[Cite as *Hetzer-Young v. Elano Corp.*, 2016-Ohio-3356.]

IN THE COURT OF APPEALS OF OHIO
SECOND APPELLATE DISTRICT
GREENE COUNTY

REBECCA HETZER-YOUNG, Individually and as Personal Representative of the Estate of Michael Young, et al.	:	Appellate Case No. 2015-CA-38
	:	Trial Court Case No. 11CV597
Plaintiffs-Appellants	:	(Civil appeal from Common Pleas Court)
v.	:	
ELANO CORPORATION, et al.	:	
Defendants-Appellees	:	

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O P I N I O N

Rendered on the ___10th___ day of ___June___, 2016.

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FROELICH, J.

{¶ 1} This appeal involves a wrongful death / products liability action arising out of

the crash of a Grumman AA-5 Traveler airplane at the Lawrence County Airpark in March 2005. Three individuals – Dr. Michael Young, Ginny Young, and Charles Lampe -- died in the crash.

{¶ 2} Plaintiffs-Appellants are Rebecca Hetzer-Young, individually and as personal representative of the Estate of Michael Young; Anise Nash, individually and as personal representative of the Estate of Ginny Young; and Elizabeth Lampe, individually and as personal representative of the Estate of Charles Lampe (collectively, "Plaintiffs"). The Defendants-Appellees are Elano Corporation, the manufacturer of the muffler installed in the aircraft at the time of the crash, and Unison Industries, LLC, the company into which Elano later merged (collectively, "Elano").

{¶ 3} Plaintiffs appeal from a judgment of the Greene County Court of Common Pleas, which, after a jury trial, entered judgment in favor of Elano. For the following reasons, the trial court's judgment will be affirmed.

I. Background and Procedural History

{¶ 4} In November 2003, Dr. Michael Young ("Young") purchased a 1974 Grumman AA-5 Traveler airplane; the aircraft had four seats and a single engine. Young kept the plane at the Lawrence County Airpark in Chesapeake, Ohio.

{¶ 5} The Lawrence County Airpark has a 3,000-foot asphalt runway, labeled Runway 8 (heading east) and Runway 26 (heading west), at an elevation of 500 feet. In 2005, trees that were 12 to 15 feet high were located approximately 90 feet from the end of Runway 26. Approximately 480 feet from the end of Runway 26 were taller trees.

{¶ 6} On March 13, 2005, Young took his college-aged daughter, Ginny, and Ginny's boyfriend, Charles Lampe, for a short flight in his plane. After briefly cruising in

the area of the Lawrence County Airpark, Young made two approaches to Runway 26, but did not land the airplane. With both approaches, Young communicated his turns as he flew around the area and approached the runway. Dee Callicoat, who was at the Lawrence County Airpark that day, heard Young over a radio at the airpark.

{¶ 7} On the first approach, Young successfully performed a "go around," meaning that he approached the runway, continued along the runway without the wheels touching down, accelerated by applying full power, and climbed out. (Trial Tr. at 345.) Young again circled the area. On the second approach, Young again descended to the runway, but accelerated and climbed out instead of landing; it is unclear whether Young touched down on the runway before doing so. The airplane cleared the lower trees near the end of the runway, but soon after, the right wing dropped and the plane descended nose first into the ground. The airplane was upside down when it hit the ground, and it caught fire upon impact. All three occupants of the plane died as a result of the crash.

{¶ 8} At various times after the crash, the wreckage was inspected by the National Transportation Safety Board (NTSB), representatives of the decedents' families, and representatives of various companies involved in the manufacture of the airplane's parts. Notably, the engine, propeller, and muffler were recovered and evaluated. Internal components of the muffler were found to be broken. It was determined that the muffler, which had been replaced in 1987, had been manufactured by Elano.

{¶ 9} In March 2007, Plaintiffs filed suit in the Cuyahoga County Court of Common Pleas against various defendants, including Lycoming Engineers, the manufacturer of the airplane engine, and Unison Industries, LLC, the successor to Elano. In September 2010, that action was dismissed, without prejudice, pursuant to

Civ.R. 41(A)(1)(a).

{¶ 10} In November 2010, Plaintiffs refiled the action against Elano Corporation, and Unison Industries, LLC (collectively, "Elano") in the Montgomery County Court of Common Pleas, alleging strict liability, negligence, misrepresentation, concert of action, and willful, wanton, and outrageous conduct. In June 2011, the action was transferred to the Greene County Common Pleas Court, because Elano's principal place of business was in Greene County. The procedural history of the Greene County case is lengthy, including a prior appeal to this court. *Hetzer-Young v. Elano Corp*., 2d Dist. Greene No. 2013-CA-32, 2014-Ohio-1104. Most of this procedural history is not relevant to this appeal.

{¶ 11} The case was tried to a jury from May 4, 2015, through May 18, 2015. Plaintiffs maintained that, while Young attempted to perform a "go around" maneuver, the airplane crashed due to a sudden lack of engine power caused by a defect and failure in the airplane's muffler. Plaintiffs' theory was that the muffler was defectively designed because (1) the material selected for its construction (stainless steel) was insufficient to withstand the intended operating conditions, (2) the muffler was not designed to prevent blockage of the exhaust outlet should any of the internal components break, (3) the internal components were not capable of inspection, and/or (4) no warnings or instructions were provided by the manufacturer. Plaintiffs asserted that the crash occurred when the internal structures of the muffler broke and blocked the exhaust outlet, causing excess back pressure in the muffler and loss of engine power.

{¶ 12} Plaintiffs presented numerous witnesses at trial. These witnesses included (1) Rae Ann Parsons, an individual who lived close to the crash site and saw

and heard the plane just prior to impact; (2) John Warlick, former Vice President of Elano and head of Elano's Commercial Products Department, which included mufflers; (3) Dee Callicoat, a pilot and friend of Young who heard Young's radio calls and the sound of the plane shortly before the crash; (4) Allen Fiedler, an aircraft accident investigator who concluded, among other things, that the condition of the propellers did not show that they were operating under full power at the time of the crash and that the crash was caused by a failure within the muffler; (5) Richard McSwain, Ph.D., a materials engineer who testified about the effect of flying conditions on stainless steel mufflers and concluded that the internal components of the muffler were broken prior to the crash; (6) Donald Sommer, an accident reconstructionist and pilot, who conducted tests regarding blockages in the exhaust system; (7) Young's previous battalion commander;[1] (8) an economist; and (9) the Plaintiffs.

{¶ 13} Elano's theory was that the crash was caused by Young's attempt to rise from the runway at too steep an angle, which caused an aerodynamic stall. Elano presented the testimony of (1) four individuals who observed Young's plane just prior to the crash – Donald Mannon, Nelson Whitt, Ivan Henshaw, and Joseph Johnson; (2) Walter Voisard, a propeller expert who testified that the propeller was under "very high power" when the crash occurred; (3) William Edwards, an accident reconstructionist who opined that a delayed go around was not properly executed and that Young stalled his aircraft; and (4) Dennis Moore, a mechanical/aerospace engineer and pilot who critiqued Sommer's experiments, performed his own tests, and opined that the restriction

[1] Young was a lieutenant colonel in the National Guard, and he served in Iraq as a battalion flight surgeon for the 150th Armor Calvary, United States Army. Young returned from his deployment in February 2005, one month before the crash.

(blockage) shown in the muffler did not have any effect on horsepower.

{¶ 14} The trial court granted a directed verdict to Elano on claims for willful and wanton conduct, punitive damages, manufacturing defect, nonconformance, misrepresentation, and negligence per se. Claims for general negligence, negligent design, negligent failure to warn, and product liability (design defect, failure to warn) were presented to the jury for deliberation. The jury found in Elano's favor on all counts before it, and the trial court entered judgment accordingly. Plaintiffs appeal from the trial court's judgment, raising five assignments of error.

II. Exclusion of Service Difficulty Reports ("SDRs")

{¶ 15} Plaintiffs' first assignment of error states:

> The trial court erred in refusing to admit the Federal Aviation Administration Service Difficulty Reports.

{¶ 16} In their first assignment of error, Plaintiffs claim that the trial court erred to their prejudice when it denied Plaintiffs' request to admit FAA Service Difficulty Reports ("SDRs") as evidence at trial. Plaintiffs argue that the SDRs were necessary to link muffler failure studies in earlier FAA reports (which were admitted into evidence) to Elano's mufflers. Plaintiffs argued that the SDRs were admissible as certified public records under Evid.R. 803 and to establish that Elano was on notice of the defect. Plaintiffs stated that the SDRs involved mufflers that were substantially similar to Young's muffler and that their admission was consistent with the policies underlying the hearsay rules.

{¶ 17} As described by Allen Fiedler, an aircraft accident investigator for Plaintiffs, the Service Difficulty Program is an FAA program under which the aviation community

shares information on malfunctions and defects in aircraft equipment. The purpose of SDRs is to compile information regarding malfunctions and defects to determine whether trends exist. Information collected on SDRs is provided by the FAA to aircraft manufacturers and aircraft component manufacturers, and if trends are established, the manufacturer is supposed to investigate it and develop a resolution to the problem.

