

**FOR PUBLICATION**  
**UNITED STATES COURT OF APPEALS**  
**FOR THE NINTH CIRCUIT**

UNITED STATES OF AMERICA, <i>Plaintiff-Appellee,</i>  v.  DAVID TORO CHASE, <i>Defendant-Appellant.</i>
---

No. 06-30242  
D.C. No.  
CR-03-00028-DWM  
OPINION

Appeal from the United States District Court  
for the District of Montana  
Donald W. Molloy, District Judge, Presiding

Argued and Submitted  
June 4, 2007—Seattle, Washington

Filed August 27, 2007

Before: Harry Pregerson, Warren J. Ferguson, and  
Sandra S. Ikuta, Circuit Judges.

Opinion by Judge Ferguson

**COUNSEL**

John Rhodes, Assistant Federal Defender, Missoula, Montana,  
for the defendant-appellant.

Joshua S. Van de Wetering, Assistant United States Attorney,  
Missoula, Montana, for the plaintiff-appellee.

---

**OPINION**

FERGUSON, Circuit Judge:

Defendant-Appellant David Toro Chase (“Chase”) appeals his sentence for conviction of conspiracy to manufacture methamphetamine. Chase contends that: (1) the district court erred in denying his request for an expert; (2) the court based its determination of drug quantity on unreliable evidence; and (3) the sentence was greater than necessary. We hold that the district court abused its discretion in denying Chase’s request for a forensic expert and relied on evidence lacking sufficient indicia of reliability. We do not reach the third issue.

---

***FACTUAL AND PROCEDURAL BACKGROUND*****I. Initial Proceedings**

Chase pleaded guilty to two counts of conspiracy to manufacture methamphetamine, in violation of 21 U.S.C. §§ 841(a)(1) and 846, and one count of possession of a firearm in a drug trafficking crime, in violation of 18 U.S.C. § 924(c)(1)(B)(I). At the first sentencing hearing, Chase contested the quantity of methamphetamine alleged by the government. Chase admitted producing between 109.67 and 164.5 grams in February 2003 at the home of a friend (“the Mount Avenue location”), but he disputed the combined quantity allegedly produced between June and October 2003 at two of his previous residences (collectively, “the Twilight location”).

The government relied on an expert report for its production estimate. The report consisted of a two-page letter (“letter”) prepared by government expert Scott Edison Rienhardt, who, in turn, had relied upon two reports of the State of Montana Forensic Sciences Division (collectively, “the State Report”). The State Report listed items and substances allegedly found at the Twilight location, including chemicals, equipment, four “recipes” for methamphetamine, and 100 empty boxes of pseudoephedrine, a methamphetamine precursor commonly known by the brand name Sudafed.<sup>1</sup> Rienhardt concluded that, of the four recipes, the “Curbshot” method was the one most likely to have been utilized, because of the chemicals listed in the State Report. Two 5,000-milliliter flasks were listed among the seized equipment. Rienhardt offered no opinion as to whether either flask had been used, but he calculated that, following the Curbshot method, a

---

<sup>1</sup>Although Rienhardt testified that he had reviewed the State Report in preparing his expert report, he further testified that he had not been aware that approximately 100 empty boxes of pseudoephedrine were found at the lab. The record shows no reason for this discrepancy.

5,000-milliliter flask could be used to produce between 500 and 750 grams of methamphetamine.

“[B]ased upon the information [ ] contained in the [Rienhardt letter],” the district judge estimated that Chase had produced 500 to 750 grams of methamphetamine at the Twilight location. He sentenced Chase to eighty-eight months imprisonment for the drug charges and 120 months for the gun charge.<sup>2</sup>

Chase appealed. While his first appeal was pending, the Supreme Court decided *Blakely v. Washington*, 542 U.S. 296 (2004). The Ninth Circuit remanded the instant case for recalculation and resentencing in light of *Blakely*.

## II. Second Hearing

In March 2006, the district judge again heard argument and considered evidence regarding the quantity of methamphetamine Chase had produced. Prior to the presentation of any testimony, Chase renewed a previously filed, and previously denied, motion to hire a forensic expert pursuant to 18 U.S.C. § 3006A(e)(1). The court denied the motion.

