RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 25, 2022
Person Contacted: Warren Robert Eyring
NTSB Accident Number: ERA23FA033

Narrative:

Mr. Warren Robert Eyring was interviewed at KEEN on October 22, 2022, at 1121 EDT. He provided a cell phone of [redacted] and an e-mail address of [redacted] Also present was Federal Aviation Administration (FAA) Inspector Curtis "Curt" Davis of the South Portland Maine Flight Standards District office and Textron Aviation investigator Kurt Gibson.

At the beginning of the interview he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview with representation by Elizabeth Bendel, owner of Monadnock Aviation.

He provided an address of [redacted] Troy, New Hampshire [redacted] He holds an airframe and powerplant mechanic (A&P) certificate with inspection authorization (IA) certificate number [redacted] He also holds a FCC GRU license. He is not a pilot. He obtained his A&P certificate in June 2000 at East Coast Aero Tech. He got his IA in September 2022 in the Portland, Maine FAA Flight Standards District Office.

He started in DC mostly with Regional Airlines. He was asked to prepare a list and will provide. He also had experience with a corporate flight department, then began teaching at National Aviation Academy where he taught several years teaching electrical, magnetos, and carburetor subjects. He was also a maintenance supervisor for an airline in Albany, New York.

He was hired by Monadnock Aviation in early June 2022, his title was "head of maintenance." They are not a FAA repair station.

He was asked the following questions by NTSB?

Explain your roll in maintenance of the airplane?
For that airplane he did not do much. He signed off the muffler installation which was sent out for overhaul before the annual was started.

Did he have any involvement during the annual inspection?
Other than having discussions of what the findings were no. He did not do any part of the inspection, but he did help order parts. He did as part of the pre inspection drain the engine oil.

Explain the engine run he did?
He had a clipboard with him with the aircraft records. It was a, "fairly basic run-up." He checked the instruments for functioning, and cycled the propeller 3 or 4 times. He checked the drop of engine rpm during the check of each magneto. He did not do an "official" full power static run-up, but did do a full power run-up.

Do you recall the rpm drop during the magneto check?
He did not recall the exact numbers but there was nothing, "too out of the ordinary." He estimated they were 100 rpm range. If it was less than 100 rpm he would not be worried about it. Nothing came across to him of the run-up that was unusual that he would know of.

Do you recall the date that engine run was performed?
He thinks it was July 15th to the 20th.

Did he have any involvement in the post annual engine run?
No, other than hearing it run.

What was the date of the post annual engine run?
It was Thursday, October 20th.

Where was the airplane when he began employment with Monadnock Aviation?
In the hangar.

Was it always in the hangar?
Yes. It was moved between hangars. When he ran the engine mid July it was the 1st time it had run in months.

Were you at the airport when the accident flight departed?
No.

During the post annual engine run did you hear any engine issues?
I didn't hear anything that stood out. He heard the magneto drop check and propeller cycling. He didn't hear anything that was unexpected.

Textron Aviation Questions –

During the engine run-up did he switch fuel tanks?
He was mostly warming the engine up, he doesn't think so.

Was there anything wrong with the airframe or brakes during his engine run?
No, nothing particularly wrong.

FAA Questions –

Prior to the engine run did he do any inspection of the fuel system?
No he did check the fuel drains.

Did he recall the fuel quantity before his engine run?
It was above the tabs.

How much fuel was in the fuel tanks?
3/4 capacity in each fuel tank.

When he looked into each tank how was the fuel?
It was, "bright blue clean fuel."

When you checked the fuel did the fuel cap feel OK?
It felt fairly normal.

Were there any electrical issues during the engine run?
No, nothing too noticeable. The only issue was the know issue of the attitude indicator that was inoperative and previously removed.

Prior to the engine run when was the last time you performed an engine was run?
A couple days earlier running a Piper Warrior.

Based on your experience how are you in performing engine runs?
With turbine powered aircraft very experienced. With piston powered aircraft he is "more than satisfactory." Back in July 2022 he transitioned from turbine powered aircraft to piston powered aircraft.

Did you video the engine run?
No.

Textron Aviation Questions –

Why was the attitude indicator disconnected.
Another airplane had a bad attitude indicator so one was removed from the accident airplane.

Textron Aviation Questions Continued–

Why was the muffler overhauled?
It had been removed before he came to Monadnock Aviation.

Did the brakes hold firm during his engine run-up?
They operated satisfactory. They held fine during the engine run.

NTSB Questions Continued –

Do you have any questions for NTSB?
No.

FAA Questions Continued –

Do you have any questions for FAA?
No.

Textron Aviation Questions Continued–

Do you have any questions for Textron Aviation?
No.