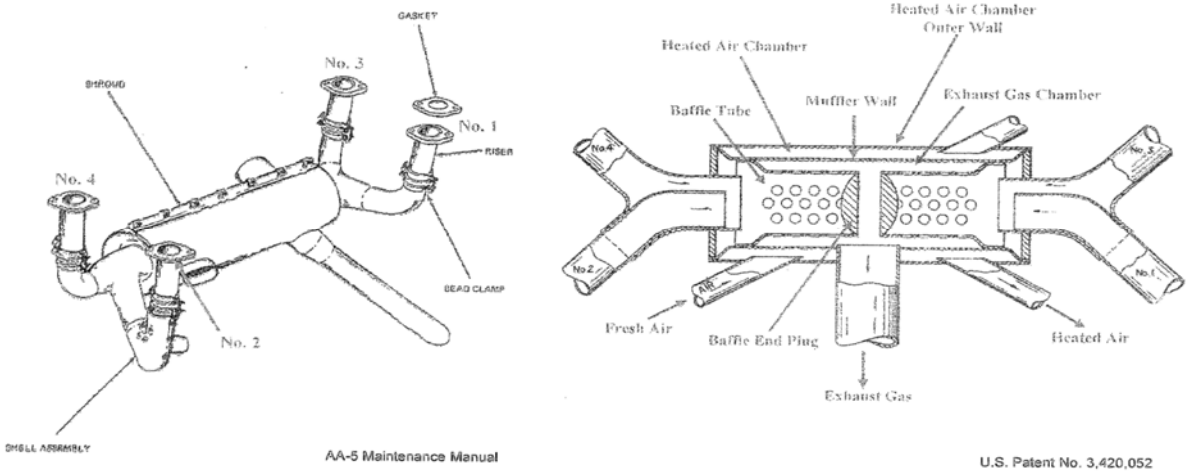
{¶ 18} The FAA issues Advisory Circulars to educate the aviation industry regarding particular programs. The FAA issued an Advisory Circular regarding the Service Difficulty Program.

{¶ 19} SDRs are prepared primarily by mechanics, but anyone in the aviation community can submit a report to the FAA; certain mechanics are required by FAA regulations to complete SDRs. The SDRs ask for such information as the aircraft make and model, the engine make and model, the component make and model, the part location and condition, the stage of operation, and submitter remarks.

{¶ 20} Fiedler testified that SDRs are currently accessible through an online database. Prior to the Internet, manufacturers could request copies of the SDRs directly from the FAA. Warlick, Elano's former Vice President, testified that the FAA provided the company with SDRs related to Elano's products. (Warlick Depo. at 73-74.)

{¶ 21} Elano's mufflers were made out of "321 stainless steel," comprised of 68 percent iron, 18 percent chromium, and 10.5 percent nickel. The muffler consisted of a shell (shroud) with four riser tubes, which connected to the engine cylinder exhaust manifold. Inside the shell were two assemblies consisting of a perforated cylinder (called the "baffle" or "flame cone" or "diffuser," depending on the witness) and a solid end cap. As described by Plaintiffs, "[t]he exhaust flows into the interior of the flame cone cylinder

and is diffused as it stops at the solid end cap and seeps through the flame cone perforations and travels out the overboard stack. The pressure within the muffler caused by this exhaust diffusion is referred to as 'back pressure' since it resists against the incoming flow of exhaust being expelled from the engine into the muffler." (Pls. App. Brief at 4.)



(Pls. Ex. 37.)

{¶ 22} Plaintiffs offered into evidence approximately 100 SDRs with dates spanning from 1974 to 2001; the vast majority are from 1976 to 1980. Most, but not all, of the SDRs involved Grumman AA-5 aircraft and involved mufflers with part numbers that began with "99001," which Warlick testified was the number for the Elano muffler system. (Warlick Depo. at 25.) The specific parts were identified as 99001-025, 99001-137, 99001-148, 99001-191, 99001-195, 99005-191, and 99005-195. For planes other than the Grumman AA-5, the part numbers consisted of 99001-035, 99001-113, 99001-126, 99001-127, 99001-131, 99001-190, 99001-714, and 99005-42. Warlick testified that the "dash number" reflected the specific airplane and muffler design. (*Id*. at 33.)

{¶ 23} Approximately half of Plaintiffs' SDRs described the malfunction or defect

simply as the baffle being "broken" or "blown." Several SDRs added that the broken baffle obstructed the exhaust outlet. Others also added that the blocked exhaust outlet resulted in power loss. The vast majority of Plaintiffs' SDRs indicated in the "stage of operation" column that the defect was discovered during inspection/maintenance; nine indicated that the problem arose during flight. None of the SDRs identified the submitter by name.

{¶ 24} In addition to the SDRs, Plaintiffs presented evidence regarding the history of failures of stainless steel mufflers, presented in various FAA reports from the 1960s and 1970. As discussed by Dr. McSwain, the FAA conducted studies of general aviation stainless steel mufflers in the 1960s. The studies involved the participation of various manufacturers, including Elano.

{¶ 25} The first report, titled "Analysis of Engine Exhaust System Failures in General Aviation Aircraft," was issued in September 1964. (Pls. Ex. 77.) The report noted a record of exhaust system malfunctions and failures causing in-flight hazards, both carbon monoxide leakage and loss of power. These failures "reached a maximum at approximately 100 to 200 hours operating time." The FAA report found that approximately 20 percent of exhaust system failures occurred internal to the muffler baffles and diffusers; McSwain testified that the failure of the muffler baffles and diffusers were "exactly the same" as what he found in his analysis of the muffler at issue here.

{¶ 26} The 1964 FAA report noted 70 incidents of reported partial power loss or complete power failure as a result of internal muffler failure between 1958 and 1962. McSwain stated that this represented a "large hazard" and that a failure in-flight is a "critical failure." (Trial Tr. at 760.) The FAA report noted that a predominance of the

internal muffler failures occurred in the crossover-type exhaust system; this was the system in Young's aircraft. (*Id*. at 766.)

{¶ 27} The FAA issued a 1965 report, titled "Metallurgical Evaluation of Failed Aircraft Stainless Steel Exhaust System Components," following a metallurgical investigation. (Pls. Ex. 78.) The FAA issued a "Final Report, Metallurgical Evaluation of Aircraft Exhaust System Components Failed During the Ground Test Program" in April 1968. (Pls. Ex. 79.) For this report, the FAA created a ground test program where it attempted to fail the stainless steel mufflers. The FAA concluded that a material composed of 21 percent chromium and 32 percent nickel (known as Incoloy) was far superior to 321 or 347 stainless steel; stainless steel 321 is used by Elano. Another 1968 FAA report concluded that high temperatures and vibration were factors in the failure of stainless steel exhaust systems. (Pls. Ex. 80.)

{¶ 28} The trial court initially instructed the jury that the FAA reports from these studies could not be considered as evidence of the truth of the information in those reports and that they could only be considered in regard to the fact that McSwain considered the FAA reports during his evaluation of this matter. (Trial Tr. at 749.) However, after further discussion with counsel, the court admitted the FAA reports under the ancient documents exception to the hearsay rule. (*Id*. at 755.) McSwain testified extensively about the content of the FAA reports.

{¶ 29} "Prior occurrences are sometimes relevant 'to show that a party knew or had notice of a dangerous condition.' '[I]n order for such occurrences to have been admissible to show prior knowledge on the part of [the defendant], these incidents must have occurred under circumstances substantially similar to those in [the plaintiff's case].'

The trial court has the discretion to determine whether the prior occurrences were substantially similar to the accident in question. Furthermore, the proponent of prior occurrence evidence has the burden of showing the substantial similarity of the circumstances." *Lumpkin v. Wayne Hosp*., 2d Dist. Darke No. 1615, 2004-Ohio-264, ¶ 13, quoting *Eakes v. K-Mart Intern. Headquarters, Inc*., 2d Dist. Montgomery No. 17334, 1999 WL 252481, *3 (Apr. 30, 1999). *See also Pease v. Lycoming Engines*, M.D. Pa. No. 4:10-CV-843, 2012 WL 162551 (Jan. 19, 2012); *Sheesley v. Cessna Aircraft Co*., D.S.D. Nos. 02-4185-KES, 03-5011-KES, 03-5063-KES, 2006 WL 3042793, *10 (Oct. 24, 2006); *Olson v. Ford Motor Co*., 410 F.Supp.2d 855 (D.N.D.2006).

{¶ 30} Plaintiffs attempted to present evidence of prior occurrences through SDRs, rather than through the testimony of witnesses. As documentary evidence of mechanical defects and/or malfunctions, the evidence is admissible only if it satisfies the hearsay rules.

{¶ 31} Evid.R. 801(C) defines hearsay as a "statement, other than one made by the declarant while testifying at the trial or hearing, *offered in evidence to prove the truth of the matter asserted*." (Emphasis added.) A "statement," as included in the definition of hearsay, is an oral or written assertion or nonverbal conduct of a person if that conduct is intended by the person as an assertion. Evid.R. 801(A).

{¶ 32} Plaintiffs claim that the SDRs "were not offered for the truth of the matter asserted, but as evidence that Elano knew or had notice of the defect or a dangerous condition in the subject muffler." (Plaintiffs' App. Brief at 16.) In other words, Plaintiffs claim that the SDRs were not inadmissible hearsay, because they were not offered for a hearsay purpose. Additionally, Plaintiffs assert that the SDRs were admissible as

evidence of prior defects/malfunctions (*i.e*., for the truth of the matter contained in the SDRs) under Evid.R. 803(8), the public record exception to the hearsay rule.

