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**UNITED STATES COURT OF APPEALS
FOR THE ARMED FORCES**

UNITED STATES
Appellant

v.

Ross E. DOWNUM, Captain
United States Army, Appellee

No. 24-0156
Crim. App. No. 20220575

Argued October 23, 2024—Decided September 30, 2025

Military Judge: Scott Z. Hughes

For Appellant: *Captain Anthony J. Scarpati* (argued); *Colonel Christopher B. Burgess*, *Major Chase C. Cleveland*, and *Major Timothy R. Emmons* (on brief); *Colonel Richard E. Gorini*.

For Appellee: *Captain Amber Bunch* (argued); *Major Matthew S. Fields* and *Daniel Conway, Esq.* (on brief); *Scott Hockenberry, Esq.*, and *Major Beau O. Watkins*.

Judge HARDY delivered the opinion of the Court, in which Chief Judge OHLSON and Judge MAGGS joined. Judge SPARKS filed a dissenting opinion, in which Judge JOHNSON joined.

Judge HARDY delivered the opinion of the Court.

The Government charged Captain Downum, Appellee in this case, with the wrongful use of cocaine under Article 112a, Uniform Code of Military Justice (UCMJ), 10 U.S.C. § 912a (2018). Although the Government had the machine-generated results of Appellee’s urinalysis test in its possession, it declined to seek admission of those results into evidence. Instead, the Government relied solely on the testimony of an expert witness, Dr. CO, who was recognized by the military judge as an expert in the field of forensic toxicology and drug testing. Dr. CO did not personally test Appellee’s urine sample, but she had reviewed the test results in preparation for trial and opined that Appellee’s urine sample tested “positive for BZE at 295 nanograms per milliliter.”¹ Based on this testimony and other evidence, a panel of officers sitting as a general court-martial found Appellee guilty of one specification of violating Article 112a, UCMJ.

Finding the evidence both legally and factually insufficient, the United States Army Court of Criminal Appeals (ACCA) reversed. *United States v. Downum*, No. ARMY 20220575, 2024 CCA LEXIS 156, at *6, 2024 WL 1829153, at *3 (A. Ct. Crim. App. Mar. 29, 2024) (summary disposition on reconsideration) (unpublished). The Judge Advocate General of the Army exercised his authority under Article 67(a)(2), UCMJ, 10 U.S.C. § 867(a)(2) (2018), to certify three issues directly to this Court:

I. Whether the Army Court erred in conducting its legal sufficiency analysis when it held that *United States v. Campbell*, 50 M.J. 154, 160 (C.A.A.F. 1999), requires not only expert testimony interpreting urinalysis results but the admission of the underlying paper urinalysis results as well.

¹ Dr. CO had previously testified that BZE, short for benzoylecgonine, is a metabolite of cocaine, the presence of which indicates that the provider of the urine sample has ingested cocaine.

II. Whether the Army Court erred when it held that unobjected-to expert testimony interpreting the urinalysis results lacked relevance without the admission of the paper urinalysis results.

III. Whether the Army Court failed to conduct a proper factual sufficiency analysis under Article 66(d)(1)(B).

United States v. Downum, 84 M.J. 463 (C.A.A.F. 2024) (docketing notice).

For the reasons explained below, we begin with the second certified issue. We disagree with the factual presumption embedded within the question presented—that the ACCA disregarded Dr. CO’s expert testimony interpreting the urinalysis results after stating that the testimony lacked relevance—and instead conclude that the ACCA only found that Dr. CO’s testimony provided little probative value in the absence of the underlying test results. Because this conclusion was within the ACCA’s Article 66(d) authority, we find no error.² Turning next to the third issue, we find that there is an open question as to whether the ACCA applied the proper standard of review. Nevertheless, even assuming that the ACCA misunderstood the requirement to provide appropriate deference to the fact that the trial court saw and heard the witnesses testify, we find no prejudice to the Government’s case and therefore affirm the ACCA’s conclusion that Appellee’s conviction was factually insufficient. Having affirmed the ACCA on this basis, we decline to answer the first certified issue, which has been rendered moot by our resolution of the third issue.

I. Background

The specification at issue in this case alleged that Appellee “did, at or near Fort Hood, Texas, between on or about 10 September 2021 and on or about 13 September 2021, wrongfully use cocaine.” To obtain a conviction under Article 112a, UCMJ, the Government was required to

² See Article 66(d), UCMJ, 10 U.S.C. § 866(d) (defining the duties of the service courts of appeal).

prove both: (1) that Appellee used cocaine; and (2) that Appellee's use of cocaine was wrongful. *Manual for Courts-Martial, United States* pt. IV, para. 50.b.(2) (2019 ed.). Appellee's defense was that he did not knowingly ingest cocaine, and that he likely tested positive on his urinalysis because someone spiked his drink with cocaine at a bar.