Rienhardt, the government’s expert, testified at the second hearing. He explained that he typically estimates drug quantities based on the “actual chemicals present”—specifically the known quantities of a drug’s precursors—but in this case the precursor quantities were unavailable. The State Report did not indicate the quantities of any chemicals that were identified, nor the purity levels of any such substances. There was no information regarding which precursors were on the various containers associated with the Twilight location, and there was “no indication that any of the glassware had methamphetamine in it.”

---

<sup>2</sup>There is no dispute that the gun charge carries a mandatory minimum sentence of ten consecutive years and does not affect the calculations in this case. *See* 18 U.S.C. § 924(c)(1).

Rienhardt explained that, according to the State Report, the 5,000-milliliter flask—upon which he based his estimate—had been found in its original box, and there was no evidence of any chemical trace on the flask. Rienhardt testified that a number of other glass containers found on the premises could have been used to produce methamphetamine. Additionally, he stated that his 500 to 750 gram estimate depended on an assumption that the 5,000-milliliter flask had been used, but he expressly disavowed any opinion as to whether this had actually occurred.

Defense counsel's theory of the case was that, based on the 100 empty boxes of pseudoephedrine listed in the State Report, an accurate estimate of the quantity of methamphetamine produced at the Twilight location was forty grams. On cross-examination, Rienhardt admitted that he had been unaware of the empty boxes when preparing his letter. Rienhardt calculated that if Chase had cooked in small batches, 100 boxes of pseudoephedrine (each containing twenty-four sixty-milligram pills) would have yielded a combined total of forty to sixty grams of methamphetamine.

Chase testified in his own defense. He explained that he had produced the narcotic for his own use, not for sale, with red phosphorous obtained from matches and pseudoephedrine purchased from a drugstore. He testified that he had used a 500-milliliter container, not the 5,000-milliliter flask, and that each time he had cooked fourteen grams of pseudoephedrine to produce approximately seven grams of methamphetamine.

The court concluded that Chase had produced at least 609 grams of methamphetamine, including 100 grams at the Mount Avenue location and 500 at the Twilight location. Under the United States Sentencing Guidelines Manual ("U.S.S.G." or "Guidelines"), the court rounded downward and used a 350 to 500 gram estimate to give Chase a base offense level of thirty. U.S.S.G. § 2D1.1(c)(5).<sup>3</sup> With a crimi-

---

<sup>3</sup>"If taking the margin of error into account and erring on the side of caution would reduce the defendant's base offense level to the next lowest

nal history category II and a three-level decrease for acceptance of responsibility, the Guidelines recommended a range of seventy-eight to ninety-seven months for the drug convictions. U.S.S.G. ch. 5 Pt. A. The court imposed a sentence of 198 months imprisonment, including 120 months for the gun charge and seventy-eight months for the drug charges. The court also ordered Chase to pay restitution in the amount of \$16,195.71.

### *DISCUSSION*

#### **I. Did the District Court Err in Denying Chase's Request for a Forensic Expert?**

Under the Criminal Justice Act, 18 U.S.C. § 3006A(e)(1), “[c]ounsel for a person who is financially unable to obtain . . . expert . . . services necessary for adequate representation may request them.” After conducting an inquiry in an ex parte proceeding, if the court finds “that the services are necessary and that the person is financially unable to obtain them, the court . . . shall authorize counsel to obtain the services.” *Id.* The decision to grant or deny a request for services under the Criminal Justice Act will be overturned on appeal where the district court has committed an abuse of discretion. *United States v. Smith*, 893 F.2d 1573, 1580 (9th Cir. 1990).

##### **A. Necessity of Services**

[1] Upon a timely request by an indigent defendant, “[t]he statute requires the district judge to authorize [expert] defense services . . . in circumstances in which a reasonable attorney would engage such services for a client having the independent financial means to pay for them.” *United States v. Bass*, 477 F.2d 723, 725 (9th Cir. 1973). The court’s inquiry into

---

level, the court must do so.” *United States v. Scheele*, 231 F.3d 492, 499 (9th Cir. 2000) (citations omitted).

the necessity of services must be specific to the facts of the particular case. *See, e.g., United States v. Armstrong*, 621 F.2d 951, 956 (9th Cir. 1980).