{¶ 33} Assuming, for sake of argument, that Plaintiffs could satisfy the substantial similarity requirement, we find no prejudicial error due to the trial court's exclusion of the SDRs for the purpose of demonstrating notice. Warlick testified that Elano knew about SDRs, had access to the SDR database, and received SDRs from the FAA. Specifically, he stated:

> Q: While you were at Elano, did you folks access that database to monitor the field service of the 099001 muffler?
>
> A: Yes.
>
> Q: How often would you access that database?
>
> A: Generally, the FAA would send us in notices on it, and we read all those notices. It was a document, and I don't recall what the document number was or the title to it. But it came in from the FAA.
>
> * * *
>
> Q: Okay. When you received those reports, and you reviewed those reports, did you folks in the engineering department sit down to identify the reasons why muffler assemblies were failing in the field?
>
> A: Yes.
>
> Q: Okay, did you come to a conclusion as to why they were failing in the field?
>
> A: I don't know what you're talking about. What failures?
>
> Q: Sir, what is a service difficulty report, let's start with that?

A: Well, that tells you that there's some type of failure.

Q: So any time that there was a service difficulty report, the FAA provided you notice of that report; is that accurate?

A: I can't say what the FAA did.

Q: Okay. What was the purpose of the FAA's providing you with service difficulty reports?

A: To keep us informed.

Q: Was it merely informational, or was there anything else required of Elano upon receiving these reports?

A: For us to take action, it had to have a direct request from the FAA or some kind of spec.

Q: So is it accurate that unless the FAA asked you to investigate the reports, Elano did not investigate the reports?

A: No, we investigated all of them. We called on it, or tried to find out why –

Q: How did you – how did you investigate these reports?

A: Telephone calls to them. We were – most of the time, we had good contacts with all the airframe companies. And when they'd have a failure, they'd let me know. Or if they had a problem with the exhaust system, they let me know. So that was –

Q: I'm referring to when the FAA, the Federal Aviation Adminsitration providing you with copies of service difficulty reports, what did you do with those reports?

A: We would analyze them and see what happened.

Q: Okay. Did you record the meantime of the failures?

A: No.

Q: Okay. Did these service difficulty reports involve failures where the end caps broke away from the diffusers?

A: I don't recall ever seeing one.

Q: Did these service difficulty reports involve instances where the diffuser material deteriorated?

A: I don't recall any of those either.

Q: Do you recall service difficulty reports involving perforations in the muffler canister?

A: No.

Q: Understood. But my question is, is a little focused on what the content of the report was. What was the type of failure that was being reported in the muffler systems? Do you recall what the type of failures were?

A: Mostly that I recall was the internal parts were burning up.

Q: Okay. And those internal parts were the diffusers?

A: Yes, the diffusers.

Q: And the end caps; is that correct?

A: Yes.

Q: Okay.

A: That whole assembly.

Q: And were you receiving reports that upon wearing out that these parts

were blocking the exit orifice of the exhaust systems?

A: I know of only one case that came up.

Q: Okay. Did that case involve an accident?

A: I think so, yes.

Q: As a result of the FAA submitting service difficulty reports to Elano Corporation, did you folks sit down and contemplate a change in the material selection of the mufflers, the internal components of the mufflers is what I'm referring to?

A: Yes, we proposed we change them to Inconel. * * * But we were turned down on it because of the price.

(Warlick Depo. at 71-77.)

{¶ 34} Warlick's testimony established that Elano was familiar with SDRs and their content, that the FAA had provided SDRs to Elano regarding Elano mufflers, and that Elano had investigated reports of muffler failures. Warlick recalled that many of the reports concerned internal parts, i.e., the end cap and diffusers, burning up. One failure involved an accident. Accordingly, to the extent that Plaintiffs offered the SDRs to establish that Elano had notice of muffler failure reports (as opposed to for the purpose of establishing that actual failures had occurred that were similar to the condition of Young's muffler), the admission of the SDRs was not necessary; the jury did not need to see the actual SDRs in order to ascertain whether Elano was on notice of reports of prior muffler failures. And, given the number of SDRs and the potential risk that the jury would improperly consider the information contained in them as substantive evidence of actual prior failures, the trial court could have reasonably concluded that the risk of unfair

prejudice to Elano substantially outweighed the probative value of the SDRs themselves. The trial court did not abuse its discretion in denying Plaintiffs' request to admit the SDRs for the purpose of establishing notice.

{¶ 35} Plaintiffs further assert that the SDRs should have been admitted under Evid.R. 803(8). That Rule provides:

> Records, reports, statements, or data compilations, in any form, of public offices or agencies, setting forth (a) the activities of the office or agency, or (b) matters observed pursuant to duty imposed by law as to which matters there was a duty to report * * *.

Plaintiffs assert that the SDRs at issue "documented substantially similar AA-5 muffler failures and taken together demonstrate a history of the failure of these mufflers on this model airplane, including engine failures." (Pls.' App. Brief at 19.) Plaintiffs thus claimed that the SDRs were admissible as substantive evidence of prior malfunctions and defects.

{¶ 36} It is undisputed that certain individuals are required to submit SDRs to the FAA. However, the information on the SDRs provides no information about the individuals who made the reports, and Plaintiffs have not identified which SDRs were submitted pursuant to a duty imposed by law, as opposed to a voluntary report by an individual who noticed an issue with the muffler. *Accord Crouch v. Teledyne Continental Motors, Inc*., Civ. No. 10-00072-KD-N, 2011 WL 2650879, *4 (S.D.Ala. July 6, 2011). Consequently, Plaintiffs did not establish that the SDRs were admissible under Evid.R. 803(8).

{¶ 37} We note that several of Plaintiffs' experts were asked about the SDRs.

(Trial Tr. at 500-505 (Fiedler); *id*. at 677-678 (McSwain); *id*. at 1128, 1139 (Sommer).) Of particular note, McSwain testified that, as part of his work in this case, he researched the number of failures that were embodied in SDRs for Elano mufflers in Grumman aircraft. (Trial Tr. at 677.) When asked how many SDRs he had seen concerning Elano mufflers in Grumman AA-5 aircraft, McSwain responded, "It's a stack. I don't remember the number, but it's a stack of failures." (*Id*. at 677-78.) Asked if the number was over 100, McSwain responded, "Yes." When asked about the prior FAA studies, McSwain testified that the failure of internal muffler parts found in FAA studies were "exactly the same" as the failures found in Young's muffler. (*See id*. at 759.)

{¶ 38} Plaintiffs further emphasized the importance of SDRs in closing argument. Counsel stated that the muffler was analyzed metallurgically, from a mechanical engineering standpoint, and from a historical perspective. As part of the historical perspective, counsel stated, "You look at Service Difficulty Reports, because what is that saying to you? That's saying to you what's going on in the field. What's a mechanic, who makes his living with the tools, seeing in service; right? And so if he's taking his time to report these things, you have to look at that." (*Id*. at 2120.) And, Plaintiffs reminded the jury that "Dr. McSwain testified that he personally reviewed 104 failures of the Elano muffler just like this, mostly in the AA-5 aircraft." (*Id*. at 2114.) Thus, even without the SDRs, the jury was aware of Plaintiffs' position that a large number of Elano muffler failures had been reported to the FAA through SDRs.

{¶ 39} Viewing the trial court's ruling on the SDRs in light of the entire trial, we find no reversible error in the trial court's denial of Plaintiffs' request to admit the SDRs into evidence. Plaintiff's first assignment of error is overruled.

III. Admission of Lay Witness Testimony

{¶ 40} Plaintiffs' second assignment of error states:

> The trial court erred by admitting incompetent, irrelevant, speculative, and prejudicial lay witness opinion evidence on matters that invaded the province of the jury.

{¶ 41} Plaintiffs claim that the trial court erred in permitting several of Elano's lay witnesses to testify beyond the scope of their own observations and knowledge and to offer opinions as to Young's intentions while approaching the runway (land v. go around), the functionality of the AA-5 aircraft, and/or the cause of the crash. They assert that the admission of this lay testimony was improper and that, even if admissible, was unduly prejudicial.

{¶ 42} Evid.R. 701 governs opinion testimony by lay witnesses and provides that such testimony "is limited to those opinions or inferences which are (1) rationally based on the perception of the witness and (2) helpful to a clear understanding of the witness' testimony or the determination of a fact in issue." Under Evid. R. 701, lay opinion testimony must be "rationally based on the perception of the witness. Perception connotes sense: visual, auditory, olfactory, etc. Thus, opinion testimony under Evid. R. 701 must be based on firsthand, sensory based knowledge." *Sec. Natl. Bank & Trust Co. v. Reynolds*, 2d Dist. Greene No. 2007 CA 66, 2008-Ohio-4145, ¶ 17.