To prove Appellee's wrongful use of cocaine, the Government relied primarily on the testimony of four witnesses who detailed the urinalysis process, the chain of evidence for Appellee's urine sample, and the results of Appellee's urinalysis. As mentioned above, despite having the paper urinalysis results in its possession at trial, the Government declined to place those results into the record. As noted by the ACCA, this appeared to be a deliberate choice rather than an oversight by trial counsel. Instead, Dr. CO, the director of the lab that performed the urinalysis test, offered her expert testimony that—based on her review of Appellee's urinalysis test results—Appellee's urine “was positive for BZE at 295 nanograms per milliliter.” Dr. CO further explained that this was above the Department of Defense “cutoff” level of 100 nanograms per milliliter that indicates a positive test result. Based on this evidence, the general court-martial found Appellee guilty, contrary to his plea, of one specification of violating Article 112a, UCMJ, and sentenced him to thirty days of restriction, \$1,000 in forfeitures for one month, and a written reprimand.

Frustrated by the Government's failure to enter the paper test results into the record, the ACCA held that the finding of guilty was both legally and factually insufficient. The ACCA's opinion stated:

Without the admission of the test results, commonly accomplished by offering them as non-testimonial business records under Mil. Rule Evid. 803(6), the expert's testimony *lacked relevance*. Beyond [Dr. CO] stating a ng/ml level, there were no facts in evidence for her to explain, and no test results for her to interpret.

Downum, 2024 CCA LEXIS 156, at *6, 2024 WL 1829153, at *3 (emphasis added) (footnote omitted). The Judge Advocate General certified the case to this Court for review.

II. Standards of Review

When this Court reviews a service court’s factual sufficiency analysis, we ask whether the court applied “correct legal principles” in performing its factual sufficiency review. *United States v. Harvey*, 85 M.J. 127, 129 (C.A.A.F. 2024). This Court reviews a CCA’s decision as to what level of deference is appropriate for its factual sufficiency review of a court-martial’s findings for abuse of discretion. *Id.* at 131.

III. Discussion

The Judge Advocate General certified three issues to this Court. We first address whether the ACCA erred in stating that the testifying expert’s testimony “lacked relevance.” *Downum*, 2024 CCA LEXIS 156, at *6, 2024 WL 1829153, at *3. We then review the ACCA’s factual sufficiency analysis to determine whether that court applied correct legal principles.

A. Relevance of Dr. CO’s Expert Testimony

We begin with the second certified question: whether the ACCA erred when it held that Dr. CO’s expert testimony interpreting the urinalysis results lacked relevance without the admission of the paper urinalysis results. We understand the Government to be arguing that when the ACCA stated that Dr. CO’s expert testimony “lacked relevance,” it was concluding that her testimony failed to qualify as relevant evidence under Military Rule of Evidence (M.R.E.) 401. *See, e.g.*, Brief for Appellant at 26-27, *United States v. Downum*, No. 24-0156 (C.A.A.F. June 14, 2024) (“That the government did not admit the machine generated data should go to the weight of the expert testimony rather than its relevance.”).

We agree that the ACCA would have erred if it had ruled that Dr. CO’s testimony was not relevant under M.R.E. 401 and had disregarded it entirely. To be relevant,

evidence need only have any tendency to make a fact of consequence more or less probable than it would be without the evidence. M.R.E. 401(a)-(b). Dr. CO's testimony easily clears this low bar. Dr. CO's testimony was relevant to establishing both that Appellee used cocaine and that that use was wrongful.

But contrary to the Government's assertion, we do not interpret the ACCA to have held that Dr. CO's testimony was not relevant under the rules of evidence. If the ACCA had done so, Dr. CO's testimony would have been inadmissible, *see* M.R.E. 402(b) ("Irrelevant evidence is not admissible."), and the ACCA could not have considered it at all. Because Dr. CO's testimony about the urinalysis results was the only evidence that Appellee had used cocaine, the exclusion of Dr. CO's testimony would have ended the ACCA's analysis at the first element of the offense. Appellee's conviction would not have been legally or factually sufficient because there would have been no evidence that he had used cocaine at all.

But this is not how the ACCA analyzed the sufficiency of Appellee's conviction. To the contrary, the ACCA focused on whether Dr. CO's testimony established the second element of the offense, whether Appellee's use of cocaine was wrongful. When the government seeks to prove that a defendant's use of a controlled substance was wrongful based solely on scientific evidence, this Court has held that one way by which the government may establish an inference of wrongfulness is by offering expert testimony interpreting the urinalysis tests that prove the defendant's use of the controlled substance. *United States v. Green*, 55 M.J. 76, 80 (C.A.A.F. 2001); *United States v. Campbell*, 52 M.J. 386, 388 (C.A.A.F. 2000) (per curiam) (on reconsideration). If the Government seeks to obtain an inference of wrongfulness through the process set forth in *Campbell*, the expert testimony proffered by the government must establish multiple facts about the testing, including that the metabolite is not naturally produced by the body or any substance other than the drug in question, that the cutoff level and reported concentration are high enough to reasonably

discount the possibility of unknowing ingestion, and that the testing methodology reliably detected the presence and concentration of the drug or metabolite in the sample. 52 M.J. at 388.³

