National Transportation Safety Board
Washington, DC 20594 | www.ntsb.gov
OFFICE OF AVIATION SAFETY

December 4, 2019

Tim Taylor
Viking Aviation, LLC (dba "Survival Flight, Inc.")
[redacted]
Batesville, AR 72501

Re: Accident involving Survival Flight Inc. Bell 407 (N191SF)
Zaleski, OH
January 29, 2019
NTSB #CEN19FA072

Dear Mr. Taylor:

The NTSB is concerned by the statements Survival Flight has made in the press regarding the above-referenced accident and the NTSB's ongoing investigation. This letter serves as notice that any further violation of the regulatory restrictions, outlined below, to which Survival Flight has agreed will result in revocation of its party status for this NTSB investigation.

Pursuant to Title 49 Code of Federal Regulations (CFR) § 831.11, Survival Flight was designated as a party to this investigation based on its operation of the aircraft involved in the accident and its ability to provide qualified technical personnel to actively assist in the NTSB's investigation. As stated in 49 CFR § 831.13 and reiterated in the Certification of Party Representative (hereinafter referred to as the "party agreement"), which Survival Flight signed, parties to an NTSB investigation are restricted from releasing any investigative information without the NTSB's express approval. Prior to the NTSB's adoption of the final report regarding this accident, only appropriate NTSB personnel are authorized to publicly disclose investigative findings, and even then, are limited to verified factual information identified during the course of the investigation. The party agreement expressly prohibits party participants or their respective organizations "from providing opinions or analysis of the accident outside of the participants in the investigation." By signing the party agreement, party participants and their organizations agree to comply with the NTSB's requirements and acknowledge that engaging in conduct that is prejudicial to the investigation or otherwise inconsistent with the NTSB's policies or instructions may lead to the loss of party status.

Survival Flight's party participants signed the party agreement on January 31, 2019, and February 6, 2019. On a number of subsequent occasions, Survival Flight has been reminded of its obligations under the NTSB's regulations by the NTSB's Investigator-in-Charge for this accident, Shaun Williams. Recently, however, Survival Flight publicly discussed the NTSB's preliminary factual report and made analytical comments about the cause of the accident. Specifically, Survival Flight said that "[w]hile the preliminary report from the NTSB contains interviews from some disgruntled former employees, it also shows that the flight and weather conditions were safe at the time of the crash." Survival Flight further posited that "[a] sound recording recovered from the helicopter and analysis from the NTSB strongly suggests that an object, presumably like a bird, caused a sudden and dramatic change 10 seconds before the crash." Notably, the NTSB's report

draws no conclusion on the weather's role in the crash and makes no reference to a bird crashing into the aircraft. Survival Flight's statements violate the party agreement because they disclose investigative information, provide an opinion and analysis of the accident, and suggest potential areas of interest in the ongoing investigation.

This letter serves as the NTSB's final warning regarding this issue. Further breaches of the party agreement will result in revocation of party status.

Sincerely,

Dana Schulze
Director

cc: David Gerlach
Federal Aviation Administration

Jack Johnson
Rolls-Royce Engines

Dane Immel
Woodward

Beverley Harvey
Transportation Safety Board of Canada

Gary Howe
Bell Helicopters

SEHAM, SEHAM, MELTZ & PETERSEN, LLP

ATTORNEYS AT LAW
199 MAIN STREET – SEVENTH FLOOR
WHITE PLAINS, NEW YORK 10601
TEL: [redacted]
FAX: [redacted]
Sender's E-mail: [redacted]

January 21, 2020

John Brannen (AS-CEN)
Operations Group Chairman
Senior Air Safety Investigator
National Transportation Safety Board
4760 Oakland Street – Suite 500
Denver, CO 80239

Re: NTSB Accident No. CEN19FA072
Operator: Viking Aviation, Inc. (dba Survival Flight)
Location: Zaleski, Ohio
Date: January 29, 2019
Aircraft: Bell 407 helicopter, registration number N191SF

Dear Chairman Brannen:

This supplemental position statement is submitted on behalf of Viking Aviation, Inc d/b/a Survival Flight to address serious procedural and substantive deficiencies related to the "Group Chairmen's Factual Report" dated September 20, 2019 (hereinafter "report" or "GCFR"). The supplemental position statement consists of three sections:

First, the issue of due process. Viking Aviation management was not permitted to participate in the agency's investigation. The management employee designated by Viking Aviation was barred from the agency's proceedings. The non-management employee who was permitted to attend certain agency meetings did not have the requisite scope of knowledge to convey Viking's positions and, in any event, was effectively excluded from meaningful participation. The agency's report relies disproportionately on statements by former employees who remain unidentified and whose statements do not reference relevant flights or circumstances subject to verification. In view of these procedural deficiencies, the instant supplemental position statement should be given the agency's fullest consideration.

Second, the agency's report reflects the conversion of a purported "accident investigation" into a springboard to advance the agency's dispute with the Federal Aviation Administration (FAA) regarding the scope of industry regulation. As a consequence, the report digresses into numerous issues that were manifestly not causal factors with respect to the accident. For example, the

report, on scant evidence, addresses issues related to pilot fatigue and supposed pressure to fly notwithstanding the fact that the accident pilot was well rested, just commencing her shift, and requested the flight. Similarly, the agency addresses reverse helicopter shopping notwithstanding the fact that it is undisputed the customer solicited Viking Aviation's services.

The only factual evidence available indicates that the accident was caused by a foreign object (e.g., a drone or bird) striking a perfectly functioning and maintained aircraft. Nonetheless, the agency's publication of a "Factual Report" freighted with irrelevant and faulty factual analysis has been exploited by Viking Aviation's competition to suggest that the company's flight management practices caused the accident. Inadvertently perhaps, the agency has been an instrument for jeopardizing the economic well-being of a safety-conscious company and its employees.

Following the accident and for ten months thereafter, not one hospital client communicated or even intimated any intent to sever its relationship with Survival Flight. However, within days after the NTSB made 2,200 pages of information available to the public on its website, contracts for Survival Flight's two Ohio bases were abruptly terminated, and, on December 10, 2019, Survival Flight's management was informed by a client hospital in Oklahoma City, where Survival Flight has a base, that the hospital will no longer refer patients to the company. Other client hospitals have let management know that they are deeply troubled by the published information and their continued association with Survival Flight will turn on findings in the NTSB's final report. Further fallout is evidenced by Survival Flight's sudden inability to find employees who are willing to work for the company given the NTSB's published information. These events have had a profound and deleterious impact on Survival Flight and its employees.

The agency's casting of a wide net is born of its dispute with the FAA concerning the deficiency of the latter agency's oversight of the Helicopter Emergency Medical Services (HEMS) industry. The proper vehicle for such a critique of FAA practices would have been an industry-wide survey similar to that conducted by the Department of Transportation Office of Inspector General dated April 8, 2015. (NTSB Report – Attachment 10). By clouding an accident investigation with the NTSB's own conception of appropriate HEMS standards, the agency has both (1) produced a muddled analysis that actually undermines the objective of determining the cause of N191SF's accident, and (2) unfairly punishes Viking Aviation for its adherence to FAA-approved and industry standard practices. To the extent the agency deemed it appropriate to mix accident causation analysis and a survey of industry practices in a single report, it should have done so only in the context of a *final* report that reached definitive conclusions with respect to the causes of the accident. The agency's incomplete analysis of unrelated factors and its publication of that analysis has allowed Viking Aviation's competitors to unscrupulously weaponize the agency's report in pursuit of economic advantage – a result which, in the existing social media environment, should have been anticipated by the agency.

The third section provides a response to some of the "factual" material contained in the agency's report. We regret that the agency made no effort to discuss many of these issues with Viking Aviation management representatives prior to publishing its report.

I.

INFIRMITIES OF DUE PROCESS: THE EXCLUSION OF VIKING AVIATION FROM THE INVESTIGATORY PROCESS

Gary Mercer is Viking Aviation's Director of Operations. He was identified to the NTSB as the party representative for Viking Aviation on the day of the accident and was with the NTSB investigators and other party representatives when they investigated the crash site. Mr. Mercer agreed with the NTSB that the information he was privy to as a result of his participation in the investigation would be held confidential and would not be shared with anyone including owners and managers of Viking Aviation. He even signed an NTSB document to that effect. A few days following the accident, when the NTSB investigation group convened at Viking Aviation's offices in Batesville, Arkansas, Mr. Mercer was told by the agency that he could not be the party representative for the company because he was a member of management. The agency informed Mr. Mercer that the "preferred representative" would be a check airman who was not in management. When Mr. Mercer specified the names of four check airmen starting with the company's Chief Pilot, Jack Windes, and its Director of Safety and Training, Joe Lawrence, the agency summarily rejected the nominees because they were identified as potential subjects of the investigation. The third check airman who Mr. Mercer identified declined to serve and the fourth, Tim Taylor, ultimately agreed. By requiring the substitution of Mr. Taylor for Mr. Mercer as party representative, Viking Aviation lost the benefit of someone with over 40 years of commercial pilot experience (compared to Taylor's 6 years) and who possessed the requisite scope of knowledge of Viking's operations. The NTSB's actions as described above deprived Viking Aviation of effective representation in this matter and resulted in a skewed report which fundamentally misrepresents our operations.

Viking requests that Gary Mercer be re-designated as its party representative in these proceedings and that he be treated as our point of contact on a go-forward basis.

II.

MISUSE OF ACCIDENT INVESTIGATION TO ADDRESS UNRELATED PRACTICES

A tragic accident occurred on January 29, 2019, and no one felt the loss more keenly than the family of Viking Aviation employees. Similarly, no one more than the Viking Aviation family would more gladly receive a definitive analysis of why N191SF crashed.

It is not that Viking Aviation opposes closer regulatory oversight. To the contrary, Viking Aviation has already begun to adopt some of the NTSB's recommendations. In a crowded industry, Viking Aviation would welcome the codification of higher standards so that no company could derive a competitive advantage by operating at a lower margin of safety.