{¶ 43} The line between expert testimony under Evid.R. 702 and lay opinion testimony under Evid.R. 701 is not always easy to draw. *Id*. at ¶ 19. However, as recognized by the Supreme Court of Ohio, courts have permitted lay witnesses to express their opinions in areas in which it would ordinarily be expected that an expert must be

qualified under Evid.R. 702. *State v. McKee*, 91 Ohio St.3d 292, 296, 744 N.E.2d 737 (2001). "Although these cases are of a technical nature in that they allow lay opinion testimony on a subject outside the realm of common knowledge, they still fall within the ambit of the rule's requirement that a lay witness's opinion be rationally based on firsthand observations and helpful in determining a fact in issue. These cases are not based on specialized knowledge within the scope of Evid.R. 702, but rather are based upon a layperson's personal knowledge and experience." (Footnote omitted.) *Id*. at 296-297; *see also State v. Jones*, 2015-Ohio-4116, 43 N.E.3d 833, ¶ 107 (2d Dist.) (police detective could testify about typical behavior of children in child abuse cases based on his training and experience in such cases); *State v. Renner*, 2d Dist. Montgomery No. 25514, 2013-Ohio-5463, ¶ 77.

{¶ 44} The trial court has "considerable discretion in admitting the opinion testimony of lay witnesses." (Citation omitted.) *State v. Marshall*, 191 Ohio App.3d 444, 2010-Ohio-5160, 946 N.E.2d 762, ¶ 43 (2d Dist.). An abuse of discretion implies that the trial court's attitude was unreasonable, arbitrary or unconscionable. *Blakemore v. Blakemore*, 5 Ohio St.3d 217, 219, 450 N.E.2d 1140 (1983).

{¶ 45} Plaintiffs contend that the trial court improperly allowed lay opinion testimony from four defense witnesses: Donald Mannon, Nelson Whitt, Ivan Henshaw, and Joseph Johnson.[2]

A. Donald Mannon

{¶ 46} Donald Mannon is a freight car repairer for CSX railroad, and he resides in

[2] None of these witnesses testified live. Their video-recorded depositions were played for the jury.

Kitts Hill, Ohio. Mannon is not a pilot. Mannon testified that he was familiar with the Lawrence County Airpark and had seen airplanes landing and taking off from that airport "hundreds" of times.

{¶ 47} According to Mannon's testimony, Mannon was in the parking lot of a furniture store on March 13, 2005, when he saw a plane "coming down below tree level"; the plane was not near the runway. (Mannon Depo. at 8.) Mannon stated that the plane was wavering, with its wings rocking back and forth, and the nose was slightly up. Mannon heard the plane throttle up, but "it just kept going down." Mannon stated that he could "look in the window and I could tell somebody * * * was fighting, trying to keep it up." (*Id*. at 10.) Mannon was able to see the propeller spinning and hear the engine until the plane went out of his sight, i.e., behind a church and some trees. Mannon did not hear any unusual sound from the engine, such as popping, cracking, or backfiring. (*Id*. at 32-33.)

{¶ 48} When asked about the engine's level of power that he heard, the following exchange occurred:

> Q: Have you had many occasions in your life when you've heard airplanes under power, such as takeoff?
>
> A: Yes.
>
> Q: Okay? I mean, do you recognize from your experiences hearing an airplane that they may be using more power on takeoff than flying around in the air?
>
> A: Yes.
>
> Q: How would you describe the power that you heard coming out of that

engine as it's – when you said it increased its power?

A: I would say full power.

(*Id*. at 33-34.)

{¶ 49} Upon cross-examination by Plaintiffs' counsel, Mannon provided additional testimony regarding engine sounds, as follows:

Q: Okay. Would you agree with me that there are many different kinds of airplanes? I mean, some have two engines, some have one engine?

A: Yes.

Q: And just like there may be different sounds to cars, would you agree with me that there are different sounds to airplanes?

A: Yes.

Q: One has one engine, one has two engines. So when you were asked the question about, you know, having heard many airplanes on different times at the airport in Lawrence County, the times that you heard them you would have heard different sounds from different airplanes?

A: Yes.

Q: You don't have any training as an airframe or power plant mechanic working on airplanes?

A: No.

Q: Such as you've never run up engines and listened to them, how the power comes up?

A: No.

(*Id*. at 46-47.)

{¶ 50} After the plane left his sight, Mannon got into his truck and drove across the highway to the crash site. Mannon estimated that the crash site was approximately 300 yards from the parking lot. When he arrived, the plane was engulfed in flames, and the plane looked like "a pile of garbage." (*Id*. at 13.)

{¶ 51} On appeal, Plaintiffs argue that the trial court erred in allowing Mannon's testimony as it related to the operation of Young's engine. They assert that Mannon should not have been permitted to testify that he perceived the engine to be operating under "full power" and that the facts underlying his opinion – his hearing of the engine and observation of the aircraft – were not reliable.

{¶ 52} Mannon observed Young's plane immediately before the crash, though he was unable to see its impact with the ground due to the presence of trees and a church in his sightline. Mannon's descriptions of the sound of the engine, the spinning of the propeller, the plane's pitch, and the movement of the plane as it descended were based on his first-hand observations. Although Mannon was not a pilot, his description that he heard the engine "throttle up" and that it appeared to be at full power were based on his experiences with engines and observing airplanes. Plaintiffs question whether Mannon could have seen the propeller spinning and heard what he heard from 300 yards away, and they emphasize that Mannon is not a pilot and has no flight training; these are matters relating to the weight of the evidence, not its admissibility.

{¶ 53} The trial court did not abuse its discretion in permitting Mannon's testimony.

B. Nelson Whitt

{¶ 54} Nelson Whitt is a commercial instrument multiengine flight instructor and president of Attitude Aviation, which provides flight instruction as well as aircraft

maintenance and inspections. Whitt did not provide instruction to Young, and he did not see Young fly his (Young's) Grumman aircraft.

{¶ 55} Whitt was present at the airport on the day of Young's crash, but he did not see Young. At the time of the crash, Whitt was working in a hangar and did not see what occurred outside. Whitt did not hear the Grumman's engine, and he did not hear anything on a radio; Whitt believed that the speaker exterior to the FBO (fixed-base operator) facility at the airpark was inoperable at that time.

{¶ 56} Whitt did see the engine after the crash occurred. He stated that the engine was separate from the plane, and the propeller was still attached. One blade was buried in the ground, which was hard due to cold weather. He further testified:

> Q: The only thing you've heard is that the engine was operating properly?
>
> A: From the evidence that I saw at the crash scene – and I was there when they inspected the engine – there's no reason to believe the engine wasn't operating properly, because the prop was buried. And if an engine is even a partial strike, low power, the ground was hard, it was – one edge of the prop was buried in the ground. I mean, it hit – it hit the ground hard.
>
> Q: Was this a two-bladed prop on this aircraft?
>
> A: Yes.
>
> Q: And one of the blades were literally buried straight into the ground then?
>
> A: Yes. It had actually contacted the other one enough to roll it back some. But it had hit the ground pretty hard, nose first.
>
> Q: And that indicates to you that the engine is operating at higher power?

* * *

A: Yes.

Q: Tell us about – what's your knowledge base to be able to tell us these things?

* * *

A: Well, besides being around airplanes my whole life, there's none.

(Whitt Depo. at 41-42.)

{¶ 57} Whitt testified that he was familiar with general flying characteristics of small aircraft, and he was familiar with what it looks like for an aircraft to stall. Whitt stated that he practices stalls monthly. Whitt testified that, as a plane enters a stall, the plane experiences wing shudder and, "[i]f you let it go into a complete stall, the nose will come down. If you don't have it coordinated, it will roll over." (Whitt Depo. at 48.)

{¶ 58} Plaintiffs claim that Whitt was not qualified to render an opinion as to whether the engine was operating properly when the Grumman hit the ground. As with Mannon, they emphasize that Whitt is not an airplane mechanic or an accident reconstructionist.

{¶ 59} The trial court did not abuse its discretion in allowing Whitt to testify regarding the engine. Whitt is a flight instructor with experience in airplane stalls. Although he is not a mechanic, he has experience with the operation of airplanes, and Whitt had viewed the engine of Young's plane after the crash. It was reasonable to infer, based on the knowledge and experience Whitt had accumulated over many years around airplanes, that he would be familiar with the difference in force that a propeller would exhibit depending on whether the propeller were being turned by an operable engine.

Moreover, the basis for Whitt's opinion was before the jury, Whitt was cross-examined, and the jury was able to evaluate how much weight to give to Whitt's opinion, compared to those offered by the parties' experts. We find no abuse of discretion in the trial court's ruling on the admissibility of Whitt's testimony.

C. Ivan Henshaw, Jr.

{¶ 60} Ivan Henshaw lives near the Lawrence County Airpark and has driven by it on his way to work for the past 32 years. Henshaw has seen planes taking off and landing at the airport "hundreds" of times and has seen planes flying around the area, but he is not a pilot.

{¶ 61} On March 13, 2005, Henshaw saw Young's plane approach the airpark. He testified that his wife noticed the plane first, saying, "That plane's coming in fast." (Henshaw Depo. at 10.) Henshaw had responded to her, "Yeah, but look at the angle." *Id*. Henshaw stated that the plane was coming down at about a 45 degree angle toward the airstrip. Henshaw described what he observed, over objection, saying:

> We were about to get on the bridge [from West Virginia into Ohio], and we noticed it. We said just what we said, you know, it was coming in awful – it seemed like it was fast. Most planes that come in, they just, you know, just kind of glide in. (Indicating.) This one was coming down pretty fast and at a pretty good angle.
>
> And when we saw that and I said it – I said, "there's no way that" – now, this is just my opinion. All right? I mean, what I seen. Okay.
>
> I said, "There's no way he's going to land it," because it looked, the way he was coming down, he was going to be somewhere about the middle

of the airstrip. And I told her, just joking, I said, "I'm going to get up here. I want to see how he lands this thing."