[2] In a drug case, the sentence depends primarily on the quantity of narcotics that the court attributes to the defendant. U.S.S.G. §§ 2D1.1, 3D1.2(d), ch. 5 Pt. A. Therefore, from the perspective of defense counsel, formulating a theory of drug quantity is critical. In this case in particular, the only disputed issue was the quantity of methamphetamine produced at the Twilight location, where no methamphetamine was found, so the determination of drug quantity demanded a scientific calculation. Chase reasonably requested the appointment of an expert in forensic chemistry to assist his attorney in formulating a theory of the quantity of methamphetamine and to rebut that of the government's expert.

On appeal, the government asserts that defense counsel's cross examination of Rienhardt proved to be sufficient and therefore Chase had no need to hire his own expert. Essentially, the government argues, because Rienhardt agreed with defense counsel's calculation—100 boxes of pseudoephedrine yields forty to sixty grams of methamphetamine—“[t]here was nothing for an outside expert to prove.” This argument misses the point.

While there appears to be no dispute that 100 boxes of pseudoephedrine can produce approximately forty to sixty grams of methamphetamine, the value of the empty boxes as an indicator of the lab's production capacity is hotly contested. The government's expert offered no opinion as to the best available method for estimating drug quantity. The appropriateness of relying on the glass flask, the empty boxes, or some other method is by no means settled, and a defense expert could have informed that discussion.

[3] Although the burden of proof of drug quantity lies with the prosecutor, Chase had a right to put on a defense, and to

retain an expert if “a reasonable attorney would [have] engage[d] such services for a client having the independent financial means to pay for them.” *Bass*, 477 F.2d at 725. “[T]he Fourteenth Amendment’s due process guarantee of fundamental fairness” requires that the “basic tools of an adequate defense . . . be provided to those defendants who cannot afford to pay for them.” *Ake v. Oklahoma*, 470 U.S. 68, 76, 77 (1985) (quotations omitted). The Supreme Court has “long recognized . . . that . . . justice cannot be equal where, simply as a result of his poverty, a defendant is denied the opportunity to participate meaningfully in a judicial proceeding in which his liberty is at stake.” *Id.* at 76. In this case, Chase had a right to hire an expert who could have produced his or her own “investigation, interpretation, and testimony.” *Id.* at 80.

[4] Additionally, the aid of an expert could have made the cross-examination of Rienhardt more effective. Informed by an expert, Chase’s attorney could have asked Rienhardt more specific questions about the formula he used, flaws in that formula, and any additional factors that he should have considered. The attorney could have posed more sophisticated inquiries concerning the literature and experience upon which Rienhardt based his opinion, whether he was familiar with other literature in the field, and whether he would have conceded that other estimation methods might be preferable to the one he had used in this case.

The absence of a cross-examination informed by scientific knowledge was highlighted when the district judge asked Rienhardt to play the role of a defense expert. The court asked the government’s expert to attack the validity of his own position:

THE COURT: All right. Now, if you were asked to attack the method you used, how would you do it?

THE WITNESS: If I was going to try to refute what I said?

THE COURT: Challenge what you said?

THE WITNESS: . . . I don't — I couldn't attack myself. . . .

Clearly, both the defendant and the court would have benefited from the services of a defense expert.<sup>4</sup>

[5] At least one other circuit recently recognized the necessity of a defense expert in a sentencing hearing involving methamphetamine estimation. *See United States v. Hardin*, 437 F.3d 463, 470 (5th Cir. 2006). In *Hardin*, the defendant-appellant asserted that “bones” were a methamphetamine byproduct, which should not have been included in a narcotics calculation. *Id.* at 466. The Court of Appeals ruled that the district court had erred in denying funds for a defense expert to testify “on [this] disputed factual issue regarding [quantity,] the primary issue [in the defendant’s] sentence determination.” *Id.* at 470. The Fifth Circuit held that the district judge’s denial of the motion for appointment of a chemical expert “when necessary to respond to the government’s case against [the defendant], where the government’s case rest[ed] heavily on a theory most competently addressed by expert testimony,” constituted an abuse of discretion. *Id.* at 468 (citations and quotation omitted). The Court of Appeals ordered the district judge to appoint the requested expert and to re-sentence the defendant after taking expert testimony. *Id.* at 471.<sup>5</sup>

