

**TO BE PUBLISHED
IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
CENTRAL DIVISION**

JAY W. LANGENBAU, Administrator of
the Estate of Shelly R. Lair-Langenbau, et
al.,

Plaintiffs,

vs.

MED-TRANS CORPORATION,

Defendant.

No. C13-3038-LTS

**MEMORANDUM OPINION AND
ORDER REGARDING THE
PARTIES' EVIDENTIARY
MOTIONS**

TABLE OF CONTENTS

I.	INTRODUCTION.....	3
A.	<i>Factual Background</i>	3
B.	<i>Procedural Background</i>	4
II.	LEGAL ANALYSIS	6
A.	<i>The Motion To View The Helicopter Wreckage</i>	6
1.	<i>Arguments of the parties</i>.....	6
2.	<i>Applicable standards</i>.....	7
3.	<i>Analysis</i>	11
B.	<i>The Challenges To Expert Testimony</i>.....	12
1.	<i>Common grounds for resolution</i>	13
a.	<i>Applicable standards</i>	13
b.	<i>Analysis</i>	16
2.	<i>Specific exceptions</i>	18
a.	<i>Testimony on the value of a statistical life</i>	18
i.	<i>Arguments of the parties</i>	18
ii.	<i>Analysis</i>.....	19
b.	<i>Testimony from Rodney Doss</i>.....	23
i.	<i>Arguments of the parties</i>	23
ii.	<i>Analysis</i>.....	24
c.	<i>Expert testimony on “conscious business decisions”</i>	26

i.	<i>Arguments of the parties</i>	26
ii.	<i>Analysis</i>	27
d.	<i>Coffman’s testimony on maintenance practices and violations</i>	28
i.	<i>Arguments of the parties</i>	28
ii.	<i>Analysis</i>	28
e.	<i>Sommer’s testimony that regulations were violated</i>	30
i.	<i>Arguments of the parties</i>	30
ii.	<i>Analysis</i>	31
C.	<i>The Challenge To Non-Expert Testimony</i>	32
1.	<i>Arguments of the parties</i>	32
2.	<i>Analysis</i>	33
III.	<i>CONCLUSION</i>	36

On January 2, 2013, an air ambulance helicopter crashed in central Iowa just minutes after takeoff. At the time of the crash, weather forecasts for the area included a potential for icing conditions, in which the helicopter was not certified to fly. All three members of the helicopter crew—a pilot, a nurse, and a paramedic—were killed in the crash. The survivors of the nurse have brought this case, involving negligence claims, against the owner and operator of the air ambulance service. This case, which was reassigned to me on March 1, 2016, is now before me on various evidentiary motions for purposes of pending motions for partial summary judgment¹ and a jury trial, set to begin on June 6, 2016. Somewhat more specifically, the plaintiffs have requested that the jury be allowed to view the wreckage of the helicopter, and both the plaintiffs and the defendant have filed motions challenging certain testimony of experts and other witnesses.

¹ I will address the motions for partial summary judgment in a separate ruling.

I. INTRODUCTION

A. Factual Background

This statement of facts is not intended to encompass all of the parties' factual allegations in support of and resistance to their motions for partial summary judgment. Rather, it is intended to state only sufficient facts about the circumstances giving rise to this lawsuit to put in context the parties' evidentiary disputes.

On January 2, 2013, plaintiffs' decedent, Shelly Lair-Langenbau, was a nurse on an air ambulance helicopter crew stationed at Mercy Medical Center in Mason City, Iowa (Mercy). The pilot of the helicopter was Gene Grell, and the third member of the crew was a paramedic. The helicopter was owned and operated by defendant Med-Trans Corporation. Med-Trans operates a national air ambulance service, which utilizes helicopters stationed at various bases throughout the country. Med-Trans has various communications centers, staffed by communications specialists—not pilots or other aviation specialists—to receive requests for service and direct them to the appropriate bases.

On the evening in question, the Med-Trans communications center in Lubbock, Texas, received a request for air ambulance service from Palo Alto County Hospital, in Emmetsburg, Iowa. The communications center passed the request to the helicopter crew at Mercy. Grell, as the pilot, was charged under applicable Federal Aviation Regulations (FARs), including FAR § 135.617(c), *published at* 14 C.F.R. § 135.617(c), with conducting a preflight risk analysis and preflight risk analysis worksheets before accepting the request for service. Grell had received training from Med-Trans on the FARs and preflight risk assessment, including weather-related assessments, such as consideration of potential icing conditions.

The parties agree that there was a potential for icing conditions in the area at the time of the request for service; that Grell was, or should have been, aware of the weather conditions; that Grell was required to analyze that information and conduct a risk assessment before agreeing to accept the flight; and that the Bell Model 407 helicopter

that the crew would be flying was certified only for operation in “non-icing conditions.” Nevertheless, Grell made the decision to accept the flight. The helicopter took off from Mercy at 8:49 p.m., for its intended destination of Palo Alto County Hospital. Unfortunately, at approximately 8:57 p.m. the helicopter crashed near Clear Lake, Iowa, killing all three occupants.

B. Procedural Background

Plaintiffs Jay W. Langenbau, Shelly R. Lair-Langenbau’s husband, individually and as the administrator of her estate, Shelly’s two minor children, through Jay Langenbau as their father and next friend, and Shelly’s parents, Gerald R. Lair and Karen Lair, filed this action against defendant Med-Trans in the Iowa District Court for Cerro Gordo County on July 22, 2013. *See* Doc. No. 5. Med-Trans then removed this action to this federal court on August 6, 2013, on the basis of diversity of citizenship and sufficient amount in controversy, pursuant to 28 U.S.C. § 1332 and 28 U.S.C. § 1441(a). *See* Doc. No. 4. Med-Trans filed an answer (Doc. No. 10) on August 19, 2013.

On January 11, 2016, the plaintiffs filed their first amended complaint (Doc. No. 48). In that pleading, the plaintiffs assert the following claims: in Count I, a claim against Med-Trans for vicarious liability for Grell’s negligent failure to use ordinary care in piloting the helicopter; in Count II, a negligence claim against Med-Trans for failure to use ordinary care in providing proper and safe aircraft services and failure to maintain safe and proper flight mission safety policies; and in Count III, a claim for negligent and reckless conduct of Med-Trans in causing or authorizing the operation of the helicopter in a negligent, careless, or reckless manner. The plaintiffs seek compensatory and punitive damages, costs, and such other further relief as the court deems just and proper on each of their claims. Med-Trans filed its answer (Doc. No. 51) to the first amended complaint on January 25, 2016, denying the plaintiffs’ claims and asserting various affirmative defenses.

On January 15, 2016, Med-Trans filed a motion (Doc. No. 49) for partial summary judgment in which it seeks summary judgment on the plaintiffs' claim for punitive damages. On February 8, 2016, the plaintiffs filed their own motion (Doc. No. 68) for partial summary judgment as to comparative negligence of plaintiffs' deceased. In between the filing of the motions for partial summary judgment, the parties filed several evidentiary motions, which I will address in this ruling.

Med-Trans's motions now before me are the following: (1) its January 22, 2016, motion (Doc. No. 50) to exclude in part the testimony of John Ward; (2) its January 26, 2016, motion (Doc. No. 53) to exclude the testimony of Rodney Doss; (3) its January 27, 2016, motion (Doc. No. 54) to exclude in part the testimony of Arthur "Lee" Coffman; (4) its February 2, 2016, motion (Doc. No. 55) to exclude in part the testimony of Don Sommer; and (5) its February 8, 2016, motion (Doc. No. 63) to exclude in part the testimony of William Lawrence. The plaintiffs' motions now before me are the following: (1) their January 26, 2016, motion (Doc. No. 52) for jury view of subject helicopter wreckage; (2) their February 8, 2016, motion (Doc. No. 64) to strike the declaration and opinions of Brian Foster (which pertains to a declaration that Med-Trans has offered in support of its motion for partial summary judgment); and (3) their February 8, 2016, motion (Doc. No. 65) to exclude any and all opinions from defendant's expert, Michael C. Hurst, as to spatial disorientation. The parties have filed responses and replies to these evidentiary motions.

To the extent that the parties have requested hearings or oral arguments on their evidentiary motions, I find that none are necessary. Therefore, the motions in question are deemed fully submitted on the parties' written submissions.