Applying this precedent, the ACCA found Dr. CO's testimony lacking, stating that Dr. CO "offered virtually no information about the test itself, whether it is regarded as scientifically sound, and whether it was conducted in accordance with prescribed procedures in this case." *Downum*, 2024 CCA LEXIS 156, at *4, 2024 WL 1829153, at *2. The ACCA acknowledged that Dr. CO testified that the level of BZE in Appellee's urine sample exceeded the cutoff level and that BZE does not occur naturally in the body. *Id.*, 2024 WL 1829153, at *2. However, the ACCA also noted that Dr. CO failed to explain the cutoff level's significance or explain how the urinalysis test controls for the possibility of innocent ingestion—the very defense raised by Appellee. *Id.*, 2024 WL 1829153, at *2.

Despite the ACCA's inartful statement that Dr. CO's testimony "lacked relevance," the ACCA conducted a detailed analysis of Dr. CO's testimony, rather than disregarding it as not relevant under M.R.E. 401. Viewed in the context of the ACCA's entire opinion, we interpret the

³ We disagree with the dissent's assertion that *Campbell* is no longer the controlling precedent. *United States v. Downum*, __ M.J. __, __-__ (2-4) (C.A.A.F. 2025) (Sparks, J., dissenting). In *Green*, the Court clarified that an Article 112a conviction would still be legally sufficient if the expert testimony did not address whether the defendant would have experienced the physiological effects of the controlled substance, 55 M.J. at 81, but otherwise left the *Campbell* permissible-inference factors intact. The Court did present three nonexclusive *Campbell*-like factors that military judges should consider when determining whether scientific evidence about urinalysis testing should be *admitted* (in addition to any other factors that the military judge finds relevant to determining the admissibility of scientific evidence), *id.* at 80, but nothing in *Green* suggests that those factors replaced the *Campbell* factors for the distinct purpose of determining whether the Government established a permissible inference of wrongfulness.

ACCA's statement that Dr. CO's testimony "lacked relevance" merely to indicate that the ACCA found that Dr. CO's testimony provided diminished probative value without the underlying urinalysis results. Because we conclude that this was within the ACCA's Article 66 authority, the ACCA did not err when it stated that Dr. CO's testimony lacked relevance.

B. The ACCA's Factual Sufficiency Analysis

We turn next to the third certified issue, which asks whether the ACCA erred when conducting its factual sufficiency analysis. The Government argues that the ACCA erred by applying a *de novo* standard of review and by failing to provide "appropriate deference" to the results of the court-martial as now required under Article 66(d)(1)(B), UCMJ.

As this Court discussed at length in our opinion in *Harvey*, 85 M.J. at 130-32, Congress recently amended Article 66(d), UCMJ, in the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, Pub. L. No. 116-283, § 542, 134 Stat. 3388, 3611, altering the service courts' statutory authority to perform factual sufficiency reviews. Although it was long settled that the service courts applied a "*de novo*" standard of review under the earlier versions of Article 66(d), UCMJ, *see, e.g., United States v. Washington*, 57 M.J. 394, 399 (C.A.A.F. 2002), the proper label for the standard of review under the newly amended Article 66(d)(1)(B), UCMJ, is more difficult to describe. As the Court noted in *Harvey*, the United States Navy-Marine Corps Court of Criminal Appeals, the government, and the appellant in that case all provided different descriptions of the new standard of review when a service court performs a factual sufficiency analysis. 85 M.J. at 130. Although this Court explained how the new standard should be construed and applied in *Harvey*, we declined to place a label on it, neither endorsing nor rejecting the continued use of the phrase "*de novo*" to describe the standard of review. *Id.* at 130-31.

The ACCA issued its opinion in this case on March 29, 2024, more than five months before this Court issued its opinion in *Harvey. Downum*, 2024 CCA LEXIS 156, at *1, 2024 WL 1829153, at *1. In describing the underlying law and standard of review, the ACCA began by stating, “We review factual sufficiency *de novo*.” *Id.* at *2, 2024 WL 1829153, at *1 (first citing *United States v. Scott*, 84 M.J. 583, 584 (A. Ct. Crim. App. 2024); and then citing *Washington*, 57 M.J. at 399). The ACCA proceeded to expressly recognize that Congress amended Article 66, UCMJ, and then block quoted the new text in Article 66(d)(1)(B), UCMJ, including the key provision mandating that the service courts give “appropriate deference to the fact that the trial court saw and heard the witnesses and other evidence.” *Id.*, 2024 WL 1829153, at *1-2 (quoting Article 66(d)(1)(B)(ii)(I)).

