

A View from the Bench: Real and Demonstrative Evidence

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Introduction

“Show and tell” is a popular practice in classrooms around the world. It commands the interest of the most distractible audience and engages them logically, emotionally, and visually. Show and tell can inspire children’s curiosity about the vibrant world beyond the classroom. It can also be a great metaphor for a legal presentation. It can infuse a trial with what it often lacks, a sense of the real. A well-timed demonstration can convey more than reams of documents or days of argument. This article seeks to describe a broad cross-section of evidence that packs a sensory punch and offer suggestions for its use.

Types of Sensory Evidence

This article divides sensory evidence into three categories.

The first is “real” or substantive evidence. This includes the actual weapon alleged to have been used in the crime, or actual contraband seized, or other items resulting from an event at issue such as “911” tapes, closed circuit television footage, or crime scene photographs.

The second is “hybrid” demonstrative evidence. This is actual evidence that has been altered or assembled in a way to enhance its sensory impact. This includes charts or compilations drawn from large numbers of documents, assembled so as to quickly convey information from a voluminous record.¹ It includes altered photographs or recordings, and evidence of experiments performed to illuminate matters at issue. It also includes maps or diagrams made by a witness with features to describe their testimony, as when a witness sketches an alleged crime scene and writes “W1” and “W2” on the sketch to show where he was at two points in time.

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¹ MANUAL FOR COURTS-MARTIAL, UNITED STATES, MIL. R. EVID. 1006 (2008) [hereinafter MCM] (permitting, with sufficient notice, the presentation of summaries of voluminous records).

The third is “pure” demonstrative evidence, admitted solely to help witnesses explain or clarify their testimony.² Such evidence includes look-alike evidence, as when the prosecution believes that a golf club was the assault weapon, but no weapon was ever recovered, so the trial counsel seeks to admit a similar golf club to depict the alleged assault weapon.

This article discusses various forms of demonstrative evidence in courts-martial, how to get them admitted, and when they are best employed.

Nuts and Bolts

The most brilliant exhibit is meaningless if you cannot get it before the factfinder. The wise practitioner focuses first on admitting substantive evidence that has sensory impact. This includes weapons, contraband, photographs, video and audio recordings, and some documents. Real evidence can include courtroom displays such as injuries or body parts that are exhibited to the court.³ A predicate of admissibility for any such real evidence is authentication, which is some proof that the item is what it purports to be.⁴

Weapons and other pieces of evidence taken from a crime scene can be authenticated either by chain of custody evidence or by evidence of distinctive markings.⁵ Distinctive markings or “readily identifiable” evidence is that which a witness recognizes due to a unique characteristic.⁶ The

² United States v. Pope, 69 M.J. 328, 332 (C.A.A.F. 2011) (citing United States v. Heatherly, 21 M.J. 113, 115 n.2 (C.M.A. 1985)).

³ Exhibitions are permissible if relevant under Military Rule of Evidence (MRE) 402 and not inflammatory under MRE 403, upon a showing that the exhibition (1) is relevant, (2) will assist the trier of fact, and (3) is not unduly inflammatory it should be admitted. DAVID SCHLUETER, STEPHEN A. SALZBURG, LEE SCHINASI & EDWARD J. IMWINKELREID, MILITARY EVIDENTIARY FOUNDATIONS § 4-16 (2010).

⁴ Military Rule of Evidence 901(a) allows that “the requirement of authentication or identification as a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the matter in question is what the proponent claims.” MCM, *supra* note 2, MIL. R. EVID. 901(a).

⁵ SCHLUETER ET AL., *supra* note 3, at 153, 155.

⁶ “Distinctive markings” is essentially a form of eyewitness testimony, in which a witness opines that he recognizes the item sought to be admitted. It is a common practice of law enforcement personnel to mark their initials on a handgun so they can testify it is the same handgun they recovered at the

foundation for admitting evidence under the “readily identifiable” theory is (1) the object has a unique characteristic, (2) the witness saw it on an earlier occasion, (3) the witness recognizes the characteristic and identifies the exhibit as the item he saw earlier, and (4) the item is in substantially the same condition as when the witness saw it before.⁷ Evidence that lacks such distinctive characteristics must be admitted through a different method, such as establishing a reliable chain of custody in the handling of this evidence.