II. LEGAL ANALYSIS

A. The Motion To View The Helicopter Wreckage

The plaintiffs explain that the wreckage of the air ambulance helicopter is presently stored at the Wentworth Hangar at the LVN Airport in Lakeville, Minnesota. They also explain that they are seeking permission for a jury view now, months in advance of trial, so that the necessary and appropriate arrangements can be made for transportation and delivery of the wreckage. The plaintiffs represent that the helicopter wreckage will not fit within the courtroom, so it will have to be viewed by the jurors at some other location, but the plaintiffs have not suggested what that location might be. Rather, they state that, if permitted, they will make arrangements for the helicopter wreckage to be viewed under procedures and at a specific date and time—and, presumably, place—approved by the court.

1. Arguments of the parties

The plaintiffs argue that a federal court has the inherent power to permit a jury to view places or objects outside of the courtroom. They argue that there is no better evidence of the nature and extent of the crash, the dynamics of impact, and the physical trauma suffered to the occupants than the helicopter wreckage itself and that photos and descriptions are a distant second. They argue that the facts that the wreckage will not fit in the courtroom and that a view of the wreckage tends to prove facts in question more conclusively than other evidence are not valid objections to permitting the jurors to view the wreckage.

In response, Med-Trans argues that the plaintiffs have failed to meet their burden to show that viewing the helicopter wreckage will aid the jury in resolving any disputed issues of fact in this case or provide anything of greater evidentiary value than the evidence that can be presented in the courtroom. Indeed, they contend that the plaintiffs have not even identified or substantiated any factual issue, theory, or other dispute that

viewing the wreckage might resolve, where there is no dispute among the parties, their experts, or the National Transportation Safety Board (NTSB) that maintenance and mechanical issues did not cause this crash. Med-Trans argues that, consequently, the disputed areas of fact in this case involve piloting and procedures, on which a view of the wreckage has slight, if any, relevance, and certainly no more probative value than the expert testimony and other evidence that can be presented in the courtroom. Med-Trans argues that, under these circumstances, viewing the wreckage is unduly expensive, burdensome, time-consuming, and inconvenient.

2. *Applicable standards*

As the Eighth Circuit Court of Appeals explained, in a criminal case:

“The trial court’s decision to allow or disallow a jury viewing of an alleged crime scene [and objects outside the courtroom] is highly discretionary.” *United States v. Triplett*, 195 F.3d 990, 999 (8th Cir.1999) (affirming a district court’s discretionary denial of a request to allow the jury to view the crime scene, where the jury observed photographs, diagrams, and witness testimony describing the crime scene). A district court does “not abuse its discretion in denying [a] view request,” when a jury view would be “time-consuming and cumulative of photographic evidence and the testimony” presented at trial. *United States v. Johnson*, 767 F.2d 1259, 1273 (8th Cir.1985). *See also United States v. Henderson*, 86 Fed. Appx. 213, 214 (8th Cir.2003) (unpublished per curiam) (“Given the introduction of the photographs of the [vehicle’s] interior, the jury did not need to view the [vehicle] itself.”).

United States v. Scroggins, 648 F.3d 873, 874-75 (8th Cir. 2011). In *Scroggins*, the appellate court affirmed the district court’s conclusion that a jury view of the car where a firearm was hidden would be unnecessarily time-consuming and cumulative of the other evidence presented at trial. *Id.* at 875. That other evidence included detailed testimony of the officer about the place where he found the firearm, testimony of automotive technicians about the dimensions of the space in the car where the firearm was found,

and photographs and detailed diagrams of that space. *Id.*; accord *United States v. Johnson*, 767 F.2d 1259, 1273 (8th Cir. 1985) (also affirming the district court’s denial of a request that the jury view the vehicle, because it would have been time-consuming and cumulative of photographic evidence and testimony); *United States v. Henderson*, 86 F. App’x 213, 214 (8th Cir. 2003) (same).

A half century ago, the Eighth Circuit applied essentially the same standard—and reached the same negative conclusion about a request to view an aircraft—in a civil case:

View and Inspection by Jury: Finally the defendant submits that the court erred in refusing its request the court and jury be taken to the Flying Cloud Airport to view an aircraft of each type involved. It wanted the court and jury to sit in the pilot’s seat to determine from this position the visibility from the respective aircraft. The trial court felt that nothing could be gained by a view and inspection. Indeed, the evidence sought by this excursion was adduced by testimony of two witnesses. The inspection would have had only a cumulative effect and served no additional purpose. The rule is well settled that such a request is within the trial judge’s discretion. *American Glycerin Co. v. Eason Oil Co.*, 98 F.2d 479 (10th Cir. 1938), *cert. denied* 305 U.S. 640, 59 S.Ct. 107, 83 L.Ed. 413 (1938), *rehearing denied* 305 U.S. 672, 59 S.Ct. 153, 83 L.Ed. 435 (1938). There is no showing of abuse of discretion on the part of the trial court in refusing the view and inspection.

Skyway Aviation Corp. v. Minneapolis, N. & S. Ry. Co., 326 F.2d 701, 708 (8th Cir. 1964). Other federal circuit courts of appeals and district courts have applied similar standards, apparently more often to deny motions for a jury view than to grant them, as shown by several decisions, including some cited by the plaintiffs.²

² See, e.g., *United States v. Bernal*, 533 F. App’x 795, 795-96 (9th Cir. 2013) (concluding, in a criminal case, that the district court did not abuse its discretion when it considered and rejected a view of damaged pictographs in a state park, because it was

In addition to—or, perhaps, as a refinement of—the factors considered by these courts, I conclude that my discretion in this matter can also be informed by the Federal Rules of Evidence concerning relevance versus prejudice. Rule 401 of the Federal Rules of Evidence defines relevant evidence as evidence that “(a) . . . has any tendency to make a fact more or less probable than it would be without the evidence; and (b) the fact is of consequence in determining the action.” Rule 402 provides that relevant evidence is generally admissible, but irrelevant evidence is not. Rule 403 provides for exclusion of even relevant evidence on various grounds, as follows:

The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the

“logistically difficult”); *Trueman v. City of Upper Chichester*, 289 F. App’x 529, 535 (3d Cir. 2008) (concluding, in a § 1983 action, that the district court did not abuse its discretion when it denied a view of the site of a traffic stop, because it would be “highly out of the ordinary,” and photographs and diagrams submitted into evidence were sufficient); *United States v. Pettiford*, 962 F.2d 74, 76 (1st Cir. 1992) (finding “no possible abuse of discretion by the district court in denying the view” of the pizza shop where the defendant was arrested, because the defendant had “never made any showing of need to support the motion before or during trial,” and the view of the premises “would not have ‘presented any clearer view of the evidence than was achieved through the use of photographs’ at trial”); *United States v. Passos-Paternina*, 918 F.2d 979, 986 (1st Cir. 1990) (concluding that the district court’s decision denying a jury view of the vessel where the defendants were found in proximity to a ton of cocaine was “well within the sound discretion of the district court,” because of the “dangerousness and the availability of sufficient testimonial evidence about the vessel”); *United States v. Gallagher*, 620 F.2d 797, 801 (10th Cir. 1980) (affirming, in a criminal case, that the district court did not abuse its discretion when it denied a request to view the truck in which the defendant had escaped from the penitentiary, because photographs and testimony were sufficient, and his request was also late and not supported by a subpoena *duces tecum*); *American Nat’l Bank & Trust Co. v. Aetna Ins. Co.*, 447 F.2d 680, 686 (7th Cir. 1971) (concluding, in a civil case concerning insurance coverage, that the district court did not abuse its discretion in denying a request to view a collapsed building, because diagrams and photographs were sufficient); *In re M/V Mielke Wave*, No. 10–13519, 2011 WL 4063274, *1 (E.D. Mich. Sept. 13, 2011) (citing the Eighth Circuit decision in *Skyway Aviation Corp.* in support of its conclusion that a view of a lake where two boats collided was not necessary to understand the lightning conditions on the lake, as they could be deduced from the evidence presented at trial, and the movant had failed to set forth how visiting the scene after the accident would provide an accurate depiction of the lightning on the lake at the time of the accident).

issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.

FED. R. EVID. 403. The Eighth Circuit “give[s] great deference to the district court’s Rule 403 determinations.” *United States v. Battle*, 774 F.3d 504, 514 (8th Cir. 2014); *United States v. Muhlenbruch*, 634 F.3d 987, 1001 (8th Cir. 2011) (“We review the district court’s decision not to exclude evidence under Rule 403 for an abuse of discretion.”); *United States v. Myers*, 503 F.3d 676, 681 (8th Cir. 2007) (“Under Rule 403, district courts have broad discretion to assess unfair prejudice, and are reversed only for an abuse of discretion.” (citing *United States v. Henderson*, 416 F.3d 686, 693 (8th Cir. 2005), *cert. denied*, 546 U.S. 1175 (2006))).