Nonetheless, the agency's own report confirms that it has delved deeply into issues that bear no relationship whatsoever to the cause of the incident. For example, the report references that certain unidentified pilots felt pressure to accept flights when fatigued. (GCFR at 41, 43). As discussed further below, Viking Aviation strictly adheres to its published policy of allowing the Pilot-in-Command exclusive authority to determine the safety of a flight. Moreover, the report, confirms that neither fatigue nor pilot-pushing was a factor in the accident.

The accident pilot's 72-hour history establishes that she was well rested and following her standard routine. (GCFR at 6). Her shift on the day before had actually ended an hour and a half earlier than scheduled. (*Id.*). On the day of the flight, she was observed as being "alert" and "ready to go." (*Id.*). The flight took place, not at the end, but at the very beginning of her shift. (*Id.)*. Far from being pushed, she *solicited* the flight opportunity after the pilot on the evening shift had accepted the flight for himself. (*Id.* at 4-5). Nonetheless, the agency has created a report *for an accident investigation* that permits competitors to pluck references out of context in support of a false allegation that fatigue and/or pilot pushing could have been causal factors.

Similarly, the agency devotes a section to "Reverse Helicopter Shopping" and references speculative comments by unidentified "current and former Viking Aviation employees" that Viking might engage in the solicitation of flights known to have been rejected by other HEMS operators. (GCFR at 16). Viking Aviation does not follow such a practice. Moreover, as the report confirms, not only did the hospital contact Viking Aviation, but the hospital's staff confirmed that they "were not aware of Survival Flight **ever** initiating contact for a flight. (*Id.* at 4, 16).

The report acknowledges that "[v]isual meteorological conditions existed at the departure." Medflight classified the weather as "decent," classifying it as "yellow." (GCFR at 3, 4 n.2). There is no evidence that weather had any causal impact on the accident. Nevertheless, the report dedicates two pages to Inadvertent Instrument Meteorological Conditions (IIMC) and appears to fault Viking Aviation because its training records "did not explicitly indicate completion of IIMC training but showed that the accident pilot had completed the instrument procedures training phase on April 27, 2018." In fact, the pilot's IIMC training was current, thorough, and conducted pursuant to a training program approved by the FAA. There is no basis for insinuating otherwise nor is there any basis for finding a causal link between any purported deficiency in IIMC training and the N191SF accident.

Federal regulation describes the agency's regulatory mandate in the following terms:

> The NTSB conducts investigations, or has them conducted, to **determine the facts, conditions, and circumstances relating to an accident**. **The NTSB uses these results to determine one or more probable causes of an accident**, and to **issue safety recommendations to prevent or mitigate the effects of a similar accident**. The NTSB is required to report on the facts and circumstances of accidents it investigates.

49 C.F.R. § 831.4(a). Unfortunately, the agency's report does nothing to advance its mandate of determining the probable cause of this accident, but rather confuses the matter with a welter of irrelevant issues and hearsay.

N191SF was a perfectly functioning, well-maintained aircraft being operated by a well-trained, well-rested pilot operating in weather conditions as permitted by both the manufacturer and the FAA. Viking Aviation respectfully submits that the agency's regulatory mandate required it to accept these undisputed facts and focus on the "probable causes of [the] accident." Instead, the agency produced a document that has undeservedly harmed Viking Aviation and its employees and left the public in a state of bewilderment as to the cause of the accident.

III.

FACTUAL ERRORS CONTAINED IN THE REPORT

In this section, we briefly address some of most troubling factual errors contained in the agency's report on a section-by-section basis. If, after its review of the information below, the agency remains unconvinced with respect to any item, we respectfully request that arrangements be made to interview the appropriate management representatives of Viking Aviation so that we may have the rebuttal opportunity that, to date, has been denied us.

2.2 Training and Proficiency Checks

The report acknowledges that Viking Aviation utilized an FAA-approved training program pursuant to 14 CFR § 135.341. (GCFR at 6). The pilot's underwent the required training and competency check on the Bell 206 helicopter and the requisite "differences training" on the derivative Bell 407 helicopter was accomplished on April 26, 2018. (*Id.*).

Nevertheless, the report goes on to infer deficiencies in pilot training. The report states: "No competency check was completed in Bell 407" and that the "Aircraft Training Manual only listed Bell 206 training...." (*Id.*).

The inferences are both irrelevant and inaccurate. In the first instance, nowhere in the report is there any suggestion of pilot error such that the adequacy of her training would constitute a causal factor. It is a disservice to this investigation and the pilot's posthumous reputation for the agency's report to suggest otherwise.

The agency tacitly acknowledges the inaccuracy of its inferences in Section 5.1 of the report wherein it recognizes the applicability of FAA Order 8900.1, which authorizes training for a derivative aircraft to be based on FAA-approved differences training curricula. (GCFR at 48). The report further quotes the FAA POI's acknowledgement that the FAA-approved training program provides that a competency check for the Bell 206, as supplemented by the approved differences training, established the requisite competency to operate the Bell 407.

Again, Viking Aviation does not oppose any proposition to raise current training standards. We do object to references in Section 2.2 which suggest that Viking did not meet training requirements when Section 5.1 – found 42 pages into the report – reflects that the agency knows better.

4.2 Operations Control Center

The report correctly states that there were four employees who performed the role of Operations Control Manager (OCM), but fails to identify the employee who was serving as OCM at the time of the accident. Instead, the report focuses on the qualifications of an off duty OCM, insinuating that she is insufficiently qualified to serve in the position because she is not a certificated pilot.

As a threshold matter, the report's insinuation is immaterial for two reasons: (1) the referenced OCM was not on duty when the accident occurred, and (2) 14 CFR § 119.69 contains no provision requiring OCMs to be pilots or former pilots. The referenced OCM had completed the requisite FAA training and had been evaluated and approved by the FAA to serve as an OCM for the company. The inclusion and undue emphasis of this information without discussion or identification of the OCM who was on duty when the accident occurred, particularly when that OCM has over 40 years of aviation experience [Mercer], is another instance where the agency's mandate to find probable cause for the accident is subordinated to its dispute with the FAA.

4.3 Flight Crew Responsibilities

The report recognizes that Viking's policy establishes that "[t]he pilot was expected to accept or decline the flight based on aviation criteria only. Medical factors were not to be made available to the pilot until the flight was accepted." (GCFR at 14). In Section 4.17.1.2, however, the agency insinuates that the accident pilot violated the referenced Viking policy:

> [m]ultiple dispatchers, pilots, and medical crew stated that pilots never receive information on patient status before or during a flight. However, OCC recordings indicate the accident pilot requesting and receiving patient information about the time the aircraft departed.

(GCFR at 41).

Nevertheless, Section 1.1 of the agency's own report confirms falsity of the insinuation that the accident pilot allowed her flight assessment to be influenced by the patient's condition:

> OCC recordings indicated at 0625, the accident pilot contacted the OCS via onboard satellite radio to confirm the destination for the flight. At 0627, the accident pilot again called the OCS, but this time to request the coordinates of Holzer Meigs Hospital. At 0629, the OCS called the accident pilot requesting her flight release information. **She replied with her flight risk assessment, "I'm green all categories." The last communication** between the accident pilot and

> OCS occurred during an exchange at 0630, at which time the accident pilot requested patient information. The OCS **then provided** the patient age, gender and diagnosis.

(GCFR at 5). Viking is sharply disappointed by the agency's unsupported insinuations with respect to this issue. Particularly in view of her inability to defend herself, greater care should have been taken with respect to statements that derogate from the accident pilot's professional reputation.

4.6 Reverse Helicopter Shopping

As discussed in Section II above, the agency knows that reverse helicopter shopping did not occur with respect to the flight in question. Moreover, Viking Aviation rejects the practice. If the agency has any concerns with respect to Viking's practices in this regard, our Chief Pilot and Director of Operations will be made available to answer any questions.

Viking Aviation would welcome appropriate regulation to prohibit reverse helicopter shopping.

4.8 Preflight Risk Assessment Policy

In this section, the agency recognizes that FAA POI's determination that Viking Aviation's Preflight Risk Assessment Policy satisfies both regulatory and FAA circular requirements. (GCFR at 21). Nonetheless, the agency quotes an unidentified pilot as complaining that he was pressured by Operations Control to list preflight conditions as "amber" rather than "red." (GCFR at 20). There is no reference to the date, flight or relevant conditions that would have determined the risk assessment. The unsubstantiated complaint of a disgruntled former employee, devoid of factual context, does not constitute evidence.

Viking Aviation does not engage in what is sometimes referred to as "pilot pushing." The Pilot-in-Command has unreviewable authority to determine whether a flight will satisfy his/her safety assessment.

Here, yet again, the accident in question did not involve coercive management effort to push the pilot's assessment from red to amber. To the contrary, the report acknowledges that the accident pilot provided the following assessment: "I'm green all categories."

4.11.1 Icing Conditions

The report appears to fault Viking Aviation on the grounds that: "No guidance was found within the GOM or the Viking Aviation Bell 206 training manual for an inadvertent icing encounter." (GCFR at 24).

We start from the fact that the FAA has approved both Viking Aviation's GOM and Bell 206 training manual. Pursuant to these FAA-approved documents, Viking Aviation does not permit operations of its aircraft in icing conditions. As the report acknowledges, and references from the Director of Operations and a pilot employee confirm, Viking trains its pilots to avoid any operations that may present icing conditions and, in the event of an inadvertent icing condition, to immediately return to the point of origin or other location where icing conditions do not exist. (GCFR at 25).

4.15.3 Base 14 lead pilot flights

Here again, the discussion in this section bears no relation to the accident the agency is charged with investigating since it focuses on a single individual – a lead pilot – who had no involvement with N191SF's operation.

A "lead pilot" is a non-management position which merely identifies an employee with a high level of operating experience from whom other pilots may seek guidance as required. The individual has no authority to formulate, interpret or deviate from Viking Aviation policies. Since the advent of the email communications referenced in the agency's report, the particular lead pilot has been re-located to a different state and demoted from his lead pilot position. The allegations concerning this former lead pilot, to the extent they may have actually occurred, do not reflect Viking Aviation's policies or practices.

