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## DEMONSTRATIVE EVIDENCE IN RAILROAD CASES FROM CHEAP TO EXPENSIVE

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### I. Introduction

Cases against railroads, whether arising from grade crossing collisions or FELA claims, are hard fought battles against well-funded, experienced, and creative adversaries. If we are to achieve success for our clients we need to insure that we are better prepared, equally funded, and that our courtroom presentations are superior. To accomplish these goals we need effective demonstrative evidence. Some are cheap, and some are awfully expensive!

We must keep in mind that most jurors learn from visual clues and the party that teaches these learners will get the verdict it seeks. “Demonstrative evidence” consists of both *real* and purely *illustrative* evidence<sup>1</sup>. Effective preparation and use of demonstrative evidence does not vary with whether it is real, or purely illustrative, on whether it is admissible or not, or how much it costs to produce. “[W]e get up to 90 percent of our knowledge from visual-sensory impressions and that these are the most memorable and lasting . . . .”<sup>2</sup> The key to successful use of demonstrative evidence is to keep in mind that its purpose is to educate the jurors about our side of the case – and that there is not necessarily a correlation between cost and effectiveness.

A photograph of a crossing gate is demonstrative evidence, and the actual crossing gate is real evidence. Both the photograph and the actual gate are usually admissible. This is not to say that all forms of demonstrative evidence are, or should be, admitted into evidence for the jury. Some forms are just that - demonstrative. The question of admissibility turns on the purpose of the demonstrative evidence and the goal of the attorney who prepares and uses it. Keep in mind that most evidence rulings, including those relating to the use of demonstrative evidence, are in the discretion of the trial

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<sup>1</sup> “‘Real’ evidence is evidence identified and authenticated as relating directly to the events in issue at trial . . . .” Demonstrative or illustrative evidence, on the other hand, is not immediately related to the events in question but instead derives its relevance from its similarity to or representative of the real evidence . . . .” PAUL S. MILICH, GEORGIA RULES OF EVIDENCE §10.1 (1995) If the technical distinction between real evidence and pure demonstrative evidence is of intellectual interest take a look at Robert D. Brain and Daniel J. Broderick, *Demonstrative Evidence, Clarifying its Role at Trial*, TRIAL, Sep. 1994 at 73

<sup>2</sup> SONYA HAMLIN, WHAT MAKES JURIES LISTEN, Chapter 8 (1993)

judge.<sup>3</sup> Except for Federal Rule of Evidence 901 (which requires authentication and identification) and Rule 611 (which grants the judge control of the mode and order of courtroom presentations) there is no rule governing the use of demonstrative evidence and exhibits in federal court.<sup>4</sup> Accordingly, before spending thousands of dollars on a piece of demonstrative evidence, if there is any doubt at all about your ability to use it, as either admitted evidence or only for illustrative purposes, a motion in limine should be filed and an appropriate order obtained.

## **II. If it illustrates more effectively than words, it is Demonstrative Evidence.**

To fail to effectively use demonstrative evidence is to abandon the needs of the majority of jurors who need this kind of visual stimulus to truly understand the facts. Demonstrative evidence clarifies, condenses, and cuts through the morass of confusing and conflicting testimony at trial, and can bind disparate elements of proof into a cohesive whole. The rubric “demonstrative evidence” is exceptionally broad, covering all the myriad techniques a lawyer may use to illustrate and clarify real evidence. “Demonstrative evidence is simply evidence that demonstrates itself by appealing to the five senses.”<sup>5</sup> Justice may be blind, but jurors are not. Successful users of demonstrative evidence will keep in mind the old Chinese proverb that states: “Tell me and I will forget, show me and I may remember, involve me and I will understand.”<sup>6</sup>

Demonstrative evidence is virtually unlimited in form (and cost!); its only limit is the creativity and imagination of the lawyer in devising ways to illustrate and expand upon real evidence. However, “[t]he creation, selection, and use of demonstrative evidence requires more than just money, staff, and technology and more than a generic approach to elements of proof.”<sup>7</sup>

## **III. Demonstrative Evidence Ideas**

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<sup>3</sup> *Hudson v. State*, 24 Ga. App. 668, 168 SE2d 912 (1933); *Christian Construction Co. v. Wood*, 104 Ga. App. 713, 123 SE2d 10 (1961). This is particularly true in the Federal Courts in which the trial court is given very broad discretion, even if his evidentiary ruling is case dispositive. *General Electric v. Joiner*, 118 S.Ct. 512 (1997), the progeny of *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993).

