

Cockpit Voice Recorder Audio Evidence is Centrally Important in Civil Litigation and Discoverable under 49 U.S.C. § 1154: The Flight 1702 Example

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Introduction

On March 13, 2014, catastrophe nearly struck on Runway 27L at Philadelphia International Airport when an Airbus A320 aircraft designated US Airways Flight 1702, carrying 149 passengers

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and 5 crew members, started a takeoff that ended just over one minute later after the aircraft became airborne and then crashed into the runway, eventually skidding on its belly off the left side of the runway where it came to rest short of the Delaware River.¹ Many passengers escaped unscathed,² but others carried away physical and emotional injuries that will continue to endure.³ Fortunately, no lives were lost that day.⁴

Like all other large turbine engine airplanes governed by Part 121 of the U.S Federal Aviation Regulations, Flight 1702 was required to have a cockpit voice recorder (CVR).⁵ Under these regulations, the CVR on every Part 121 flight must be “operating continuously from the use of the checklist before the flight to completion of the final checklist at the end of the flight,” and continuously record on a solid state drive for a two-hour loop.⁶ By these requirements, the entire duration of Flight 1702 from engine start and push from the gate, through the crash sequence (approximately 38 minutes in total), was recorded, including cockpit communications, tower communications, pilot utterances, and mechanical sounds, such as wheels hitting runway markers, engine noises, and a tail strike.⁷

A partial transcript of this recording was prepared by the NTSB as part of its investigation and eventually made publicly available. While the NTSB-prepared CVR transcript contains valuable information, revealing an essential error by the first officer in placing the wrong runway into the flight computer that was not detected by the captain until the aircraft was taking the runway for takeoff, it is only a partial transcription and important information valuable in the search for the full truth about what happened in the cockpit of Flight 1702 was not included.⁸

¹ NTSB Accident Survey – Aviation, No. DCA14MA081 (Mar. 13, 2014); NTSB CVR Factual Report – Aviation No. DCA14MA081 (Mar. 13, 2014) (“Alright here we go [increasing thrust for takeoff]”).

² The NTSB erroneously reported no injuries. See NTSB Accident Survey, *supra* note 1.

³ Medical reports of the plaintiffs in *Berthiaume v. US Airways, Inc., et al.*, Common Pleas Ct., Phila. County (Jan. Term 2016, No. 00659), on file with the authors’ office.

⁴ See NTSB Accident Survey, *supra* note 1.

⁵ 14 C.F.R. §§ 91.609, 121.359 (2018).

⁶ 14 C.F.R. § 121.35 (2018).

⁷ See NTSB Accident Survey, *supra* note 1.

⁸ See NTSB, *Major Investigations*, <https://www.nts.gov/investigations/> (last visited Mar. 18, 2019).

While the shortcomings inherent with the NTSB-prepared CVR transcripts are discussed *infra* in greater detail, just some of the potential problems facially apparent with the NTSB-prepared CVR transcript for Flight 1702 – typical of other CVR partial transcripts – were over forty unintelligible notations, numerous instances of so-called “questionable insertions,” five instances of specifically labeled “unintelligible voice(s),” and several non-specified “expletives.”⁹ The deleted expletives, in substance and in tone, turned out to be centrally relevant evidence for divining the intent of the captain in choosing to proceed with a takeoff roll with an aircraft literally screaming at him not to do so.¹⁰

In the lawsuits filed by injured passengers in a variety of jurisdictions, only a few litigants eventually gained access to the CVR audio from Flight 1702. This was because many plaintiffs accepted stipulations from the airline defendant not to contest liability, waiving claims for punitive damages and mooting discovery on the merits. For the two litigants who rejected the proposed stipulation not to contest liability for compensatory damages, the CVR audio eventually provided a wealth of new information legally justifying claims of punitive damages, but not until the trial court reversed its own order initially refusing the plaintiffs access to the audio evidence.¹¹

⁹ See NTSB Accident Survey, *supra* note 1. See also Plaintiff’s Memorandum of Law in Support of their Motion to Compel Production of Cockpit Voice Recorder (CVR) Recording, *Berthiaume v. US Airways, Inc.*, Common Pleas Ct., Phila. County (Jan. Term 2016, No. 00659).

¹⁰ The crash reconstruction revealed that at speeds well below V1, the aircraft was displaying an electronic centralized aircraft management (ECAM) warning, a level-two caution chime, a Master Caution warning, and a repeating aural instruction to “retard” thrust. See Plaintiffs’ Response to Defendants’ Motion for Summary Judgment on Punitive Damages, *Berthiame*, No. 00659.

¹¹ Courts have long recognized the critical distinction between summary transcripts and actual voice recordings. *E.g. United States v. Nixon*, 418 U.S. 683 (1974) (rejecting President Nixon’s attempt to limit production of Watergate tapes to transcripts and ordering, 8-0, that the audio tapes be released in their entirety). Reflecting recently on what happened, writing for the *New Yorker*, Sean Wilentz explained:

Less than four months after the Saturday Night Massacre, in February of 1974, the House authorized its Judiciary Committee to initiate hearings on whether there were sufficient grounds to impeach the President. Nixon was now fighting on two fronts—against the House committee, as well as against Cox’s replacement, the special prosecutor Leon Jaworski—and he faced a subpoena that Jaworski had obtained to release the tapes in full, so he tried to revive the Stennis compromise in a new form.

Using Flight 1702 as an example, this article tells the story of how federal law has sometimes been misapplied to keep CVR audio recordings secret,¹² how the law came to be, how most courts have allowed litigants access and why this is how it should be, why the courts prohibiting access so far have been wrong, and why Congress might consider changing the statutory language to assure that more judges do not make the mistake a few have already made, by improperly aligning the public and private interests involved. When these interests are properly balanced under the federal statute, as most courts realize, CVR audio must be discoverable in civil litigation arising out of air crashes.