4.17 Safety Culture

The report references "[s]everal former employees" who purportedly received "multiple texts" concerning pilots who were "scared to fly." There is no identification of sources. There is no identification of flights or applicable conditions. Although the report presumably includes these references to support an inference of coercion, there is no clarification of why the individuals were "scared to fly." In short, there is no evidence, but rather shadowy suggestions of pilot pushing which, as discussed in Section 2, are irrelevant to the present accident investigation in view of the accident pilot's solicitation of the flight and all-green determination.

This section also includes a reference to the former Director of Safety and Training suggesting that he was inordinately submissive to the Director of Operations (DO). The agency never questioned DO Mercer concerning the reported comments. The fact is that Viking Aviation takes a team approach to aviation safety and adheres to an open door policy allowing employees at all levels to bring their concerns to senior management. If there is a degree of deference to Mr. Mercer, it is born of his 40-plus years of aviation experience rather than any lack of open communication. If the agency had not rejected Mr. Mercer's participation in the investigatory process, this matter could have been clarified.

4.17.1 Pressure to attempt flights

This section contains manifestly incredible comments by an unidentified pilot who supposedly said that Viking Aviation had set as an objective of 150 flights per month at a single base. The fact is that Viking has set its per base flights goal at an average of 35 to 40 flights and no Viking base has ever exceeded 52 flights in a single month. A simple agency inquiry with the Viking management would have provided both the testimony and documentation necessary to confirm the unidentified pilot's report as clearly absurd.

4.17.1.1 Quick Reference Guide

In this section, the agency seems to suggest that there is something improper with Viking Aviation's Quick Reference Guide that assures potential clients:

> Our weather minimums are different, if other companies turn down the flight for weather – CALL US. **If we can fly to you safely and take the patient safely to another facility … WE WILL**

As a management representative clarified, Viking Aviation conforms to FAA weather standards whereas other operators might operate at a different standard. (GCFR at 40). Here again, this section appears oriented towards a dispute the agency may have with the FAA and its regulatory practices, not toward a legitimate issue the agency could have with Viking Aviation's operations.

4.17.1.4 Pressure from Management

Here again, this section primarily consists of accounts from unidentified pilots without specific flight references thereby effectively depriving Viking Aviation the opportunity to make an effective response. The one account that provides adequate factual context concerns an operation in which the Director of Operations allegedly pressured a pilot to take a flight in strong winds and a subsequent telephonic confrontation with a nurse. Viking Aviation advises the agency that, in this instance, a competitor accepted and completed the flight with a less powerful and capable aircraft.

CONCLUSION

The current process of shoehorning a review of industry-wide practices into the investigation of a single aircraft's operations has distorted the investigation and unfairly punished a single operator and its employees for adhering to FAA-approved practices. We respectfully request that the NTSB focus its energies on why the N191SF accident occurred and conduct its critique of the FAA's oversight of the HEMS industry as a separate investigation.

We further request that arrangements be made to interview the appropriate management representatives of Viking Aviation so that we may have the rebuttal opportunity that, to date, has been denied us.

Respectfully submitted,

/s/ Lee Seham

Lee Seham, Esq.

cc:

Sathya Silva, PhD (AS-60)
Human Performance Group Chairman
Senior Human Performance Investigator
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

David Gerlach
Senior Air Safety Investigator
Office of Accident Investigation & Prevention
Federal Aviation Administration
800 Independence Ave., SW, Room 840
Washington, DC 20591

Todd Gentry
Air Safety Investigator
Office of Accident Investigation & Prevention
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Tom Luipersbeck
Principal Operations Inspector
Office of Accident Investigation & Prevention

Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Stephen Dickson
FAA Administrator
US Department of Transportation
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Arjun Garg
Chief Counsel
US Department of Transportation
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Pat A. McNall
Deputy Chief Counsel of Policy
US Department of Transportation
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Mark W. Bury
Deputy Chief Counsel of Operations
US Department of Transportation
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

David Fish
Deputy Director – Eastern Director
Office of the Director
Federal Aviation Administration
1 Aviation Plaza
Jamaica, NY 11434

Kathleen Silbaugh
General Counsel
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Robert L. Sumwalt
Chairman
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Sharon Bryson
Managing Director
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

John DeLisi
Senior Advisor for Policy and Strategic Initiatives
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Steven G. Bradbury
General Counsel
US Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, DC 20590

Elaine Chao
US Secretary of Transportation
US Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, DC 20590

National Transportation Safety Board
Washington, D.C. 20594

Office of General Counsel

May 5, 2020

VIA EMAIL
[redacted]

Lee Seham, Esq.
Seham, Seham, Meltz & Petersen, LLP
199 Main Street, Seventh Floor
White Plains, NY 10601

Re: Accident involving Survival Flight, Inc. Bell 407 (N191SF)
Zaleski, OH
January 29, 2019
NTSB #CEN19FA072

Dear Mr. Seham:

The investigation of the accident on January 29, 2019 involving Survival Flight Inc. Bell 407 (N191SF) continues, and the public Board Meeting has been announced for May 19, 2020. It is appropriate to address your letter dated January 21, 2020 and Ms. Bernstein's telephone calls as the investigation moves to this next phase.

Your letter indicates to us that Viking Aviation, Inc. (Viking) misunderstands the NTSB investigative process, casting it as an adversarial process that inappropriately impacts the business interests of the company. We will address each issue in turn. The NTSB fact-finding part of the investigation is collaborative. When the Safety Board determines that it is advantageous for the investigation, it designates parties that provide qualified technical personnel to actively assist in the NTSB's investigation. *See* Title 49 Code of Federal Regulations (CFR) § 831.11. Parties participate in the preparation of factual reports as part of their role on various investigative groups, and each of the party members in each group is asked to verify the accuracy of those reports. The factual reports are placed in the public docket. You state that Viking management was denied the opportunity to participate in the investigation; however, the decisions of the frontline managers were documented as part of the investigation. Furthermore, under NTSB regulations, managers were not qualified to be party representatives.

Viking designated qualified technical party representatives. Gary Mercer,[1] Doug Wahl, and Tim Taylor served in this role. All three signed the Certification of Party Representative and

[1] Gary Mercer was at the accident scene in Zaleski, OH and signed the Certification of Party Representative (hereinafter referred to as the "party agreement"). Because of his leaderhip role as Director of Operations for Viking,

received copies of the its attachment, which explains the role and responsibilities of the party and key steps of the NTSB investigative process. A copy is enclosed for your reference. These party representatives were the point of contact for information requested by the NTSB, and they were aware of the information gained through the investigative process. They were invited to participate in all parts of the investigative fact-finding, including areas related to operational factors, human performance and airworthiness of the helicopter. Moreover, as explained in the *Information and Guidance for Parties to NTSB Accident and Incident Investigations,* the attachment to the Certification of Party Representative form, "there are other, ancillary advantages to the 'party system.' In addition to the synergistic and cooperative effects that arise from use of the 'party system,' a collateral purpose is to ensure that, with appropriate coordination with the NTSB, responsible officials of party organizations whose products or services were involved in the accident or incident will have access to information necessary to expeditiously initiate any necessary preventive and/or corrective actions." (Role and Responsibilities of Parties to the Investigation, p. 2.)

In addition to their participation in the relevant fact-gathering during the course of the investigation, Viking's party representatives could have voiced their opinion about incomplete or inaccurate facts at the technical review, when all of the parties reviewed and discussed all of the factual reports, which had been provided to the parties approximately three weeks prior to the review. Contrary to your assertion, there were no unresolved disagreements when the reports were finalized; Mr. Taylor concurred with the Operational Factors/Human Performance Factual Report, and Mr. Wahl concurred with the Airworthiness Factual Report with no comments.

The Federal Aviation Administration (FAA) is a party to all NTSB aviation investigations. This automatic party status not only affords the NTSB ready access to the FAA records that are relevant to aviation accidents, but also allows the FAA to promptly address any systemic problems. Your perspective is that the NTSB need only investigate the cause of this accident in Ohio, but the agency's mission, and impact of its work, is much broader. The NTSB investigates accidents and determines the probable cause so it may prevent a similar accident from occurring again, anywhere. The NTSB does not have a dispute with the FAA or its regulations; instead, as a natural part of any aviation investigation, the scope of the regulations and the FAA's application of those regulations were reviewed. Ultimately, the facts of the accident lead the NTSB to offer recommendations to federal and state governments and companies and organizations that, when implemented, result in safer skies.

In your letter, you lament a change in business interaction following release of information in November 2019. Although the Board is aware of the business aspects of transportation, safety in transportation drives our work. With transparency as a core value, the agency strives to be clear how it reaches its conclusions. Thus, as dictated by the scope of the investigation, periodically the Board releases factual information that it has gathered through its investigation. In November 2019, the public docket was opened and a number of documents about this accident were available for review. Last week, there was an additional release of documents. As the docket demonstrates, the scope of the investigative information is extensive. These releases inform the public of the factual information related to the investigation, and they support the draft analytical report that the

---

the NTSB Investigator-in-Charge suggested that a senior check airman or lead pilot would be a better party representative. Tim Taylor replaced Mr. Mercer as the party representative.

Board Members will review during the public Board Meeting. The docket for this investigation is available at ntsb.gov, Investigations tab, select Accident Dockets on the dropdown list, then enter the appropriate search terms (date, mode and location are adequate). Items will continue to be added to the docket through the date of the public Board Meeting.

A party to the investigation also has the opportunity to offer a submission to the Board Members. Viking filed a submission that included its review of the pertinent facts, its analysis of those facts, its conclusions and possible causes of the accident.