More specifically, as to Rule 403 “prejudice,” the Eighth Circuit has explained:

[U]nder Rule 403, the [challenged evidence’s] probative value must be *substantially* outweighed by *unfair* prejudice. “Evidence is not unfairly prejudicial because it tends to prove guilt, but because it tends to encourage the jury to find guilt from improper reasoning. Whether there was unfair prejudice depends on whether there was an undue tendency to suggest decision on an improper basis.” *United States v. Farrington*, 499 F.3d 854, 859 (8th Cir. 2007) (quotations omitted).

Muhlenbruch, 634 F.3d at 1001 (emphasis in the original); *Myers*, 503 F.3d at 681 (“Rule 403 ‘does not offer protection against evidence that is merely prejudicial in the sense of being detrimental to a party’s case. The rule protects against evidence that is unfairly prejudicial, that is, if it tends to suggest decision on an improper basis.’” (quoting *Wade v. Haynes*, 663 F.2d 778, 783 (8th Cir. 1981), *aff’d sub nom. Smith v. Wade*, 461 U.S. 30 (1983))). The Advisory Committee Notes to Rule 403 explain that a decision on an “improper basis” is “commonly, though not necessarily, an emotional one.” FED. R. EVID. 403, Advisory Committee Notes; *see also United States v. Bell*, 761 F.3d 900, 912 (8th Cir. 2014) (same). Unfairly prejudicial evidence, inviting a decision on an improper basis, includes evidence that is “‘so inflammatory on [its] face as to divert the jury’s attention from the material issues in the trial.’” *United States v. Adams*, 401 F.3d

886, 900 (8th Cir. 2005) (quoting *United States v. Shoffner*, 71 F.3d 1429, 1433 (8th Cir. 1995)); accord *United States v. Young*, 753 F.3d 757, 768-69 (8th Cir. 2014) (“[T]he district court violated Federal Rule of Evidence 403 because the testimony was so inflammatory that its resulting unfair prejudice outweighed its probative value.”).

3. *Analysis*

Here, while I clearly have the discretion to allow a jury view of the wreckage of the air ambulance helicopter, I conclude, first, that such a view has only slight probative value. *See* FED. R. EVID. 401. As Med-Trans points out, the plaintiffs have explained only in vague terms the supposed relevance and probative value of a view of the helicopter wreckage, pointing to “the nature and extent of the crash, the dynamics of impact, and the physical trauma suffered to the occupants.” More problematic, still, the plaintiffs have not demonstrated that “the nature and extent of the crash, the dynamics of impact, and the physical trauma suffered by the occupants” of the helicopter are actually relevant in this case. This is so, because there appears to be no dispute that the crash was not caused by maintenance or mechanical failures, so that it is not clear what disputed issue “the nature and extent of the crash [and] the dynamics of impact” would tend to prove. *See* FED. R. EVID. 401 (defining relevant evidence as evidence tending to prove a fact). Similarly, it appears that the occupants died immediately upon impact as a result of the crash, so that it is not clear what disputed issue the occupants’ “physical trauma” would tend to prove, even if a view of the wreckage might tend to prove their “physical trauma.” *See id.*

In any event, whatever probative value a view of the wreckage might have is vastly outweighed by the potential waste of time, confusion of the issues, misleading the jury, delay, logistical difficulties, and the needless presentation of cumulative evidence, which are pertinent factors under both Rule 403 and case law standards specifically pertaining to a jury view. *See* FED. R. EVID. 403; *Scroggins*, 648 F.3d at 874-75; *Skyway Aviation Corp.*, 326 F.2d at 708. Where the plaintiffs have identified only vaguely the issues on

which a view of the wreckage might be probative, the jurors would likely be confused or misled about the purpose of viewing the wreckage and would likely give undue weight to evidence involving so much time, logistical difficulties, and travel outside of the courtroom. Indeed, the plaintiffs have not demonstrated why evidence that can be presented in the courtroom, including expert testimony and photographs, some of which are already in the record, will not be more than sufficient to resolve the issues that they claim a view of the wreckage will help resolve, if those issues are relevant. *Scroggins*, 648 F.3d at 874-75; *Skyway Aviation Corp.*, 326 F.2d at 708. There is also serious potential for Rule 403 “prejudice” from such a view, as viewing wreckage—particularly when it otherwise has, at best, slight evidentiary value—might encourage a damages award on the improper basis of an emotional response. FED. R. EVID. 403 and Advisory Committee Notes; *Bell*, 761 F.3d at 912; *Muhlenbruch*, 634 F.3d at 1001; *Adams*, 401 F.3d at 900. Indeed, I have concerns that this is the true purpose of the request for a view of the helicopter wreckage, here, in light of the poor demonstration of the probative value of such a view to any matter actually in dispute and relevant to disposition of the plaintiffs’ claims.

The plaintiffs’ January 26, 2016, motion (Doc. No. 52) for jury view of subject helicopter wreckage is denied.

B. The Challenges To Expert Testimony

Most of the remaining evidentiary motions pertain to the testimony of experts. Med Trans seeks to exclude part of the testimony of John Ward, the plaintiffs’ expert on wrongful death economic loss; all of the testimony of Rodney Doss, the plaintiffs’ expert on Med-Trans’s compliance with regulatory requirements; part of the testimony of Arthur “Lee” Coffman, the plaintiffs’ expert on the cause of the helicopter crash; part of the testimony of Don Sommer, the plaintiffs’ second expert on the cause of the crash; and part of the testimony of William Lawrence, the plaintiffs’ expert on piloting issues and the conduct of Med-Trans. The plaintiffs seek to exclude part of the testimony of Michael

Hurst, Med-Trans’s expert on company and pilot responsibilities and actions and the likely cause and contributing causes of the helicopter crash. *With exceptions specifically addressed below*, I do not find it necessary to consider each of these motions separately, because I believe that they can be properly resolved, in large part and as a group, by application of the appropriate standards under the Federal Rules of Evidence and *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993).

1. Common grounds for resolution

a. Applicable standards

As the Supreme Court has explained, Rule 702 of the Federal Rules of Evidence governs the admission of expert testimony and requires the district court to serve as a gatekeeper to “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Daubert*, 509 U.S. at 589. More specifically, Rule 702 of the Federal Rules of Evidence provides as follows:

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

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

FED. R. EVID. 702 (emphasis added).

The Eighth Circuit has stated that the standard for what expert testimony is relevant and helpful under Rule 702 is “low,” that is, that the expert’s evidence should be admitted if it has any tendency to make a fact of consequence more or less probable. *United States*

v. Holmes, 751 F.3d 846, 851 (8th Cir. 2014) (citing FED. R. EVID. 401). Nevertheless, the court has reiterated that “[w]here the subject matter is within the knowledge or experience of lay people, expert testimony is superfluous.” *United States v. Coutentos*, 651 F.3d 809, 821 (8th Cir. 2011) (quoting *Ellis v. Miller Oil Purchasing Co.*, 738 F.2d 269, 270 (8th Cir. 1984) (*per curiam*)). In short, to satisfy the relevance requirement of Rule 702 and *Daubert*, “the proponent must show that the expert’s reasoning or methodology was applied properly to the facts at issue.” *Smith v. Bubak*, 643 F.3d 1137, 1138 (8th Cir. 2011) (quoting *Barrett v. Rhodia, Inc.*, 606 F.3d 975, 980 (8th Cir. 2010)). Thus, for example, expert testimony is relevant where such testimony is required to establish an element of a claim. *See, e.g., Barrett*, 606 F.3d at 981 (concluding that a plaintiff in a toxic tort strict liability case is required to establish causation through expert testimony).

Under *Daubert*, I have a duty to perform a “gatekeeper” function, under Rule 702 of the Federal Rules of Evidence, so that only expert testimony that is relevant and reliable is admitted. 509 U.S. at 589. More specifically:

The objective of the *Daubert* inquiry “is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152, 119 S.Ct. 1167, 143 L.Ed.2d 238 (1999). [T]his is a flexible, case-specific inquiry. “The trial court ha[s] to decide whether this particular expert had sufficient specialized knowledge to assist the jurors in deciding the particular issues in the case.” *Id.* at 156, 119 S.Ct. 1167 (quotation omitted); *see* Fed. R. Evid. 702 and Advisory Committee Notes.

American Auto. Ins. Co. v. Omega Flex, Inc., 783 F.3d 720, 722-23 (8th Cir. 2015). This “gatekeeper” function requires me to “make a ‘preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.’”

Kudabeck v. Kroger Co., 338 F.3d 856, 860 (8th Cir. 2003) (quoting *Daubert*, 509 U.S. at 592-93).