49 U.S.C. § 1154

What may be surprising is that the discoverability of Flight 1702's CVR audio was not guaranteed and did not come easy, as its production was actively opposed by the airline defendants who initially persuaded a lower court judge to deny access to the

With televised fanfare, the White House released a multivolume transcript of the tapes, which Nixon swore to the world contained every scrap of audio evidence pertaining to Watergate. The President voluntarily agreed to outside verification, this time by the House Judiciary Committee chair, Peter Rodino, and the ranking member, Edward Hutchinson. For a moment, it seemed as if the tide might be turning in Nixon's favor; writing for the *Times*, R. W. Apple called the release of the transcripts Nixon's "strongest counterattack so far in his long struggle to survive Watergate."

Instead, Nixon's trick proved the beginning of the end. Jaworski wouldn't settle for the transcripts; the U.S. District Court judge John Sirica refused to quash his subpoena; and the Supreme Court, ruling 8-0 in the case of *U.S. v. Nixon*, ordered that the tapes be released in their entirety. With the "smoking gun" evidence made public, Nixon was doomed, and, sixteen days later, he resigned.

Sean Wilentz, Daily Comment, "*The Reputational Interests*" of William Barr, *NEW YORKER* (Apr. 4, 2019), <https://www.newyorker.com/news/daily-comment/the-reputational-interests-of-william-barr>.

¹² *E.g. In re Air Crash Near Kirksville*, 2006 U.S. Dist. Lexis 32976 (E.D. Mo. May 5, 2006) ("Having now conducted an in camera review of the [cockpit voice] recording, the Court concludes Plaintiffs have not met their burden of establishing that discovery of the cockpit recorder recording is necessary to provide sufficient information for Plaintiffs to receive a fair trial. The Court therefore will deny Plaintiffs' motion.").

CVR audio.¹³ This ruling was surprising and out of step with common practice.

The reason the CVR audio was not automatically discoverable, and also for its ongoing quasi-secrecy, is a federal statute affording special protections for CVR audio. This legislation can be found at 49 U.S.C. § 1154, originally enacted in 1990 as part of the Independent Safety Board Act Amendments of 1990.¹⁴ Section 1154 brought new and unprecedented protections to CVR audio evidence, protections which persist to this day.

One of the announced purposes of § 1154 was to safeguard or protect the NTSB against premature public speculation regarding the cause of an airline crash so the agency could conduct a full and fair investigation. This was in the eyes of some a laudable goal, given the premature publication of pilot remarks from the CVR for Northwest Airlines Flight 255, speculating about what caused its crash just two days earlier near Romulus, Michigan on August 16, 1987.¹⁵ Whether new legislation was necessary or existing legislation should have been enforced more aggressively is debatable, since the predecessor statute, on the books since 1982, already provided for a 60-day moratorium on production of the CVR transcript and audio, which should have been enough to prevent the release of the CVR information published so soon after the crash.¹⁶

The Senate Committee on Commerce, Science and Transportation took note during debates on the proposed 1990 Amendments: “In the recent past, tort litigants have initiated law suits against the NTSB to gain access to and/or establish control over ongoing aircraft accident investigations being conducted by the NTSB. . . . These cases have resulted in needless delays in these investigations”¹⁷

¹³ See US Airways, Inc. and American Airlines, Inc.’s Memorandum of Law in Opposition to Plaintiff’s Motion to Compel Production of Cockpit Voice Recorder (CVR) Recording, *Berthiame*, No. 00659.

¹⁴ See S. REP. NO. 101-450 (1990), reprinted in 1990 U.S.C.C.A.N. 6376, 1990 WL 201700 (Aug. 30, 1990).

¹⁵ See NTSB Accident Summary DCA87MA046: Northwest Airlines, Inc. Accident at Romulus, MI. Compare Richard Witkin, *Computer Warned Pilots in Crash of ‘Stall’ Danger – Cockpit Recorder Indicated Jet Was Going Too Slowly – At Least 152 Dead*, N.Y. TIMES, Aug. 18, 1987, at A1.

¹⁶ Independent Safety Board Act Amendments of 1982, Pub. L. No. 97-309, 96 Stat. 1453 (1982) (codified as amended at 49 U.S.C. § 1905 (1990)).

¹⁷ *Id.*; 1990 U.S.C.C.A.N. at 6380.

Privacy interests were also claimed. Henry Duffy, then-president of the Air Line Pilots Association (ALPA), latched onto the premature release of CVR information from Northwest 255 in testimony supporting the new legislation before the Senate Subcommittee on Aviation.¹⁸ Beyond the premature release of the CVR information issue, Mr. Duffy added that use of CVRs in commercial aircraft was an “unprecedented intrusion into the workplace and an invasion of personal privacy” for the pilots and their families.¹⁹ This and similar testimony apparently impacted the new statute, as recognized by President George H.W. Bush when he signed the bill into law:

I am also concerned that the provision . . . dealing with the disclosure of airline cockpit voice recorder transcripts and recordings be interpreted in a manner that is fair to all parties. It is important to protect these materials from sensationalism and unwarranted disclosure, but it is also important that courts provide prompt and complete disclosure to litigants with an interest in judicial proceedings involving aircraft accidents. Every effort should be made to construe the provision . . . in a way that preserves an appropriate balance between these goals.²⁰

Properly Implementing § 1154 Has Proved Challenging for Some Courts

Section 1154 prevents civil litigants from gaining immediate access to the CVR audio until after a judge listens to the recording *in camera*, comparing what can be heard with the NTSB-prepared partial transcript. Under § 1154:

a court may allow discovery by a party of a cockpit . . . recorder recording if, after an in-camera review of the recording, the court decides that—

¹⁸ See *The Reauthorization of the Nat'l Transp. Safety Bd.: Hearing Before the Subcomm. on Aviation of the Senate Comm. on Commerce, Sci., and Transp.*, 101st Cong., 2d Sess. 36 (1990) (statement of Henry Duffy, President, Air Line Pilots Association).