Next, as a party, Viking may request to meet with the Board Members prior to the Board Meeting. In response to the COVID-19 pandemic, the NTSB instituted maximum telework and the majority of our staff are working from home. We have replaced in-person meetings with virtual meetings using Microsoft Teams. The Board Members successfully held Teams meetings with parties as it prepared for its recent public meeting to discuss a marine investigation, and they are prepared to do the same for this investigation. There are five Board Members, and Viking may request to meet with as few or as many as it wishes. It is best if you contact each Member's office to arrange the meeting. The contact information for each Board Member's assistant is included:

Chairman Robert Sumwalt
Lauren Herzog
Confidential Assistant
490 L'Enfant Plaza East, SW
Washington, DC 20594
[redacted] office
[redacted] cell

Vice Chairman Bruce Landsberg
Thomas E. "Ted" Dunlap
Senior Advisor
490 L'Enfant Plaza East, SW
Washington, DC 20594
[redacted] office
[redacted] mobile

Member Jennifer Homendy
Stephen Stadius
Confidential Assistant
[redacted] office
[redacted] mobile

Member Michael Graham
Anne Kerins
Confidential Assistant
[redacted] mobile
[redacted]

Member Thomas Chapman
Jana Price, PhD
Special Assistant to Member Thomas Chapman
[redacted] office
[redacted]

We trust that this information responds to your letter. If Viking has investigation-specific questions or information, its party representative(s) should contact Shaun Williams, the Investigator-in-Charge for this investigation. If there are additional legal questions, contact the Office of General Counsel at [redacted]

Sincerely,

[redacted]

Kathleen Silbaugh
General Counsel

Enclosure

Cc: David Gerlach
Todd Gentry
Tom Luipersbeck
Office of Accident Investigation & Prevention
Federal Aviation Administration
(Further dissemination to DOT at your discretion)

SEHAM, SEHAM, MELTZ & PETERSEN, LLP

ATTORNEYS AT LAW
199 MAIN STREET – SEVENTH FLOOR
WHITE PLAINS, NEW YORK 10601
TEL: [redacted]
FAX: [redacted]
Sender's E-mail: [redacted]

May 7, 2020

John Brannen (AS-CEN)
Operations Group Chairman
Senior Air Safety Investigator
National Transportation Safety Board
4760 Oakland Street – Suite 500
Denver, CO 80239

Re: NTSB Accident No. CEN19FA072
Operator: Viking Aviation, Inc. (dba Survival Flight)
Location: Zaleski, Ohio
Date: January 29, 2019
Aircraft: Bell 407 helicopter, registration number N191SF

Dear Chairman Brannen:

In view of Viking Aviation's exclusion from this investigation, and our concern that the National Transportation Safety Board's (NTSB) deficient investigatory process will lead to erroneous conclusions with respect to the above-referenced accident, we provide this submission for the agency's consideration. We also hereby request a meeting with the respective NTSB Board Members to discuss this matter, as recommended in a letter from NTSB General Counsel Kathleen Silbaugh dated May 5, 2020.

By letter dated January 21, 2020, Viking Aviation, Inc. d/b/a Survival Flight submitted a position statement to the National Transportation Safety Board (NTSB) detailing both procedural and substantive deficiencies in the agency's preliminary reports related to the above-referenced matter. We requested, *inter alia*, an opportunity for Viking representatives to interface with agency investigators regarding errors and omissions in these reports. The letter was copied to fifteen other addresses within the NTSB, FAA, and the United States Department of Transportation. Although Federal Express confirmed each delivery, we never received a response, or even acknowledgment of receipt, from any of the recipients.

On April 23, 2020, the NTSB issued a press release stating that it would hold a "board meeting" on May 19, 2020, to "determine the probable cause" of the accident. Immediately thereafter, our office made repeated contacts with the agency to ascertain whether the May 19 meeting would

afford the opportunity for Viking representatives to provide further input as requested in our letter of January 21. On April 30, we were advised by the agency's General Counsel, via telephone, that Viking Aviation would not be afforded an opportunity to participate in the May 19 meeting.

It was not until May 5, 2020, that we received a response to our letter of January 21 from NTSB General Counsel Kathleen Silbaugh. Ms. Silbaugh's response provided, in part, that Viking had an opportunity to request a meeting with the respective NTSB Board Members. We hereby request that the Board Members afford Viking representatives Chris Millard and Jack Windes the opportunity to discuss the issues raised in this submission at the Board Members' earliest convenience.

The April 23 press release references that "the crash occurred in deteriorating weather." We anticipate that the NTSB's intent is to attribute the accident to weather conditions. In our view, this finding would be inaccurate and in derogation of the NTSB's mission to determine the "probable cause" of the accident. Because it is in the interest of our industry, its employees, and the traveling public, to determine the true probable cause of this accident, we submit this position statement and the accompanying sworn declarations for your consideration.

The declarations enclosed are from the following individuals: (1) Viking Aviation Director of Flight Gary Mercer, (2) Viking Aviation Director of Maintenance Douglas Wahl, (3) Viking Aviation Operational Control Center Manager Rachel Millard, and (4) Viking Aviation Communication Supervisor Graham Hiremath. These declarations focus both on the lack of the due process in the NTSB's investigation and the facts substantiating that the probable cause of the accident is unrelated to weather conditions.[1]

I.

INFIRMITIES OF DUE PROCESS: THE EXCLUSION OF VIKING AVIATION FROM THE INVESTIGATORY PROCESS

The NTSB's Preliminary Report, issued February 11, 2019, lists Gary Mercer, Viking Aviation's Director of Operations, as a "participating person" in the investigation. In fact, just a few days following the January 29 accident, the NTSB involuntarily removed Captain Mercer from the investigation. The NTSB provided him with no explanation for his removal at the time other than that he was a member of management. Apart from a brief interview conducted by NTSB representatives, he was permitted no further involvement in the investigation. (Mercer Decl. ¶ 4). The NTSB's exclusion of Captain Mercer, and the resulting loss of his comprehensive knowledge of Viking's operations – including training, equipment, and compliance – compromised the agency investigation. (*Id.* at ¶ 5). The NTSB subsequently rejected Viking Aviation's proffer of its Chief Pilot and/or Director of Safety and Training as participants in the investigation thereby leaving the agency investigation team devoid of any participant with comprehensive knowledge of Viking's operations. (*Id.*).

[1] Original executed copies of the declarations will be mailed to the NTSB General Counsel.

NTSB investigators did not discuss with senior Viking representatives any of their theories concerning accident causation. (Wahl Decl. ¶ 3). The agency confiscated the flight data obtained from the aircraft's Outerlink Global Solutions IRIS system thereby preventing the review of this data by Viking representatives. (*Id.* at ¶ 4). Subsequent requests by Viking representatives to review this data were denied. (*Id.*).

At a meeting in Washington D.C. on October 22, 2019, the NTSB Team Leader told two Viking party representatives that the meeting was Viking's opportunity to respond to the agency's technical review and factual findings. One of the Viking representatives had never been provided with the agency's documents. (Wahl Decl. ¶ 5). The second Viking representative advised the Team Leader that he had been unable to access the NTSB report documents that had been electronically transmitted to him and that his several requests that the documents be re-sent to him either electronically or by regular mail had gone unanswered. (*Id.* at ¶ 6). Nevertheless, the NTSB pressed ahead with the meeting despite the fact that its actions had further deprived Viking Aviation of a meaningful opportunity to participate. Consequently, an NTSB review meeting that would typically be of several hours' duration was completed in thirty minutes with Viking representatives' effectively silenced. (*Id.* at ¶ 7).

Upon subsequently obtaining the NTSB's factual reports, Viking Aviation requested an opportunity to submit corrections. The agency denied Viking's request. (*Id.* at ¶ 8). As referenced above, Viking Aviation received no response from any of the recipients to its January 21 request that further arrangements be made to interview the appropriate management representatives of Viking Aviation so that they could be afforded the opportunity to respond to the inaccuracies in the NTSB's preliminary findings. (Mercer Decl. ¶ 7).

During the investigation, the conduct of the NTSB Team Leader was "aggressive" and evinced a preoccupation with identifying "blameworthy" conduct. The agency Team Leader actually registered "upset, stress, and disappointment" when he discovered that Viking's training program met FAA standards. (Mercer Decl. at ¶ 6). During the agency's investigatory interviews, NTSB investigators never advised Viking employees that they were entitled to representation; rather, the question was artfully posed as to whether the interviewee wanted to have someone "sit with" him or her. (R. Millard Declaration ¶ 3). This tactic led to all interviewees declining representation thereby further reducing Viking's participation in the investigatory process.

The agency demonstrated a disinterest in Viking's own investigation and insights. For example, the Viking Operational Control Center Manager (OCCM) was not asked a single substantive question concerning the accident. (R. Millard Decl. ¶ 4). On her own initiative, the OCCM affirmed that the weather did not warrant a turn down of the flight, but the NTSB investigators declined to engage the OCCM in a discussion of weather issues or her investigation of those conditions. (R. Millard Decl. ¶ 8).

The OCCM provided information that a competitor had falsely represented that it had turned down the same flight for weather-related reasons and that, in any event, had never posted the supposed "turn down" to the website weatherturndown.com as required. As the OCCM explained, Viking maintains redundant systems that ensure that an actual weather turn down

would never be overlooked. The NTSB promised to further investigate this issue, but apparently neglected to do so. (R. Millard Decl. ¶¶ 5-7).

II.

THE PILOT, HER TRAINING AND RELEVANT HUMAN FACTORS

The pilot was a professional of the highest caliber. She satisfied all training requirements and Viking never experienced operational issues with her performance. Aside from being an excellent pilot, she was a rescue swimmer and was, thus, a woman who had trained for and had a history of successfully performing in highly stressful circumstances. (Mercer Decl. ¶ 9)

The pilot was a woman of strong character. As confirmed by the "Group Chairmen's Factual Report" dated September 20, 2019 (hereinafter "report" or "GCFR"), she was well-rested and actually solicited the flight, which had originally been assigned to another pilot. (GCFR at 4-6). Notwithstanding the GCFR's allusions to former Viking employees' complaints about scheduling, Viking has always adhered to the highest levels of operational safety and insists that a pilot remove him or herself from a flight if they are fatigued or otherwise unprepared. We deeply regret that Viking was never provided an opportunity to respond to the isolated statements of these former employees. In any event, as referenced above, the NTSB's GCFR effectively concedes that such human factors were causally unrelated to the accident. (Mercer Decl. ¶ 10).