I must also take into account Federal Rule of Evidence 704, concerning the scope of expert opinions. As the Eighth Circuit has explained:

Rule 704(a) provides that expert evidence is not inadmissible because it embraces an ultimate issue to be decided by the jury. If the subject matter is within the jury's knowledge or experience, however, the expert testimony remains subject to exclusion "because the testimony does not then meet the helpfulness criterion of Rule 702." [*United States v. Arenal*, 768 F.2d [263,] 269 [(8th Cir. 1985)]. Opinions that "merely tell the jury what result to reach" are not admissible. Fed.R.Evid. 704 advisory committee's note.

Lee v. Andersen, 616 F.3d 803, 808–09 (8th Cir. 2010); *United States v. Whitted*, 11 F.3d 782, 785 (8th Cir. 1993) (noting that, although Rule 704(a) allows expert testimony that "embraces an ultimate issue to be decided by the trier of fact," it does not allow "[o]pinions that are 'phrased in terms of inadequately explored legal criteria' or that 'merely tell the jury what result to reach'" (quoting FED. R. EVID. 704, Advisory Committee Note)). Thus, to the extent that an expert lays a proper foundation by demonstrating an adequate basis for an opinion, even an opinion about an ultimate issue, then such an opinion may be admissible at trial.

Finally, the Eighth Circuit has observed that expert evidence, even if relevant, is subject to exclusion if its potential for prejudice substantially outweighs its probative value. *Holmes*, 751 F.3d at 851; *see also* FED. R. EVID. 403 (relevant evidence may be excluded if its probative value is substantially outweighed by its potential for prejudice); *Coutentos*, 651 F.3d at 821 (considering whether the district court had properly excluded expert evidence under Rule 403, after affirming exclusion of the expert's evidence as irrelevant under Rule 702).

b. Analysis

In this case, my “preliminary assessment,” from my review of the submissions in support of and resistance to the motions to exclude the opinions of certain experts, is that—*with exceptions expressly discussed, below*—the reasoning and methodology underlying the challenged opinions are scientifically valid and that the experts’ reasoning and methodology can be applied to the facts in issue. *See Daubert*, 509 U.S. at 592-93 (first step in the court’s “gatekeeper” function under Rule 702); *Kudabeck*, 338 F.3d at 860 (explaining that the “gatekeeper function” involves this “preliminary assessment”). Although the parties are clearly unhappy with the challenged opinions of opposing experts, and have cloaked that unhappiness in challenges to “factual basis” and “reasoning and methodology,” I find that—*again, with the exceptions expressly discussed, below*—the proponents have shown that these experts’ qualifications are adequate to state the opinions in question and that their reasoning and methodology are appropriate and apply proper scientific principles. Moreover, I find that the challenged opinions have an adequate factual basis, including the sources of data that the parties have identified, such that submission of these experts’ opinions to a jury is warranted.

I am also convinced that the proposed expert testimony is relevant and will aid the trier of fact. *Daubert*, 509 U.S. at 592 (second step in the analysis); *Kudabeck*, 338 F.3d at 860 (same). These experts’ testimony will provide information beyond the common knowledge of the trier of fact, for example, regarding operation of an air ambulance helicopter service and piloting of a helicopter in various weather conditions. *See id.* at 591 (explaining that expert testimony assists the trier of fact when it provides information beyond the common knowledge of the trier of fact). Indeed, I find that the parties’ challenges to these experts’ opinions on various grounds are often based on portions of reports or deposition testimony taken out of context and/or on willful misunderstanding or misrepresentation of these experts’ opinions.

Ultimately, *and with the exceptions expressly discussed, below*, I believe that to exclude these experts' challenged opinions from this case would "invade the province of the jury, whose job it is to decide issues of credibility and to determine the weight that should be accorded evidence." *United States v. Vesey*, 338 F.3d 913, 916-17 (8th Cir. 2003). This is a case in which "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof" are not only "traditional," but "appropriate means of attacking shaky but admissible [expert] evidence." *Daubert*, 509 U.S. at 596; *Vesey*, 338 F.3d at 917. Indeed, some of the purported "*Daubert* grounds" upon which the parties challenge the opinions of these experts may be effective grounds for impeaching those opinions, but they are not sufficient to exclude those opinions entirely. If I am convinced at trial that any specific opinions of these experts stray beyond their areas of expertise, are unduly speculative, are unduly duplicative, or are otherwise deficient, those opinions can be barred or stricken and the jurors instructed accordingly.³

³ The only "close call" that I have found among the subjects of expert testimony that the parties challenge is Lawrence's opinions about the need for civil air ambulance companies to consider "operational necessity" in determining whether or not to take a flight. Med-Trans argues that Lawrence defined "operational necessity" in terms of determining whether the flight was "routine, mandatory, emergency, priority, whether there's any rationale for having a flight" based on the patient's condition, but that this is a military medevac standard, not one applicable to or used by civil air ambulance services. Indeed, Med-Trans argues such a standard would be contrary to FAA Advisory Circular No. 135-14B, appended to the pertinent motion as Exhibit D (Doc. No. 63-5). I am not entirely convinced by the plaintiffs' argument that Lawrence does not advocate considering the condition of the patient at the expense of safety, but opines only that air ambulance companies should consider the necessity of air transport when it fails to improve mortality, saves little time, and costs many times more than ground transportation. Nevertheless, I am convinced that Lawrence is qualified to offer such testimony, that it is reliable and likely to be helpful to the jury, and reasonably connected to the issues presented in this case. *See Daubert*, 509 U.S. at 592-93; FED. R. EVID. 702. Moreover, I believe that the basis for Med-Trans's challenges to this testimony may be based upon taking deposition testimony out of context and/or on misunderstanding or misrepresenting testimony, perhaps innocently. Ultimately, I conclude that these opinions are an example of the situation in which purported "*Daubert* grounds" upon which Med-Trans challenges the opinions may be effective grounds for impeaching those opinions, but they are not sufficient to exclude those opinions entirely.

Thus, with the specific exceptions discussed in the next subsection, the parties' motions challenging expert testimony are denied.

2. *Specific exceptions*

As I noted, above, I find that there are specific exceptions to my common resolution of various parts of the motions to exclude expert testimony. I turn, now, to separate discussions of these exceptions, where expert testimony will be excluded.

a. *Testimony on the value of a statistical life*

i. *Arguments of the parties*

The first such exception is the testimony of John Ward, the plaintiffs' expert on wrongful death economic loss, that the average value of a statistical life (VSL), according to the United States Department of Transportation (USDOT), is \$9.4 million. Med-Trans argues that an opinion on the VSL was not timely disclosed in Ward's expert report; rather, the topic of the VSL was first injected by the plaintiffs into the deposition of Med-Trans's damages expert, Ken McCoin, then raised again by the plaintiffs in Ward's deposition. Med-Trans contends that the untimely disclosure is not justified or harmless, because the information was plainly available before the expert disclosure deadline, based on the date of the USDOT Memorandum, and such testimony would require Med-Trans to obtain additional experts on what is, at best, an extraneous topic. Med-Trans argues that this testimony is also inadmissible under Rule 702, because Ward admits that he is not qualified to offer expert testimony about the VSL and that the statistical calculations on which the VSL is based are outside of his area of expertise. Med-Trans also argues that such evidence is unreliable as applied to an individual and irrelevant as to the proper, individualized measure of damages under Iowa law. Finally, Med-Trans contends that such evidence should be excluded pursuant to Rule 403 as confusing and overly prejudicial.

The plaintiffs counter that, in his deposition, Dr. McCoin admitted that the VSL is a “valid” concept. Because the issue was raised in Dr. McCoin’s deposition, and there is ample time before trial, the plaintiffs argue that Med-Trans is not surprised or prejudiced by consideration of the issue in Ward’s testimony at trial. The plaintiffs also contend that, in his deposition, Ward stated that he had written books on the VSL measure and can explain how it is done. However, the plaintiffs assert that Ward will not assert that the VSL is a direct measure of damages, but something that the jury might consider in forming an opinion. The plaintiffs contend that the VSL measures the societal value of a human being, which is precisely what the jury will be called upon to assess in determining appropriate damages for the wrongful death of a loved one and, to that extent, it should be admissible to *assist* the jury, even though it is not a direct measure of damages. They assert that neither they nor Ward will even imply that the VSL is a specific reason for a damages award, but only that it is an average that may (or may not) be considered by the jury in reaching its damages award.