¹⁹ *Id.* at 36.

²⁰ 1990 U.S.C.C.A.N. 6381-1, 1990 WL 300993 (Dec. 3, 1990).

- (A) the parts of the transcript made available to the public under section 1114(c) or 1114(d) of this title . . . do not provide the party with sufficient information for the party to receive a fair trial; and
- (B) discovery of the cockpit . . . recorder recording is necessary to provide the party with sufficient information for the party to receive a fair trial.²¹

If and when discovery is permitted, § 1154 requires issuance of a protective order to limit the use of the CVR audio to the judicial proceeding and prohibit dissemination to the public.²²

Most courts applying the statute in aviation disaster cases have ordered production of the CVR audio, subject to the statutorily required protective order.²³ Yet even with this protection, pilot unions have still actively opposed the production of CVR audio in civil litigation. A representative of ALPA explains, “Justice demands accountability [in aviation disasters], but fairness dictates that not all recorded information will be available to aid the prosecution.”²⁴

The most recent published decision applying § 1154 comes from then-Chief Judge of the Western District of New York William Skretny, who summarizes the cases applying § 1154 and discusses the surrounding issues in litigation arising out of the crash

²¹ 49 U.S.C. § 1154(a)(3) (2018).

²² 49 U.S.C. § 1154(a)(4) (2018).

²³ *McCoy v. SW Airlines*, 208 F.R.D. 617 (C.D. Cal. 2002) (runway overrun of Southwest Flight 1455 at Hollywood Burbank Airport); *Buschmann v. Little Rock Int’l Airport*, 222 F.R.D. 114 (N.D. Tex. 2004) (hydroplaning of American Airlines Flight 1420 on landing at Little Rock Airport, causing runway overrun); *In re Air Crash Near Lexington*, Case No. 5:06-CV-316, KSF, 2007 U.S. Dist. LEXIS 90045 (E.D. Ky. Dec. 6, 2007) (crash of Comair Flight 5191 due to pilots taking off from incorrect runway); *Driscoll (In re Sept. 11th Litigation)*, Case No. 21 MC 97 (AKH), 2007 U.S. Dist. LEXIS 67259 (S.D.N.Y. Sept. 12, 2007) (crash of United Flight 93 in Shanksville, Pa. after passengers thwarted terrorist attack); *In re Air Crash Near Clarence Center*, 2010 U.S. Dist. LEXIS 110934 (W.D.N.Y. Oct. 19, 2010) (aerodynamic stall of Colgan Air Flight 3407 on final approach due to pilot error); *but see Kirksville*, 2006 U.S. Dist. Lexis 32976 (denying CVR discovery without discussion in a case involving the crash of Corporate Air Flight 5966 due to pilot failures to follow standard approach procedures).

²⁴ Lindsey Fenwick, *Air Line Pilots Association Access to Data; Privacy, Propriety and Union Issues*, Presented at the International Symposium on Transportation Recorders (May 4, 1999).

of Colgan Air Flight 3407 near Clarence Center, New York on February 12, 2009:

Having reviewed the audio recording *in camera*, this Court finds that Plaintiffs have satisfied their burden of demonstrating that the written transcript is insufficient, and that production of the recording is necessary to ensure that they receive a fair trial.

First, Plaintiffs correctly argue that the written transcript of the recording is incomplete and may be inaccurate. As it does in most air crash cases, the National Transportation Safety Board (“NTSB”) assembled a committee to listen to the cockpit voice recorder audio recording and prepare a written transcript. The committee created a written transcript of the recording and an addendum thereto.

Inherent in the creation of the written transcript are collective determinations and classifications of words, sounds, noises, and the like. For example, the transcript contains numerous characterizations of noises, designations of “non-pertinent” words, notations of “expletives,” not to mention several words that the committee could not decipher (“unintelligible”). Each of these determinations involves a judgment by the committee, which Plaintiffs are entitled to evaluate and examine with the benefit of their own experts. *See In Re Air Crash at Lexington, Kentucky*, August 27, 2006, No. 5:06-CV-316-KSF, 2007 U.S. Dist. LEXIS 90045, 2007 WL 4321865, at *2 (E.D.Ky. Dec. 6, 2007) (ordering the production of cockpit voice recorder recording, in part, because “the transcript was reached by group consensus, and an expert might disagree with the NTSB’s interpretation.”); *McCoy*, 208 F.R.D. at 620 (finding that the recording “is not complete and it does not reflect noises that might be meaningful to plaintiffs’ experts”). This Court’s own examination of the recording revealed several minor transcription errors, out-of-sequence notations, and editorial insertions that were not readily audible on the recording. And as the *Buschmann*

court noted, a “better trained ear” might discover other errors or omissions. 222 F.R.D. at 118.

Second, production of the recording is necessary because the written transcript does not and cannot reflect tone of voice, pitch, volume, or inflection, nor does it necessarily accurately reflect ambient and other noises pertinent to the aircraft’s operation. These attributes of the recording are relevant to Plaintiffs’ claims and the Bombardier defendants’ defenses, and fairness dictates that the parties be permitted to examine the raw recording. As the court in *Buschmann v. Little Rock Nat’l Airport* noted,

a transcript cannot reflect the true situational environment in the cockpit. The tone of voice, pitch, and inflection of statements made by crew members, all of which may be relevant to their state of mind, emotional condition, and situational awareness, are completely absent on the printed page. At a minimum, access to information on the CVR audio recording is reasonably calculated to lead to the discovery of admissible evidence.

222 F.R.D. 114, 117 (N.D. Tex. 2004) (internal citations omitted). Discovery of the recording is therefore necessary to ensure a fair trial. *See In Re Air Crash at Lexington, Kentucky*, August 27, 2006, 2007 U.S. Dist. LEXIS 90045, 2007 WL 4321865, at *2 (releasing recording where transcript was incomplete with missing words and no ambient noise); *McCoy*, 208 F.R.D. at 620 (noting that written transcript of recording was insufficient because it did not reflect noises that could be meaningful to plaintiffs’ expert).