Chain of custody evidence is generally required for so-called fungible evidence.⁸ Fungible evidence is that which is fundamentally identical with other examples of the type.⁹ Generally weapons, people, automobiles, and the like are distinctive enough that they can be distinguished by the unaided eye. In contrast, blood, urine and other bodily fluids, most drugs, and other commodities must be preserved by chain of custody evidence, as no witness could testify that he remembers “that” white powder as “the” white powder seized from the accused.¹⁰

Chain of custody evidence establishes that the evidence was collected in some place relevant to the issues before the court and maintained without alteration until it was delivered for forensic examination and court-martial.¹¹ Recent developments in Confrontation Clause jurisprudence have complicated the use of chain of custody evidence, requiring in some instances that individuals who handled and tested the evidence testify in person.¹²

scene. Other distinctive markings include serial numbers or unique defects such as a prominent scratch or crack in an item.

⁷ SCHLUETER ET AL., *supra* note 3, at 153.

⁸ Fungible evidence, such as urine specimens, generally “become[s] admissible and material through a showing of continuous custody which preserves the evidence in an unaltered state.” *United States v. Webb*, 66 M.J. 89, 93 (C.A.A.F. 2008) (quoting *United States v. Gonzalez*, 37 M.J. 456, 457 (C.M.A. 1993), *in turn quoting* *United States v. Nault*, 4 M.J. 318, 319 (C.M.A. 1978)).

⁹ Fungible is defined as “of such a kind or nature that one specimen or part may be used in place of another specimen or equal part in the satisfaction of an obligation; or capable of mutual substitution.” WEBSTER’S THIRD NEW INTERNATIONAL DICTIONARY (UNABRIDGED) (Merriam Webster 1981).

¹⁰ SCHLUETER ET AL., *supra* note 3, at 155–56.

¹¹ *Id.* at 155.

¹² Historically, chain of custody documents have been and still are admissible as an exception to the bar against hearsay. *See* MCM, *supra* note 1, MIL. R. EVID. 803(6) (specifically listing “chain of custody documents” as admissible under the business records exception). Testimony from a records custodian that the document was made and maintained in the regular course of business may be sufficient to admit the chain of custody document and permit the factfinder to consider the evidence it described. Evidence from forensic laboratory reports was admissible on the same theory as a business record. *See* *United States v. Longtin*, 7 M.J. 784, 787–88 (A.C.M.R. 1979). Recent developments in treatment of the Sixth Amendment right to confrontation have partly disturbed those conclusions. Essentially, a testimonial hearsay statement is inadmissible unless its maker

Introducing evidence of photographs, videos, and recordings can be a far more straightforward proposition than using fungible evidence. The photograph, video, or recording may function essentially as the ultimate “distinctive marking.” While it may be ideal to have the taker of the photograph present to authenticate it, it is not required.¹³ All that is necessary is testimony establishing the relevance of the scene depicted and an eyewitness who is aware of the scene photographed or taped and can testify that the photograph or recording is accurate.¹⁴

If no witness has personal knowledge of the contents of a video or recording, such evidence can still be admitted if the proponent can establish the functioning of the recording device, including how it was set up, how it is activated, and how the recording media was retrieved and processed.¹⁵ For example, security tape footage from a club may show a homicide witnessed by no one (except the perpetrator who will not testify and the victim who cannot). No witness has personal knowledge of the events, but the recording can still be admitted with the proper foundation.

