allowing plaintiff's case on that so-called probability hypothesis to go to the jury," because its verdict "would at best be a guess"); *People v. Collins*, 438 P.2d 33 (Cal. 1968) (en banc) (reversing convictions based solely on statistical evidence purporting to establish that the probability of a blond white woman with her hair in a

pony tail being in a yellow car accompanied by a black man with a beard, a description which the defendants matched, was 1 in 12 million); *Smith v. Rapid Transit, Inc.*, 317 Mass. 469 (Mass. 1945) (evidence showing that only defendant's bus was licensed to operate on a given street and that the accident occurred near the scheduled time for defendant's bus to travel on that particular street was insufficient evidence for a jury to conclude that defendant owned bus that caused plaintiff's accident). The scholarly debate about the adequacy of "probabilistic evidence" is better developed than the case law. *See, e.g.*, 1A Wigmore on Evidence § 37.1, at 1011 n. 6 (collecting scholarly works).

Without diving too deeply into the debate over probabilistic evidence, the Court pauses to note that many of its criticisms do not apply to the Court's conclusion here. First, the government's theory relies on more than mere probability. The testimony of the KBI case agent involved in this investigation, Agent Chris Turner, established that certain "areas of interest"—including many of defendants' residences and meeting places—were located in and around Junction City. The government's evidence also established that a large stretch of the northern border of the Eighth Judicial District, the border nearest to the Junction City Towers, comprises Fort Riley, a controlled access military installation. Because defendants conceded they could not access this area, the Court can eliminate the possibility of cross-District tower transmissions coming from outside this border. In other words, the government has buttressed its probabilistic evidence with other persuasive circumstantial evidence, thereby removing it from the realm of "naked" statistical proof. *United States v. Shonubi*, 895 F. Supp. 460, 469 (E.D.N.Y. 1995) *vacated*, 103 F.3d 1085 (2d Cir. 1997) (combination of statistical and non-statistical proof may be sufficient where statistical evidence by itself is not, but order vacated on appeal because district court relied on insufficient specific, non-statistical evidence).

Moreover, to the extent the Court relies on probabilistic evidence, it is not doing so to impose criminal or civil liability. It does so merely to assess a jurisdictional fact bearing on the admissibility of evidence. Precedent exists for applying probabilistic theories of proof to establish jurisdictional facts unrelated to the substantive elements of the alleged crime. This issue has arisen in analogous context of jurisdictional permissive inferences. *See* Charles R. Nesson, *Reasonable Doubt and Permissive Inferences: The Value of Complexity*, 92 Harv. L. Rev. 1187, 1217 (1979).

Many older federal criminal statutes (enacted before Supreme Court decisions greatly expanded federal power over interstate commerce) include elements that “tie” crimes to one or more enumerated federal powers. *Id.* “The early criminal statutes only prohibited illicit behavior which used the mails, caused persons or property to be transported across state lines, or otherwise invaded an area clearly within congressional cognizance.” *Id.* (citations omitted). To ease the burden on prosecutors, and to prevent federal criminal prosecutions from turning on trivialities such as “whether a defendant’s admittedly fraudulent scheme was perpetrated door-to-door or through the mail,” Congress began crafting criminal statutes that permitted juries to infer jurisdictional elements based on proof of the underlying culpable conduct. *Id.*

For example, in *Turner v. United States*, the defendant was convicted of trafficking heroin. 396 U.S. 398, 404 (1970). To obtain this conviction, the government had to prove that the defendant (1) knowingly received, concealed, and transported heroin, which (2) was illegally imported, and which (3) defendant knew was imported illegally. *Id.* When enacting this federal criminal statute, Congress found that a very high percentage of heroin in the United States was imported. Accordingly, the statute permitted, though it did not require, the jury to infer that the heroin was imported, and that the defendant knew it was imported, from proof that defendant

possessed heroin. *Id.* at 405-06. The Supreme Court acknowledged it was theoretically possible the heroin defendant possessed was manufactured in the United States. *Id.* at 415. Nevertheless, the Court held that permitting the jury to infer importation not only was permissible under the Constitution but also sufficient to satisfy the importation element beyond a reasonable doubt because of the “overwhelming” likelihood that the heroin was imported. *Id.* at 415-16.

In this case, the fact the government seeks to prove through quasi-probabilistic evidence is even more attenuated from the substantive elements of the crime than was the importation element at issue in *Turner*. This endeavor does not present the same risks associated with probabilistic evidence because the fact the government seeks to prove here does not bear directly on the ultimate question of defendants’ criminal liability. *Compare Collins*, 438 P.2d at 42 (“trial by mathematics’ so distorted the role of the jury and so disadvantaged counsel for the defense[] as to constitute in itself a miscarriage of justice”). As a result, the Court concludes it is appropriate to give significant weight to the probability estimates of the government’s experts for the limited purpose of this jurisdictional analysis.

Conclusion

After carefully considering the arguments and evidence the parties have presented on this motion, the Court concludes (1) that cell-site data are admissible and reliable for purposes of resolving defendant’s motion to suppress, and (2) cell-site data showing that a phone pinged towers 378, 146, 11, 3563, 80 or 4240 (as identified in Gov. Exs. 1-3) during a specific call is sufficient to establish that phone’s location inside the Eight Judicial District. The Court will not exclude calls meeting these criteria under its ruling on the jurisdictional aspects of defendants’ motions to suppress wiretap evidence. This order does not decide whether the evidence the government has presented is admissible at trial, a question that will arise on another day.

IT IS THEREFORE ORDERED BY THE COURT THAT defendants' Joint Motion to Suppress Cell-Site-Location-Information Gathered During Interception (Doc. 543) is denied. Defendants' Joint Motion to Suppress Cell-Site-Location-Information Under Federal Rule of Evidence 702 (Doc. 544) is also denied. Defendants' Motion for Reconsideration re 517 Order (Doc. 574) is also denied. Defendants' original motions seeking suppression of wiretap evidence for lack of jurisdiction (Docs. 346, 349, 356, 362, 377) are granted in part but denied as to the phone calls and text messages meeting the criteria set forth in this Order.

IT IS SO ORDERED.

Dated this 23rd day of February, 2015, at Topeka, Kansas.

s/ Daniel D. Crabtree
Daniel D. Crabtree
United States District Judge