The interview end time was 1157 EDT.

The digest was e-mailed to him for review on October 25, 2022. He replied the same day at 2126 EDT with, "Good evening Tim, I received the draft interview summary and reviewed it. I do not feel any changes are necessary. Sincerely, Warren Eyring." The FINAL digest was e-mailed to him and the team on November 1, 2022. The amended FINAL digest correcting the interview time was e-mailed to him and the team on April 11, 2023.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 25, 2022
Person Contacted: Elizabeth Bendel
NTSB Accident Number: ERA23FA033

Narrative:

Ms. Elizabeth Bendel, owner of Monadnock Aviation was interviewed at KEEN on October 22, 2022, at 1508 EDT. She provided a cell phone of [redacted] and an e-mail address of [redacted] Also present was Federal Aviation Administration (FAA) Inspector Curtis "Curt" Davis of the South Portland Maine Flight Standards District office and Textron Aviation investigator Kurt Gibson.

She indicated that the pilot-rated occupant (Lawrence F. Marchiony) held a commercial pilot certificate which he obtained from her flight school in 2022. She explained that he wanted to make flying a career but did not want to go the path of building time by being a certified flight instructor. On the accident flight he was going to fly with Marvin "David" Dezendorf, a flight instructor who had been with her since 2015. Currently, he was a part-time flight instructor, while he had a full-time job as an IT person in town.

Mr Marchiony has been a customer of their company since 2016. He obtained his private pilot certificate with their school and was a "fixture" at her school every Friday and Saturday. The flight instructor and Mr. Marchiony were friends and flew often on Friday and Saturday, sometimes flying long trips, or even just around the airport traffic pattern. She indicated that although they often flew on Friday, she was unaware of the intention of the accident flight.

The airplane had just came out of maintenance.

She was asked the following questions by NTSB –

How had the airplane been operated prior to and after the annual inspection?
The annual inspection had just been completed. Prior to that, it had not been flown in 1 year.

NTSB Questions Continued –

Where was it when it sat for the year, on the ramp or in a hangar?
It was hangered.

Why did the airplane sit for 1 year?
It was waiting for maintenance, staff issues, supply chain issues, and the flight school had no urgent need for the airplane, this it sat not being operated.

When the airplane started sitting was it airworthy?
It had an issue with a plugged fuel injector, and while waiting for that work it was put into a hangar. Then the airplane was due an annual inspection, and they couldn't get to it. She indicated that she was still at the airport at 1715 and prior to their flight had talked with both occupants. They originally were scheduled to fly a different airplane (Piper Warrior) but when they learned the Sierra's annual inspection had been completed and the airplane was available they flipped a coin to decide which airplane to fly, and the Sierra was the one that was determined by the coin toss.

Did you see the preflight inspection?
No, she was not there. All of them were previously in the office and they then went to the maintenance hangar area where the airplane was at.

Did any company employees see any preflight inspection?
Another flight instructor (Dan Wagner) and his student saw the takeoff. Dan called her (Ms. Bendel) and said we had a problem. Dan's phone number is [redacted]

Was there any video in that area?
No, there are no cameras in that area.

Do you know if it was fueled?
She does know that the airplane pulled up to the fuel pump to fuel.

Have there been any fuel related issues at KEEN?
No quality control issues. Their fuel servicing company is Titan.

Did the crash happen on the 1st takeoff?
About 1 hour elapsed between the fueling and crash.

When the annual inspection was completed was the airplane flown afterwards?
No, it was not test flown. The accident flight was the 1st flight after the annual inspection was completed.

Was the annual inspection performed by her employees?
Yes.

NTSB Questions Continued -

Can we speak with the IA?

Yes, but she wanted the team to wait to Monday to interview them if possible because of the trauma of the crash.

At this approximate stage of the conversation she asked if she needed to have an attorney present. It was explained to her that NTSB took no action against anybody and had no authority to, but she questioned the role of the FAA. The FAA inspector indicated he was looking for factual information. She was asked by NTSB if she wanted an attorney present or to exclude the FAA from the interview. She declined and the interview continued.

Federal Aviation Administration Questions –

Did you hear any conversation about who was where in the airplane?
It was not discussed and she did not see them in the airplane.

Textron Aviation Questions –

During the annual inspection was any major maintenance to the airplane or engine performed such as cylinder changes?
Nothing major that she recalled.

NTSB Questions Continued –

How was the seating on previous flights?
He would be fluid and would be decided when they showed up on Friday.

Is N[redacted] one of her airplanes?
It is James Sterling's airplane. His phone is [redacted] She reported he saw the run-up, taxi, and takeoff. He was in close proximity to the airplane in the run-up area.