These human factor issues are addressed in greater detail in our submission dated January 21, 2020, which we incorporate herein by reference.

III.

UNDISPUTED EVIDENCE CONCERNING WEATHER AND SOPHISTICATION OF AIRCRAFT SYSTEMS PRECLUDES FINDING OF INCLEMENT WEATHER CAUSATION

The NTSB's preliminary report concedes that visual meteorological conditions existed at the Mt. Carmel, Grove City, Ohio, departure point. The destination was Holzer Meigs Hospital, Pomeroy, Ohio, about 69 miles southeast with an anticipated flight time of approximately thirty minutes. The forecast for the trip allowed for safe operations. Medflight classified the weather as "decent," classifying it as "yellow" (GCFR at 3, 4 n.2). The accident occurred at a point when the estimated time of arrival was approximately 15 minutes. As confirmed by the NTSB Preliminary Report, the KUNI observation facility, a mere seven miles from the accident and roughly in the direction of the aircraft's continued flight, reported visibility of 10 miles and a ceiling of 2700 feet agl. In short, there was no basis for a finding that inclement weather precluded safe operations or caused the accident. (Mercer Decl. ¶ 11; Hiremath Decl. ¶¶ 4-9).

As NTSB investigators were told by interviewees, Viking instills a sense of family among its employees. (Hiremath Decl. ¶ 3; R. Millard ¶ 13). Viking employees are trained to make flight safety their number one priority and to never allow concerns for patient health to influence flight safety determinations. (Hiremath Decl. ¶ 3).

A Viking Aviation Communication Supervisor (CS) analyzes pre-flight weather utilizing the Aviation Weather Center Helicopter Emergency Medical Services system or HEMS Tool to track and evaluate conditions that may impact flights. The HEMS Tool incorporates several standard weather evaluation systems and sources including Meteorological Aerodrome Reports (METARs), Significant Meteorological Information (SIGMETS), Airmen's Meteorological Information (AIRMETS), Terminal Aerodrome Forecasts (TAFs) and Pilot Reports (PIREPs). All of these sources were reviewed prior to the departure of N191SF on January 29 and there was no information that would warrant challenging the pilot's determination that weather conditions were "green" so that a flight could be safely completed. (Hiremath Decl. ¶ 4). The CS confirms that during his employment at Viking he has never been pressured by either a client or Viking management to authorize a flight in weather that he considered to compromise safety. (Hiremath Decl. ¶ 4). Viking CS's are also trained never to challenge a pilot's determination that a flight would be unsafe due to weather-related issues. (*Id*.).

Prior to the departure of the flight, the CS also checked the website weatherturndown.com and confirmed that no other helicopter service had turned down the flight for weather-related reasons. (*Id.* at . ¶ 5). In fact, in the immediate aftermath of the N191SF loss of contact, another helicopter service was actively operating within seven miles of the accident site. (Hiremath Decl. ¶ 5; R. Millard Decl. ¶ 11). The hospital gave no indication that another HEMS operator had turned down the flight. (Hiremath Decl. ¶ 5; R. Millard Decl. ¶ 6). Either no prior turn down occurred, or the HEMS operator who purportedly turned down the flight for weather-related reasons violated its obligation to report its determination. (Hiremath Decl. ¶ 5; R. Millard Decl. ¶¶ 6-8).

The estimated flight time of N191SF was approximately 30 minutes with the loss of contact occurring approximately 15 minutes into the flight. For the entire duration of the flight, the CS monitored the progress of N191SF. (Hiremath Decl. ¶ 7; R. Millard Decl. ¶ 12).

CS's oversight included continued monitoring of the HEMS Tool systems for any weather developments. The CS was trained by Viking to intervene and communicate proactively with the pilot in the event of deteriorating weather conditions. If conditions warrant, he is authorized to initiate the termination of the flight. In this instance, however, there were no reports of snow or other signs of weather issues that raised any question concerning the aircraft's ability to safely complete the remaining 15 minutes of flight. (Hiremath Decl. ¶ 8). Nor were there any distress calls or other communications from the pilot indicating that there were weather conditions of concern. (Hiremath Decl. ¶ 7; R. Millard Decl. ¶ 10). The CS's attentiveness to duty is confirmed by the fact that he detected the lost contact with the aircraft within a matter of seconds of its occurrence. (R. Millard Decl. ¶ 12).

Viking conducted a painstaking months-long review of all relevant and available information in an effort to determine the probable cause of this accident so that the organization could take steps

to prevent a similar accident in the future. This review included an evaluation of all the information available from the Aviation Weather Center Helicopter Emergency Medical Services system or HEMS Tool, including METARs, SIGMETS, AIRMETS, TAFs and PIREPs. (R. Millard ¶ 13). A review of these sources reaffirmed that there was no information that would warrant challenging the pilot's determination that weather conditions were "green" and the flight could be safely completed. (*Id.*). During the entire course of Viking's internal investigation, no data was found that supported the conclusion that deteriorating weather was the probable cause for the accident. Nor, during this time, did any NTSB representative ever communicate to Viking representatives that the accident was weather-related. (R. Millard Decl. ¶ 14).

Viking prohibits its pilots from flying in icing conditions. Notably, NTSB Specialist – Airplane Performance Marie Moler analyzed flight data that confirmed that the constancy of the relationship between the aircraft's collective pitch and rotor torque provided no indication that icing affected rotor performance. More specifically, she found that there was "no evidence" of rotor icing during the flight. M. Moler, *Performance Study*, NTSB No. CEN19FA072, Bell 407, N191SF at 11-12, 16. (Wahl Decl. ¶ 17).

Helicopter N191SF was equipped with sophisticated forward-looking systems that permit the pilot to anticipate and, if necessary, fly through inclement weather conditions. The relevant systems include those detailed below. (Wahl Decl. ¶ 10).

Two Garmin GTN650 GPS's were installed on N191SF. The number one GTN650 was equipped with Helicopter Terrain Awareness and Warning System (HTAWS). HTAWS offers forward looking terrain and obstacle avoidance, providing both visual and aural advisories. If the helicopter has inadequate terrain or obstacles clearance ahead based on the system's projected flight path, the pilot will get warnings and cautions. Above 500 feet, the terrain is shown as green. It will then go to yellow-orange when the 500-foot threshold is crossed; and below 250 feet, it will turn red. In terms of aural warnings, below 500 feet the system will announce the helicopter's height above the terrain every 100 feet until the helicopter is below 100 feet. These visual warnings are displayed on both the GTN650 and the G500H screens. (Wahl Decl. ¶ 11; Mercer Decl. ¶ 12).

N191SF also operated with the Garmin GRA 55 Radar Altimeter. The radar altimeter is displayed on the Garmin G500H screen and provides the pilot altitude above the ground. The system allows the pilot to set an altitude at which an additional warning will trigger if the helicopter passes below that specified altitude. (Wahl Decl. ¶ 12).

N191SF was also equipped with the Garmin G500H. The G500H consists of two 6.5 inch LCD screens mounted side by side in a single bezel in front of the pilot. One side is the primary Flight Display showing attitude, airspeed, altitude, climb rate and course/heading information. The other side shows detailed moving map graphics with the helicopter's current position in relation to ground features, Navaids and flight plan routing. The G500H also had Helicopter Synthetic Vision Technology (HSVT). HSTV provides the pilot with a clear depiction of ground, airports, obstacles and traffic shown in a 3-D perspective on the primary flight display. The manufacturer accurately describes this system in the following terms: "The HSVT graphics look so real, it's almost like having a clear-day 'out-the-window' view of your flight situation — even in the

darkest nighttime VFR or other low-visibility conditions." (Wahl Decl. ¶ 13; Mercer Decl. ¶ 12).

N191SF also was equipped with a transponder Garmin 345R, which displays weather and traffic on the GTN650 and the G500H screens. (Wahl Decl. ¶ 14).

Although visual flight rules (VFR) apply to Viking operations, the systems described above allow the pilot to safely operate in zero visibility. They also provide redundant visual and aural warning of approaching terrain that could not possibly be missed by a pilot who was in a state of consciousness. (Wahl Decl. ¶ 15; Mercer Decl. ¶ 12).

In terms of operating through inclement weather, N191SF was also equipped with an Engine Anti-Ice system and Pitot Tube heat as well as a wind screen defog fan. The Engine Anti-Ice System redirects warm bleed air from the engine to the engine inlet to prevent ice from forming. The Pitot Tube heat is another preventative system that provides electrically generated heat to the pitot static system to prevent ice from forming on the pitot tube. Viking pilots are directed to activate these two systems when flying in temperatures below four degrees Celsius and in the presence of visible moisture. The window screen defog fan prevents ice formation and maintains clear vision through the window screen in a manner similar to that of defroster in a car. (Wahl Decl. ¶ 16).

Again, N191SF's flight time for the trip in question was approximately thirty minutes. The NTSB has acknowledged that visible meteorological conditions existed at the point of the flight's origination in Grove City, Ohio, and that the visibility at the KUNI observation facility, located seven miles short of the crash site, was ten miles. Even in the event that a sudden, unanticipated squall temporarily enveloped the aircraft, the systems described above would have permitted a conscious and undistracted pilot to fly through it. (Wahl Decl. ¶ 18).

As discussed above, the aircraft was operated by an experienced, well-rested pilot. The aircraft also had forward-looking devices that could anticipate weather and terrain issues. Nevertheless, the aircraft was flying at a speed indicating that the pilot foresaw no operational complications. In this context, the sudden loud noise reflected in IRIS recording, followed by the abrupt veering of the aircraft in opposite directions, suggests the sudden incapacitation of the pilot due to the aircraft's impact with an outside object (e.g., bird or drone) or other cause originating from within the aircraft. This loud noise and its significance should have been the focus of the NTSB's investigation. (Hiremath Decl. ¶ 9; R. Millard Decl. ¶ 15). Instead, NTSB analysis of this data can be described as, at best, cursory and unscientific.