(Henshaw Depo. at 11-12.)

{¶ 62} Henshaw stated that, once the plane went by, he could not see the plane because of the trees. Henshaw did not see if the plane touched the runway. When he next saw the plane, it was rising. From his angle, Henshaw could not see if the plane was "vertical." The plane then turned on its right side and crashed.

{¶ 63} Henshaw was asked to mark on a map where he was when he first noticed Young's plane. Henshaw complied. When asked what the plane was doing at that point, Henshaw responded, "Well, he was coming in for a landing." (*Id*. at 16.)

{¶ 64} Upon questioning by counsel for Plaintiffs, Henshaw testified that he is not a pilot and did not know how fast Young's Grumman could go. He did not know how fast it travels while cruising or when it touches down to land. When asked to give a "ballpark figure" of how fast Young's plane was traveling, Henshaw stated, "I don't have a clue how fast it was going." Henshaw did not know if the flaps were extended or the landing gear was down. Henshaw acknowledged that he did not know if Young was attempting to land, as opposed to making a low approach.

{¶ 65} Plaintiffs argue that Henshaw was improperly permitted to "give his opinion that Dr. Young 'was coming in for a landing,' " despite the fact that Henshaw did not know how fast Young's aircraft was traveling and whether Young intended to land. Plaintiffs further argue that Henshaw should not have been permitted to give "speculative opinions" that Young's approach was fast and high.

{¶ 66} We disagree that the trial court abused its discretion in permitting

Henshaw's testimony. Henshaw did not offer an expert opinion on Young's approach to the airport. He simply testified that, in comparison to the "hundreds" of planes that he had seen approaching the airport, Young's plane appeared to be high and travelling fast. Henshaw described what he typically observes (gliding in) and how Young's plane differed. Henshaw's statement that Young was "coming in for a landing" was also based on Henshaw's ordinary experience of seeing numerous planes land at Lawrence County Airpark. Henshaw's testimony was not beyond the scope of reasonable lay testimony.

D. Joseph Johnson

{¶ 67} Joseph Johnson is a pilot who houses his airplane at Lawrence County Airpark. Johnson was at the airport on March 13, 2005, when the crash occurred. He was standing on the ramp area in front of the airport office. His wife, Valentine, was in their plane getting ready to go up for her first "solo pattern work"; she was waiting for Young to land before going up.

{¶ 68} Johnson testified that he saw Young "coming back to the airport to land." On Young's first approach, Johnson saw Young squared up on the runway and thought Young's plane was "high." Johnson stated that "high" is "relative to where you tend to think you need to be to set the plane down on the runway, to land." Johnson testified that, from a pilot's standpoint, Young's plane was high, and Johnson thought, at that point, that he did not see how Young was going to get the airplane down. Johnson observed Young execute a go-around; he put power into the plane and climbed.

{¶ 69} Johnson testified that, on the second approach, Young's plane looked a little bit higher than Johnson thought it should be, but not as high as the first approach. Johnson stated that he "really didn't think too much about it." (Johnson Depo. at 29.)

Johnson did not think the plane looked abnormal; he stated the descent "looked fine." Johnson commented that the plane seemed a little bit faster than what he thought it should have been, but Johnson acknowledged that he had not flown an AA-5 and did not know the approach speed for that plane.

{¶ 70} Johnson saw the wheels of Young's plane touch down about 2/3 to 3/4 down the runway, and turned away. Johnson heard the power go back up, and when Johnson turned around, he saw the plane in a quick pitched-up attitude. Johnson believed the airplane had bounced on the runway, based on the change in pitch attitude of the plane. Johnson stated that the angle was "pretty steep" because of the trees; Johnson saw Young clear the trees. (*Id*. at 39-40.) Johnson stated the plane then "shuddered a little bit," the right wing dropped, and the plane disappeared behind the trees. (*Id*. at 41.) Johnson stated that, "when an airplane stalls, it will give a little buffet or a little bit of shudder right * * * just before it falls out of the sky." (*Id*. at 41.) Johnson did not see the plane's impact with the ground.

{¶ 71} Johnson testified that he did not hear anything abnormal when Young powered up to climb over the trees. He did not hear the engine sputter or cut out. Johnson stated that the propeller had to have been turning if the plane were climbing. Johnson stated that he believed the airplane had stalled. Although Johnson had not flown the Grumman aircraft, he had seen Young land before, and Young had approached lower and slower in the past, landing in the first third of the runway.

{¶ 72} Plaintiffs argue that, by allowing Johnson's testimony, the trial court improperly permitted Johnson to state his opinion as to the cause of the accident, usurping the jury's role. They assert that he was improperly permitted to state his opinion

that he did not hear anything abnormal regarding the aircraft and "became a second accident reconstructionist for the defense who rendered opinions about a flight path he did see for an aircraft he has never flown." (Pls. App. Brief at 33.) Plaintiffs further claim that Johnson's opinions were based on speculation that Young was "coming back to land," that his plane was high, and that his plane bounced on the runway.

{¶ 73} Johnson was an experienced pilot, who was familiar with the Lawrence County Airpark. Johnson's opinions regarding Young's approaches to the runway were based on his personal observations and experience, both as a pilot and having seen Young land the Grumman on prior occasions. Similarly, based on his experiences and personal observations, Johnson was reasonably permitted to state his opinions as to whether Young's plane sounded normal and was rising at an excessively steep rate when Young cleared the trees following his second approach. Finally, through cross-examination, Plaintiffs had ample opportunity to explore Johnson's unfamiliarity with the specifications and handling characteristics of the Grumman. The trial court did not abuse its discretion in permitting Johnson to testify as he did.

{¶ 74} Plaintiff's second assignment of error is overruled.

IV. Demonstrative Evidence – Flight Video

{¶ 75} Plaintiffs' third assignment of error states:

> The trial court erred in denying a request for a jury view and then arbitrarily deeming a demonstrative flight video as a "jury view" thereby excluding it from the evidence and disallowing its use as a demonstrative aid.

{¶ 76} On April 7, 2015, Plaintiffs requested a jury view of a Grumman AA-5 aircraft and a flight demonstration at the Greene County Regional Airport. (Doc. #304.)

Plaintiffs indicated that the flight demonstration would include an engine demonstration, aerodynamic stall, go around, and a "touch and go" (a maneuver in which an airplane touches down as if to land, but immediately takes off again). They stated that the demonstration would help the jury understand how such maneuvers occur and allow them to hear the warning sound that a Grumman AA-5 makes before the onset of a stall. (It is unclear from the motion whether Plaintiffs intended jurors to be passengers in the aircraft during the demonstration or, instead, to view the demonstrations from the ground.) Plaintiffs further asserted that viewing an aircraft was necessary for the jury to understand the difficulty of inspecting the muffler before flight, as well as the cockpit instruments and how aircraft operate. Plaintiffs' counsel indicated that he had brought aircraft to courthouses on several prior occasions.

{¶ 77} On April 16, 2015, the trial court denied the request for a jury view. (Doc. #308.) The court noted that R.C. 2315.02 permits jury views "of property which is the subject of litigation, or of a place where a material fact occurred." The court stated that it was "not persuaded that such a jury visit is within the province of R.C. 2315.02, or that the jury would not be able to gain the same understanding of the evidence via video and photographic demonstration in the courtroom."

{¶ 78} Later that same day, in response to the trial court's ruling on their motion for a jury view, Plaintiffs filed a motion for leave to submit a demonstrative video exhibit. (Doc. #307.) Plaintiffs acknowledged that all trial exhibits were to have been exchanged prior to that date, but they explained that they had requested a jury view in lieu of a video exhibit because of the expense involved in creating a video demonstration. Plaintiffs stated that the project would require travel by consultants, several videographers,

consultant time and material, configuration of aircraft, and compensation to the aircraft owner; total cost could exceed $30,000 to $50,000. Plaintiffs indicated that they were preparing to coordinate the videotaping of the demonstrations.

{¶ 79} On April 28, 2015, the trial court overruled the motion for a demonstrative video. (Doc. #326.) The court explained, "The type of demonstrative evidence that the Court contemplated in its prior entry as being potentially helpful to the jury's understanding and application of the evidence would be the actual aircraft involved in the crash, including the engine and muffler, as well as the accident scene and the specific airport in question. But this is not what Plaintiffs are contemplating. Furthermore, since the proposed video has not yet been created, the Court cannot evaluate whether it would even satisfy evidentiary requirements."

{¶ 80} The following day, Plaintiffs sought reconsideration of the trial court's order. Plaintiffs indicated that the videos were recorded on April 28, and it asked the court to review them. The jury view videos consisted of four short segments: (1) a 46-second video showing a go around; (2) a 22-second video of an AA-5 flying overhead, apparently taken from where Parsons had resided at the time of the crash; (3) a 19-second video of a stall, taken from the cockpit of an AA-5; and (4) a 1.08-minute video of a stall, taken from the cockpit of the AA-5's chase plane, which was video-recording the AA-5 in flight. Elano opposed the motion for reconsideration.