---

<sup>4</sup>The government cites *United States v. Labansat*, 94 F.3d 527, 530 (9th Cir. 1990), in which we decided that a cross-examination was sufficient without a defense expert on eyewitness identification. *Labansat* is inapposite. Nothing about the prosecutor’s theory in that case raised scientific issues; the witnesses were laypersons recounting personal observations of a bank robbery. *Id.* at 529. Moreover, while psychological expertise might inform some cases involving eyewitness testimony, *see, e.g.*, Michael R. Leippe, *The Case for Expert Testimony About Eyewitness Memory*, 1 Psychol. Pub. Pol’y & L. 909 (1995), in *Labansat*, the defendant’s sister identified her brother on the bank’s surveillance video. 94 F.3d at 529.

<sup>5</sup>*Hardin* also required the lower court to take testimony from any relevant expert tendered by the government; apparently, no such expert had

[6] In the case before us, the district court denied Chase's motion to hire an expert on the basis that its estimation of drug quantity did not depend on a finding that Chase used the 5,000-milliliter flask. However, the court did not clarify how it reached its estimate if not for the assumption about the flask, and, indeed, the record specifically reflected that the court estimated a production of 500 to 750 grams of methamphetamine "[b]ased upon the information [ ] contained in the Rienhardt [letter]." Given this record, the district court's explanation for denying the motion to hire an expert was unreasonable.

### ***B. Prejudice***

An appellate court will overturn a district court's denial of a request for an expert only where the defendant has demonstrated prejudice. *United States v. Sims*, 617 F.2d 1371, 1375 (9th Cir. 1980). The prejudice cannot be merely speculative; it must be demonstrated by clear and convincing evidence. *Id.* The harm in this case is clearly demonstrated.

The district court explicitly relied on the government's expert testimony to estimate a drug quantity of 600 grams, including 500 grams from the Twilight location. Based on that quantity and a downward adjustment of one level to account for any margin of error, the court assigned Chase a base offense level of thirty. With a three-level adjustment for Chase's acceptance of responsibility, this resulted in a level of twenty-seven, and, under criminal history category II, Chase received a Guidelines range of seventy-eight to ninety-seven months for the drug charges. U.S.S.G. ch. 5 Pt. A. The court adopted the Guidelines recommendation and sentenced Chase to seventy-eight months of imprisonment (not including the sentence for the gun charge).

---

testified previously. *Id.* Chase's situation seems even more unfair than Hardin's, because the government in the instant matter benefitted from an expert who provided both live testimony and a written statement.

[7] Chase argued at his sentencing hearing that a more plausible estimate of his production at the Twilight location was forty grams of methamphetamine. Had Chase been permitted to retain an expert who provided testimony substantiating this estimate, and had the district court credited that testimony, Chase's responsibility would have fallen within the range of fifty to 200 grams (forty grams from the Twilight location plus 109 from the Mount Avenue location), producing a base offense level of twenty-six. U.S.S.G. § 2D1.1(c)(7). Given Chase's acceptance of responsibility, Chase would have had an offense level of twenty-three. In contrast to the seventy-eight months of imprisonment assigned, the sentencing range for an offense level of twenty-three is fifty-one to sixty-three months. U.S.S.G. ch. 5 Pt. A. Even if the judge had sentenced Chase to the maximum time within the Guidelines for level twenty-three, the sentence would have been sixty-three months. The assigned prison term exceeds this amount by over a year. "[A]ny amount of actual jail time has . . . significance." *Glover v. United States*, 531 U.S. 198, 203 (2001). Therefore, Chase has demonstrated prejudice.

[8] For the foregoing reasons, the district court abused its discretion in denying Chase an opportunity to retain an expert, and Chase was prejudiced by this error.

## **II. Was the District Court's Approximation of Drug Quantity Erroneous?**

Under the Sentencing Guidelines, "[w]here there is no drug seizure or the amount seized does not reflect the scale of the offense," a district court may estimate the quantity of the drug and may consider "the size or capability of any laboratory involved." U.S.S.G. § 2D.1.1 cmt. n.12; *see, e.g., United States v. Putney*, 906 F.2d 477, 479 (9th Cir. 1990). "Whether the method adopted by the district court to approximate the relevant quantity of drugs is proper under the Guidelines is . . . reviewed de novo," *United States v. Culps*, 300 F.3d 1069, 1076 (9th Cir. 2002), and factual findings related to the capa-

bility of a drug operation are reviewed for clear error. *United States v. Rosacker*, 314 F.3d 422, 427 (9th Cir. 2002).