To admit such evidence, testimony as to the *technical* operation of the equipment is not necessary, and internal evidence (such as date-time stamps automatically added to photographs and recordings) can help to establish a foundation.¹⁶ However, proponents of this evidence should

is subject to cross-examination at trial. Routine statements regarding unambiguous factual matters are no longer considered non-testimonial by virtue of their simplicity. *See* Captain Daniel I. Stovall, “*Let Cobham Be Here*”: *The Introduction of Drug Testing Reports in Courts-Martial Post Melendez-Diaz*, 67 A.F. L. REV. 153, 173–74 *passim* (2011) (discussing military courts’ application of *Melendez-Diaz v. Massachusetts*, 557 U.S. 305, 129 S. Ct. 2527, 2532 (2009) and *Crawford v. Washington*, 541 U.S. 36, 59 (2004), in determining which statements in common reports are “testimonial” and require confrontation). However, not every statement on a chain of custody document is “testimonial” so as to require confrontation. *United States v. Sweeney*, 70 M.J. 296, 304–05 (C.A.A.F. 2011) (holding that a specimen custody document, which certified that lab results were “determined by proper laboratory procedures, and . . . correctly annotated” was testimonial and required confrontation; but that ordinary stamps, signatures, and other notations on chain of custody documents might not be); *Melendez-Diaz*, 129 S. Ct. at 2532 n.1, *cited in* *United States v. Van Valin*, No. ACM 37283, 2010 WL 4068960, at *3 (A.F. Ct. Crim. App. July 26, 2010); Stovall, *supra*, at 168–69.

¹³ *See* *United States v. Richendollar*, 22 M.J. 231 (C.M.A. 1986).

¹⁴ SCHLUETER ET AL., *supra* note 3, at 162; *United States v. Harris*, 55 M.J. 433, 438 (C.A.A.F. 2001) (“Generally, a photograph is admitted into evidence as ‘a graphic portrayal of oral testimony, and becomes admissible only when a witness has testified that it is a correct and accurate representation of relevant facts. . . .’”) (quoting JOHN W. STRONG ET AL., MCCORMICK ON EVIDENCE § 214 (5th ed. 1999)).

¹⁵ SCHLUETER ET AL., *supra* note 3, at 166; *Harris*, 55 M.J. at 438, 439–40 (upholding “silent witness” theory for admission of videotape when no live witness had observed the scene); *see also* *United States v. Clark*, No. ACM 37494, 2011 WL 6019313, at *3 (A.F. Ct. Crim. App. Aug. 15, 2011).

¹⁶ *Harris*, 55 M.J. at 440 (“Testimony as to the technical operation of the video camera on the day in question was unnecessary, just as testimony from the actual camera operator or an expert in photography is unnecessary in order to admit a photograph.” In that case, a bank employee was able to

pay particular attention to the witness selected to admit this testimony, to ensure the witness has sufficient knowledge to lay the foundation. In a recent trial, the trial counsel attempted to have the 911 operator lay a foundation for the recording equipment that recorded every call she answered. It quickly became apparent that she was unsure of what recording equipment recorded 911 calls, how it worked, the last time it was maintained, or what had been done to retrieve the recorded call and prepare it as an exhibit for the court-martial. Ultimately, the tape was admitted because she remembered the call and could authenticate the contents of the tape from her own knowledge. Do not assume a witness who works with equipment is competent to speak to its function. A bank security guard or bank manager may not be intimately familiar with the capabilities or functioning of automatic teller machines cameras. The Army and Air Force Exchange Service checkout clerk may not know anything about the functioning of the optical scanner for merchandise even though he uses it every day.

Electronic Evidence

Increasingly, text messages, chat room logs, and electronic mail messages comprise significant evidence in courts-martial. While generally viewed as documents and not illustrative exhibits, pictures, texts, and video clips created with mobile devices often qualify these items as sensory exhibits. The grainy nature of the photos or videos taken may also require enhancement of the content.