The NTSB's Sound Spectrum Study dated April 23, 2020, describes the sound as a "[w]hining sound, potentially aerodynamic in nature" that "[l]asts until the end of the recording." The Study compares the sound to a single inapposite recording in the NTSB sound library involving an entirely different aircraft. The Study thereafter reports the speculation of the unidentified members of the transcription group who are said to have "noted the following possibilities": (1) air being rammed into a plenum, (2) a horn sound, such as air across the top of a bottle, (3) the possibility of air blowing in a window opening. The NTSB's eleventh hour and speculative

treatment of these phenomena is disturbing. It reflects an investigative method that seeks to rationalize a pre-conceived theory of causation. (Mercer Decl. ¶ 13).

In view of the foregoing, NTSB's apparent preoccupation with weather issues, and dismissive analysis of other data, is likely to lead to the agency overlooking the real cause of the accident.

CONCLUSION

The objective of the agency's investigation should be to determine the probable cause for the future benefit of operators, their crews, and their passengers. This objective is not advanced by speculative theories that conflict with, rather than conform to, the facts. The current investigation should be supplemented with the inclusion of those Viking representatives who are most knowledgeable of the pilot, equipment, and terrain. Viking Aviation requests the opportunity to address these issues directly with each of the NTSB Board Members.

Respectfully submitted,

/s/ Lee Seham

Lee Seham, Esq.

cc:

NTSB Board Members

Chairman Robert Sumwalt
Lauren Herzog
Confidential Assistant
490 L'Enfant Plaza East, SW
Washington, DC 20594
[redacted] office
[redacted] cell
[redacted]

Vice Chairman Bruce Landsberg
Thomas E. "Ted" Dunlap
Senior Advisor
490 L'Enfant Plaza East, SW
Washington, DC 20594
[redacted] office
[redacted] mobile

[redacted]

Member Jennifer Homendy
Stephen Stadius
Confidential Assistant
[redacted] office
[redacted] mobile
[redacted]

Member Michael Graham
Anne Kerins
Confidential Assistant
[redacted] mobile
[redacted]

Member Thomas Chapman
Jana Price, PhD
Special Assistant to Member Thomas Chapman
[redacted] office
[redacted]

Sathya Silva, PhD (AS-60)
Human Performance Group Chairman
Senior Human Performance Investigator
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

David Gerlach
Senior Air Safety Investigator
Office of Accident Investigation & Prevention
Federal Aviation Administration
800 Independence Ave., SW, Room 840
Washington, DC 20591

Todd Gentry
Air Safety Investigator
Office of Accident Investigation & Prevention
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Tom Luipersbeck
Principal Operations Inspector
Office of Accident Investigation & Prevention
Federal Aviation Administration

800 Independence Ave., SW
Washington, DC 20591

Stephen Dickson
FAA Administrator
US Department of Transportation
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Arjun Garg
Chief Counsel
US Department of Transportation
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Pat A. McNall
Deputy Chief Counsel of Policy
US Department of Transportation
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

Mark W. Bury
Deputy Chief Counsel of Operations
US Department of Transportation
Federal Aviation Administration
800 Independence Ave., SW
Washington, DC 20591

David Fish
Deputy Director – Eastern Director
Office of the Director
Federal Aviation Administration
1 Aviation Plaza
Jamaica, NY 11434

Kathleen Silbaugh
General Counsel
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Robert L. Sumwalt
Chairman
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Sharon Bryson
Managing Director
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

John DeLisi
Senior Advisor for Policy and Strategic Initiatives
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

Steven G. Bradbury
General Counsel
US Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, DC 20590

Elaine Chao
US Secretary of Transportation
US Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, DC 20590

NATIONAL TRANSPORTATION SAFETY BOARD

In re Air Ambulance Helicopter Crash In Zaleski, Ohio – Bell 407 Helicopter	Accident No. CEN19FA072 Date of Accident: January 29, 2019 Aircraft Registration No. N191SF **DECLARATION OF GRAHAM HIREMATH**

I, Graham Hiremath, do declare as follows:

1. I am a Communication Supervisor (CS) for Viking Aviation, LLC (hereinafter "Viking") and was serving in that capacity at the time of the captioned accident. My duties at that time included monitoring the takeoff and flight path of aircraft N191SF.

2. I submit this declaration for the purpose of expressing my view that there are no grounds for concluding that the accident that occurred, on January 29, 2019, was caused by deteriorating weather based on all available date.

Viking Safety Culture

3. As I told the NTSB investigators, I enjoy working at Viking because it instills a sense of family among its employees. We are trained to make flight safety our number one priority and to never allow concerns for patient health to influence flight safety determinations. During my employment at Viking, I have never been pressured by either a client or Viking management to authorize a flight in weather that I considered to compromise safety. We are also trained never to challenge a pilot's determination that a flight would be unsafe due to weather-related issues.

HEMS System

4. Viking utilizes the Aviation Weather Center Helicopter Emergency Medical Services system or HEMS Tool to track and evaluate weather that may impact our flights. The HEMS Tool incorporates several standard weather evaluation systems and sources including Meteorological Aerodrome Reports (METARs), Significant Meteorological Information (SIGMETS), Airmen's Meteorogical Information (AIRMETS), Terminal Aerodrome Forecasts (TAFs) and Pilot Reports (PIREPs). All of these sources were reviewed prior to the departure of N191SF on January 29 and there was no information that would warrant challenging the pilot's determination that weather conditions were "green" so that a flight could be safely completed. Notably, conditions were dry and presented no potential for icing.

5. Prior to the departure of the flight, I also checked the website weatherturndown.com and confirmed that no other helicopter service had turn down the flight for weather-related reasons. In fact, in the immediate aftermath of the N191SF loss of contact, another helicopter service was actively operating within seven miles of the accident site. The hospital gave no indication that another HEMS operator had turned down the flight. Either no prior turn down occurred, or the HEMS operator who purportedly turned down the flight for weather-related reasons violated its obligation to report its determination.

6. As conceded by the NTSB's Preliminary Report, visual meteorological conditions existed at the Mt. Carmel, Grove City, Ohio, departure point. The NTSB Preliminary Report also confirms that the KUNI observation facility, a mere seven miles from the accident and roughly in the direction of the aircraft's continued flight, reported visibility of 10 miles and a ceiling of 2700 feet agl.

7. The estimated flight time of N191SF was approximately 30 minutes with our loss of contact occurring approximately 15 minutes into the flight. For the entire duration of the flight, I monitored the progress of N191SF. There were no distress calls or other communications from the pilot indicating that there were weather conditions of concern.

8. During the flight, I continued to monitor the HEMS Tool systems for any weather developments. As a CS, I am trained by Viking to intervene and communicate proactively with the pilot in the event of deteriorating weather conditions. If conditions warrant, I am authorized to initiate the termination of the flight. In this instance, however, there were no reports of snow or other signs of weather issues that raised any question concerning the aircraft's ability to safely complete the remaining 15 minutes of flight.

9. The only abnormality that occurred during the flight was a sudden loud noise immediately preceding the abrupt veering of the aircraft in opposite directions, which suggests the sudden incapacitation of the pilot due to the aircraft's impact with an outside object (e.g., bird or drone) or other cause originating from within the aircraft. In my view, this loud noise and its significance should have been the focus of the NTSB's investigation.

Pursuant to 29 USC § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: May 7, 2020

By: ***/s/ Graham Hiremath***
Graham Hiremath

NATIONAL TRANSPORTATION SAFETY BOARD

In re Air Ambulance Helicopter Crash In Zaleski, Ohio – Bell 407 Helicopter	Accident No. CEN19FA072 Date of Accident: January 29, 2019 Aircraft Registration No. N191SF **DECLARATION OF GARY MERCER**

I, Gary Mercer, do declare as follows:

1. I am the Director of Operations for Viking Aviation, LLC (hereinafter "Viking") the operator of the aircraft referenced in the caption above. I have served in this capacity since 2014.

2. I make this Declaration voluntarily, based only on my personal knowledge, unless otherwise stated. I am now 70 years old and anticipate retiring in the near future. My sole objective in submitting this declaration is to re-focus the NTSB's investigation so that it does not incorrectly attribute the accident to any deficiency in Viking's operations. The evidence reviewed below points only to the sudden incapacitation of the pilot for non-weather-related causes. I reach this conclusion based on the pilot's high level of training, relevant human factors, sophistication of the aircraft's equipment, and further evidence discussed below.

3. I have worked over 40 years as a commercial helicopter pilot and have accumulated over 23,000 flight hours. I am qualified in over a dozen different aircraft. My professional aviation career began in 1969 when I attended military flight school

and served in Vietnam thereafter as a U.S. Army medical evacuation helicopter pilot. Since that time, I have worked as a professional helicopter pilot for numerous organizations and companies including: the Arizona Army National Guard, Hughes/Donovan Construction, KPNX-Channel 12 News, and Airwest Helicopters, LLC, as a fire-fighting helicopter pilot. I have served as an Instructor Pilot, Chief Pilot, or Director of Operations for over twenty years, including for such companies as Systems Studies and Simulation, Inc., Airwest Helicopters, Kachemak Bay Flying Service, Inc., EC Source, and Viking Aviation. In terms of its adherence to the highest flight safety standards, I have never worked with a finer or more professional organization than Viking Aviation.

Due Process Concerns

4. The NTSB's Preliminary Report, issued February 11, 2019, lists me as a "participating person." In fact, just a few days following the January 29 accident, the NTSB involuntarily removed me from the investigation. The NTSB provided me with no explanation for my removal at the time other than that I was a member of management. Other than an approximately 45-minute interview of me conducted by NTSB representatives, I was permitted no further involvement in the investigation.