The Government points to this portion of the ACCA’s opinion to argue that the ACCA misapplied the newly amended Article 66(d)(1)(B), UCMJ. The Government focuses on the fact that the ACCA described the standard of review as “*de novo*,” which means “[a]n appeal in which the appellate court uses the trial court’s record but reviews the evidence and law without deference to the trial court’s rulings.” *Appeal*, *Black’s Law Dictionary* (12th ed. 2024) (defining “appeal *de novo*”). Essentially the Government argues that the ACCA could not have simultaneously “assess[ed] the evidence in the entire record without regard to the findings reached by the trial court,” *Washington*, 57 M.J. at 399, and provided appropriate deference to the fact that the trial court saw and heard the witnesses as Article 66(d)(1)(B)(ii)(I) requires.

The Government’s argument highlights a tension that has long existed between this Court’s factual sufficiency jurisprudence and the text of Article 66, UCMJ. When Congress originally enacted Article 66, UCMJ, the statute authorized the service courts to “weigh the evidence, judge the credibility of witnesses, and determine controverted questions of fact” but to do so while also “recognizing that the trial court saw and heard the witnesses.” Act of Aug.

10, 1956, ch. 1041, Pub. L. No. 84-1028, 70A Stat. 59 (codifying the UCMJ as Title 10 of the United States Code). Nevertheless, this Court and our predecessor have long described the standard of review for factual sufficiency simply as “de novo.” *See, e.g., United States v. Cole*, 31 M.J. 270, 272 (C.M.A. 1990) (describing then-Article 66(c) as an “awesome, plenary, *de novo* power of review” that authorizes a service court to “‘substitute its judgment’ for that of the military judge”); *Washington*, 57 M.J. at 399 (holding that the service courts are “required to conduct a *de novo* review of the entire record of trial”).

Congress’s recent amendments to Article 66, UCMJ, exacerbated the tension between our precedent and the text of the article. As we explained in *Harvey*, depending on the type of evidence presented at trial, the level of deference owed by a service court to certain factual determinations by the trial court might be materially more than one would expect under de novo review.⁴ Because of this, it is no longer appropriate to describe the service courts’ standard of review when performing factual sufficiency review simply as “de novo.” Instead, when stating the standard of review and performing factual sufficiency review, service courts should cite and follow this Court’s guidance in *Harvey*, 85 M.J. at 130-32, instead of the Court’s prior guidance in *Washington*, 57 M.J. at 399.

In its opinion below, the ACCA’s stated that it was applying de novo review and cited our decision in *Washington. Downum*, 2024 CCA LEXIS 156, at *2, 2024 WL 1829153, at *1. To be fair, the ACCA also acknowledged Congress’s amendment to Article 66, UCMJ, and recited the new language requiring it to give appropriate deference to the trial court. *Id.*, 2024 WL 1829153, at *1-2. This contradiction raises an open question whether the ACCA’s

⁴ To be clear, neither *Harvey* nor the text of Article 66(d), UCMJ, forecloses the possibility that—based on the type of evidence presented at trial—a service court might owe little to no deference to the trial court in performing its factual sufficiency review.

analysis was consistent with our decision in *Harvey*. To resolve this question, we examine the ACCA’s factual sufficiency analysis to determine whether the ACCA failed to provide appropriate deference as the Government claims. See *United States v. Weatherspoon*, 49 M.J. 209, 212 (C.A.A.F. 1998) (determining that remand for a new factual sufficiency review was unnecessary despite finding there was an open question whether the lower court applied an “inaccurate standard” because it was “satisfied that any misconception regarding the correct standard was harmless”), *abrogated on other grounds by United States v. Gutierrez*, 74 M.J. 61, 66 (C.A.A.F. 2015).

In support of its argument, the Government notes that Appellee took the stand and testified in his own defense, claiming that he never intentionally ingested cocaine during his time in the Army, and speculating that “some type of substance” that was in his drink at a bar after he had returned from the bathroom may have been the cause of his testing positive. The Government asserts that the panel—which had the opportunity to see and hear Appellee’s testimony firsthand—must have rejected his explanation for the positive urinalysis results to find him guilty beyond a reasonable doubt. The Government argues that the Article 66 appropriate deference standard required the ACCA to defer to the panel’s rejection of Appellee’s testimony and affirm the finding of guilt, even if the ACCA harbored its own doubts about the factual sufficiency of the conviction.

We do not think that the appropriate deference requirement constrained the ACCA’s review in this way. In this case, when Appellee testified in his own defense, he adamantly denied that he had ever intentionally ingested cocaine:

[CDC]: Captain Downum, did you knowingly or intentionally ingest cocaine at any time in September of 2021?

A: I did not intentionally ingest cocaine.

[CDC]: Okay. At any time in—since your Army career from West Point to the present day, did you

ever knowing intent—intentionally ingest what you believed to be cocaine?