{¶ 81} Trial began on May 4, 2015, and opening statements were presented on the morning of May 5, 2015. At that time, the trial court permitted Plaintiffs to play the videos during their opening statement, and counsel commented on the videos. For example, while the fourth video segment was shown, counsel told the jury:

> * * * It's the Lawrence County Airport. This is an AA-5. It's being flown by Don Sommer, who will be testifying here as an expert. * * * This is that same takeoff and departure stall with a chase plane. So there's the AA-5 up there (Indicating). We brought a chase plane in to take video, and I'm awfully sorry that it's not closer. It should be closer as we get in here. Now, you're going to hear the stall warning in the chase plane (Stall warning horn goes off), which had the same characteristics as this one. This one has a beep on it. (Indicating.) And you notice when they recover from the stall, the airplane doesn't rollover and crash. The airplane doesn't do anything except fly. * * *

(Trial Tr. at 129-130.)

{¶ 82} After opening statements were completed, the trial court had the same videos played for the jury as a jury view. The trial court gave the following instruction to the jury prior to playing the videos:

> Ladies and gentlemen, in some cases the parties have the Jury go to the scene of the incident to get a perspective on what the case is about. We're not going to do that. However, I am allowing a video presentation of certain matters that you might otherwise have seen had we gone to the actual scene. I do want you to understand that as you observe this video, that it is not evidence. The conditions may have changed. They may be different than the actual events that occurred, and I want you to put it in that perspective. The only purpose of you viewing is to help you understand the evidence as it will be presented and as it is heard in this courtroom.

(Trial Tr. at 160-161.) The videos were then played for the jury without commentary from counsel or court personnel.

{¶ 83} On May 7, Plaintiffs raised with the trial court that they would like to use the videos during the testimony of Donald Sommer. Plaintiffs reminded the court that Elano had objected to the use of the video during expert testimony on two grounds: (1) the videos were not produced in a timely fashion, and (2) that the videos were based on underlying data, which was not disclosed. Plaintiffs argued that the videos met the legal standard for demonstrative evidence, and that timeliness was not one of the elements. Plaintiffs further argued that all of the underlying data (airspeed, RPMS, elevation, etc.) were evident on the control panel visible in the videos. (Trial Tr. at 909-912.) Finally, Plaintiffs argued that the jury had already seen the video "out of context," without the benefit of testimony to explain its significance.

{¶ 84} The trial court denied the request, saying:

> The reason that video was prepared was for one reason only, I denied a Jury view to going out to the airport, and I suggested that if you wanted a video of a Jury view, that that could be taken; and so that was the total 100 percent context of the reason we allowed that video to come in. Now, if we went out to the airport, and the same things took * * * – even if * * * every Juror got to fly around in that airplane, it would have been done. It would have been over, and it doesn't come back again. I permitted it for one single purpose, and that was a Jury view, not as demonstrative evidence, as a Jury view. That Jury view has been accomplished. As I said, the Plaintiff had an opportunity to ask the Bailiff to point things out. I know I

said that on the record, and they chose not to do that. * * *

{¶ 85} During Mr. Sommer's testimony, Plaintiffs' counsel asked him if he was the person who flew the Grumman aircraft in the jury view videos. Defense counsel objected. In a bench conference regarding the objection, the trial court expressed that it was not relevant who was flying the plane, although the answer to that question was innocuous. The court stated that, had the court granted Plaintiffs' jury view request, the jurors would have been "[flown] around in an airplane" and the court would not "care who was flying the airplane, it would have been done and over with." (Trial Tr. at 965-966.)

{¶ 86} In their brief, Plaintiffs state that they are not challenging on appeal the trial court's denial of their request for a jury view. They claim only that the trial court erred in denying their request to use the videos as demonstrative evidence at trial. Nevertheless, a discussion of both jury views and demonstrative evidence is helpful to our discussion.

{¶ 87} R.C 2315.02 governs jury views in civil trials. It provides:

> If the court is of the opinion that it is proper for the jurors to have a view of property which is the subject of litigation, or of a place where a material fact occurred, it may order them to be conducted in a body under the charge of an officer to such property or place, which shall be shown to them by a person appointed by the court for that purpose. While the jurors are thus absent, no person, other than the person so appointed, shall speak to them on any subject connected with the trial.

{¶ 88} The purpose of a jury view is to assist the trier of fact in understanding and applying the evidence offered at trial. *Monus v. Day*, 7th Dist. Mahoning No. 10 MA 35, 2011-Ohio-3170, ¶ 47. The jury view is not part of the presentation of evidence; the jury

is not permitted to gather evidence at the jury view, and only a representative of the court may address the jury about the subject of the jury view during the jury view.

{¶ 89} The decision whether to grant a jury view is left to the sound discretion of the trial court. *Monus* at ¶ 48.

{¶ 90} Less than a month before trial began, Plaintiffs' requested a "jury view of aircraft and demonstration" at the Greene County Regional Airport, seeking to provide certain flight demonstrations and to point out certain features of the Grumman AA-5 aircraft. Although Plaintiffs wanted the jurors to see and hear the same make and model of plane that Young flew, the requested "jury view" would not have been of Young's plane, and it would have occurred at a different airport than the one involved in the crash. The trial court reasonably concluded that Plaintiffs' request did not fall within R.C. 2315.02.

{¶ 91} At the time Plaintiffs filed their "motion for jury view of aircraft and demonstration," no videos demonstrating various flight maneuvers had been made by Plaintiffs, and there is no suggestion in the record that, at that time, Plaintiffs intended to have videos made to be used at trial. As stated expressly in Plaintiffs' April 16 motion for leave to submit demonstrative video exhibit, Plaintiffs' demonstrative videos were being prepared as a direct result of the trial court's denial of their request for the jury to see live demonstrations of the Grumman AA-5 aircraft. Plaintiffs noted the preference for "real time" viewing of an aircraft flying and the expensive nature of preparing a video demonstration. Plaintiffs also expressly acknowledged that the trial court had ordered the exchange of all exhibits 30 days prior to the pre-trial conference and to show cause for any exhibits sought to be exchanged thereafter.

{¶ 92} The trial court ultimately allowed the video demonstration to be used in lieu

of a jury view at the Greene County Regional Airport, and it permitted the video to be played during Plaintiffs' opening statement. As the trial court noted during the trial, neither the attorneys nor witnesses would have been permitted to comment on the flight maneuvers or the aircraft during a jury view at the Greene County Regional Airport, had a live jury view been permitted. Having allowed the video to be used in lieu of a live jury view, the court reasonably imposed the same restrictions.

{¶ 93} During trial, Plaintiffs asked the trial court to allow the video demonstration to be used as demonstrative evidence upon which witnesses would comment.

{¶ 94} Stated generally, demonstrative evidence is "an object, picture, model, or other device intended to clarify or qualify facts for the jury." *In re A.H.*, 2d Dist. Clark No. 2014-CA-146, 2015-Ohio-2174, ¶ 54, quoting *State v. Agee*, 7th Dist. Mahoning No. 12 MA 100, 2013-Ohio-5382, ¶ 39. Demonstrative evidence is merely an aid in understanding certain facts. *In re A.H*. at ¶ 54. This is in contrast to "substantive evidence," which has been defined as "something (as testimony, writings, or objects) presented at a judicial or administrative proceeding for the purpose of establishing the truth or falsity of an alleged matter of fact." *Id*.

{¶ 95} "Demonstrative evidence is admissible if it satisfies the general standard of relevance set forth in Evid.R. 401 and if it is substantially similar to the object or occurrence that it is intended to represent. The admission of demonstrative evidence is subject to Evid.R. 403. The trial court has discretion to determine whether demonstrative evidence is helpful or misleading to the trier of fact. A trial court's ruling on the admission of demonstrative evidence is reviewed under the abuse-of-discretion standard." (Footnotes and citations omitted.) *State v. Jones*, 135 Ohio St.3d 10, 2012-Ohio-5677,

984 N.E.2d 948, ¶ 82; *see also In re A.H.* at ¶ 54; *State v. Tate*, 2d Dist. Montgomery No. 25386, 2013-Ohio-5167, ¶ 79.

{¶ 96} Plaintiffs contend that the trial court should have allowed the admission of the videos, because they satisfied each of the requirements for admissibility. They argue that the flight demonstration videos were relevant, because they showed maneuvers that Young performed with his aircraft, an aerodynamic take-off and departure stall, and the audible departure stall warning horn that alerts a pilot of the onset of a stall. They note that the video was recorded from the vantage point of Rae Ann Parsons, a witness to the crash. As for similarity, Plaintiffs indicate that the plane used in the videos was the same make and model as Young's aircraft and it was performing similar maneuvers as described by witnesses. Finally, the videos were short and would not consume undue time, confuse the issues, or mislead the jury.

{¶ 97} We agree with Plaintiffs that demonstrative flight videos are the type of evidence that could be offered as demonstrative evidence to aid the jury in understanding the admitted substantive evidence. Nevertheless, the trial court acted within its discretion when it permitted the videos to be used in lieu of a jury view (and during Plaintiffs' opening statement), but not as demonstrative evidence during the testimony of witnesses.

{¶ 98} The trial court set a deadline for the exchange of trial exhibits. No demonstrative flight video had been prepared and exchanged by that deadline, and had the trial court granted Plaintiffs' jury view request, it appears that the video never would have been prepared. In light of the adversarial nature and length of this litigation and the volume of exhibits involved, the trial court reasonably determined that Plaintiffs should

not present last-minute exhibits for use at trial, absent good cause. Plaintiffs did not present good cause for the last-minute creation of the video as a demonstrative exhibit.