How long has she owned the airplane?
About 3 years[1].

Aside from sitting were there any major issues of the airplane since owning it?
They put a new 3-bladed propeller in 2020. There was no engine replacement.

Did you have any questions for NTSB

What is the investigative process?
Explained to her.

How will the accident affect her operation?

[1] According to FAA records, the airplane Bill of Sale was dated August 24, 2017.

With respect to NTSB, there will be phone calls, she is required to complete a report. The remainder of the question was passed to FAA.

The interview ended at 1554 EDT.

The digest was e-mailed to her for review on October 25, 2022. She replied on November 1, 2022, at 1120 EDT with, "…What I indicated was that although not verbatim, this was a reasonable approximation of my comments. Thank you, Beth." The FINAL digest was e-mailed to her and the team on November 1, 2022.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 25, 2022
Person Contacted: Jill Batty
NTSB Accident Number: ERA23FA033

Narrative:

Ms. Jill Batty was interviewed at her home address of [redacted] Keene, New Hampshire [redacted] on October 22, 2022, at 1754 EDT. She provided a cell phone number of [redacted] and an e-mail address of [redacted]

At the beginning of the interview she was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. She was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; she agreed to the interview without representation.

She is an accountant. She is not a pilot nor an aviation mechanic nor is she mechanically inclined. About 1840 hours on the date of the accident she was by herself inside her house and heard a loud "thud." She heard Pops and people shouting. She went to her backyard and put their dog on a leash. She noted a huge fire behind their property. She saw Fred get a garden hose out and heard popping sounds. The Fire Department then arrived and about that time the wind died down. She came inside her house at 1930. There was a person that said to her it was actually a plane that had crashed. She went to the back of her yard and could see the tail of the airplane.

She showed the team the location of the Reolink video camera. It was mounted to the side of a building on their property about 10 ft above ground level at 42.913647º north latitude and -72.268352º west longitude, or 266 ft and 133º from the camera to the accident site. The camera view was about 160º. The video file with audio was provided to NTSB.

The interview end time was not recorded.

The digest was e-mailed to her for review on October 25, 2022. She replied the same day at 1416 EDT with, “Hello, I'm confirming receipt of the email and attachment. I have reviewed the record of conversation and agree with the content. No changes are needed. Thank you, Jill.” The FINAL digest was e-mailed to her and the team on November 1, 2022.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 23, 2022
Person Contacted: Kevin H. Provost
NTSB Accident Number: ERA23FA033

Narrative:

Mr. Kevin H. Provost was interviewed at KEEN on October 23, 2022 at 1434 EDT. He provided a cellular phone of [redacted] and an e-mail address of [redacted] Also present was Federal Aviation Administration Inspector Curtis "Curt" Davis of the South Portland Maine Flight Standards District office and Textron Aviation investigator Kurt Gibson.

At the beginning of the interview, he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He provided an address of [redacted] North Swanze, New Hampshire [redacted] He holds a private pilot certificate with airplane single engine land rating, a commercial pilot certificate with rotorcraft helicopter and instrument helicopter ratings. He also holds a flight instructor certificate with rotorcraft helicopter rating and an airframe and powerplant mechanic certificate with inspection authorization. His certificate number is [redacted] He has about 1,450 hours total time, of which 450 hours are in airplanes. He has no flight time in a Beech A24R. He has known the flight instructor in the accident airplane for 3 to 4 years. He operates a Part 61 flight school.

He was asked the following by NTSB –

Explain what he saw and heard?

On the day of the accident he was at the self service fuel pump to fill fuel cans. He saw an airplane at the pump being fueled and waited for that airplane to finish. He went back to his

hangar then when the airplane finished he went to the fuel pump and noted the engine was running with no abnormalities. He saw light moving in the cockpit consistent with lights on each occupant as if there were performing a checklist. He saw the flight instructor and waved to him. The airplane taxied to the south end of the east ramp. While there it didn't sound like a run-up was performed, rather, it sounded like the engine was at idle for some time. He drove his truck to his hangar and put the 2 cans of fuel into his Cessna 172, then brought the other cans into his hangar. He did hear an aircraft performing a run-up but he was not sure if that was the accident airplane. While on the ramp he heard a long run-up[1], and heard full power applied and the airplane began takeoff from runway 02. He added that the engine, "sounded bad enough to put the cans down and started watching." He waited for the airplane to come into view from behind the t-hangars where aircraft are usually airborne by that location but the engine "sounded terrible." The engine sounded like it was at low rpm not full rpm. The airplane continued and did not become airborne until past the water treatment plant which is 1/2 way down the runway, climbing to 20 ft. He said they would abort the takeoff and noted the airplane was flying level when he heard power reduced as if to about then power applied to continue. The airplane was in a, "very anemic climb" and then went out of sight of his view. He walked around the hangars to see and noted black smoke. To him it was either a stuck valve. The engine sound wasn't inconsistent rpm, but a low rpm that didn't sound like a normal rpm with a constant speed propeller. A gentleman on the wing of his airplane, a Piper Arrow called 911. He saw other door of Monadnock Aviation, and asked the person if that was the Beech Sierra that took off.