A: Absolutely not.

So the Government is correct that the panel must have believed the Government witnesses over Appellee to have found him guilty. But under the new version of Article 66, UCMJ, the service courts are still authorized to “weigh the evidence and determine controverted questions of fact.” Article 66(d)(1)(B)(ii), UCMJ. The new Article 66(d) appropriate deference requirement does not prohibit a service court from concluding that a finding of guilt is factually insufficient simply because the defendant took the stand and denied that he committed the charged offense. To conclude otherwise would be to impose a presumption of guilt similar to the one that this Court rejected in *Harvey*, 85 M.J. at 132.

Ultimately, the ACCA’s factual sufficiency analysis did not turn on the veracity or the credibility of the witnesses who testified at trial or whether the ACCA provided appropriate deference to the fact that the trial court heard and saw those witnesses testify. Instead, the ACCA’s decision rested on the simple fact that—without the admission of the urinalysis test results into the record—the ACCA found the proffered evidence insufficient to prove that Appellee wrongfully used cocaine beyond a reasonable doubt. *See Downum*, 2024 CCA LEXIS 156, at *1, 2024 WL 1829153, at *1 (“This is the proverbial ‘paper’ urinalysis case, but in this case without the paper.”). Even under the new version of Article 66(d)(1)(B), UCMJ, that conclusion was within the ACCA’s discretion to reach. *See Harvey*, 85 M.J. at 131 (“Because the CCA does not have to give complete deference to the court-martial, . . . the CCA, during a factual sufficiency review in a particular case, might weigh the evidence differently from how the court-martial weighed the evidence.”). Nothing in the newly amended Article 66(d)(1)(B), UCMJ, requires a service court to give deference to the trial court about the *absence* of evidence that the service court believes is critical for a conviction to be factually sufficient.

To be clear, our decision signifies nothing more than that the ACCA did not abuse its discretion in performing its factual sufficiency analysis. As the ACCA itself noted, it is not the case that “the introduction of the test results in documentary form is the *only* method of proving” the wrongful use of controlled substances. *Downum*, 2024 CCA LEXIS 156, at *6 n.7, 2024 WL 1829153, at *3 n.7. But a conviction cannot stand if *either* a court-martial (in the first instance) *or* a CCA (on factual sufficiency review) finds the evidence factually insufficient to support a finding of guilty. As this Court noted in *United States v. Graham*, 50 M.J. 56, 60 (C.A.A.F. 1999), this is especially true when courts consider an Article 112a specification based on a failed urinalysis test:

[O]ur service personnel, who are called upon to defend our Constitution with their very lives, are sometimes subject to searches and seizures of their bodies, without probable cause, for evidence of a crime. We should zealously guard the uses of these results and hold the Government to the highest standards of proof required by law.

Id. By declining to enter the paper urinalysis results into the record, the Government assumed the risk that either the court-martial or the ACCA might find the remaining evidence factually insufficient to establish Appellee’s guilt beyond a reasonable doubt. Although the Government cleared the first hurdle and obtained a conviction from the court-martial in this case, Article 66(d)’s appropriate deference requirement did not prevent the ACCA from reaching a different conclusion on appeal.

IV. Conclusion

The decision of the United States Army Court of Criminal Appeals is affirmed.

Judge SPARKS, with whom Judge JOHNSON joins, dissenting.

The lower court appears to have taken the view that admission of the underlying paper urinalysis results is required before the government is permitted use of the permissive inference of wrongfulness in a urinalysis case. This view runs counter to my reading of *United States v. Green*, 55 M.J. 76 (C.A.A.F. 2001), *United States v. Campbell (Campbell I)*, 50 M.J. 154 (C.A.A.F. 1999), and *United States v. Campbell (Campbell II)*, 52 M.J. 386 (C.A.A.F. 2000) (per curiam) (on reconsideration). Furthermore, I am aware of no other basis in the law for adopting such a requirement in urinalysis cases. Consequently, because I view this as a failure on the part of the United States Army Court of Criminal Appeals (ACCA) to apply correct legal principles, I am unable to join the majority's decision to affirm the lower court's factual insufficiency conclusion.

A. Relevance of the expert's testimony

Because the majority began its analysis of the case by first addressing the second certified issue, I too will begin there. The second certified question asks the Court to determine whether the lower court erred when it held that, absent the test results, Dr. CO's expert testimony "lacked relevance." *United States v. Downum*, 84 M.J. 463 (C.A.A.F. 2024) (certificate for review). The majority characterizes this language as an "inartful statement" and in turn, interprets this statement "merely to indicate the ACCA found Dr CO's testimony provided diminished probative value without the underlying urinalysis results." *United States v. Downum*, __ M.J. __-__ (7-8) (C.A.A.F. 2025). I, on the other hand, have a less charitable view of this statement. Appellate military judges are seasoned senior judge advocates, who can presumably distinguish between the fairly simple legal concepts of relevance and probative value. The majority concedes that the lower court "would have erred" had it disregarded Dr. CO's testimony as irrelevant under Military Rule of Evidence (M.R.E.) 401. *Downum*, __ M.J. at __ (5). Yet, it is my view that is exactly what it did.