5. In view of my comprehensive knowledge of Viking's operations – including training, equipment, and compliance – my exclusion by the NTSB, both as a member of the investigatory team and a source of information, necessarily compromised the investigation. Nonetheless, I proceeded to propose the inclusion

of either Viking's Chief Pilot, Jack Windes, or its Director of Safety and Training, Joe Lawrence, as participants in the investigation. Unfortunately, the agency summarily rejected these nominees. The NTSB's actions left the investigation team devoid of anyone with comprehensive knowledge of Viking's operations and resulted in skewed preliminary reports which fundamentally misrepresent Viking operations.

6. In my limited contact with the NTSB Team Leader David S. Williams, I found his conduct to be aggressive in a manner that reflected an objective to find something blameworthy in Viking's conduct, rather than to zero in on the probable cause of the accident. Mr. Williams confronted me about the fact the training for Bell 206 and Bell 407 aircraft were on the same training program. The manner in which he expressed himself indicated that he had found some kind of "smoking gun." In response, I described that, in consideration of the fact that both aircraft were on the same type certificate, the FAA had approved a combined training program and provided him the relevant documentation. In reaction to my explanation, Mr. Williams' demeanor manifested upset, stress, and disappointment that Viking was, in fact, fully compliant with federal aviation standards with respect to its training program.

7. In a letter to NTSB Operations Group Chairman John Brannen dated January 21, 2020, Viking's legal counsel requested that further arrangements be made to interview the appropriate management representatives of Viking Aviation so that they could be afforded the opportunity to respond to the inaccuracies in the NTSB's

preliminary findings. The letter was copied to fifteen additional representatives of the NTSB, FAA, and United States Department of Transportation. No reply was ever received.

8. I feel deeply frustrated by my exclusion from the NTSB investigation, both as a participant on the investigatory team and as a source of information. This exclusion will inevitably undermine the agency's ability to fulfill its mandate of determining the true probable cause of the incident.

The Pilot, Her Training, and Relevant Human Factors

9. The pilot was a professional of the highest caliber. She satisfied all training requirements and Viking never experienced operational issues with her performance. Aside from being an excellent pilot, she was a rescue swimmer and was, thus, a woman who had trained for and had a history of successfully performing in highly stressful circumstances.

10. The pilot was a woman of strong character. As confirmed by the "Group Chairmen's Factual Report" dated September 20, 2019 (hereinafter "report" or "GCFR"), she was well rested and actually solicited the flight, which had originally been assigned to another pilot. (GCFR at 4-6). Notwithstanding the GCFR's allusions to former Viking employees' complaints about scheduling, Viking has always adhered to the highest levels of operational safety and insists that a pilot remove him or herself from a flight if they are fatigued or otherwise unprepared. I deeply regret that Viking was never provided an opportunity to respond to the isolated statements of these former employees. In any event, as referenced above,

the NTSB's GCFR effectively concedes that such human factors were causally unrelated to the accident.

Weather and Equipment

11. The NTSB's preliminary report concedes that visual meteorological conditions existed at the Mt. Carmel, Grove City, Ohio, departure point. The destination was Holzer Meigs Hospital, Pomeroy, Ohio, about 69 miles southeast with an anticipated flight time of approximately thirty minutes. The forecast for the trip allowed for safe operations. Medflight classified the weather as "decent," classifying it as "yellow" (GCFR at 3, 4 n.2). The accident occurred at a point when the estimated time of arrival was approximately 15 minutes. As confirmed by the NTSB Preliminary Report, the KUNI observation facility, a mere seven miles from the accident and roughly in the direction of the aircraft's continued flight, reported visibility of 10 miles and a ceiling of 2700 feet agl. In short, there was no basis for a finding that inclement weather precluded safe operations or caused the accident.

12. The speculative theory that a sudden snow squall might have contributed to the accident does not square with contemporary forecasts or the nature of the equipment installed on N191SF. The Bell 407 aircraft operated by the pilot *was* equipped with both synthetic vision and Helicopter Terrain Awareness and Warning System (HTAWS). Synthetic vision on the Bell 407 consists of a robust two-screen system with digital and color-coded displays communicating proximity to terrain. The Garmin HTAWS systems provides a forward-looking terrain and obstacle

avoidance (FLTA) capability to alert the pilot in advance where potential hazards may exist. Although visual flight rules (VFR) apply to Viking operations, these systems allow for precision landings in a constricted field even in dense fog. As the NTSB Preliminary Report indicates, the aircraft was flying at 132 knots at 1,528 msl. There was a ceiling of 2700 feet agl. and a maximum elevation in the vicinity of 765 feet. In short, the pilot had substantial maneuvering room and forward-looking devices in a glass cockpit that would permit her to react to unanticipated weather in a timely fashion.

13. The aircraft was operated by an experienced, well-rest pilot. The aircraft had forward-looking devices that could anticipate weather and terrain issues. Nevertheless, the aircraft was flying at a speed indicating that the pilot foresaw no operational complications. It is in this context that the sudden noise reflected in IRIS recording, followed by the abrupt veering of the aircraft in opposite directions, suggests the sudden incapacitation of the pilot due to the aircraft's impact with an outside object (e.g., bird or drone) or other cause within the aircraft. The NTSB's preliminary investigation fails to reflect the investigation of, and accounting for, these phenomena; rather, the agency's investigative method appears that of rationalizing a pre-conceived theory of causation.

14. The objective of the agency's investigation should be to determine the probable cause for the future benefit of operators, their crews, and their passengers. This objective is not advanced by speculative theories that conflict with, rather than conform to, the facts. The current investigation should be re-initiated with the

inclusion, this time, of those who are most knowledgeable of the pilot, equipment, and terrain.

Pursuant to 29 USC § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: May 7, 2020

By: ***/s/ Gary Mercer***
Gary Mercer

NATIONAL TRANSPORTATION SAFETY BOARD

In re Air Ambulance Helicopter Crash In Zaleski, Ohio – Bell 407 Helicopter	Accident No. CEN19FA072 Date of Accident: January 29, 2019 Aircraft Registration No. N191SF **DECLARATION OF RACHEL MILLARD**

I, Rachel Millard, do declare as follows:

1. I am the Operational Control Center Manager (OCCM) for Viking Aviation, LLC (hereinafter "Viking") and engaged in investigations in the immediate aftermath of the captioned accident. As OCCM, I am responsible for oversight of the Communications Department and ensuring compliance with Viking's General Operations Manual (GOM). When Viking first lost contact with the pilot, I was responsible for conducting the initial investigation into her whereabouts and the possible cause of any accident.

2. I submit this declaration for the purpose of expressing my concerns with respect to the NTSB's investigation of this matter. I also want to share additional information, never elicited by the NTSB, that supports the conclusion that the probable cause of the accident being investigated in this matter was the sudden incapacitation of the pilot or a distraction within the aircraft. I base this conclusion on my knowledge of Viking operations and the operating conditions that existed on day of the accident.

Due Process Concerns

3. I was interviewed by NTSB investigators on February 6, 2019. Prior to the questioning, I was asked: "Would you like someone to sit with you?" I understood this inquiry was

intended to ascertain if I required some emotional support and, therefore, I did not ask for someone to "sit with" me. In my review of the transcripts of the other witnesses, the question was phrased in an identical manner. No witness was asked if he or she wanted to have a representative present, legal or otherwise.

4. According to the transcripts, the entire interview lasted 27 minutes. However, I was only asked one question about the accident – when did I find out about it?

5. At the conclusion of my interview, on my own initiative, I requested that the NTSB investigate another operator's attempt to obtain a competitive advantage by inaccurately reporting that it had turned down the same flight for weather-related reasons. I explained to the investigators that we have multiple safety procedures that alert our pilots in the event that another service has turned down a flight and that I could confirm, therefore, that a turn down was never posted.

6. Operator turn downs posted to the required website (weatherturndown.com) enter directly in our CAD system so that every Operations Control Specialist (OCS) and Communications Specialist (CS) can see it immediately. Viking also keeps an electronic record of our employees' receipt and review of turn down notifications. Hospitals requesting flight services are also expected to advise of any prior turn down of a flight by a HEMS operator. In this instance, however, the hospital made no reference to a turn down and there was no electronic record that such a turn down was posted prior to the flight's departure. I was promised by NTSB investigator Dr. Silva that the agency would "keep an eye on that." However, I received no further communication from the NTSB with respect to this issue.

7. I later found out that the competitor that has publicly stated that it had purportedly turned down the same flight due to weather considerations had not fulfilled its obligation of

reporting that fact on weatherturndown.com.

8. I also advised the NTSB investigators that the weather reporting for that day did not warrant a turn down of the flight. I was asked no questions in response to this observation or the relevant investigatory efforts in which I had engaged to confirm acceptable weather conditions.

9. On the day of the accident, I re-evaluated all available weather information. As conceded by the NTSB's Preliminary Report, visual meteorological conditions existed at the Mt. Carmel, Grove City, Ohio, departure point. Also as confirmed by the NTSB Preliminary Report, the KUNI observation facility, a mere seven miles from the accident and roughly in the direction of the aircraft's continued flight, reported visibility of 10 miles and a ceiling of 2700 feet agl.

10. I reviewed the audio tapes for any indication that weather was a factor. There was none.

11. I obtained information that another helicopter service was performing roadside service a mere seven miles away at the time of the accident, further confirming that area weather conditions at the time of the accident permitted safe flight.

12. I reviewed the conduct of the OCS on-duty and determined that he had been carefully monitoring the aircraft's progress and the weather in its flight path. His attentiveness to duty is confirmed by the fact that he detected the lost contact with the aircraft within a matter of seconds of its occurrence.