<sup>4</sup> Of course, some states have statutes that specifically allow the use of demonstrative aids. E.g., O.C.G.A. §9-10-183 provides that: “In the trial of any civil action, counsel for either party shall be permitted to use a blackboard and models or similar devices in connection with his argument to the jury for the purpose of illustrating his contentions with respect to the issues which are to be decided by the jury, provided that counsel shall not in writing present any argument that could not properly be made orally.”

<sup>5</sup> Stephen D. Heninger, *Cost-Effective Demonstrative Evidence*, TRIAL, Sep. 1994 at 65

<sup>6</sup> Taken from Stephen D. Heninger, *Cost-Effective Demonstrative Evidence*, TRIAL, Sep. 1994 at 65

<sup>7</sup> *Id.*

When you are planning your trial strategy, the five most important things to decide about demonstrative evidence are: (1) what parts of the case can be enhanced by visual support; (2) what kind of visual support will be most effective; (3) where in the courtroom should you display the visual support; (4) during what stage of the trial do you want the visual evidence shown; and (5) how sophisticated should the visual evidence be for this case and this jury.<sup>8</sup>

**A. Courtroom Activity (Always Free!)**

The most important form of demonstrative evidence is demonstration by the witness with his own hands and body. Rail workers in FELA cases are manual laborers who have, for their entire adult life, measured themselves by their physical abilities. These men often prefer to use their hands and bodies for communication and can blossom into real performers when they are asked to testify by way of demonstration. Having a man demonstrate the way a switch hung up, or how to lace air hoses together, is essential to the effective communication of these activities to jurors.<sup>9</sup>

We too must use our hands and bodies. For example, when asking a witness how a railroad switch works, it is far more effective to actually bend over and show the mechanics involved, while asking the questions, than it is to stand stiffly. Another example is when asking a crew member how he applied the emergency brake or changed the throttle position, it is much more effective when the simple maneuver of moving the switch is displayed to the jury, by the live witness. Body language is also a great way to ask a leading question without anyone knowing it!

When we use, hold, point to, or otherwise refer to an item of demonstrative evidence, we must keep our body language in mind. For example, when using a black board or chart, if we block the chart with our backs, or bend over showing our rear end to the jury whenever we write on it, a lot of the effectiveness of what is being done will be lost..<sup>10</sup>

**B. Real Evidence (Usually free!)**

“Real” demonstrative evidence is the actual thing involved in the case. It is almost always admissible and because it is part of the actual event, usually free. For example, if a hand tool being used by a railroad machinist breaks because of an internal defect, the tool itself is real evidence. Insuring that the jury can touch and look at the broken tool is the most effective way to show the instrumentality of harm. If the victim in a crash is a quadriplegic, then having the jury see, touch and understand the prosthetics, the wheelchair or other instruments used to assist in day to day living can greatly enhance a juror’s understanding of damages and how easy maneuvering for the jury, is difficult for the victim. However, because the defect may be small or best illustrated by way of electron microscopy, a demonstrative photograph of it can be blown-up quite large to make the defect come alive.

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<sup>8</sup> DR. JAMES RASICOT, NEW TECHNIQUES FOR WINNING JURY TRIALS 191 (1990)

<sup>9</sup> For an interesting discussion about a cowboy using a saddle in the courtroom to help him demonstrate why he is no longer able to ride horses see Nancy J. Turbak, *Accentuate the Positive*, TRIAL, Sep. 1994 at 63

<sup>10</sup> For a discussion of how and where evidence should be held in a courtroom, see DR. JAMES RASICOT, NEW TECHNIQUES FOR WINNING JURY TRIALS 193 (1990)

### **C. Photographs. (Fairly Cheap to Really Expensive!)**

Photographs are perhaps the most common form of demonstrative evidence. Photographs are too often taken for granted. This can be a critical mistake in grade crossing cases in which visibility, distances, and perspectives are essential to the understanding of the case. In highway grade crossing cases overhead aerial photographs, maps of the scene and other diagrams that depict the crash scene can be utilized to “bring life” to a witnesses’ testimony. Having a witness demonstrate where they were located in relation to the crash scene can bring the jurors into the setting. Also it can assist the jury in understanding sight distances and sight lines of witnesses.