Authentication of text messages and chats can often be accomplished by a modern variation of the reply letter doctrine. Essentially, courts presume the mail to be reliable. So when a party properly addresses a piece of correspondence, mails it, and in time receives an appropriate reply, the courts will presume the reply came from the intended recipient of the first letter.¹⁷ In the historic reply letter doctrine, evidence that the witness properly addressed a letter to the declarant, that the letter was sent, and that the witness received a reply bearing the name and address of the original addressee established the authenticity of the reply letter. Once authenticated, the reply letter still had to overcome the rules against hearsay to be admissible. Usually it was admitted as an admission by a party opponent.

identify security camera footage based on the date and time shown on the film plus his own knowledge of the bank's procedures, even though he had no technical knowledge of the operability of the camera on the day in question.)

¹⁷ SCHLUETER ET AL., *supra* note 3, at 61; *see also* United States v. Thomas, 33 M.J. 1067, 1069 (A.C.M.R. 1991), *set aside on other grounds*, 36 M.J. 377, 378 (C.M.A. 1992).

In the modern variant of this doctrine, the witness testifies that he sent a text message to a known "address"—generally a telephone number or electronic mail address—and received a reply that was responsive to the original text. Commonly the reply will be unsigned, in which case evidence about the style of writing, the knowledge exhibited in that writing, or the recipient's exclusive dominion over the telephone number or e-mail address can be substituted.¹⁸ Once the author of the reply text is established, the proponent may establish the relevance of photos or other attachments. For example, if in an indecent conduct case, an associate of the accused receives a "picture text" from the accused containing a photograph of a woman's genitals, the proponent could elicit from the associate that the text came from the accused, and elicit from the victim testimony that the photo depicts her body and was taken without her consent.

If the text is not responsive, or counsel seek to establish that a witness received a message, a variant of chain of custody for the outgoing message must be established.¹⁹ A custodian from the e-mail server of the e-mail at issue must testify to the routing of the message, and then introduce the routing records for the servers to establish the message was routed as it appeared. Finally the proponent must establish the alleged author had primary access to the account.²⁰

Common objections to "assertions" made electronically rely on the fact that computer accounts can be hacked, cell phones may be borrowed (or lost), digital files may be unwittingly altered, and that the original writing, photograph, or recording at issue which is essentially a digital file imbedded in an electronic device is not admitted in violation of Military Rule of Evidence (MRE) 1002.²¹ Few published military cases involving authenticity of digital files address these objections. However, it appears

¹⁸ MCM, *supra* note 1, MIL. R. EVID. 901(b)(4); *see also* United States v. Siddiqui, 235 F.3d 1318, 1322–23 (11th Cir. 2000) (e-mail identified by several characteristics, including the author's e-mail address, possession of distinctive knowledge, and nickname); United States v. Worthington, No. 20040396, 2006 WL 6625258, at *3 (A. Ct. Crim. App. 2006) (e-mail identified by address, distinctive slang used by sender, distinctive knowledge held by sender, consistency with a verbal conversation between witness and sender); *but see* State v. Eleck, 23 A.3d 818, 824–25 (Conn. App. 2011) (agreeing with trial court that refused to admit e-mail under "reply letter" doctrine, because outside of the e-mail address, there were no identifying characteristics of the supposed author, such as knowledge particular to the author or other distinctive content, and collecting cases).

¹⁹ SCHLUETER ET AL., *supra* note 3, at 108-13.

²⁰ *Id.* at 109.

²¹ Military Rule of Evidence 1002 requires that to prove the content of a writing, photograph, or recording the original is required unless exception is granted by the rules, the *Manual for Courts-Martial*, or Act of Congress. The next rule, MRE 1003, permits admission of a duplicate as an original unless a genuine question is raised as to the authenticity of the original, or it would be otherwise unfair. MCM, *supra* note 1, MIL. R. EVID. 1002, 1003; Lieutenant Colonel Kenneth R. Sibley, *Mountains or Molehills?*, 36 THE REPORTER (USAF), no. 2, 2009, at 25, available at <http://www.afjag.af.mil/library/>.

under the various provisions of MRE 901, most objections are properly addressed to the weight of the evidence, not its admissibility.²²