{¶ 99} Having allowed the Plaintiffs to use the video in lieu of a jury view, which Plaintiffs had originally requested, the trial court acted reasonably in disallowing the supplementation of Plaintiffs' exhibit list and the use of the flight demonstration video as a demonstrative exhibit at trial.

{¶ 100} The third assignment of error is overruled.

V. Demonstrative Experiment – Effects of Blockage

{¶ 101} Plaintiffs' fourth assignment of error states:

> The trial court erred in excluding a videotaped experiment that demonstrated plaintiff's expert's opinions showing the effects in the engine with the application of takeoff power when the muffler outlet has blockage and in requiring the graphics indicating the horsepower readings during the test to be redacted from the video before it could be used as a demonstrative exhibit.

{¶ 102} During Donald Sommer's testimony, the trial court permitted Plaintiffs to play a video recording of an experiment conducted by Aeroscope, Plaintiffs' Exhibit 44, in a redacted form. (Trial Tr. at 1109.) In their fourth assignment of error, Plaintiffs claim that the trial court erred when it failed to admit Plaintiffs' Exhibit 44 into evidence and in requiring horsepower readouts to be redacted from that video. Plaintiffs also appear to claim that the trial court erred in failing to admit the video as substantive, rather than demonstrative, evidence.

{¶ 103} Aeroscope, Inc. is a company that performs airplane accident

investigation, failure analysis, determines why airplanes crash, and what the factors and circumstances surrounding the crash were. Aeroscope's principal, Donald Sommer, is a mechanical engineer, pilot (private, commercial, and air transport), flight instructor, airplane mechanic, and accident reconstructionist.

{¶ 104} According to Sommer's testimony, he conducted two series of tests with an engine that he had built specifically to mimic the engine that was in Young's aircraft. He stated that the condition of the muffler shortly after the crash was indicative of the muffler having blockage, and the tests aimed to determine the effects on the engine of blockage to the exhaust. The first series of tests, in which obstructions were placed in the tailpipe, were video-recorded and admitted as Plaintiffs' Exhibit 41. In the second series of tests, Sommer conducted an experiment to replicate the sputtering sound that was reportedly heard by Rae Ann Parsons, a witness to the crash. This experiment was video-recorded and presented as Plaintiffs' Exhibit 44.

{¶ 105} The first series of tests aimed to determine the effect that various blockages of the outlet of a muffler on a Grumman AA-5 would have on the operation of the engine. (Trial Tr. at 977.) An engine was mounted on an aircraft engine dynamometer, and an Elano muffler with a tailpipe was mounted on the engine. Sommer developed a fixture that fit over the end of the exhaust pipe, and he developed a system where he could slide a flame cone in front of the exhaust pipe at varying degrees, covering 25 percent, 50 percent, 75 percent, and 100 percent of the area, in turn. Sommer also conducted the same testing using a solid material, much like the muffler's end cap; the solid material was put in front of the exhaust pipe, increasingly blocking the tailpipe.

{¶ 106} Sommer acknowledged that the obstruction in Young's muffler was at the

exhaust outlet, not in the tailpipe, but testified that using the tailpipe had no effect on the tests' reliability. (Trial Tr. at 981.) Sommer further stated, "What you're doing is creating back pressure in the muffler. You're creating an obstruction to the exhaust leaving the muffler, and my whole objective was, what's going to happen to the engine when the exhaust gets plugged up? * * * And in this case we're able to measure horsepower. We're able to measure temperatures. We're able to measure all that." (*Id*.)

{¶ 107} For the second series of tests (replicating an obstruction inside the muffler), Sommer took the flame cones from the muffler and cut them into pieces similar to those found in Young's muffler. Sommer used those pieces to partially block the outlet of the muffler. Defendants objected to Sommer's testimony regarding this testing, arguing that the testing was performed after the disclosure of Sommer's expert report and the discovery deadline.

{¶ 108} Defendants also objected to the use of Plaintiffs' Exhibit 44, again arguing that the second series of tests were performed after the deadline for exchanging expert reports. In response to that objection, Plaintiffs stated that Exhibit 44 was created in April 2013 as a demonstrative exhibit, in preparation for an earlier scheduled trial date (June 2013). (Trial Tr. at 1013-1014.) Plaintiffs further explained:

> [T]hat's when we had that videotape of an engine with the audio showing that as it's blocked, you'll hear the sounds that the witnesses heard. That's what it's being offered for. And also because Ms. Parsons said it sounded like it's [Young's engine is] dying, we also identify what the horsepower is, because the dynamometer shows you what the horsepower is.

> And there will be no new opinions on the issue. Just, Mr. Sommer this is demonstrative of what you've already said in this case since 2008 that witnesses heard the engine sounding abnormal, that it was sputtering and dying, and that it was caused by the blockage of the muffler.
>
> He's already given those opinions. This is just a video laying it out for the Jury as to what it looks like and sounds like.

(Trial Tr. at 1015-1016.)

{¶ 109} Defendants again objected to the use of the video. They argued that (1) Sommer indicated in his deposition that he could not quantify the amount of blockage in Young's muffler at the time of the accident, (2) there was no evidence that the sound the video portrays was the sound that Parsons heard, and (3) the video quantifies the amount of the horsepower loss.

{¶ 110} The trial court asked Plaintiffs if they would agree to the court's giving a demonstrative evidence instruction to the jury regarding the video. Plaintiffs agreed. (Trial Tr. at 1033.) The court ruled that it would allow the video to be used as demonstrative evidence "for purposes of the demonstrative aspect of the sound that's been made, but we're not going to talk about horsepower." (*Id*. at 1036-1037.) The court explained:

> The witness [Parsons] had nothing to do, she offered nothing, doesn't know anything about horsepower, so the witness [Sommer] can testify regarding the aspects of steps taken to create that particular demonstration, subject to cross-examination, and the noise that can be made, but we're not going to do horsepower. Since the purpose of this is to be demonstrative

> evidence to illustrate, and I think it's well-stated in your position of the witness, Rae Ann Parsons, as to what she heard. What she heard had nothing to do with horsepower, so it's not demonstrative evidence and no testimony in regard to that particular muffler.

(*Id*. at 1037.) The court indicated that Plaintiffs could relate the sound to loss of power, but not to a particular level of horsepower. (*Id*. at 1041.) No instruction on demonstrative evidence was given.

{¶ 111} Sommer subsequently testified further about both of his tests. Sommer described the results of the first series of tests, using Plaintiffs' Exhibit 41, the video showing the tests being conducted. Sommer stated that the engine was a 150 horsepower engine, but they had the engine running unobstructed at 105 horsepower. Sommer stated that he focused on the percentage decrease in horsepower (as opposed to the actual decrease in horsepower) as obstructions were increased, however Exhibit 41 displayed the horsepower measurements as obstruction was increased and Sommer testified to those measurements. The tests produced the following results:

Obstruction	**Horsepower**
None	Approximately 105
Flame cone (25%)	From 105 to Mid-80s
Flame cone (50%)	Mid-80s
Flame cone (75%)	Mid to low 80s
Flame cone (100%)	Mid to low 70s
Solid plate (25%)	Mid 50s
Solid plate (50%)	Mid 40s
Solid plate (75%)	Mid 40s
Solid plate (100%)	Low 40s to upper 30s

(Trial Tr. at 1092-1104.)

{¶ 112} Sommer next testified that he performed XL tests, meaning that he placed

an engine on the dynamometer, partially obstructed the muffler, began the engine at a lower RPM (800 or 1000 RPM) , and increased the throttle to simulate take-off. Sommer stated that pieces of flame cone and end cap were placed inside the muffler to partially obstruct the outlet of the muffler, and that this demonstration would show the engine sputtering, as Parsons had described. (Trial Tr. 1108-1109.)

{¶ 113} At this juncture, Plaintiffs played Plaintiffs' Exhibit 44, with the horsepower readings redacted, and Sommer indicated that sputtering could be heard in the background. Sommer had previously testified that sputtering means there is loss of power. (Trial Tr. at 1060.)

{¶ 114} Sommer opined, to reasonable degree of certainty in his field, that the deterioration of the muffler caused the engine to falter and sputter (*id*. at 1123) and that the sputtering Parsons heard was a consequence of flame cone and end cap material partially blocking the outlet of the muffler in Young's plane, which resulted in loss of engine power (*id*. at 1110). He further opined that Young's aircraft lost sufficient power as a result of the blockage so as to have prevented the aircraft from continuing to climb. (*Id*. at 1111, 1123.)

{¶ 115} At the conclusion of Plaintiffs' case, Plaintiffs sought to have Exhibit 44 admitted into evidence, stating that it was "substantive of the sound." (Trial Tr. at 1384.) Plaintiffs argued that Sommer had replicated the condition of Young's muffler and had run the engine on a test cell, which produced a sputtering sound; Plaintiffs stated that Exhibit 44 was admissible because it was "correct," "properly done," "done with science," and "replicates exactly what happened on the day of the accident." (*Id*. at 1430.) Defendants argued that Exhibit 44 was offered for demonstrative purposes only and that

demonstrative evidence does not come into evidence under Ohio law. (*Id*.) The trial court denied the motion to admit Exhibit 44. (*Id*. at 1434.)