Third, the NTSB has concluded its investigation of this accident and issued its probable cause determination. Safeguarding the integrity of the NTSB investigation and protecting against premature speculation regarding the cause of the accident is therefore no longer a concern. *See McCoy*, 208 F.R.D. at 620 (noting that § 1154 was enacted to

protect against premature public speculation regarding the cause of airline crashes to allow for a full and fair investigation) (citing 1990 U.S.C.C.A.N. at 6381); *Buschmann*, 222 F.R.D. at 117 (allowing discovery of the recording, in part, because the NTSB investigation was concluded); *In Re Air Crash at Lexington, Kentucky*, August 27, 2006, 2007 U.S. Dist. LEXIS 90045, 2007 WL 4321865, at *2 (releasing recording, in part, because the NTSB investigation was complete, thereby eliminating interference with the investigation as a concern).

Finally, the Second Circuit has recognized the evidentiary importance of the audio recording from a cockpit voice recorder, which is often the only piece of neutral evidence in an air crash case. *In Re Air Crash Disaster at John F. Kennedy Int'l Airport on June 24, 1975*, 687 F.2d 626, 630 (2d Cir. 1982) (“The CVR tape is an important piece of evidence in an aircrash case.”); *McCoy*, 208 F.R.D. at 620 (“... the tape is one of the few neutral pieces of evidence available to plaintiffs to support their claims, and, as such, it is clearly relevant under Rule 26(b).”).²⁵

Why the NTSB-Prepared Transcript of the CVR Audio Is Insufficient for Aviation Disaster Victim Litigation

Summarizing what Judge Skretny and others have written on the topic, there are persuasive reasons the NTSB-prepared CVR transcript is likely “insufficient” to permit a “fair trial” for victims of an aviation disaster:

- The NTSB is making determinations about what is and what is not relevant in the CVR audio to achieve its goal of determining the probable cause of an air crash. What might not be relevant to the NTSB’s determination of probable

²⁵ *Clarence Center*, 2010 U.S. Dist. LEXIS 110934, at *5-10.

cause might be relevant in the legal determination of culpability;²⁶

- The NTSB has the discretion to *omit* dissenting interpretations of CVR audio transcription from the NTSB-prepared transcript made available on the aviation docket;²⁷
- The flight crew is customarily permitted an opportunity to listen and review the CVR recording and resulting transcript, and then recommend additions or changes. The NTSB has the discretion to *omit* from the CVR report that changes or comments from the crew were made;²⁸
- The written transcript of a recording, by its nature, is almost always incomplete and may be inaccurate;²⁹
- Inherent in creating the written transcript are collective determinations and classifications of words, sounds, noises that cannot be accurately reduced to a transcript. For example, a transcript often contains numerous characterizations of noises, designations of “non-pertinent” words, notations of “expletives,” and words that the NTSB committee could not decipher (“unintelligible”). Each determination involves subjective judgment by the NTSB committee that includes none of a victim’s own selected experts;³⁰
- A “better trained ear” might discover errors or omissions not apparent on the transcript;³¹

²⁶ Craig M. Blitzer, *The 1990 Independent Safety Board Act Amendments*, 61 J. AIR L. & COM. 549, 556 (1996). See also NTSB Investigation Manual-Major Team Investigations, App. N., at 3-4 (2002) (The NTSB “does not determine liability, nor does it attempt to do so.”).

²⁷ See NTSB COCKPIT VOICE RECORDER HANDBOOK FOR AVIATION ACCIDENT INVESTIGATION § 9.3 (2016) (“In discerning an audio event, if a disagreement arises among the group members, the differing observations *may* be documented in the transcript. Inclusion of differing observations within the final product is *at the discretion of* the directors of the Offices of Research and Engineering and Aviation Safety.” (emphasis added)).

²⁸ See *id.* § 15.3 (“Changes or comments from the crew *may* be noted in the CVR factual report.” (emphasis added)).

²⁹ *Clarence Center*, 2010 U.S. Dist. LEXIS 110934, at *5.

³⁰ *Id.*

³¹ *Id.*

- The written transcript does not and cannot reflect tone of voice, pitch, volume, or inflection, nor does it necessarily accurately reflect ambient and other noises pertinent to the aircraft's operation;³²
- The written transcript cannot reflect the true situational environment in the cockpit. The tone of voice, pitch, and inflection of statements made by crew members, all of which may be relevant to their state of mind, emotional condition, and situational awareness, are absent on a printed page;³³
- The CVR audio is one of the few neutral pieces of evidence available to plaintiffs to support their claims;³⁴
- The CVR audio is often the best and most reliable tool available for reconstructing what occurred;³⁵ and
- The CVR audio may be used to impeach surviving crew members or controllers whose recollection of the events or delivery of the words can be self-serving.³⁶

Yet, despite the persuasive rationale laid out by Chief Judge Skretny in *Clarence Center* and other authorities, history has proven that § 1154 can remain a source of confusion and frustration for judges and litigants.

How § 1154 Can Be Unfairly Applied to the Detriment of Victims

For example, in *In re Air Crash Near Kirksville*, the court, in a rare example, after an *in camera* review, ruled "Plaintiffs have not met their burden of establishing that discovery of the cockpit recorder recording is necessary to provide sufficient information for

³² *Id.*

³³ *Id.*

³⁴ *McCoy*, 208 F.R.D. at 620.

³⁵ Mark Dombroff, *Demonstrative Evidence and its Effective Use in Aviation Litigation*, in *LITIGATING THE AVIATION CASE FROM PRE-TRIAL TO CLOSING ARGUMENT* 123, 136 (Desmond T. Barry ed., 2d ed. 1998).