Judge SPARKS, with whom Judge JOHNSON joins, dissenting.

To be relevant, evidence needs to have any “tendency to make a fact more or less probable than it would be without the evidence.” M.R.E. 401(a). The lower court found that Dr. CO’s testimony was irrelevant and therefore inadmissible. *See* M.R.E. 402(b) (“Irrelevant evidence is not admissible.”). I disagree and find that Dr. CO’s testimony easily cleared this low bar. The testimony was relevant to establishing both that Appellee used cocaine and that said use was wrongful. The lower court’s statement is at best ambiguous, and “[t]he appropriate remedy for *incomplete or ambiguous* rulings is a remand for clarification.” *United States v. Kosek*, 41 M.J. 60, 64 (C.M.A. 1994) (emphasis added). As such, this case should be remanded.

B. Appellee’s conviction was legally sufficient without the paper urinalysis results

Although I understand the majority’s resolution of the case rendered the first certified question moot, I feel compelled to address this issue. The first certified question asks this Court whether the ACCA erred in holding that *Campbell I* requires the admission of paper test results. *Downum*, 84 M.J. 463. I would hold that the ACCA erred because *Green* is the applicable precedent, and *Green* makes it clear that the admission of paper test results is not required to sustain a conviction. Because *Green* modified the legal landscape for these cases, neither *Campbell I* nor *Campbell II* applies. Furthermore, an important point to be made here is that the ACCA erred in its application of *Campbell I* because the *Campbell I* test only applies where the government’s only evidence for drug use derives from novel scientific methodologies.

A conviction is legally sufficient when a “rational factfinder . . . could have found all essential elements of the offense [at issue] beyond a reasonable doubt.” *United States v. Mays*, 83 M.J. 277, 279 (C.A.A.F. 2023) (first alteration in original) (internal quotation marks omitted) (quoting *United States v. Nicola*, 78 M.J. 223, 226 (C.A.A.F. 2019)). The reviewing court is obligated to draw “every reasonable inference from the evidence of record in favor of the prosecution.” *United States v. Robinson*, 77 M.J. 294, 298 (C.A.A.F. 2018) (internal quotation marks omitted) (citation omitted). “As such, the standard for legal

Judge SPARKS, with whom Judge JOHNSON joins, dissenting.

sufficiency involves a very low threshold to sustain a conviction.” *United States v. King*, 78 M.J. 218, 221 (C.A.A.F. 2019) (internal quotation marks omitted) (citation omitted).

Campbell II states that the prosecution may¹ demonstrate the relationship between the paper urinalysis results and the permissive inference of knowing, wrongful use through expert testimony showing:

(1) that the metabolite is not naturally produced by the body or any substance other than the drug in question; (2) that the cutoff level and reported concentration are high enough to reasonably discount the possibility of unknowing ingestion and to indicate a reasonable likelihood that the user at some time would have experienced the physical and psychological effects of the drug; and (3) that the testing methodology reliably detected the presence and reliably quantified the concentration of the drug or metabolite in the sample.

52 M.J. at 388 (internal quotation marks omitted) (citation omitted).

However, as numerous lower court opinions recognized, it is not possible to definitively state that the user “experienced the physical and psychological effects of the drug.” *See, e.g., United States v. Barnes*, 53 M.J. 624, 228-29 (N-M. Ct. Crim. App. 2000) (Anderson, J., concurring dubitante) (internal quotation marks omitted) (citation omitted), *vacated*, 55 M.J. 236 (C.A.A.F. 2001) (summary disposition) (remanding in light of *Green*).² As a

¹ The majority cites *Campbell II* for the proposition that the Government’s expert testimony “must” establish certain factors. *Downum*, __ M.J. at __-__ (6-7). However, *Campbell II* says expert testimony “may” establish these factors. 52 M.J. at 388 (“the prosecution may demonstrate the relationship between the test result and the permissive inference” through the *Campbell* factors).

² Academic literature supported this conclusion. *See, e.g.,* David A. Berger, *Campbell and Its Progeny: The Death of the Urinalysis Case*, 47 Naval L. Rev. 1, 30 (2000); Michael R. Stahlman, *New Developments on the Urinalysis Front: A Green*

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result, this Court created a new framework in *Green*.³ See, e.g., *United States v. Mahoney*, No. NMCCA 9900147, 2003 CCA LEXIS 102, at *2, 2003 WL 1895472, at *1 (N-M. Ct. Crim. App. Apr. 17, 2003), *aff'd*, 59 M.J. 147 (C.A.A.F. 2003) (summary disposition).