{¶ 116} As discussed above, a demonstrative exhibit is admissible if it is relevant, substantially similar to the object or occurrence that it is intended to represent, and does not consume undue time, confuse the issues, or mislead the jury. Plaintiffs repeatedly stated at trial that Plaintiffs' Exhibit 44 was offered to demonstrate the sound that Parsons heard Young's engine make immediately before the crash.

{¶ 117} Despite Sommer's testimony indicating that Parsons would have heard the sputtering demonstrated in Exhibit 44, the trial court could have reasonably concluded that Exhibit 44 was not admissible as either demonstrative or substantive evidence of the sound that Parsons heard. Exhibit 44 demonstrated that sputtering sounds occurred when pieces of flame cone and end cap were placed inside the muffler to partially obstruct the outlet of the muffler and the power was increased to take-off power. However, Parsons did not testify that Exhibit 44 represented the sound that she heard. Parsons testified (via deposition testimony) that she heard sputtering and that the plane sounded like it was dying or trying to restart. Parsons was not asked about Exhibit 44 during her deposition, and she provided no opinion as to whether Exhibit 44 represented the sound that she heard. In the absence of such testimony, there was no evidence establishing that the sputtering sound in Exhibit 44 was substantially similar to the sound that Parsons heard immediately before Young's plane crashed, Sommer's testimony notwithstanding. The trial court did not err in denying Plaintiffs' motion to admit Exhibit 44.

{¶ 118} Regardless, even if Exhibit 44 were admissible, we fail to see how Plaintiffs were prejudiced by the trial court's failure to admit Exhibit 44 into evidence. Exhibit 44

was played for the jury during Sommer's testimony, and Sommer was permitted to testify not only that the obstruction to the muffler's exhaust outlet produced sputtering sounds, but also that the sputtering was the sound that Parsons had heard and that the sound resulted from loss of power. This evidence was before the jury for its consideration during deliberations. Any error in the trial court's failure to permit the exhibit itself from being reviewed by the jury during deliberations was harmless.

{¶ 119} Additionally, the trial court did not err in requiring Exhibit 44 to be redacted before it was played for the jury. Plaintiffs repeatedly stated that the purpose of Exhibit 44 was to demonstrate the sound that Parsons heard. As noted by the trial court, Parson's testimony did not reference horsepower or relate the sound she heard to a loss of power. Regardless, Sommer's testimony about his first series of tests related the blockage of the muffler with a loss of horsepower, and he opined that the sputtering was the result of blockage in the outlet of Young's muffler, which resulted in engine loss. Even assuming that the trial court erred in requiring Exhibit 44 to be redacted, the error was harmless.

{¶ 120} Plaintiffs' fourth assignment of error is overruled.

VI. Failure to Provide Curative Jury Instruction

{¶ 121} Plaintiffs' fifth assignment of error states:

> The trial court erred in refusing to give a cautionary jury instruction that the jury was to disregard the subject matter of toxicology as the topic was not at issue in the case, but defense counsel improperly placed it at issue in closing argument.

{¶ 122} During a portion of his opening statement, Plaintiffs' counsel informed the

jury that pilots are not permitted to take antidepressants and that toxicology tests were performed on the decedents following the crash. Counsel stated that a metabolite of an antidepressant was found in one of the front-seat occupants of the plane; a report attributed the antidepressant to Young, based on the location of the body in the aircraft. Counsel further explained that Lampe took an antidepressant, but Young did not. He argued that "it is obvious then that they had the wrong person." (Trial Tr. at 111.)

{¶ 123} Plaintiffs also presented evidence that Young was neither depressed nor taking any antidepressant medication at the time of the crash. Young's widow testified that the only medication Young took was for his cholesterol. (Trial Tr. at 175.) She indicated that Young showed no signs of depression, and she described him as "happy and jovial and fun, energetic, enjoying life." (*Id*. at 174) Mrs. Young stated that Young had no change in his behavior or medication prior to the flight. (*Id*. at 200.) Young's former battalion commander also testified that Young's post-deployment health assessment, conducted on February 15, 2005, identified no emotional issues, such as anxiety, PTSD, and the like. (*Id*. at 1305; Pls' Ex. 222.) In contrast, Lampe's mother testified that her son took medication for ADD and depression. (Trial Tr. at 266-267.)

{¶ 124} Elano did not present any evidence related to toxicology. In particular, they presented no evidence that Young flew his aircraft while taking antidepressants.

{¶ 125} Elano's closing argument focused primarily on the evidence demonstrating that Young had caused his airplane to stall during a delayed go around on his second pass along the runway and the experts' testimony regarding the muffler and effect of any blockage on loss of power. (Trial Tr. at 2149-2179.) At one point, Elano's counsel commented that Plaintiffs presented "a lot of sideshows" regarding toxicology, log books,

maintenance inspections, patents, and Young's experience as a pilot. Elano asked the jury to focus on what happened on the day of the crash and that "this was simply a situation where Young came in too high, too fast, delayed his decision to make a go around, applied his power and pulled his nose up. It was a mistake. We've heard over the last couple of days, pilots make mistakes. Unfortunately this was a tragic mistake." (*Id*. at 2184).

{¶ 126} Elano's closing argument took 36 pages of the trial transcript; one page addressed the toxicology report. Counsel argued:

> The first sideshow we had started in voir dire[,][3] continued through opening and went through the examinations of Mrs. Young, Mrs. Lampe, and Commander Campbell.
>
> It was about some tox report that [Plaintiffs' counsel] put up on the screen, and he claimed there was going to be this CSI moment. There would be people coming in and testifying that that wasn't really the body of Dr. Young, whose tox screen showed this antidepressant in it. We heard a lot about that.
>
> I never heard a witness come in to tell you there wasn't a chain of custody, any of that. I also never heard us mention the word tox screen. It was a sideshow.

(Footnote added.) (Trial Tr. at 2179.)

{¶ 127} Plaintiffs' counsel did not object to Elano's counsel's statements during

[3] The parties' questioning of potential jurors during voir dire was not transcribed and, consequently, is not part of the record.

closing argument. However, he responded to Elano's argument regarding toxicology during his reply closing argument, stating:

> Oh, and then this business about toxicology. Why do you think I had this, quote, sideshow, unquote? Because they raised it, and then decided to abandon it in the case, so I had to anticipate it and defend against it. Because it was nonsense. Because it was a lie.
>
> And because it was a lie, and I uncovered it, and demonstrated it here, they ran from that toxicology as fast as they could. I would never have brought up that toxicology because it was meaningless if they hadn't raised it.

(Trial Tr. at 2189-2190.)

{¶ 128} Plaintiffs subsequently requested a jury instruction on toxicology. The requested instruction stated, "You have heard argument of counsel concerning toxicology results. You are instructed that the defense presented no evidence concerning toxocology [sic] results and that you must disregard the entire subject matter of toxicology and treat this case as if there has never been any allegation by the defense concerning the issue of toxicology." (Court's Ex. 4.) The trial court did not give the requested instruction.

{¶ 129} On appeal, Plaintiffs claim that they were "sandbagged" into presenting evidence on toxicology results, based on Elano's pretrial representations that it would call experts "to offer their conclusions that Young was flying illegally and possibly under a cognitive impairment." (Pls.' App. Brief at 45.) Plaintiffs describe Elano's closing argument as "inflammatory," and they assert that Elano "was able to interject the precise

evidence the families sought to exclude via her misleading closing argument." (*Id*. at 46.)

{¶ 130} We find no abuse of discretion in the trial court's decision not to give a jury instruction on toxicology. Prior to closing argument, the trial court instructed the jury that "[c]losing arguments are not evidence" and that the jury had "heard all the evidence that you will consider to decide your ultimate conclusion and verdict in this case." (Trial Tr. at 2085.) The court explained that closing arguments were merely "an opportunity to listen to their take on what they believe the evidence has shown, and you may certainly consider it in that regard." (*Id.*) This was repeated, in substance, during jury instructions. (*Id*. at 2212.) The trial court expressly stated that evidence does not include "any statements of Counsel made during the course of the trial, unless the statement is an admission or agreement admitting certain facts." (*Id*.)

{¶ 131} Moreover, given that Plaintiffs presented evidence regarding whether Young was taking an antidepressant at the time of the accident, Elano's counsel was free to comment on that testimony during closing arguments. Elano's counsel's argument on this subject was limited, given the length of her closing argument, and upon review of counsel's argument, we disagree that the portion of counsel's argument regarding toxicology was "inflammatory" and misleading. In addition, Elano's counsel was arguably responding to Plaintiffs' opening statement, in light of the evidence that was presented at trial.

{¶ 132} Plaintiffs' fifth assignment of error is overruled.

VII. Conclusion

{¶ 133} The crash of Dr. Young's Grumman AA-5 aircraft was a tragic event for

Plaintiffs, and we are sympathetic to the emotional toll that this protracted litigation added to that pain. From our review of the record, the litigation of this case has been in the hands of excellent attorneys, who have represented their clients zealously and professionally. The trial court also made considerable efforts to ensure each side a fair trial of the issues, and we cannot find that any of the alleged errors raised on appeal fell outside of the trial court's reasonable discretion. Simply stated, the parties had a full and fair opportunity to present their cases to the jury, and the jury rendered a verdict. We find no prejudicial error to justify a retrial.

{¶ 134} The trial court's judgment will be affirmed.

. . . . . .

FAIN, J. and HALL, J., concur.

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