³⁶ *McCoy*, 208 F.R.D. at 620.

Plaintiffs to receive a fair trial.”³⁷ While the court stated its conclusion clearly, no supporting reasoning was offered.

Similarly, in litigation arising from the crash of US Airways Flight 1702, captioned *Berthiaume v. US Airways, Inc.*,³⁸ the court initially followed the same approach, denying the plaintiffs’ first request to obtain the CVR audio without further discussion or reasoning. As a result, when the pilot depositions were taken in the Flight 1702 case, deposing counsel did not have the benefit a complete CVR transcription or the CVR audio.³⁹ This was unfair because the pilots had listened to the CVR audio as part of the investigation, and the airline as the owner of the CVR had access to the full audio.

During their depositions, the pilots offered testimony not only potentially exculpatory, but essentially unchallengeable without access to the CVR audio. For instance, for the first time, there were claims made of purported conversations which allegedly occurred in the cockpit, but which were absent from the NTSB-prepared CVR transcript.⁴⁰

Fortunately, following the defendant pilots’ depositions and after a second motion to permit discovery of the CVR audio, the lower court in *Berthiaume* reversed course, ordering the production of a full-length, unedited, and unmixed copy of the CVR audio recordings from Flight 1702.⁴¹ Once the recordings were released it became clear the pilots had not fairly characterized what the CVR audio clearly documented at the critical moments when a decision to proceed with an obviously dangerous takeoff roll was made. Also, of note was that the non-transcribed, but claimed conversation between the pilots, was totally absent from the audio recording, exposing an untruth that would have gone unchecked had the parties been left to rely solely on the testimony and partial NTSB transcript.

Ultimately, what flowed from production of the Flight 1702 CVR audio was not just highly material and remarkable evidence that supported plaintiffs’ negligence claims against the defend-

³⁷ *Kirksville*, 2006 U.S. Dist. Lexis 32976, at *5–6.

³⁸ No. 00659 (Common Pleas Ct., Phila. County, Jan. Term 2016).

³⁹ Order, *Berthiaume*, No. 00659 (Common Pleas Ct., Phila. County, Mar. 6, 2017).

⁴⁰ Plaintiffs’ Renewed Motion to Compel Production of CVR, *Berthiaume*, No. 00659.

⁴¹ Order, *Berthiaume*, No. 00659 (Common Pleas Ct., Phila. County, Sept. 29, 2017).

ants, it also provided proof of punishable conduct, which under Pennsylvania law requires proof of “outrageous” conduct or “reckless indifference,” invariably implicating the state of mind of the pilot actors.⁴²

Plaintiffs’ piloting expert offered the following description, filed in the public docket in *Berthiaume*, regarding parts of what happened in the cockpit revealed by the CVR audio:

As indicated on the NTSB CVR Transcript at 18:23:24.6, as [the First Officer] was attempting to complete the aircraft’s taxi checklist and with the pilots aware that the incorrect runway had been configured in the aircraft, Air Traffic Control can be heard giving clearance for flight 1702 to take off. Immediately upon receiving that clearance, [the Captain and pilot flying] can be heard on the recording uttering under his breath “Goddamn it.” It is extremely unusual for any professional pilot to use this type of language, especially in a phase of the flight that is critical, such as takeoff, when sterile cockpit regulations are in place to ensure that only pertinent conversations are taking place in the cockpit. The fact that [the Captain] is generally mild mannered makes this highly unusual statement that much more out of place. As a pilot with 37 years of experience, high time and having flown with 100s of different first officers, I can state that this expression is not one heard in cockpits where the flight crew is properly operating the aircraft.

In my opinion, [the Captain’s] reaction of “Goddamn it” in response to receiving the takeoff clearance was an acknowledgement that he knew he was not ready to start the takeoff, knew he had not completed his checklist and knew that he did not feel comfortable starting the takeoff, given the errors that had only just been discovered, [yet the Captain so] soon after saying “Goddamn it,” advance[d] the throttles instead of obtaining the time

⁴² Feld v. Merriam, 506 Pa. 383, 485 A.2d 742 (1984) (adopting § 908(2) of the Restatement (Second) of Torts). See also Pa. SSJI (Civ.) 8.00 (“Punitive Damages – General Instructions”); Hutchinson v. Luddy, 582 Pa. 114 (2005).

he needed from Air Traffic Control to complete his checklist, which would have revealed the takeoff data programming error and avoided all abnormal circumstances in the flight.⁴³

Even more evidence of the pilot actors' state of mind was available on the Flight 1702 CVR audio, but omitted from the NTSB-prepared CVR transcript:

As indicated on the NTSB CVR Transcript, at 18:23:46.9 the sound of the level two caution chime that corresponded with the electronic centralized aircraft monitoring (ECAM) message and Master Caution alert can be clearly heard on the CVR audio. Following this level two caution chime, [the Captain] can again be heard very clearly uttering "Goddamn it."

As noted previously, this is a highly unusual expression for any professional to use during a critical moment of flight.

It is my opinion that based on the entirety of the circumstances, including an aircraft now in a take-off roll with a recently discovered runway error, failure to complete the required checklist, a rushed takeoff clearance, level two caution chime, Master Caution alert, and ECAM message, in this moment [the Captain] is clearly expressing his subjective understanding that the aircraft is not properly and safely configured for takeoff and proceeding is dangerous. The captain was in a situation he had not trained for and had no good reason to continue.⁴⁴

The manner, tone, and inflection of the captain's multiple uses of "Goddamn it" in the context of what was happening in the cockpit was undeniably critical and central to the defendants' state of mind. In retrospect, the reason for the airline's strong resistance to the production of the CVR audio was apparent and had nothing to do with either a premature impact on the official

⁴³ For a full discussion of the significance of the content of the Flight 1702 CVR audio, see Plaintiff's Response to Defendants' Motion for Summary Judgment on Punitive Damages, *Berthiaume*, No. 00659.