“‘Approximations of drug quantity must meet three criteria.’” *United States v. Kilby*, 443 F.3d 1135, 1141 (9th Cir. 2006) (quoting *Culps*, 300 F.3d at 1076). “First, . . . the government is required to prove the approximate quantity by a preponderance of the evidence . . . . Second, the information which supports an approximation must possess sufficient indicia of reliability to support its probable accuracy. Third, . . . the district court must err on the side of caution in calculating approximated drug quantity.” *Culps*, 300 F.3d at 1076 (internal quotations, citations, and punctuation omitted).

***A. Insufficient Indicia of Reliability for Court’s Estimate***

[9] The district court’s approximation of drug quantity lacked “sufficient indicia of reliability.” *Culps*, 300 F.3d at 1076. The judge explicitly stated that his estimate was based on the Rienhardt letter and testimony, which opined that a 5,000-milliliter flask could yield 500 to 750 milligrams of methamphetamine. This calculation was unreliable.

Rienhardt’s letter readily admitted that the State Report was insufficient for him to estimate the quantity of methamphetamine Chase had produced:

There were no weights/volumes or purity results reported for the exhibits that contained ephedrine/pseudoephedrine, a required precursor in the synthesis of methamphetamine. *A production estimate cannot be determined without weight/volume and purity results for the exhibits.* There was also not a correlation between the exhibits seized at the [Twilight location] and the [State Report].

Given the limitations of the data provided to him, Rienhardt calculated a theoretical yield for the 5,000-milliliter flask.

However, he emphasized that the 500 to 750 gram estimate in his letter was “just a capability based on glassware.” The estimate depended on an assumption that the 5,000-milliliter flask had been used, but he testified that “any number of” other glass jars in which methamphetamine could have been produced were reported to have been found on the premises. When the court asked Rienhardt why he assumed that the 5,000-milliliter flask—or any other glassware—had been used, Rienhardt responded that he had made no such assumption.

[10] We have made clear that “the relevant inquiry [is] not what a theoretical maximum yield would be, or even what an average methamphetamine cook would produce, but what [the] appellant[ ] [himself] could produce.” *Rosacker*, 314 F.3d at 428 (quotation omitted). The government’s expert quite candidly admitted that his calculation was a maximum theoretical yield. He explained, “I was just saying the most, based on what was there, that’s the most that could be produced using that glassware.” This approach was unreliable as a method of estimating how much methamphetamine Chase produced.

The government asserts that this court has previously approved the use of glassware to assess lab capability. The government relies on *United States v. Williams*, 989 F.2d 1061 (9th Cir. 1993), but the methamphetamine estimate in that case reflected the amount of narcotics the defendant could have produced in the assorted glassware at the lab given the quantity of precursor chemicals seized from the property. *Id.* at 1073 & n.5. In this case, no measured quantity of precursor was seized.

We also upheld an estimate based in part on glassware in *United States v. August*, 86 F.3d 151, 152-53 (9th Cir. 1996), but that case is quite distinct because of the overwhelming evidence that the district court had considered in connection with the glassware. In *August*, police officers had seized

twenty kilograms of waste material from the site. *Id.* at 152. Additionally, extensive testimony from lay witnesses and a forensic chemist demonstrated that the defendants had purchased enough hydriodic acid to produce between 2,000 and 3,000 grams of methamphetamine, that the defendants had been observed in possession of approximately 1.36 kilograms of methamphetamine, and that the lab was visited by a “steady stream of customers.” *Id.* at 152-53. Because the waste material provided abundant evidence of more than one reaction, we held that it was reasonable for the district court to have taken “the *minimum* estimate [that the flask could have produced] and multiplied it by two to reflect the fact that at least two reactions [had] occurred.” *Id.* at 155 (emphasis altered).