In reply, Med-Trans points out that the plaintiffs argue only that the disclosure is “harmless,” not that it is timely or that the untimeliness is justified. Med-Trans also reiterates its arguments that the VSL evidence is unreliable, that Ward admits that he does not know how it is calculated, and that it is misleading or completely irrelevant to a proper determination of damages under Iowa law.

ii. Analysis

I agree with Med-Trans that the disclosure of Ward’s opinions on the VSL are untimely and that the untimeliness of the disclosure is neither justified nor harmless. As Judge Bennett has explained:

“‘The Magistrate’s Scheduling Order is not a frivolous piece of paper, idly entered, which can be cavalierly disregarded by counsel without peril.’” *See Eischeid v. Dover Constr., Inc.*, 217 F.R.D. 448, 454 (N.D. Iowa 2003) (quoting *Gestetner Corp. v. Case Equip. Co.*, 108 F.R.D. 138, 141

(D.Me.1985)); *see also Transamerica Life Ins. Co. v. Lincoln Nat'l Life Ins. Co.*, 590 F.Supp.2d 1093, 1105, 2008 WL 5142182, *10 (N.D. Iowa Dec. 5, 2008) (slip op.) (Doc. No. 167) (same); *Swanson v. Van Otterloo*, 177 F.R.D. 645, 646 (N.D.Iowa 1998) (same); *Waitek v. Dalkon Shield Claimants Trust*, 908 F.Supp. 672, 687 (N.D. Iowa 1995) (same); *Widmer-Baum v. Chandler-Halford*, 162 F.R.D. 545, 556 (N.D. Iowa 1995) (same); *Tyler v. Iowa State Trooper Badge No. 297*, 158 F.R.D. 632, 636 (N.D. Iowa 1994) (same); *Rouse v. Farmers State Bank of Jewell, Iowa*, 866 F.Supp. 1191, 1198 (N.D. Iowa 1994) (same); *Jochims v. Isuzu Motors, Ltd.*, 145 F.R.D. 507, 510 (N.D. Iowa 1992) (same). Rather, the scheduling order is an important tool in controlling litigation and managing dockets, as reflected in Rule 16(b)'s requirement of such an order and "good cause" for its modification. *Id.* at 454–55.

Transamerica Life Ins. Co. v. Lincoln Nat'l Life Ins. Co., 592 F. Supp. 2d 1087, 1093 (N.D. Iowa 2008). It is true that the Federal Rules of Civil Procedure do not bar untimely-disclosed expert opinions, if the late disclosure was "substantially justified" or is "harmless." FED. R. CIV. P. 37(c)(1); *Transamerica Life Ins. Co.*, 592 F. Supp. 2d at 1094. Nevertheless, I find no "justification" for the untimely disclosure, here, where Ward's report was disclosed several months after the USDOT Memorandum from which he culled his VSL opinion and, indeed, the possible use of the VSL in damages calculations has been known for much longer than that, as citations, *infra*, note 5, will show. I also find that the plaintiffs' injection of the VSL opinion was not "harmless," because allowing for belated rebuttal experts and additional depositions to address the issue will disrupt the orderly and efficient preparation for the trial, the very things that timely Rule 26 expert disclosures are designed to prevent. *See Transamerica Life Ins. Co.*, 592 F. Supp. 2d at 1099. Ward's opinions on the VSL are barred on the basis of belated disclosure.

Independently, and just as importantly, I find that Ward's opinions on the VSL must be excluded for three more reasons. First, those opinions do not meet Rule 702

and *Daubert* standards. Notwithstanding the plaintiffs’ attempts to rehabilitate Ward’s ability to offer opinions on the VSL, Ward expressly stated that he “d[id]n’t deal with” the individual categories that would be broken down and used in the calculation of the VSL by the USDOT. *See* Ward Deposition (Excerpts) (Doc. No. 50-3), 26:17-27-27:3. Thus, Ward is not “qualified” to give such an opinion, under Rule 702 and *Daubert* standards. *American Auto. Ins. Co.*, 783 F.3d 720, 722-23 (“The trial court ha[s] to decide whether this particular expert had sufficient specialized knowledge to assist the jurors in deciding the particular issues in the case.” (quoting *Kumho Tire Co., Ltd.*, 526 U.S. at 156, and citing FED. R. EVID. 702 and Advisory Committee Notes)).

Second, Dr. McCain’s acknowledgement that the VSL concept and studies are “valid” cannot be twisted into an acknowledgement that the VSL is a “valid” basis for measuring damages in a wrongful death case. The VSL at issue here, \$9.4 million—as calculated in the 2015 USDOT memorandum entitled “Guidance On Treatment of the Economic Value of a Statistical Life (VSL) in U.S. Department of Transportation Analyses – 2015 Adjustment” (USDOT Memorandum) (Doc. No. 50-4)—was not for purposes of computing wrongful death damages, but “to be used for Department of Transportation Analyses assessing the benefits of preventing fatalities.” USDOT Memorandum, 2.⁴ In contrast, the standard for wrongful death damages under Iowa law

⁴ As Med-Trans also points out, the USDOT Memorandum continues:

The benefit of preventing a fatality is measured by what is conventionally called the Value of a Statistical Life (VSL), defined as the additional cost that individuals would be willing to bear for improvements in safety (that is, reductions in risks) that, in the aggregate, reduce the expected number of fatalities by one. This conventional terminology has often provoked misunderstanding on the part of both the public and decision-makers. What is involved is not the valuation of life as such, but the valuation of reductions in risks.

is “the present worth or value of the estate which the decedent would reasonably be expected to have saved and accumulated as the result of her efforts between the time of her death and the end of her natural life had she lived.” *Iowa v. Mayberry*, 415 N.W.2d 644, 645 (Iowa 1987) (citing *Iowa-Des Moines Nat’l Bank v. Schwerman Trucking Co.*, 288 N.W.2d 198, 201 (Iowa 1980)). The VSL opinions would not be helpful to the jurors, because such opinions would have little or no tendency to prove the appropriate individualized amount of wrongful death damages under the proper standard. *See* FED. R. EVID. 401; FED. R. EVID. 702.⁵

Third, even if offered simply as “information” that the VSL is an average that may (or may not) be considered by the jury in reaching its damages award, not as a specific reason for a damages award, the VSL opinions are potentially unduly misleading and prejudicial, warranting their exclusion under Rule 403. Offering a dollar figure as the “value” of a life may mislead or invite jurors to grasp at this pseudo-official figure as an easy way to resolve the difficulties of deciding wrongful death damages, and the size of the figure could invite some inflation of a damages award on the improper basis of an emotional response. *See* FED. R. EVID. 403 and advisory committee note; *Bell*, 761 F.3d at 912; *Muhlenbruch*, 634 F.3d at 1001; *Adams*, 401 F.3d at 900. Again, I

USDOT Memorandum at 2.

⁵ I am far from alone in my conclusion that VSL opinions are unreliable and have nothing to do with the determination of damages for wrongful death. *See, e.g., Stokes v. John Deere Seeding Group*, No. 4:12-cv-04054-SLD-JAG, 2014 WL 675820 (C.D. Ill. Feb. 21, 2014) (excluding VSL opinions after extensive discussion); *Bailey v. Nyloncraft, Inc.*, No. 11-14199, 2012 WL 3717760 (E.D. Mich. Aug. 28, 2012) (same); *Flowers v. Lea Power Partners, L.L.C.*, No. 09-CV-569 JAP/SMV, 2012 WL 1795081 (D.N.M. April 2, 2012) (the latest of several decisions from the District of New Mexico excluding VSL opinions); *Kurncz v. Honda N. Am., Inc.*, 166 F.R.D. 386 (W.D. Mich. 1996) (same); *Ayers v. Robinson*, 887 F. Supp. 1049 (N.D. Ill. 1995) (same); *Hein v. Merck & Co., Inc.*, 868 F. Supp. 230 (M.D. Tenn. 1994) (same); *but see Arpin v. United States*, 521 F.3d 769, 775-76 (7th Cir. 2008) (discussing, apparently favorably, consideration of the value of a statistical life as helpful in the determination of damages in wrongful death cases); *Jutzi-Johnson v. United States*, 263 F.3d 753, 759 (7th Cir. 2001) (same).

have concerns that this is the true purpose of attempting to get the VSL before the jury, here, in light of the poor demonstration of the probative value of the VSL to the proper measure of damages in this wrongful death case.