Railroad counsel will often brag "wait to the jury sees our photographs!" confident that this evidence will carry the day in most crossing cases. However, photographic evidence is often misleading. Photographs can be both inadvertently and intentionally manipulated through the use of various focal length lenses<sup>11</sup> and readily available computer software. For example, a wide-angle lens makes items appear further apart. Similarly, a telephoto lens can shrink the perceived distances between two items. This can be critical in a grade crossing case in which sight lines are seemingly shrunk or expanded depending on the accuracy of the photographs. Computer software such as Photoshop can erase entire elements in a photograph, create and cure lighting problems, and otherwise distort reality. Similarly, for each size photograph there is a correct distance from which it should be viewed to maximize the likelihood that the photograph will actually illustrate the scene which it depicts. Manipulating photographs can be expensive but it is often essential.

In an FELA case, generic photographs of railroad activities are very helpful to illustrate common railroading tasks. Witnesses, other than the plaintiff, can go through these photographs and explain to the jury how physical the tasks are. For example, in a case involving a conductor who claims to be unable to return to work, stock photographs illustrating lining a switch, lacing air hoses, mounting a car, adjusting a drawhead, and tying a handbrake are very effective in educating the jury that railroad work is very difficult labor.

In a grade crossing case, photographs will give the jury an opportunity to see what the rail crew could see and what the motorist could see. These photographs must be carefully prepared. For example, if the motorist was in a truck, photographs taken from ground level will be more harmful than helpful. Similarly, the photographs taken to illustrate the engineer's view must be taken from the height of the locomotive. Obtain a locomotive or a tall step-ladder. Panoramic photographs are especially helpful. (Actual panoramic photographs are very expensive!)

A model or schematic diagram of the locomotive can have a big impact on a jury. Be sure that the diagram is to scale and illustrates the points that you desire to make. Be certain that the diagram will work in the courtroom that you plan on using it in. Some diagrams may be used to interact with witnesses so that the jury can understand what transpired at the scene.

Aerial photographs are also valuable in grade crossing cases as they best illustrate the surrounding roadways, neighborhoods, and the condition of the vegetation as it crowds the track and roadways. Hiring a plane is expensive but obtaining the same photographs from the county

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<sup>11</sup> See e.g., Gardner, *The Camera Goes to Court*, 24 N.C.L.Rev. 233 (1946)

development authority is usually not. A helpful source for inexpensive aerial photographs on the Internet at [www.terraser.com](http://www.terraser.com) - these are taken from space but have very good detail.

**D. Models. (Moderately Expensive to Very Expensive!)**

A model is often the single best way to illustrate a switch, locomotive, or grade crossing. Scale model locomotives, rail cars, rail yard overhead cranes, and complete railroad tracks are readily available at hobby shops. Models are essential when explaining the long hood compared to the short hood on locomotives. Obtain the largest scale models available, even though the small HO scale is the cheapest and easiest to obtain and is highly accurate. HO models are only \$20.00 or so with larger models exceeding \$100.00.

On the more expensive side, in cases involving a defective rail switch, an actual model of a rail switch is easy to obtain, costs only a few hundred dollars, and is very effective at illustrating the difficult task of trying to lift a heavy lever vertically while at the same time moving through an arc.

**E. Computer Simulations and Recreation Films. (Very Expensive to Really, Really Expensive!)**

Computer simulation is especially valuable in grade crossing cases. It can be used to illustrate the physics of the location of the train and the motorist as they approach. Sight lines can be illustrated on a real time basis. Computer simulation is also incredibly effective at changing reality. For example, if it is alleged that the railroad's failure to control vegetation caused a collision, the offending vegetation can be removed in the computer recreation to dramatic effect. Similarly, the effect of a setting sun on the visibility of a train can also be dramatically illustrated.