Field Trips

Rule for Court-Martial 913c permits the military judge to authorize the court to view or inspect premises or a place or object. The visit must take place in the presence of all parties and members and the court may designate a guide who cannot testify, but may at the direction of the court point out a list of features. Any statement made by the designated escort (guide), any party, any member, or the military judge must be made part of the record.²³ Site visits are rare both by design and in practice.²⁴ At issue is whether the court can be educated about a scene via photographs and diagrams, or is there some unique aspect about the scene that requires the presence of the court-martial. Appellate courts have routinely upheld a trial court's discretion in denying such a request.²⁵ If a site visit is permitted by the court, the conduct of it is in the court's discretion. Generally, the visit occurs during the case of the party requesting the visit.

Hybrid Demonstrative Evidence

Imagine an accused, serving in a finance military occupational specialty, is alleged to have placed a code in the finance profile of nearly 3000 Soldiers in the course of a year. This code created a "micro-allotment" to a fictitious business which siphoned an average of \$50 from each Soldier over the course of a year. The accused set up the fictitious business account and collected nearly \$150,000 before the scheme was detected. The evidence in the case includes nearly a dozen monthly Leave and Earning Statements (LES) for each of approximately 3000 Soldiers, roughly 36,000 documents. As prosecutor, what do you do? Military Rule of Evidence 1006 permits "the contents of voluminous writings, recordings, and photographs which cannot conveniently be examined in court" to "be presented

²² MCM, *supra* note 1, MIL. R. EVID. 901; *see also* United States v. Harris, 55 M.J. 433, 440 (C.A.A.F. 2001).

²³ MCM, *supra* note 1, R.C.M. 913(c)(3).

²⁴ The discussion to Rule for Court-Martial 913c permits such visits only in "extraordinary circumstances." An informal survey of the trial judiciary at JBLM found participation in a single site visit in a combined forty-one years of service as judge advocates.

²⁵ *See* United States v. Wells, No. 9601349, 1998 WL 85571, at *7 (N-M. Ct. Crim. App. Feb. 27, 1998) (defense made no showing that anything "unique to the case" would be accomplished with a crime scene viewing; parties were able to educate the panel by other means); United States v. Cooper, No. 32388 (A.F. Ct. Crim. App. Dec. 31, 1997) (upholding denial of court member's request for a site viewing); United States v. Marvin 24 M.J. 365, 366 (C.M.A. 1987) (upholding denial on relevance grounds, when site visit would serve to establish something already established by uncontroverted testimony).

as a chart, summary, or calculation."²⁶ The proponent must first establish that the underlying documents are admissible.²⁷ In this case, a record custodian for the Defense Finance and Accounting Service (DFAS) would have to lay the foundation for the LES as a business record,²⁸ establish how the 3000 Soldiers were identified,²⁹ and then establish how their records were retrieved and brought to court.³⁰ Then the DFAS custodian or other expert could testify how the summary or calculation was made and what the figures meant.³¹ A key to successfully using a summary is providing ample notice to the court and your opponent of your intent to use the summary and allowing your opponent full access to the summary and the underlying documents on which it's based.³²

Sketch

Similar to testimony about the accuracy of a photograph is the classical demonstrative diagram or sketch. While a photograph is a picture the witness adopts as a form of testimony, the sketch supplants or enhances a verbal description with a pictorial one. The witness testifies that the diagram depicts a certain area or thing, that the witness is familiar with that area or thing, how the witness is familiar with it, and that the diagram is an accurate depiction—just as he does with a photograph.³³

²⁶ MCM, *supra* note 1, MIL. R. EVID. 1006; James Lockhart, *Admissibility of Summaries or Charts of Writings, Recordings, or Photographs under Rule 1006 of Federal Rules of Evidence*, 198 A.L.R. FED. 427 (2004).