In a footnote, the majority states that the *Green* Court presented “three nonexclusive *Campbell*-like factors that military judges should consider when determining whether scientific evidence about urinalysis testing should be admitted.” *Downum*, __ M.J. at __ (7 n.3). However, *Green* states that this process is for “novel scientific evidence.” 55 M.J. at 80. *Campbell I* and *Campbell II* likewise limited the application of the three-factor test to novel scientific procedures. 50 M.J. at 155, 160; 52 M.J. at 388. In *Campbell I*, there was only one lab in the entire United States using the gas chromatography tandem mass spectrometry (GC/MS/MS) methodology. 50 M.J. at 156. Since no other lab conducted that test, other scientists could not reproduce the results. *Id.* at 156-58. For the same reason, the test was not peer reviewed and had not gained acceptance as scientifically valid in the field. *Id.* While this methodology may have been a “novel scientific procedure” prior to 1999, after twenty-five years of utilization in urinalysis cases the GC/MS/MS methodology is no longer novel or unique.

When the military judge is considering evidence of a test that does not involve a novel scientific procedure, different considerations apply. If the expert testimony has “an established scientific, technical, legal, judicial, or evidentiary foundation” regarding reliability and relevance, it may be appropriate to take judicial notice

Light in Naked Urinalysis Prosecutions?, Army Law., April 2002, at 14.

³ Subsequent to the ruling in *Green*, this Court affirmed the two cases where the lower court declined to apply *Campbell*. See *United States v. Pugh*, 55 M.J. 357 (C.A.A.F. 2001) (summary disposition); *United States v. Tanner*, 55 M.J. 357 (C.A.A.F. 2001) (summary disposition). It also summarily vacated and remanded every certified case (nine cases) where the lower court applied *Campbell*.

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under M.R.E. 201 without further litigation. *Green*, 55 M.J. at 81. “If the military judge determines that the scientific evidence—whether novel or established—is admissible, the prosecution may rely on the permissive inference during its case on the merits.” *Id.* The key distinction is that the decision rests with the military judge.

A further point to be made is that the rules of evidence allow for an expert to testify to the underlying facts and data of an opinion substantively. M.R.E. 703 provides as follows:

An expert may base an opinion on facts or data in the case that the expert has been made aware of or personally observed. If experts in the particular field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted. If the facts or data would otherwise be inadmissible, the proponent of the opinion may disclose them to the members of a court-martial only if the military judge finds that their probative value in helping the members evaluate the opinion substantially outweighs their prejudicial effect.

There is no question that M.R.E. 703 allows an expert to bring in the contents of a urinalysis report. *See, e.g., United States v. Blazier*, 69 M.J. 218, 222 (C.A.A.F. 2010) (“We further hold that an expert may, consistent with the . . . rules of evidence, (1) rely on, repeat, or interpret admissible and nonhearsay machine-generated printouts of machine-generated data . . .”). There is also no question that Dr. CO was “aware of or personally observed” Appellee’s urinalysis. Due in large part to its misreading of *Green* and *Campbell*, the lower court was so focused on the paper results that they gave little to no weight to Dr. CO’s testimony. Dr. CO testified that, based on her review, Appellee’s sample tested positive for cocaine on the initial screening. She also testified that “based on [her] review of . . . the litigation packet” further testing, via gas chromatography mass spectrometry, had been conducted, and that this confirmatory test “was positive for BZE at 295 nanograms per milliliter.” Dr. CO was reciting the results from nonhearsay, machine-generated data. *Cf. Smith v.*

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Arizona, 602 U.S. 779, 783 (2024) (holding “an absent lab analyst’s factual assertions” are admitted “into evidence for their truth”). Thus, Dr. CO was not merely giving an opinion. Her recitation of the BZE level was a fact that supported her opinion that Appellee had consumed cocaine.

To a layperson “BZE at 295 nanograms per milliliter” may sound a bit like unintelligible science speak. This unfamiliarity with the data is the very reason we have experts explain this information, which Dr. CO did extensively. And, just as we rely on toxicologists to explain the significance of the technical terms, we rely on the military judge to decide whether the prosecution has met its burden to give the permissive inference instruction. Here, the military judge decided the issue in accordance with *Green*. The lower court’s reliance on *Campbell I* created substantive hurdles the Government never needed to surmount.