Recreation efforts are also effective demonstrative evidence. To insure credibility of any filmed recreation it is essential to keep the "out takes" and insure that they are available in the courtroom should the cross examiner want to see them. The jury's assumption of what the destroyed "out takes" showed is vastly more damaging than any reality. Railroads almost always simulate, or recreate, the events surrounding serious injury claims - often to devastating effect. However, the effectiveness of these efforts, which usually cannot be recreated by the plaintiffs because of the cost and the fact that the cars are no longer available, is often lost because the out takes are destroyed by the railroad.

A less expensive alternative to live action film or computer simulation is the simple story board. This is a series of drawings or photographs that are similar to a comic strip in that they show action one frame at a time. These too can be expensively drawn or created from a series of photographs that are simply mounted in chronological order. These are very effective in grade crossing cases as the times and distances and sight lines are easily illustrated.

**F. Day in the Life Films. (Fairly Expensive!)**

A day in the life film can be an extraordinary powerful tool in illustrating to the jury what a severely injured person's life is like. Again, however, care must be taken to insure that the day in the life film is accurate, that any words spoken on the film are not going to be excluded because of the inability of the opposing side to cross-examine the speaker, and that the tape does not look staged.

One way to keep the cost down is to create your own "Day in the Life" video. This can be done with a hand-held video camera. The product may or may not be admissible at trial, but it certainly is an effective tool for a settlement demand.

#### **G. Video Depositions. (Not Too Expensive!)**

Video depositions should be considered as demonstrative evidence. When taking a videotape deposition it is important to get movement into the deponent by encouraging him to look at models, diagrams, and illustrations. Having a railroad official stand up and go through the motions of operating a switch is very effective at illustrating how even these fonts of knowledge rarely use perfect "pro back" form when attempting the biomechanically challenging task. Additionally, be careful to insure that the deponent looks into the camera during direct examination and looks away from the camera during cross-examination. This can easily be accomplished by standing behind the camera during direct examination, and standing to one side during cross-examination.

#### **H. Gizmos, Gadgets, and Buckets of Pills. (Generally Cheap!)**

The list of potential exhibits to be used as demonstrative evidence, is, literally, endless. For example, someone who takes five pills a day for pain and has a life expectancy of 30 years can have this illustrated by showing a bucket of 54,750 pills graphically displaying what their future holds. A stack of hypodermic needles showing the number of shots that the person has received for pain is also effective. The sound of a train horn as heard at a grade crossing, in a car with the radio on and the windows up; body casts; rods from femurs; x-rays, oversized walkway ballast rocks; a full sized rail switch, and numerous other items can also effectively illustrate testimony.

The use of a quality flip chart is far better than a blackboard. A flip chart pad can be used throughout the trial to outline the opening, to identify terms, to list the items with which a witness agrees with your witness, or to summarize important testimony. Do not rely on the court or the opponent for a flip chart. Purchase a good one and insure that is its sturdy.

A simple blowup of actual and summarized testimony is also effective - it can be written on a flip chart pad or a more expensive enlargement process can be used. If enlargement of deposition testimony is used, retype the pages in a good font which is bold and without serifs. Be accurate, using page and line cites to give the blowup credibility and when a quote is used put the language in quotation marks.

In railroad cases, the railroad rule books are a ready source for blow ups. Similarly, state statutes that require the engineer to blow the horn and keep a look out ahead should also be blown up.

Jury charges should often be blown up and word pictures to illustrate important words should be considered. A pictograph of a scale of justice or the comparison of definitions of words should also be used when possible. For example, using a graph to illustrate the word "unnecessary danger" in the Locomotive Inspection Act to compare it to reasonable danger and unreasonable danger goes a long way in illustrating just how safe locomotive have to be.

Purchase or rent good equipment. Obtain a good TV/VCR combination. Buy an overhead projector. Get an enlargement machine. Consider a LCD projector and the DOAR wireless communicator or an ELMO unit. Be creative. But, most importantly, know how and when to use the

equipment and be comfortable in doing so. Practice, Practice, Practice! Plan on the unexpected. Be sure that you have spare bulbs, extension cords, etc.

### **I. Technical Issues**

Merely having an item of demonstrative evidence created is not enough. We need to know the proper color scheme, the proper timing, and proper display technique. For example, know that about 23% of adults have some degree of red/green color blindness. Thus, if we create an exhibit with hues that cannot be distinguished by one fourth of our jurors we have not accomplished our goal of educating these jurors. The most readable color combination is black on white. Similarly, the most visible color combination is black on yellow. However, if we use this color combination for everything, like the boy who cried wolf, the important points will be diminished in value.