⁴⁴ See Plaintiffs' Renewed Motion to Compel Production of CVR, *Berthiaume*, No. 00659.

investigation or any legitimate privacy concern.⁴⁵ At stake was an attempt to shield the airline from an obvious liability and exposure to punitive damages. The trial court had none of this.

Now, with access to what was recorded in the cockpit, the court denied defendants' punitive damages summary judgment motions in all respects, finding triable issues of fact for the jury to decide in plaintiffs' punitive damages claims.⁴⁶ If the airline defendants had their way, the plaintiffs would have never discovered the critical "Goddamn it" evidence, and other evidence, depriving them of the possibility of a fair trial.

The fundamental unfairness arising from denying plaintiffs access to CVR audio should come as no surprise; it was predicted more than 20 years earlier by Craig Blitzer, one of the first commentators to weigh in on the possible impact of § 1154:

[B]ecause the CVR is the property of the person whose airplane crashed, that party will have access to the entire CVR recording [notwithstanding any finding under § 1154]. This may be used to the owner's advantage. The owner of the CVR recording now may have the opportunity to "hide behind" parts of the CVR recording that were either overlooked, misunderstood, misinterpreted, or are otherwise unintelligible to the NTSB investigators.⁴⁷

There Is No Better Evidence about What Happened in the Cockpit than the CVR Audio

While some commentators have argued that NTSB-prepared CVR transcripts such as the one for Flight 1702 – which omitted the above-referenced spoken words and context – should provide "sufficient information" to litigants to deny them access to the CVR audio,⁴⁸ it is hard to envision how aviation disaster victims could ever meet their burden of proof on a pilot actor's state of mind without the benefit of the actual words as spoken in the

⁴⁵ The NTSB investigation was concluded by the time the plaintiffs' sought the production of the CVR audio.

⁴⁶ Order, *Berthiaume*, No. 00659 (Common Pleas Ct., Phila. County, Nov. 15, 2017).

⁴⁷ Blitzer, *supra* note 26, at 559.

⁴⁸ Van Stewart, "Privileged Communications?" *The Bright Line Rule in the Use of Cockpit Voice Recorder Tapes*, 11 *COMMLAW CONSPPECTUS* 389, 405 (2003).

moment in the context of everything else which may or may not be perceived in the cockpit. The importance of context cannot be overstated and should not be controversial. As Oliver Wendell Holmes put it, “[a] word is not a crystal, transparent and unchanged, it is the skin of a living thought and may vary greatly in color and content according to the circumstances and the time in which it is used.”⁴⁹

Few Judges Are Properly Equipped to Handle a § 1154 Audio Review

With this predicament in mind, the problems inherent in 49 U.S.C. § 1154 become clearer. Section 1154 creates what has sometimes been incorrectly described as a presumption against discoverability, which can only shift following an *in camera* inspection. While this grossly overstates the matter, as President Bush recognized when he signed the legislation into law, Congress has imposed on a judge what might seem to be a difficult burden of determining whether “the transcript. . . do[es] not provide the party with sufficient information for the party to receive a fair trial”⁵⁰ and whether discovery of the CVR audio “is necessary to provide the party with sufficient information for the party to receive a fair trial.”⁵¹

So what exactly is “necessary”? What is “sufficient”? What constitutes a “fair trial”? Can a “fair trial” under one state’s tort law regime be unfair in another? On these important questions, the statute provides no real guidance. This has led some judges, like the court in *Kirksville*, *supra*, and the court in the initial ruling in *Flight 1702*, to erroneously default to a rule against discoverability. While this erroneous reading may represent one possible construction of the language Congress chose, President Bush recognized from the start that this is not the result Congress intended, as have most judges, at least implicitly, who have applied the statute.

Further confounding matters, it is unlikely that judges called upon to perform the *in camera* review under § 1154 in the future

⁴⁹ *Towne v. Eisner*, 245 U.S. 418, 425 (1918). *See also* Charles Claflin Allen, *State of Mind in Civil Cases*, 1957 WASH. U. L.Q. 223, 224 (1957) (“In this field, as indeed in every field of speech and writing, the exact meaning of words necessarily varies with the context.”).

⁵⁰ 49 U.S.C. § 1154(a) (2018).

⁵¹ 49 U.S.C. § 1154(b) (2018).

will have meaningful aviation experience or have ever even encountered CVR audio before, leaving them poorly qualified to know what is or is not important to listen for.

Moreover, it is not a leap of faith to presume that few, if any, judges are experienced enough to make a meaningful *in camera* review of a recording littered with quick-talk, slang, acronyms, and other types of background noises commonly used in the cockpit, but which may only be perceptible to a skilled ear. By comparison, (but with the qualification that the NTSB has a purpose different from determining liability and fault), even the NTSB must convene a committee of professionals steeped in aviation experience to discern the CVR audio to generate the NTSB-prepared transcript.

Worse yet for the well-intentioned jurist struggling with § 1154 is the patent prejudice that would flow from an incorrect decision that denies access to the CVR audio. Such a denial might, as a practical matter, be appeal-proof and not reviewable due to timing and litigation practicalities. Even where there is review of CVR audio on appeal, however, the court would probably encounter the same problems a trial judge does in determining what exactly it is listening for. The erroneous denial of access to the CVR audio opens the door to airlines and pilots possibly re-characterizing or otherwise “spinning” the available portions of the CVR transcript, while the actual audio recording simply collects dust at the airline’s home office.

The Safety of the Flying Public Suffers

Commentators more than 20 years ago openly questioned the price the public would pay because of the implementation of § 1154.⁵² For instance, preventing public access to CVR audio prevents the public from voicing its opinion to elected leaders, including Congress, about airline safety concerns because they lack essential information from a crash.⁵³ This is aptly illustrated by the two recent tragedies involving Boeing 737 MAX aircraft. Now, with the prevalence of camera-equipped smartphones, what occurs within the cabin of an airplane in a disaster or the moments leading up to it might be well-documented, while the

⁵² Blitzer, *supra* note 26, at 553.