²⁷ United States v. Samaniego, 187 F.3d 1222, 1223–24 (10th Cir. 1999). An exception to this rule allows a summary by an *expert* to be based on inadmissible materials. MCM, *supra* note 1, at A22-61 (analysis of RCM 1006); United States v. Reynoso, 66 M.J. 208, 211 (C.A.A.F. 2008).

²⁸ *See* MCM, *supra* note 1, MIL. R. EVID. 803(6). The confrontation concerns cited above are likely not an issue as there is likely to be greater automation in the Defense Finance and Accounting Service assembly of records then in a lab where humans participate in confirmatory tests and return the fungible sample to the prosecution.

²⁹ A likely answer might be, "We conducted a computer search for the micro-allotment code among all records inputted in the office where the accused worked" (or among all Soldiers in the Army).

³⁰ A likely answer might be, "I [custodian] printed the relevant records and gave them to U.S. Army CID agents." Those agents would be available to testify that they had custody of the records.

³¹ A likely answer might be, "I retrieved from each record the amount of military pay diverted as a result of the micro-allotment code, entered it on a spreadsheet, which added the figures to arrive at \$150,286.15."

³² *See* MCM, *supra* note 1, MIL. R. EVID. 1006; *see also* Stephen J. Murphy, III, *Demystifying the Complex Criminal Case at Trial: Lessons for the Courtroom Advocate*, 81 U. DET. MERCY L. REV. 289, 299 (2004).

³³ SCHLUETER ET AL., *supra* note 3, at 136.

The sketch or diagram can be created in the courtroom. To accomplish this, a witness is asked to describe a scene, and counsel or the witness requests permission from the military judge for the witness to make the sketch. If the witness narrates the sketch, counsel must ensure the connection between the narration and the diagram is recorded on the record. The easiest way is for counsel to ask the witness to make particular descriptive marks and then indicate for the record that the witness has complied. (For example: “Mr. Witness, please use this red marker to place a (“B”) on Prosecution Exhibit 3 for Identification where the bed was and a (“T”) where the table was.” [The witness draws on the exhibit as requested.] “The witness did as instructed.”).

A step beyond the exhibitions described earlier and the sketch described above is the demonstration. A demonstration is an in-court depiction of a physical or mechanical process.³⁴ It can be as simple as punches thrown in a fight or as complex as showing an arcane computer program in operation.³⁵ The elements are that the demonstration is relevant to the case, that the demonstration will assist the court members, and that the demonstration is substantially correct.³⁶ The proponent must be prepared to explain why the demonstration is not barred under MRE 403 as unduly prejudicial.³⁷ Significant controversy may attach to the claim that the demonstration is substantially correct.

If the demonstration is to be done by an expert, the parties should litigate the issue in advance of trial. The demonstration may be excluded based on challenges to the credentials of the expert, or a challenge supported by *voir dire* of the expert and the opponent’s expert testimony that the demonstration is flawed.³⁸ If the demonstration is performed by a lay witness, ordinarily any challenge turns on whether the witness actually observed the process demonstrated.³⁹ If the witness observed the process demonstrated and it is susceptible to ready understanding (e.g., a fight), then challenges to the demonstration are essentially credibility challenges best addressed on cross-examination.⁴⁰ Once the witness establishes a foundation, he

generally moves from the witness stand to a place where the factfinder can observe the demonstration. The witness’s movements must be described for the record.⁴¹

A step beyond the demonstration is the result of an out of court experiment. Imagine a prosecution for drug use in violation of Uniform Code of Military Justice, Article 112a. The defense might offer evidence of sabotage, in that some third party placed the drug in his urine sample to cause a false positive. The prosecution might wish offer testimony about an experiment showing that the Gas Chromatography/Mass Spectrometry machines used for urinalysis can distinguish biological metabolites from additives. The demonstration must be performed by an expert witness.⁴² The expert witness must have studied the underlying assertion that is the basis of the experiment upon invitation from a party, in this case any statements of what was added to the urine at what point and in what amount.⁴³ The expert must then design an experiment that substantially replicates the conditions of the hypothesis.⁴⁴ The expert must execute or supervise the experiment⁴⁵ and report its results.⁴⁶ Printouts, photographs, and recordings of the experiment may be presented if they assist the trier of fact in understanding the experiment or its results.⁴⁷