It is true, as the majority states, that Dr. CO’s testimony was the only direct evidence of drug use, *Downum*, __ M.J. at __ (6), but in the absence of an objection, the facts Dr. CO relied on and testified to were in evidence and the members were free to consider them substantively. Furthermore, Appellee’s defense strategy revolved around conceding to the presence of cocaine. Appellee only contested whether the use was wrongful, in other words, the innocent ingestion defense. Trial defense counsel’s opening statement admitted Appellee had cocaine in his system and that its presence was “high enough to go over the cutoff level that the lab reports as being forensically defensible.” His cross-examination of Dr. CO concedes: “[a]ll we can say is for certain [sic], [Appellee] consumed enough cocaine, then [sic] in the metabolic process it produced the metabolite that passed . . . the cutoff level that the lab sets?” Dr. CO responded, “Yes.” On his own direct examination, Appellee admitted he could have been exposed to “a small amount of cocaine” during the weekend in question.⁴ Finally, trial defense counsel in his

⁴ The question presented to Appellee by his counsel was as follows:

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closing argument not only admits Appellee's "urine had somehow had cocaine in [his] system at least a few days prior," but also concedes this case is "not whether or not there was a metabolite for cocaine in his system, that's a red herring if the government comes up in their second argument and says[,] we're arguing that, no."

Beyond that, Appellee chose to testify in his own defense. It was the responsibility of the panel to evaluate his credibility and determine whether to apply the permissive inference. *United States v. Bond*, 46 M.J. 86, 89 (C.A.A.F. 1997). Additionally, both of his fact witnesses contradicted his story. Immediately after Appellee's testimony, the defense's first fact witness, BL, *twice* contradicted Appellee's version of events, denying Appellee ever mentioned any concerns about his drink. He went so far as to say, "[i]t seems like I would have remembered that. And I don't off the top of my head, sir." His next fact witness, KG, testified that Appellee confessed to testing positive for cocaine before the drug test results were even available. This was despite Appellee testifying earlier that he did not know whether his drink had been spiked with drugs, let alone know what substance could have been in his drink, be it amphetamines, ecstasy, or cocaine. The defense's case and the introduction of extrinsic evidence of drug use place this case outside the realm where the *Campbell* test would ever apply.

In addition, there is a strong argument to be made that Appellee waived any objection to the permissive inference instruction. "Whether an appellant has waived an issue is

Q. Okay, and having heard the testimony of Dr. [CO], the forensic toxicologist, in her testimony about how a small amount of cocaine can produce a positive . . . above what you produced on the urinalysis with your urine, . . . can you say for sure that you weren't somehow exposed to a very small amount in some other setting that weekend?

A. I cannot say that I was not exposed in any other setting.

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a legal question that this Court reviews de novo.” *United States v. Cunningham*, 83 M.J. 367, 374 (C.A.A.F. 2023) (internal quotation marks omitted) (quoting *United States v. Davis*, 79 M.J. 329, 332 (C.A.A.F. 2020)). Trial defense counsel did not object when the Government stated it would not be admitting the paper urinalysis results into evidence. Finally, defense counsel did not object when the permissive inference instruction was given.⁵

This is because there was never any question as to the presence of cocaine in his system, the contents of the paper urinalysis results, or the value of Dr. CO’s testimony. The failure to object indicates one of two things: either there was an understanding at trial that the paper urinalysis results were not necessary, or defense counsel saw some benefit in waiving the issue.

**C. The ACCA incorrectly applied the new
Article 66(d)(1)(B)(ii)(II)**

Because the lower court erred with regards to Issue I and Issue II, their factual sufficiency review was flawed. By determining that the contents of the urinalysis could only come into the trial through the paper results, the lower court essentially struck the contents of Dr. CO’s testimony from consideration because it believed there were no facts in evidence for her to interpret. Thus, her testimony became irrelevant. This is incorrect for all the reasons previously stated.

Further, the majority relies on *United States v. Weatherspoon*, 49 M.J. 209 (C.A.A.F. 1998), in applying a

⁵ At the close of the Government’s case, defense counsel did make a somewhat perfunctory and vague motion for a finding of not guilty under Rule for Courts-Martial 917, challenging the sufficiency of the evidence as follows:

[W]e will make a motion under Rule for Court-Martial 917, particularly under the element of knowing use. There has, based on the testimony and evidence presented thus far, there is not sufficient evidence in that be (sic) given to the members allowing reasonable infer[ences]—or permissible inferences to the government that would support the element of knowing use.

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harmless error standard to the CCA's factual sufficiency analysis. I would simply note that we have said, "when the record reveals that a CCA misunderstood the law, this Court remands for another factual sufficiency review under correct legal principles." *Harvey*, 85 M.J. at 129 (internal quotation marks omitted) (quoting *United States v. Thompson*, 83 M.J. 1, 4 (C.A.A.F. 2022)). This Court has also remanded when it was "an open question" whether a lower court correctly applied the law. *United States v. Nerad*, 69 M.J. 138, 147 (C.A.A.F. 2010).

This case should be remanded to the Army court to conduct a new factual sufficiency review. In my view evidence introduced on the merits through the expert's testimony without objection were matters properly considered by the members. And, because the ACCA's factual insufficiency conclusion was based on a misapplication of the *Campbell* and *Green* trilogy of cases, a remand should be in order.

D. Conclusion

For the foregoing reasons, I respectfully dissent.