⁵³ *Id.*

most important data about what happened in the cockpit remains a secret.

Public access to information turned into debate with resulting action following a United Airlines incident in April of 2017, when a physician was forcibly removed from an overbooked flight, captured in now infamous video, which is credited in part for a provision in the FAA Reauthorization Act of 2018 preventing passengers from being forcibly removed from overbooked flights.⁵⁴ While any change that potentially impacts passenger safety in a positive way should be applauded, why must what occurs behind the cockpit door – where life and death decisions are made – remain shrouded in secrecy from the public and our lawmakers?

Beyond the access denied to the public and lawmakers, ongoing improper use of § 1154 also prevents industry leaders, training pilots, uninvolved airlines, and safety experts from having access to important information that could prevent future aviation disasters. For example, critically important information about cockpit resource management and pilot decision-making should not be available only to certain attorneys and litigants, while simultaneously being shielded from other stakeholders who could best utilize this information to prevent future disasters. Public safety undoubtedly suffers under such a utilization of § 1154.

Former NTSB Chairman James Hall once noted that “given the history of complex accident investigations and the lack of crucial information regarding the cockpit environment, I believe that the safety of the flying public must take precedence over all other concerns.”⁵⁵ These sentiments echo through to today in recent remarks by the current NTSB chairman about the critical role of investigational transparency in enhancing public safety:

[A] critical aspect of accident investigations, in my opinion, is transparency. We live in a world where

⁵⁴ See Bill Murphy Jr., *After What Congress Did at 2:52 A.M. Saturday, Life May Change Radically for Airline Passengers and Flight Attendants. Here Are the Details*, INC. (Sept. 24, 2018), <https://www.inc.com/bill-murphy-jr/airline-passengers-flight-attendants-congress-delta-united-american-south-west-jetblue-airlines-faa-2018.html>. See also FAA Reauthorization Act of 2018, Pub. L. No. 115-254, § 425, 132 Stat. 3186, 3338–39 (2018).

⁵⁵ *Perspectives: The Case for Cockpit Video Recorders*, AVIONICS INT’L (Jan. 1, 2001), <https://www.aviationtoday.com/2001/01/01/perspectives-the-case-for-cockpit-video-recorders/>.

there is distrust of government. We live in a world of cynicism and skepticism. We live in a world where there is a 24-hour news cycle. . . .

One way to counter misinformation is being transparent. When I'm talking about transparency, I'm not talking about tweeting every single thing that you find. Rather, I'm talking about releasing factual information, in a controlled and deliberate manner. I'm talking about allowing the public to see inside the investigative processes so a reasonable person can draw the same conclusions as you did.

. . . .

. . . I believe it is in the best interest of the public and in the interests of improving safety, to be open and transparent with investigations.⁵⁶

What could be more transparent than publishing unabridged and unedited versions of CVR transcripts and, in some instances, the associated audio?

It should be clear that elimination of secrecy and public access to CVR information, including the CVR audio, ultimately serves the public interest. Air disaster litigation often involves a battleground involving important public safety issues.⁵⁷ Even prominent players opposing release of CVR audio acknowledge that without reservation: "One of the most powerful drivers of aviation safety initiatives in North America is money, specifically the money derived from civil litigation."⁵⁸ That the stakes are high provides a compelling reason for putting the most important case evidence in play, instead of relying on incomplete information with large gaps.

Courts have long recognized that wide public access to aviation disaster information helps foster public debate on issues concerning public safety. As related to the crash of Comair Flight 5191 in

⁵⁶ Robert L. Sumwalt, Chairman, Nat'l Transp. Safety Bd., *Lessons from the Ashes: Improving International Aviation Safety through Accident Investigations*, Speech at 14th Annual Assad Kotaite Lecture, Montreal Branch of the Royal Aeronautical Society (Dec. 7, 2017), <https://www.nts.gov/news/speeches/RSumwalt/Pages/sumwalt-20171207.aspx>.

⁵⁷ David E. Rapoport, *The Erosion of Secrecy in Air Disaster Litigation*, 10 *ISSUES AVIATION L. & POL'Y* 231, 249 (2011).

⁵⁸ Fenwick, *supra* note 24, at 147.

Lexington, Kentucky, a disaster that resulted in 49 fatalities, the late Judge Karl S. Forester, recognizing the need for public debate on issues relating to air disaster litigation, wrote:

Throughout our history, the open courtroom has been a fundamental feature of the American judicial system. Basic principles have emerged to guide judicial discretion respecting public access to judicial proceedings. These principles apply as well to the determination of whether to permit access to information contained in court documents because court records often provide important, sometimes the only, bases or explanations for a court's decision.⁵⁹

With respect to civil cases, the [Sixth Circuit Court of Appeals] said: "The resolution of private disputes frequently involves issues and remedies affecting third parties or the general public. The community catharsis, which can only occur if the public can watch and participate, is also necessary in civil cases."⁶⁰

. . . .

[T]he public interest in a plane crash that resulted in the deaths of forty-nine people is quite strong, as is the public interest in air safety.⁶¹

Flight Crew Privacy Interests Must Yield to Public Safety

Why then has that public interest taken a back seat to other interests? A common refrain from pilots' unions has been that such access invades the flight crew's "right to privacy." But as set out below, any such privacy interests must yield to the safety of the flying public.

The pilots' unions long ago staked out their position against releasing the CVR audio, even articulating the oxymoronic argument that fairness requires denying crash victims access to CVR

⁵⁹ *In re Air Crash at Lexington*, 2009 U.S. Dist. LEXIS 65974, at *29 (June 16, 2009) (citing *Brown & Williamson Tobacco Corp. v. F.T.C.*, 710 F.2d 1165, 1177 (6th Cir.1983)).

⁶⁰ *Id.* at *30.