Enhancement

Photographs or recordings may require enhancement to be useful to a factfinder. Grainy video footage may be enhanced to show a license plate clearly, static-laden recordings may be electronically clarified and amplified so the dialogue may be understood, and small photographs can be enlarged for easier viewing. Enhancement that alters a picture or audio or video recording requires an expert foundation and is different from mere enlargement or amplification.⁴⁸

³⁴ *Id.* at 183.

³⁵ See Major Moran, *Prevention of Juror Ennui—Demonstrative Evidence in the Courtroom*, ARMY LAW., June 1998, at 23, 24 (giving the example of a case involving fraudulent documents; the documents can be projected on an overhead projector, and the witness can fill them out so the panel can see).

³⁶ SCHLUETER ET AL., *supra* note 3, at 184.

³⁷ *Id.*; see also MCM, *supra* note 1, MIL. R. EVID. 403.

³⁸ See MCM, *supra* note 1, MIL. R. EVID. 702; see also U.S. ARMY TRIAL JUDICIARY, RULES OF PRACTICE BEFORE ARMY COURTS-MARTIAL rules 2.1.6, 3.1 (Jan. 1, 2012).

³⁹ See MCM, *supra* note 1, MIL. R. EVID. 701.

⁴⁰ See *id.* MIL. R. EVID. 611 and 701.

⁴¹ Describing physical motions by witnesses which have evidentiary significance is the responsibility of counsel. For example, if a witness described how the accused pointed a gun at him, counsel might say “the witness extended his right arm, shoulder height, level with the ground, extending his index finger horizontally and thumb vertically, as if pointing a gun.”

⁴² SCHLUETER ET AL., *supra* note 3, at 185; see also MCM, *supra* note 1, MIL. R. EVID. 702.

⁴³ SCHLUETER ET AL., *supra* note 3, at 186.

⁴⁴ *Id.* at 186–87.

⁴⁵ *Id.* at 187.

⁴⁶ *Id.* at 187–88.

⁴⁷ *Id.* at 187–88, see also *United States v. Kaspers*, 47 M.J. 176, 178–79 (C.A.A.F. 1997).

⁴⁸ SCHLUETER ET AL., *supra* note 3, at 169.

The enhancements can include making an image lighter or darker, or making distinct parts of the image more prominent. They may thicken text, filter out graininess, improve contrast, fill in incomplete features in common subjects such as a human face, and correct common optical defects present in photography such as “red-eye.”⁴⁹ To admit an enhanced exhibit, the foundation for the unaltered exhibit must first be established.⁵⁰

Once the foundation for the underlying exhibit is established, an expert in the field of photography, sound engineering, or computer applications to these fields must be offered. The witness then describes the enhancement technology used. The witness must testify that the enhancement process has been verified as reliable by scientific methodology. The witness must further testify that the scientific research has been applied to the software that effected the enhancement in this case. The witness then testifies that he followed the proper procedure in enhancing the exhibit in issue. The witness finally identifies the trial exhibit as the one that was enhanced.⁵¹

Pure Demonstrative Evidence

The final class of exhibits is those described as “pure” demonstrative exhibits, meaning they are intended solely to assist the factfinder in understanding the evidence; they are not summaries, depictions or enhancements of the actual evidence.⁵²

Courts can permit the use of models, like three dimensional diagrams. For a visual aid to be admissible, the witness must need the aid to explain his testimony.⁵³ As with a diagram, the witness must be familiar with both the aid and the item or scene it depicts, and testify that the aid fairly depicts the scene it represents.⁵⁴

In addition to tangible models, computer models and simulations are also permitted at trial.⁵⁵ In the trial of a U.S. Marine Corps officer charged with negligent homicide when his aircraft severed a gondola cable, sending twenty people to their deaths, the defense made and displayed a computer simulation of the flight, to show that his flying was neither negligent nor reckless.⁵⁶ The accused was acquitted.⁵⁷