## **IV. How to Use Demonstrative Evidence.**

Even the best demonstrative evidence is worthless if it isn't used at all or isn't used properly. "Three universal pitfalls of demonstrative evidence are (1) overuse, (2) failure to deliver the message, and (3) poor presentation."<sup>12</sup> These pitfalls can be avoided with forethought and practice. The choice of when to use demonstrative evidence is also important. "Demonstrative evidence is generally best presented as soon as possible during the first part of the trial. It can then be referred to during the entire case-in-chief and used as a refresher during closing argument."<sup>13</sup>

In using demonstrative evidence that the media does not overpower the message. "The most important single mistake lawyers make and the one they make most often, is to overload visual aids with too much information all at once. When you do that, anarchy reigns supreme."<sup>14</sup> Whenever a chart, model, or photograph is displayed a certain number of jurors will immediately take a moment to analyze what they see before listening to the witness explain what the exhibit means. If there is too much shown all at once, the jurors might not get back to the explanation and will only be confused instead of enlightened.

The most important rule when using demonstrative evidence is practice, practice, practice. "You've watched people do it, and it seems simple, but it *is* a minor skill and requires a little work to get smooth and comfortable. This is particularly true when using a model, when conducting a demonstration or experiment, and when using a high tech piece of equipment. Working models must work. Experiments must show the desired result. And high tech equipment like video presenters, and even VCRs, must operate properly to avoid distracting the jury and harming the credibility of the advocate. When using a flip chart, the biggest mistake is getting in the way as you write or point. The other problem is to write or print in a straight line, especially down at the bottom."<sup>15</sup> Use a straight edge when writing on easels. Use a laser pointer when referring to photographs and blowups.

### **A. Know the Logistics.**

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<sup>12</sup> Gary Christy, *A Storybook Approach*, TRIAL, Sep. 1994 at 70

<sup>13</sup> DR. JAMES RASICOT, NEW TECHNIQUES FOR WINNING JURY TRIALS 193 (1990)

<sup>14</sup> SONYA HAMLIN, WHAT MAKES JURIES LISTEN, 395 (1993)

<sup>15</sup> SONYA HAMLIN, WHAT MAKES JURIES LISTEN, 399 (1993)

Every courtroom is different. Exhibits must be made with these differences in mind. Regardless of the size of the courtroom, exhibits must be transported to the courtroom. Know what size will fit in your car. Be familiar with the courtroom. If the exhibit will not fit in the courtroom it will not have much value. Think about staging. After all, the purpose of demonstrative evidence is to educate the jurors. There is no educational value of an exhibit if no one can see it or if it blocks the view of the witness who is describing it. Be familiar with the trial judge. There is nothing more frustrating than having a judge who will not let you use an exhibit that you have planned to use.

For all demonstrative evidence, you should research the relevant evidence rule. Make a note and have case citations or a short bench brief to support the admissibility of the demonstrative exhibit.

We should never count on the courthouse having a video player and television on which our video will be played. As sure as daylight, the prosecutor will be using the courthouse TV to show a porno tape in a criminal trial at the exact moment when you need it. Get the biggest TV, preferably with a built-in video player, that will fit in your car and take it to trial.

Never use the courthouse flip chart. You can't take it home at night. You can't control it. It might be flimsy and hard to use. Instead, obtain a quality easel with a hard surface behind the entire flip chart writing area.

Take markers, a pointer, and anything else, including multiple easels on which to display exhibits. A few hundred dollars spent for the proper trial arsenal will go a long way in making the case try more seamlessly.

## **V. Conclusion**

Using visual aids during a trial is not risk free. You could overuse them, use something that your adversary turns against you, fumble with machines that do not work, use models that break as you are using them, and many other pitfalls. These are some of the reasons why visual aids must be carefully thought out and effectively produced. If your planning eliminates the negative aspects of the visual aid, the overall effectiveness of using visual aids can be tremendous.<sup>16</sup>

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<sup>16</sup> DR. JAMES RASICOT, NEW TECHNIQUES FOR WINNING JURY TRIALS 197 (1990)