⁶¹ *Id.* at *39.

audio.⁶² While the public's right to know about matters that affect public safety surely has not changed dramatically in the last 30 years, what has changed is that public access to this information has become more mainstream and widespread. In today's world, police body cameras, dashboard cameras, traffic cameras, and security cameras are a fact of life in most parts of the country. Workers in a wide variety of fields are recorded on digital devices, from gas station attendants to convenience store clerks, to police officers, to blackjack dealers. Why should pilots deserve any special protection at the risk of harm to the public?

The answer is they probably shouldn't. Under the common law, most courts that have taken up similar issues have not considered the workplace to be a secluded and private area worthy of being deemed a "zone of privacy" and deserving of special privacy protections.⁶³ As a recent law review article summarized:

In general, courts do not consider the workplace a secluded and private area sufficient to provide a "zone of privacy." Even within a privately-owned workplace, courts consider it more akin to a public place than, say, one's home, where privacy is most sacrosanct. While courts have indeed recognized that employees can have some degree of privacy in the workplace, it is also true that notice by the employer of monitoring can often defeat any expectation of privacy by employees.⁶⁴

It is hard to envision how any claim to a right of privacy in the cockpit can be a reasonable one since most courts outright reject that a privately-owned workplace constitutes a "zone of privacy." There is nothing sacrosanct about a cockpit that makes it differ from any other workplace when it comes to expectations of privacy. Indeed, a better argument is that the cockpit is even *less* deserving of privacy protection since every pilot is already fully aware that federal law mandates the recording of every single utterance in the cockpit.

As further support that cockpit discussions deserve no special protections, the Restatement of Law on Employment only defines

⁶² Fenwick, *supra* note 24, at 151.

⁶³ Robert Sprague, *The Piper Lecture: Survey of (Mostly Outdated and Often Ineffective) Law Affecting Work-Related Monitoring*, 93 CHL.-KENT L. REV. 221, 225–26 (2018).

⁶⁴ *Id.* (citations omitted).

a “wrongful” intrusion as one that is “highly offensive to a reasonable person under the circumstances.”⁶⁵ But an intrusion is only “highly offensive” if it is “clearly unreasonable when judged against the employer’s legitimate business interests or the public’s interests in intruding.”⁶⁶ This is, in no uncertain terms, a high bar to forbid such an intrusion. Assessing an employer’s legitimate business interests, it is clear that airlines have keen interests in keeping their employees and passengers safe, as well as their billion-dollar fleets in the air. Moreover, the public has an indisputable interest in safe air travel.

The interest of the public is covered in comment d to Restatement § 7.06, which recognizes a special public safety interest in the context of “safety-sensitive positions”:

d. Public interests in the intrusion. Public interests extend beyond a particular employer’s interests. For employees in safety-sensitive positions, for example, courts have ruled that workplace testing for illegal drug use furthers not only the employer’s business interests but also the public’s interest in the reliable, safe delivery of services. Other public-policy interests that an intrusion may serve include the transparency of governmental or institutional processes; the need to obtain information relevant to a lawsuit or other public proceeding; and the interest in securing compliance with and enforcing the law.⁶⁷

It would seem a flight crew assigned to a Part 121 flight and directly responsible in a “safety-sensitive position,” responsible for the lives of dozens (and sometimes hundreds) of passengers, knowing full well that their conversations *must* be recorded as a matter of federal law, should have no reasonable expectation of privacy in the cockpit. Further, it is hard to imagine under what circumstances any intrusion into the cockpit could be considered “highly offensive,” especially in light of the important public interests that exist in keeping the flying public safe from aviation disasters. In sum, any privacy interests claimed by pilots pale in

⁶⁵ RESTATEMENT OF THE LAW, EMPLOYMENT LAW § 7.06 (AM. LAW INST. 2015).

⁶⁶ *Id.*

⁶⁷ *Id.* cmt. d.

comparison to the interests of both air crash victims and the public.

Conclusion

So where does that leave things? One possible solution to the problems outlined above is the wholesale elimination of restrictions on public dissemination of CVR audio. In other words, repeal of § 1154. This solution would put into the hands of everyone, including the public, legislators, and safety advocates, the CVR audio for public discussion. This solution would likely have the highest return on public safety.

In circumstances where there is a legitimate basis to limit dissemination, any party interested in a protective order could seek one under Federal Rule of Civil Procedure 26(c) or a similar state rule, which already permits “[a] party or any person from whom discovery is sought” to seek a protective order to protect from “annoyance, embarrassment, oppression, or undue burden or expense.”⁶⁸

A less drastic, and perhaps more readily achievable solution, which would provide victims more reliable access to CVR audio, involves amending the statute to explicitly state what most courts have already implicitly recognized, that there is no presumption against disclosure of CVR audio in air disaster cases. This solution would maintain a default protective order and reduce or eliminate the opportunity for erroneous withholding of CVR audio from crash litigants. Under this approach it would be easier for a judge to decide whether the last dying words of a pilot are worthy of special protection under a Rule 26(c) protective order, than it would be for that judge to attempt to interpret whether what is present (or missing) on a complex multi-channel recording is necessary for a fair trial in a contested liability case.

Even without legislative change, the great weight of authority supports the view that the default under § 1154 is disclosure of CVR audio, subject to a statutorily required protective order, although opportunities for disparity still exist.

When it comes to the safety of the flying public, compromises that jeopardize safety should be the exception, not the rule. Improperly applied, § 1154 can hurt air crash victims, their families,

⁶⁸ FED. R. CIV. P. 26(c).

and the general public, by eliminating critical source information from the cockpit voice recorder that is often the best and most reliable evidence available for reconstructing what occurred in an aviation disaster. While it is doubtful that flight crews have legitimate privacy interests in protecting conversations that take place on the flight deck bearing on their fault, even assuming such a privacy interest exists, it should yield to the safety interests of the public.