Similarly, in a prosecution for aggravated assault of a child under the “shaken baby syndrome” theory, the prosecution displayed a computer simulation, showing how the vigorous shaking of an infant can cause intra-cranial bleeding. The foundation for such models varies, but essentially the proponent must establish through expert testimony that a computer model was created after study of a process at issue in the case. The party must then show that the model accurately depicts that process and assists the expert in explaining it.⁵⁸

Substantive evidence is sometimes unavailable. To assist the trier of fact the party may want to use a similar item or “prop” to depict the evidence. The proponent must first show that the original evidence would have been admissible. The proponent must then show the prop is relevant. The military judge must ensure the factfinder is aware the prop is not substantive evidence.⁵⁹ The foundational requirement of relevance is an apt line of attack for “props.”⁶⁰ Parties have admitted common items, such as red plastic party cups to highlight the amount of alcohol a witness is alleged to have consumed in a given evening. An opponent may credibly argue that asking the witness to show the size of cup using his hands or to characterize its volume in ounces is sufficient to inform the panel.

⁴⁹ *Id.* at 168–69.

⁵⁰ *Id.* at 169–70.

⁵¹ *Id.* at 170.

⁵² *Id.* at 139–40.

⁵³ *Id.* at 140.

⁵⁴ *Id.*

⁵⁵ Michael J. Henke, *Admissibility of Computer Generated Animated Reconstructions and Simulations*, 35 TRIAL LAWYERS GUIDE 434 (1991), cited in SCHLUETER ET AL., *supra* note 3, at 141.

⁵⁶ *Jurors Hear the Final Witness in Pilot’s Manslaughter Trial*, DESERET NEWS, <http://www.deseretnews.com/article/683378/Jurors-hear-the-final-witness-in-pilots-manslaughter-trial.html> (Mar. 2, 1999).

⁵⁷ However, he was later convicted of conduct unbecoming an officer for destroying evidence in that case. *United States v. Ashby*, 68 M.J. 108, 112–13 (C.A.A.F. 2009).

⁵⁸ See SCHLUETER ET AL., *supra* note 3, at 142–43.

⁵⁹ *Id.* at 160.

⁶⁰ See *United States v. Pope*, 39 M.J. 328, 332 & n.1 (C.A.A.F. 2011) (holding erroneous the admission of demonstrative evidence—in that case, a bottle of green “detoxification drink”—in part on relevance grounds, and requiring “admissible underlying testimony” to establish the relevance of demonstrative evidence).

Imagine a trial where several witnesses testify at length to a timeline of events leading up to an alleged assault. Further imagine that counsel for the accused sets up a rough timeline (showing only the times, not the testimony) on an easel in the courtroom. The counsel can then place acetate overlays on the timeline for each witness's version of events. As each witness testifies, the counsel dutifully notes the times of common events on a fresh piece of acetate, creating a series of timelines. In argument the counsel lays the various timelines to establish that despite all the various descriptions of the party and assault, no witness contradicts the accused's alibi testimony. The method previews subtle inconsistencies in an opponent's case as it unfolds. It streamlines and organizes key details in lengthy or complex cases. A like method could be used to show consistency among a number of victims in describing where an alleged attacker encountered them. Something similar could be used to contrast a witness's in-court testimony with prior

inconsistent statements. In recording testimony the counsel must be scrupulously faithful to what the witness says, and not let the witness see the previously recorded testimony.

Conclusion

Show and tell is an effective way to break the monotony of preadolescent school days. It is also a proven way to break the monotony of a trial. In the end, trial advocacy requires that complex ideas be communicated quickly and clearly, and the interest of the members be focused where the advocate desires. Rich sensory language is good; exhibitions, demonstrations, and hands-on exhibits are better. A little preparation and inspiration go a long way in making you an effective advocate.