Med-Trans's January 22, 2016, motion (Doc. No. 50) to exclude in part the testimony of John Ward is granted as to exclusion of any opinions on or reference to the VSL by Ward.

b. Testimony from Rodney Doss

The next exception is the testimony of the plaintiffs' expert on Med-Trans's compliance with regulatory requirements, Rodney Doss. Med-Trans seeks to exclude Doss's testimony in its entirety.

i. Arguments of the parties

Med-Trans argues that Doss's opinions fail to satisfy Rule 702 of the Federal Rules of Evidence and *Daubert*. Med-Trans argues that Doss's opinions that Med-Trans's Operations Manual violates applicable regulations by not referencing 14 C.F.R. § 135.227 and is not comprehensive enough fail, because he admitted that none of the regulations that he relies on and timely disclosed contains such requirements, while his reliance on another "foundational" regulation was not properly disclosed. Similarly, Med-Trans argues that Doss's opinion that the Operations Manual violates "best industry practices" fails because Doss could not identify the source of any specific "best industry practices." Med-Trans argues that Doss's opinions concerning Med-Trans's alleged "conscious business decisions" are not the proper province of expert testimony;⁶ that his opinions that Med-Trans's training program is insufficient are unreliable, because he did not even fully review the contents of that training program; and that his opinions on the

⁶ I will discuss this particular aspect of Doss's testimony with other challenges to similar opinions by other experts, below, in Section II.B.2.c.

adequacy of Med-Trans's instructions in its Operations Manual on completing the Risk Assessment Form are irrelevant to causation and, moreover, are unreliable, because Doss did not review the Risk Assessment Forms and any instructions that they may have included. In short, Med-Trans contends that Doss's opinions are unreliable, irrelevant, or contrary to the facts of the case.

The plaintiffs' blanket response is that, with more than 40 years in the aviation industry, Doss is qualified to address FAA regulations and "best industry practices." The plaintiffs also argue that Doss could properly criticize Med-Trans's training program, because Med-Trans provided the same manual and training (especially about risk assessment) across all locations, regardless of differences in commonly occurring weather conditions among those locations. Finally, the plaintiffs argue that Doss can properly criticize the instructions for completing the Risk Assessment Form without reviewing that form, because their other experts will opine on the form itself.

In reply, Med-Trans points out that Doss's Affidavit, offered to rebut Med-Trans's criticisms, simply repeats his assertions, without any demonstration of adequate support, and otherwise reinforces the inadequacy of his opinions.

ii. Analysis

My "preliminary assessment," from my review of the submissions in support of and resistance to the motion to exclude Doss's opinions, is that the reasoning and methodology underlying Doss's challenged opinions are *not* scientifically valid and that his reasoning and methodology *cannot* be applied to the facts in issue. *See Daubert*, 509 U.S. at 592-93 (first step in the court's "gatekeeper" function under Rule 702); *Kudabeck*, 338 F.3d at 860 (explaining that the "gatekeeper function" involves this "preliminary assessment"). While Doss clearly has decades of experience with FAA regulations and flight operations, which might make him "qualified" as an expert, *see* FED. R. EVID. 702 (an expert may be qualified by "experience"), he has failed to offer

anything but *ipse dixit* to support his specific opinions on regulatory requirements and “best industry practices.” “[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.” *American Auto. Ins. Co.*, 783 F.3d at 725 (quoting *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997)).

More specifically, Doss repeatedly relied on his “43 years of experience” as the basis for his opinions, when confronted in depositions with the lack of any regulation or identifiable source of “best industry practices” for specific requirements that he sought to impose on Med-Trans. Doss’s belated citation to 14 C.F.R. § 119.69 in support of his opinions is excluded, for essentially the same reasons that I excluded Ward’s belated opinion on the VSL, above, even supposing that regulation might somehow support his specific opinions on regulatory requirements. Moreover, while Doss asserted that “best industry practices” could be gleaned from FAA Orders, Notices, Advisory Circulars, and other “guidance documents,” he could not cite any specific publication of that sort supporting any specific supposed requirement. What Doss thinks the regulations require or should require or what “best industry practices” should dictate in particular circumstances is not transformed into a reliable expert opinion simply by his years of experience, in the absence of some connection to specific regulations or specific expressions of “best industry practices.” Similarly, Doss’s opinions about Med-Trans’s training program and completion of the Risk Assessment Form are lacking in sufficient factual basis to be reliable or helpful, because he neither reviewed the entire training program nor the Risk Assessment Form itself in formulating those opinions. As such, Doss’s opinions do no more than “tell the jury what result to reach,” with no demonstration of a connection to any data or specific regulations or statements of “best industry practice” to support his reasoning, so that they are not admissible. *See Lee*, 616 F.3d at 808–09 (citing FED. R. EVID. 704, advisory committee’s note).

Doss’s reliance on his “43 years of experience” as the basis for his opinions, which I find wholly inadequate, must be contrasted with the experience-based expert opinions

of Michael Hurst, concerning “spatial disorientation,” which the plaintiffs challenge. Unlike Doss, Hurst has practical experience with the weather conditions that may cause “spatial disorientation” to a pilot and, indeed, has experienced himself the effects of “spatial disorientation.” The fact that Hurst could not spout jargon concerning “spatial disorientation” used by scientists who examine that condition or phenomenon is beside the point to—or, at most, is a very weak ground for impeachment of—his qualification to describe the causes and effects of the condition or phenomenon. I have overruled the plaintiffs’ challenge to Hurst’s testimony on “spatial disorientation,” above, in my “common resolution” of most of the challenges to expert testimony. Thus, Hurst will be allowed to offer his opinions, which are based on reasoning from his experience and from his examination of the flight data of the helicopter in question, that the pilot was suffering from “spatial disorientation. Doss will not be allowed to offer opinions about compliance with regulations and “best industry practice,” which are based only on *ipse dixit*.

Med-Trans’s motion to exclude the testimony of Doss, in its entirety, is granted.

c. Expert testimony on “conscious business decisions”

i. Arguments of the parties

Med-Trans also seeks to exclude testimony from plaintiffs’ experts Doss, Coffman, and Sommer that Med-Trans made certain “conscious business decisions,” for example, to omit certain safety cautions or requirements from its Operations Manual, and testimony from plaintiffs’ expert Lawrence that Med-Trans “showed a conscious disregard for safety.” Med-Trans argues that such opinions on Med-Trans’s intentions are speculative and are not the proper province of experts. Without addressing this argument, the plaintiffs argue that their experts have an adequate factual basis to offer these opinions, because Brian Foster, Med-Trans’s vice president of flight operations, testified that top management made “deliberate and conscious decisions” about safety policies.

ii. Analysis

District courts in this circuit appear to be in agreement that “[e]xpert testimony on ‘the intent, motives, or state of mind of corporations, regulatory agencies and others have no basis in any relevant body of knowledge or expertise.’” *See, e.g., Kruszka v. Novartis Pharm. Corp.*, 28 F. Supp. 3d 920, 937 (D. Minn. 2014) (quoting *Deutsch v. Novartis Pham. Corp.*, 768 F. Supp. 2d 420, 442 (E.D.N.Y. 2011)); *Lafarge North America, Inc. v. Discovery Group, L.L.C.*, No. 05-1110-CV-W-FJG, 2010 WL 3025120, *7 (W.D. Mo. July 30, 2010) (agreeing with the plaintiff’s argument that such testimony is “inherently unreliable, based on speculation and conjecture rather than fact and informed expert opinion”); *Neuharth v. NAACCO Mats. Handling Group, Inc.*, No. CIV. 01-4034-KES, 2002 WL 34700601, *4 (D.S.D. Dec. 17, 2002) (“Both parties agree that an expert in a products liability case should not be allowed to speculate regarding a manufacturer’s motives or purposes. *DePaepe v. General Motors Corp.*, 141 F.3d 715, 720 (7th Cir. 1998).”). I join in that agreement. Furthermore, Foster’s deposition testimony that corporate officials made “conscious decisions” about the content of the Operations Manual cannot be twisted into an acknowledgement that Med-Trans made a “conscious business decision” to disregard the safety of others, as a basis for punitive damages under Iowa law. *See IOWA CODE § 668A.1* (an award of punitive damages requires proof “by a preponderance of clear, convincing, and satisfactory evidence, [that] the conduct of the defendant from which the claim arose constituted willful and wanton disregard for the rights or safety of another”). Thus, such opinions simply have no relevance.

The parts of Med-Trans’s motions seeking to exclude expert testimony from Doss, Coffman, and Sommer to the effect that Med-Trans made “conscious business decisions” and the testimony of Lawrence that Med-Trans “showed a conscious disregard for safety” are granted.

d. Coffman's testimony on maintenance practices and violations

i. Arguments of the parties

Another exception is Coffman's testimony about maintenance practices and an FAA maintenance violation. Med-Trans seeks to exclude those opinions as irrelevant and not helpful to the jury, where it is undisputed that neither maintenance nor mechanical problems caused the helicopter crash. Med-Trans points to agreement on this point among the experts and the NTSB and the lack of any reference to maintenance practices or mechanical issues in the plaintiffs' pleadings. Med-Trans argues that Coffman cannot "bootstrap" such opinions into a broader criticism of Med-Trans "practices" and "attitude," where maintenance and mechanical issues are not in dispute, and allowing such opinions would be potentially confusing and prejudicial.