[11] Rienhardt’s glassware estimate, in contrast, had no reliable evidentiary basis. As Rienhardt testified, to his knowledge, no methamphetamine was seized and no measured quantities of precursors were found at the Twilight location. Unlike in *August*, where the twenty kilograms of waste material indicated a large-scale drug operation, no physical evidence in Chase’s case corroborated Rienhardt’s estimation. To the extent the district court’s approximation of drug quantity relied on Rienhardt’s glassware estimate, the district court erred.

***B. Insufficient Indicia of Reliability for Alternative Ruling***

The district court provided an alternative basis for its sentencing decision. Even if the court had accepted Chase’s theory that the 100 empty boxes of pseudoephedrine demonstrated the production of forty grams of methamphetamine, the district court explained that it would have multiplied those forty grams by eight to account for the number of months that he believed Chase had occupied the Twilight location. This calculation would have led to the same sentencing range that resulted from the Rienhardt method.

This analysis was unreasonable. The court assumed that Chase cooked once per month, that he cooked 100 boxes of pseudoephedrine on each occasion, and that he did so for eight months. The record contains “no reliable evidentiary basis for any of the pivotal assumptions in the drug quantity approximation.” *Rosacker*, 314 F.3d at 429. The only evidence at all relevant to these assumptions was Chase’s own testimony that he cooked the contents of the 100 boxes in small batches over a period of time.

Under the accepted “multiplier” method of estimating drug quantity, a court first estimates a daily or weekly quantity, then estimates the period of time over which the activity occurred, and then calculates the total. *Culps*, 300 F.3d at 1077. But this is permissible only where there are sufficient indicia of reliability for each of the figures included in the equation. *Id.* “[T]his method necessarily fails when any single variable cannot be ascertained by a preponderance of the evidence.” *Id.* at 1082.

“We insist . . . that in establishing the facts, including approximations[ ] underlying a sentence, the district court utilize only evidence that possesses sufficient indicia of reliability to support its probable accuracy.” *United States v. Garcia-Sanchez*, 189 F.3d 1143, 1148 (9th Cir. 1999) (quotation and internal punctuation omitted); *see also id.* at 1149 (“[A] defendant [has a] due process right to ensure the reliability of information used at sentencing.”). If given the choice between a “more reliable method” that “may produce a significant underestimate” and a different method that lacks a proper evidentiary basis, the court must choose the reliable method, even if a significant underestimate results. *Kilby*, 443 F.3d at 1142 n. 4. Where, as here, the record contains no evidence that permits the use of the multiplier method, it simply cannot be used. *Culps*, 300 F.3d at 1077.

[12] The court relied on evidence lacking sufficient indicia

of reliability. The approximation of drug quantity and resulting sentence were therefore erroneous.<sup>6</sup>

### **III. Was the Sentence Unreasonable Because It Was Greater than Necessary?**

We do not reach Chase's final assertion that his sentence was unreasonable because it was greater than necessary. "If there was a material error in the Guidelines calculation, [the court] will remand for resentencing, without reaching the question of whether the sentence as a whole is reasonable." *Kilby*, 443 F.3d at 1140 (citation omitted).

### **CONCLUSION**

[13] We conclude that the denial of an expert constituted an abuse of discretion, and that the district court relied on unreliable evidence. We therefore reverse the denial of the expert, vacate the sentence below, and remand. If, after taking expert testimony, the district court concludes that the government and the appellant have presented equally plausible methods of estimating drug quantity, the court shall be careful to err on the side of caution and choose the more conservative of the two. *See August*, 86 F.3d at 154; *United States v. Alvarez*, 358 F.3d 1194, 1212-13 (9th Cir. 2004); *Scheele*, 231 F.3d at 498. The court shall re-sentence the appellant in accordance with

---

<sup>6</sup>We recognize that Rienhardt assumed a fifty to seventy-five percent production rate, not a full 100%, and we appreciate that the district court rounded down the total estimate of methamphetamine. However, these efforts had no bearing on the reliability of Rienhardt's formula. *See, e.g., Rosacker*, 314 F.3d at 426 ("[C]haracterization of [an] estimate as 'conservative' does not substitute [for] the lack of a 'reliable evidentiary basis' for the estimate.") (quotation omitted). In spite of the court's attempt to "err[ ] most generously" in Chase's favor, its calculation resulted in a base offense level two levels higher than that which Chase alleged the more conservative method would have produced.

the rulings set forth herein.

**REVERSED, VACATED and REMANDED.**