13. Viking fosters a family environment among its employees. I knew the pilot personally and still feel a devastating emotional impact from her death and that of her two co-workers. For months, I have worked with management in a painstaking review of all relevant information in an effort to determine the probable cause of this accident so that we could take steps to

prevent a similar accident in the future. This review included an evaluation of all the information available from the Aviation Weather Center Helicopter Emergency Medical Services system or HEMS Tool utilized by Viking to track and evaluate weather that may impact our flights. The HEMS Tool incorporates several standard weather evaluation systems and sources including Meteorological Aerodrome Reports (METARs), Significant Meteorological Information (SIGMETS), Airmen's Meteorogical Information (AIRMETS), Terminal Aerodrome Forecasts (TAFs) and Pilot Reports (PIREPs). A review of these sources provided no information that would warrant challenging the pilot's determination that weather conditions were "green" and the flight could be safely completed. Notably, conditions were dry and presented no potential for icing.

14. During the entire course of our internal investigation, we found no data that would support the conclusion that deteriorating weather was the probable cause for the accident. Nor, during this time, did any NTSB representative ever communicate to me or any of my Viking co-workers that the accident was weather-related.

15. The aircraft audio tapes recorded a loud noise, followed by the abrupt veering of the aircraft in opposite directions, which suggests the sudden incapacitation of the pilot due to the aircraft's impact with an outside object (e.g., bird or drone) or other cause originating from within the aircraft. In my view, this loud noise and its significance should have been the focus of the NTSB's investigation of probable cause.

Pursuant to 29 USC § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: May 7, 2020

By: ***/s/ Rachel Millard***
Rachel Millard

NATIONAL TRANSPORTATION SAFETY BOARD

In re Air Ambulance Helicopter Crash In Zaleski, Ohio – Bell 407 Helicopter	Accident No. CEN19FA072 Date of Accident: January 29, 2019 Aircraft Registration No. N191SF **DECLARATION OF DOUGLAS WAHL**

I, Douglas Wahl, do declare as follows:

1. I am the Director of Maintenance for Viking Aviation, LLC (hereinafter "Viking") the operator of the aircraft referenced in the caption above. I have served in this capacity since 2016.

2. I make this Declaration voluntarily, based only on my personal knowledge, unless otherwise stated. I submit this declaration for the purpose of expressing my view that the circumstances surrounding this accident incident support the conclusion that the probable cause of the accident being investigated in this matter was the sudden incapacitation of the pilot or a distraction within the aircraft. I base this conclusion on my knowledge of the systems on the aircraft, which should have permitted the pilot to anticipate and, if necessary, fly through inclement weather conditions that may have arisen.

Due Process Concerns

3. The NTSB permitted me to visit the accident site the day after the January 29 accident. Thereafter, NTSB investigators asked me questions regarding the aircraft parts, airworthiness, systems, and weight and balance. The NTSB representatives never discussed with me any of their theories concerning accident causation. I was never asked

any questions about how the operating systems would have guided the pilot in the event of unanticipated inclement weather.

4. The aircraft was equipped with an Outerlink Global Solutions IRIS flight data monitoring system, which provides real-time tracking data along with voice and satellite communications. I was not provided an opportunity to review this data before the material was removed by the NTSB. My later request to review the data was denied.

5. The NTSB advised me that I was part of the investigation team. However, the agency never provided me with a copy of any of its preliminary factual reports other than a report that addressed the airworthiness of the aircraft. The NTSB invited Check Airman Tim Taylor to Washington D.C. to a "technical review" meeting on or about October 22, 2019, and I accompanied Mr. Taylor to that meeting. Mr. Taylor received this invitation as a result of the agency's refusal to accept the participation of the three other management representatives proposed by Viking.

6. At that October 22 meeting, the NTSB Investigator Sean Williams advised us that this was Viking's opportunity to respond to the agency's technical review and factual findings. Mr. Taylor advised Investigator Williams that he had been unable to access the NTSB report documents that had been electronically transmitted to him and that his several requests that the documents be re-sent to him either electronically or by regular mail had gone unanswered.

7. I was told by an NTSB representative that these technical review meetings with the operator generally last several hours. By contrast, our meeting lasted approximately 30 minutes. Williams asked us if we had comments with respect to a series of reports. However, since we had never seen the information before, Mr. Taylor and I were unable to

provide substantive responses.

8. In view of Mr. Taylor's inability to access the information, I requested that copies of the reports be sent to me. In response, I was told that the information would be available to the general public in 30 days. On November 11, 2019, after finally obtaining the NTSB's factual reports, I inquired with NTSB representative Chihoon Shin whether the agency would accept corrections to the NTSB's factual reports if they could be provided within 30 days of the October 22 technical review. Mr. Shin responded that it was the agency's "expectation" that Viking would "bring any comments to discuss during the technical review." Thus, the NTSB finalized its factual reports without any meaningful participation by Viking's representatives.

9. I felt deeply frustrated by Viking's effective exclusion from the investigatory process and am concerned that this exclusion will lead to an erroneous determination of the accident's probable cause.

Weather-Related Detection Equipment Installed on Aircraft N191SF

10. Helicopter N191SF had installed sophisticated forward-looking systems that permits the pilot to anticipate and, if necessary, fly through inclement weather conditions. The relevant systems include those listed below.

11. Two Garmin GTN650 GPS's were installed on N191SF. The number one GTN650 was equipped with Helicopter Terrain Awareness and Warning System (HTAWS). HTAWS offers forward looking terrain and obstacle avoidance, providing both visual and aural advisories. If the helicopter has inadequate terrain or obstacles clearance ahead based on the system's projected flight path, the pilot will get warnings and cautions. Above 500 feet, the terrain is shown as green. It will then go to yellow-orange when the 500-foot

threshold is crossed; and below 250 feet, it will turn red. In terms of aural warnings, below 500 feet the system will announce the helicopter's height above the terrain every 100 feet until the helicopter is below 100 feet. These visual warnings are displayed on both the GTN650 and the G500H screens.

12. N191SF also operated with the Garmin GRA 55 Radar Altimeter. The radar altimeter is displayed on the Garmin G500H screen and provides the pilot altitude above the ground. The system allows the pilot to set an altitude at which an additional warning will trigger if the helicopter passes below that specified altitude.

13. N191SF was also equipped with the Garmin G500H. The G500H consists of two 6.5 inch LCD screens mounted side by side in a single bezel in front of the pilot. One side is the primary Flight Display showing attitude, airspeed, altitude, climb rate and course/heading information. The other side shows detailed moving map graphics with the helicopter's current position in relation to ground features, navaids and flight plan routing. The G500H also had Helicopter Synthetic Vision Technology (HSVT). HSTV provides the pilot with a clear depiction of ground, airports, obstacles and traffic shown in a 3-D perspective on the primary flight display. The manufacturer accurately describes this system in the following terms: "The HSVT graphics look so real, it's almost like having a clear-day "out-the-window" view of your flight situation — even in the darkest nighttime VFR or other low-visibility conditions."

14. N191SF also was equipped with a transponder Garmin 345R, which displays weather and traffic on the GTN650 and the G500H screens.

15. Although visual flight rules (VFR) apply to Viking operations, the systems described above allow the pilot to safely operate in zero visibility. They also provide redundant

visual and aural warning of approaching terrain that could not possibly be missed by a pilot who was in a state of consciousness.

16. In terms of operating through inclement weather, N191SF was also equipped with an Engine Anti-Ice system and Pitot Tube heat as well as a wind screen defog fan. The Engine Anti-Ice System redirects warm bleed air from the engine to the engine inlet to prevent ice from forming. The Pitot Tube heat is another preventative system that provides electrically generated heat to the pitot static system to prevent ice from forming on the pitot tube. Viking pilots are directed to activate these two systems when flying in temperatures below four degrees Celsius and in the presence of visible moisture. The window screen defog fan prevents ice formation and maintains clear vision through the window screen in a manner similar to that of defroster in a car.

17. Viking prohibits its pilots from flying in icing conditions. Notably, NTSB Specialist – Airplane Performance Marie Moler analyzed flight data that confirmed that the constancy of the relationship between the aircraft's collective pitch and rotor torque provided no indication that icing affected rotor performance. More specifically, she found that there was "no evidence" of rotor icing during the flight. M. Moler, *Performance Study,* NTSB No. CEN19FA072, Bell 407, N191SF at 11-12, 16.

18. N191SF's flight time for the trip in question was approximately thirty minutes. The NTSB has acknowledged that visible meteorological conditions existed at the point of the flight's origination in Grove City, Ohio, and that the visibility at the KUNI observation facility, located seven miles beyond the crash site, was ten miles. Even in the event that a sudden, unanticipated squall temporarily enveloped the aircraft, the systems described above would have permitted a conscious and undistracted pilot to fly through it. I would like to share

my concern that the NTSB's apparent preoccupation with weather issues is likely to lead to the agency overlooking the real cause of the accident.

Pursuant to 29 USC § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: May 7, 2020

By: ***/s/ Douglas Wahl***
Douglas Wahl

National Transportation Safety Board
Washington, D.C. 20594

Office of General Counsel

May 15, 2020

VIA EMAIL
[redacted]

Lee Seham, Esq.
Seham, Seham, Meltz & Petersen, LLP
199 Main Street, Seventh Floor
White Plains, NY 10601

Re: Accident involving Survival Flight, Inc. Bell 407 (N191SF)
Zaleski, OH, January 29, 2019, NTSB #CEN19FA072

Dear Mr. Seham:

This letter acknowledges that the Board Members and I received your May 7, 2020 letter and its attachments. We also confirm that meetings have been scheduled during this week and next week with the participating Board Members, which is an opportunity that the Board Members extend to parties to the investigation at this point in the investigative process.

Furthermore, in your May 7 letter you imply that Viking Aviation has been denied the opportunity to participate in the May 19, 2020 public Board Meeting. In fact, NTSB staff are the only presenters at public Board Meetings; there are no outside presenters. On May 19, a link to the webcast of the Board Meeting will be on the NTSB.gov website, which will allow you to watch the meeting as it is occurring.

For any additional legal questions, contact the Office of General Counsel at [redacted].

Sincerely,

[redacted]

Kathleen Silbaugh
General Counsel

Cc: David Gerlach
Todd Gentry
Tom Luipersbeck
Office of Accident Investigation & Prevention
Federal Aviation Administration (Further dissemination to DOT at your discretion)