The plaintiffs respond that Coffman's testimony will be that a maintenance violation by the FAA shows that Med-Trans disregarded the standard of care, so that it is relevant. The plaintiffs argue that such evidence should be allowed as "bad acts" evidence pursuant to Rule 404(b)(2). The plaintiffs contend that, because the maintenance violation was noted in the results of the same investigation of the crash, it should be admissible. The plaintiffs also argue that such evidence sheds light on the willful and wanton misconduct of Med-Trans.

In reply, Med-Trans challenges the admissibility of any evidence of the maintenance violation under Rule 404, on the grounds that the plaintiffs have not shown the proper purpose for which such evidence would be admissible, and even if probative on some proper issues, the evidence is more prejudicial or confusing than probative.

ii. Analysis

I conclude that Coffman's opinions or testimony about maintenance practices and violations must be excluded pursuant to Rules 403 and 404. Rule 404(b) of the Federal Rules of Evidence prohibits admission of prior "bad acts" simply to show a propensity

to commit the misconduct at issue, but does permit such evidence to be admitted for “other purposes, such as proof of motive, opportunity, intent, preparation, plan, knowledge, identity, or absence of mistake or accident.” FED. R. EVID. 404(b). As the Eighth Circuit has also explained, “‘Admissibility of 404(b) evidence is governed by four factors: the evidence must be 1) relevant to a material issue; 2) proven by a preponderance of the evidence; 3) of greater probative value than prejudicial effect; and 4) similar in kind and close in time to a charged offense.’” *United States v. McGilberry*, 620 F.3d 880, 887 (8th Cir. 2010) (quoting *United States v. Walker*, 428 F.3d 1165, 1169 (8th Cir.2005)); accord *United States v. Gant*, 721 F.3d 505, 509 (8th Cir.2013) (listing factors relevant to the admissibility of “bad acts” evidence pursuant to Rule 404(b), including the balancing of probative value against potential prejudice); *Williams v. City of Kansas City, Mo.*, 223 F.3d 749, 755 (8th Cir. 2000) (applying the same factors to determine the admissibility of prior acts of the harasser in a discrimination suit, but excluding evidence of the harasser’s prior affairs with customers as only minimally relevant to whether he had a motive to accost a co-worker, owing to lack of similarity, substantial temporal separation, and inflammatory nature); see generally *United States v. Jefferson*, 725 F.3d 829, 836 (8th Cir.2013) (noting that Rule 404(b) affords the district courts “substantial discretion” in determining the admissibility of “bad acts” evidence).

My first problem with Coffman’s testimony or opinions about maintenance practices and a maintenance violation is that it is of dubious relevance, standing alone. I agree with Med-Trans, and the plaintiffs do not appear to dispute, that maintenance and mechanical issues were not involved in the crash of the helicopter. *Id.* (first factor). Nor do I find that evidence concerning maintenance practices and a maintenance violation is, in any significant way, similar in kind to the alleged flight risk assessment policy issues that are the basis for the plaintiffs’ claims. *Id.* (fourth factor). Most importantly, however, I find that, as is often the case, the determinative factor for admissibility pursuant to Rule 404(b), here, is the balancing of probative value against potential prejudice, essentially as provided under Rule 403. *Gant*, 721 F.3d at 509; *McGilberry*,

620 F.3d at 887; *United States v. Chaika*, 695 F.3d 741, 744 (8th Cir.2012) (“‘The weighing of probative value against prejudicial effect is committed to the sound discretion of the trial court.’” (quoting *United States v. Folley*, 683 F.2d 273, 278 (8th Cir. 1982))). Where evidence of maintenance practices and a maintenance violation has such slight or no probative value, on its own, and is not sufficiently similar to the misconduct actually at issue in the plaintiffs’ claims to be probative on those claims, that slender probative value is vastly outweighed by its potential for prejudice—inviting a liability verdict improperly based on an emotional response to essentially unrelated misconduct that was irrelevant to the crash. Furthermore, where evidence of maintenance practices and a maintenance violation has such slight probative value on any issue, introduction of evidence on those matters could be misleading or confusing to the jury, improperly distracting the jury from matters actually at issue in this case. FED. R. EVID. 403, 404.

Therefore, the part of Med-Trans’s motion seeking to exclude Coffman’s testimony on maintenance practices and a maintenance violation is granted.

e. Sommer’s testimony that regulations were violated

One part of Med-Trans’s February 2, 2016, motion (Doc. No. 55) to exclude in part the testimony of Don Sommer seeks to exclude Sommer’s testimony that Med-Trans’s Operations Manual violated FARs or violated the “spirit” of the FARs. The plaintiffs dispute exclusion of such testimony.

i. Arguments of the parties

Med-Trans argues that this testimony by Sommer should be excluded for three reasons: (1) his opinion contains no comparison of the Operations Manual to the relevant FARs, so that no analysis supports his opinion, making his opinions unreliable; (2) he acknowledged that the Operations Manual was approved by the FAA, so that his opinion is contradicted by the regulations requiring FAA acceptance of an operations manual;

and (3) Sommers did not identify a single FAR that the Operations Manual actually violated and, instead, relied on his opinion of the “spirit” of the FARs.

The plaintiffs respond that Sommer based his opinion that Med-Trans’ Operations Manual violated the FARs on the facts in this case and the statute that authorized those regulations. Thus, the plaintiffs contend that Sommer’s opinion is based on sound methodology and is firmly based in the facts of the case.

In reply, Med-Trans argues that the plaintiffs have ignored the deficiencies it pointed out in Sommer’s testimony on compliance with regulations.

ii. Analysis

Unlike the parties, I begin my analysis with the premise that “[t]he law is clear that *experts* may not opine as to whether or not a party violated a given regulation.” *Cowden v. BNSF Ry. Co.*, No. 4:08CV01534 ERW, 2013 WL 5442926, *6 (E.D. Mo. Sept. 30, 2013) (emphasis added) (citing *Southern Pine Helicopters, Inc. v. Phoenix Aviation Managers, Inc.*, 320 F.3d 838, 841 (8th Cir. 2003), as stating, “The evidence took the form, essentially, of a battle of experts opining as to whether Southern Pine had violated FAA regulations. As we have had occasion to remark before, however, expert testimony on legal matters is not admissible.”). Rather, an expert “may discuss the evidence indicating that [a party] had not sufficiently practiced [regulated conduct] and he may discuss the requirements outlined in the regulations, but he may not opine about whether [the party] in fact violated the regulations.” *Johnson v. Avco Corp.*, 207 F. Supp. 2d 1093, 1109–10 (E.D. Mo. 2010). Thus, “experts may *refer* to regulations in addition to their industry experience,” but they cannot “properly testify as to whether a regulation was violated.” *Cowden*, 2013 WL 5442926 at *6 (emphasis in the original); *accord Southern Pine Helicopters, Inc.*, 320 F.3d at 841 (noting, in a case involving alleged violation of FAA regulation, that regulations or industry practices and standards

“may often be relevant . . . , and *expert or fact testimony on what these are is often admissible.*” (emphasis added)).

Here, Med-Trans challenges Sommer’s opinions that Med-Trans’s Operations Manual violated FARs or violated the “spirit” of the FARs. Sommer can do neither. *See Cowden*, 2013 WL5442926 at *6; *Johnson*, 207 F. Supp. 2d at 1109-10. That part of Med-Trans’s motion seeking to exclude Sommer’s testimony that Med-Trans’s Operations Manual violated FARs or violated the “spirit” of the FARs is granted.

C. The Challenge To Non-Expert Testimony

The remaining evidentiary motion now before me is the plaintiffs’ February 8, 2016, motion (Doc. No. 64) to strike the declaration and opinions of Brian Foster, which pertains to a declaration that Med-Trans has offered in support of its motion for partial summary judgment regarding punitive damages. This motion addresses an allegedly-improper overlap between lay and expert witness testimony.

1. Arguments of the parties

The plaintiffs assert that the declaration in question contains unsubstantiated opinions by Foster, who was neither designated nor qualified as an expert to render such opinions. The opinions in question, the plaintiffs contend, are Foster’s opinions as to the applicability and meaning of certain FARs, found in paragraphs 14, 23, 27, 39, 40, 44, 47, and 50 of his declaration at Med-Trans’s Appendix In Support Of Motion For Partial Summary Judgment, Exhibit A (Doc. No. 49-3), 2-15. The plaintiffs argue that interpretation of federal regulations is a matter for an expert, not a layperson, but Med-Trans offered no Rule 26 disclosure of such testimony from Foster. They also argue that Foster is not qualified to offer the opinions in question, because he has never worked for the Federal Aviation Administration and has no “specialized experience or knowledge” involving those Regulations, but has worked solely within the air ambulance industry.

In response, Med-Trans argues that Foster established, in both his declaration and his deposition, that he had personal knowledge of the content of the Med-Trans Operations Manual, the safety procedures implemented by Med-Trans, and the FARs implicated by that manual and those procedures, based on his role as Med-Trans's director of flight operations. Med-Trans argues that Foster's statements are fact statements based on his personal knowledge, but the plaintiffs have overreached by asking the court to strike his entire declaration, because some of the statements mention the FARs. Indeed, Med-Trans points out that 14 C.F.R. § 119.69(d) requires a director of operations, such as Foster, to have a "full understanding" of the FARs. Med-Trans also denies that federal regulations are the exclusive province of experts. Finally, Med-Trans points out that the contents of the FARs are matters that must be "judicially noticed," pursuant to 44 U.S.C. § 1507.

In reply, the plaintiffs argue that it is, nevertheless, improper for Foster to opine on the applicability of the FARs or to offer opinions about the meaning of those FARs. Moreover, the plaintiffs reiterate their contention that Foster's declaration does not demonstrate that he has the necessary personal knowledge of the FARs to offer any testimony or opinions about them. The plaintiffs contend that courts have allowed lay testimony based on personal knowledge of regulations when the "lay" witnesses were, in fact, employees of the agency that promulgated and enforced those regulations.

2. *Analysis*

Again, unlike the parties, I begin my analysis with the premise that "[t]he law is clear that *experts* may not opine as to whether or not a party violated a given regulation." *Cowden*, 2013 WL 5442926 at *6 (E.D. Mo. Sept. 30, 2013) (emphasis added) (citing *Southern Pine Helicopters, Inc.*, 320 F.3d at 841). Rather, *an expert* "may discuss the evidence indicating that [a party] had not sufficiently practiced [conduct regulated] and he may discuss the requirements outlined in the regulations, but he may not opine about whether [the party] in fact violated the regulations." *Johnson*, 207 F. Supp. 2d at 1109–

10. Thus, “experts may *refer* to regulations in addition to their industry experience,” but they cannot “properly testify as to whether a regulation was violated.” *Cowden*, 2013 WL 5442926 at *6 (emphasis in the original); *accord Southern Pine Helicopters, Inc.*, 320 F.3d at 841 (noting, in a case involving alleged violation of FAA regulation, that regulations or industry practices and standards “may often be relevant . . . , and *expert or fact testimony on what these are is often admissible.*” (emphasis added)).

These limitations on *experts* do not mean, however, that *lay persons* cannot also *refer* to the contents of regulations applicable to a regulated industry in which they work or which they were charged to comply with, if they have sufficient personal knowledge of the existence and contents of those regulations. For example, in *Siebert v. Gene Security Network Inc.*, 75 F. Supp. 3d 1108 (N.D. Cal. 2014), the defendant challenged testimony by a lay witness, who worked for the National Institutes of Health (NIH), about describing the application and certification process for grants like those received by the defendant. The court rejected the defendant’s contention that the witness should have testified as an expert, because the witness testified from personal knowledge. *Siebert*, 75 F. Supp. 3d at 1114. The court also rejected the defendant’s argument that the lay witness lacked personal knowledge:

As discussed above, [the witness] may testify as a fact witness because she has personal knowledge of the general NIH grant procedures she discusses. *See* Fed.R.Evid. 602 (permitting testimony of witnesses with personal knowledge of the matters regarding which they testify). As part of her employment, she is required to be aware of NIH grant regulations and policies, and various documents outlining the same. ECF No. 109–35, ¶ 3. She can testify from personal knowledge as to these matters. And to the extent she testified as to [the defendant’s] grant applications, she relied on the grant applications that are in evidence. *See id.* ¶¶ 1015.

[The witness’s] testimony, except for her legal conclusions, is admissible.

Siebert, 75 F.3d at 1115.

While it is true that the lay witness who testified in *Siebert* about NIH grant procedures was, in fact, an NIH employee, it does not necessarily follow, as the plaintiffs contend, here, that only a lay witness employed by the regulating agency can testify about agency regulations. Rather, in *Bloemendaal v. Morgan Stanley Smith Barney, L.L.C.*, No. EDCV 10-1455 DSF (PLAx), 2011 WL 2161352 (C.D. Cal. May 23, 2011), *aff'd sub nom. McDaniel v. Wells Fargo Investments, LLC*, 717 F.3d 668 (9th Cir. 2013), the court concluded that it was proper for compliance officers of a regulated business—in that case, one regulated by the Securities and Exchange Commission (SEC)—with sufficient personal knowledge, to testify as to implementation of programs to meet obligations under applicable regulations. Specifically:

That Defendant implemented the ETP to meet its obligations under federal securities regulations is directly relevant to whether Defendant exercised its Congressionally granted discretion to implement a reasonable policy on insider trading. Ditaranto [the head of a defendant’s “surveillance department”] and Roth’s [the defendant’s “compliance officer”] testimony is not hearsay because they are officers of Defendant and familiar with Defendant’s ETP. *The testimony is not improper lay opinion because it is not being offered to show that Defendant indeed met its legal obligations. Instead, Defendant proffers the testimony to show Defendant’s intent in implementing the ETP, As current and former officers, Ditaranto and Roth can speak to Defendant’s intent.*

Bloemendaal, 2011 WL 2161352 at *1 n.2 (emphasis added).

Thus, Foster cannot testify to a legal conclusion about regulatory compliance—such as opining that certain conduct was “consistent with” a regulation or that contents of corporate training and materials “complied with” a regulation. On the other hand, if he shows the requisite personal knowledge, he could properly testify that Med-Trans was aware of applicable regulations (FARs), what the *contents* of those FARs are, and that certain training programs or policies were *intended to implement the applicable*

regulations. Siebert, 75 F. Supp. 3d at 1115; *Bloemendaal*, 2011 WL 2161352 at *1 n.2; FED. R. EVID. 602.

Because the plaintiffs appear to demand that Foster's Declaration be stricken in its entirety, but some of the specifically identified portions of his Declaration would not be excludable, and most of the Declaration is not challenged at all, I will deny the plaintiffs' February 8, 2016, Motion To Strike The Declaration And Opinions Of Brian Foster (Doc. No. 64) in its entirety. However, in my consideration of the pending motions for partial summary judgment and at trial, I will limit Foster's Declaration and testimony to permissible subjects.

III. CONCLUSION

For the reasons set forth herein:

1. The plaintiffs' January 26, 2016, motion (Doc. No. 52) for jury view of subject helicopter wreckage is **denied**;
2. Med-Trans's January 22, 2016, motion (Doc. No. 50) to exclude in part the testimony of John Ward is **granted** as to exclusion of any opinions on or reference to the VSL by Ward;
3. Med-Trans's January 26, 2016, motion (Doc. No. 53) to exclude the testimony of Rodney Doss is **granted**, and Doss's testimony is excluded *in its entirety*;
4. Med-Trans's January 27, 2016, motion (Doc. No. 54) to exclude in part the testimony of Arthur "Lee" Coffman is:
 - a. **granted** as to Coffman's testimony on maintenance practices and a maintenance violation, and
 - b. **granted** as to testimony on "conscious business decisions";
5. Med-Trans's February 2, 2016, motion (Doc. No. 55) to exclude in part the testimony of Don Sommer is:
 - a. **granted** as to testimony on "conscious business decisions"; and

b. **granted** as to opinions that Med-Trans’s Operations Manual violated FARs or violated the “spirit” of the FARs; but

c. **denied** as to opinions that the presence of icing conditions was a cause of the helicopter crash;

6. Med-Trans’s February 8, 2016, motion (Doc. No. 63) to exclude in part the testimony of William Lawrence is

a. **granted** as to opinions that Med-Trans “showed a conscious disregard for safety; but

b. **denied** as to opinions about the Risk Assessment Form; and

c. **denied** as to opinions about “operational necessity”;

7. The plaintiffs’ February 8, 2016, motion (Doc. No. 64) to strike the declaration and opinions of Brian Foster is **denied, in its entirety**, but in my consideration of the pending motions for partial summary judgment and at trial, I will limit Foster’s declaration and testimony to permissible subjects; and

8. The plaintiffs’ February 8, 2016, motion (Doc. No. 65) to exclude any and all opinions from defendant’s expert, Michael C. Hurst, as to spatial disorientation is **denied**.

IT IS SO ORDERED.

DATED this 8th day of March, 2016.



LEONARD T. STRAND
UNITED STATES DISTRICT JUDGE