NTSB Questions Continued –

Did you see any preflight inspection?
No, the 1st time he saw the airplane when it was at the fuel pump.

Explain what he heard during the engine run-up?
At a high power setting for a long period of time. Maybe he did more than 1 run-up.

Did you hear a drop in engine rpm during a magneto check?
He was not paying attention.

Did you hear cycling of the propeller?
He does not remember specifically, but did recall hearing a high power setting for a while.

Explain the high power setting?
It was probably 2,000 rpm. It was slightly more than normal run-up rpm.

During the run-up was the engine smooth or misfiring?
When the airplane began the takeoff it did not sound right but he could not recall what it was during the run-up. When full power was applied for takeoff the sound stopped him in his tracks and he thought "that's not good." The airplane took a long time to get airborne.

[1] At the time he was located at 42.901004° north latitude and -72.265555° west longitude, or 1,596 ft and 138° from the departure end of runway 02.

NTSB Questions Continued –

Where is the normal rotation point for a Beech Sierra with 2 people on-board?
He rarely saw that airplane fly. He saw another Sierra fly recently and noted it climbed like a Cessna 172.

Did you see anything trailing the airplane in-flight?
No.

Did you see if the landing gear retracted?
No I could not.

Where did the airplane rotate?
The airplane at the water treatment plant was no more than 25 ft above ground level (agl).

What was the maximum height attained?
No more than 50 ft.

Did the engine sound change or get better while airborne?
It did not get better. It sounded like someone reduced power then added power. It, "stayed the same but sounded terrible."

Where was the airplane when power was reduced?
Across from his hangar which was at the intersection.

How was the sound like when power was applied?
It was the same or worse and was not better. He asked aloud at the time of the accident why did you not pull power.

Did you see the airplane banking?
No.

Federal Aviation Administration Questions –

When you pulled up to the fuel farm who was where in the airplane since he knew the flight instructor?
The flight instructor was in the right seat. He saw his headset moving.

How much time was the airplane at the fuel farm?
They were getting fuel so he returned to his hangar. It was there 5 to 10 minutes after he returned to the fuel farm.

Did you see them fuel?
No.

Federal Aviation Administration Questions Continued –

What was the speed at departure before rotating in knots?
Judging for time it was twice as long to achieve 60 to 70 knots. They got there, but it just took longer. The airplane did not accelerate much faster than that during the takeoff.

After the airplane broke ground did you hear any noise other than that airplane?
No, just the engine running very rough. He heard a momentary pull of power then power added. It seemed to level off for a moment. He thought they would abort.

Textron Aviation Questions Continued –

When the airplane was flying did he see the flaps?
He could not tell. He saw lights and silhouette but couldn't see the flaps.

Did he check his fuel since he added fuel to his aircraft?
He did. He got fuel earlier too. He flew 2.0 hours in his helicopter with fuel purchased that same day from the same location. He also put fuel into his Cessna 172 and the next morning flew .8 hour and then a separate 1.0 hour flight.

NTSB Questions Continued –

When did you fly the helicopter?
The same day as the crash but before the accident flight.

Was there any fuel related issues in the helicopter?
None.

How much fuel was put into the helicopter?
5 gallons before the 1st flight and 10 gallons before the 2nd flight.

What is the N# for the helicopter?
16WP.

Was there any fuel related issues in the Cessna 172?
No.

Have you ever experienced any fuel related issues at KEEN?
No.

How long have you been at KEEN?
Just over 2 years for his flight school but had his airplane there since 2012.

Did you see any bank at any portion of the flight?
No.

NTSB Questions Continued –

Did you have a continuous line of sight with the airplane from when it came into view from the t-hangars to the accident?
No. I lost sight of the airplane probably at the edge of the terminal ramp. After he lost sight he listened and heard the engine fade away. He could not hear any sound from the engine due to distance and obstructions.

When was the last time that you saw the airplane fly?
He didn't know that they still had the airplane. He hadn't seen it forever.

Did you know how many hours David had?
No.

Did you know Lawrence?
No I did not.

Federal Aviation Administration Questions Continued –

Have you ever seen the airplane hangered or on the ramp?
The last time he saw the airplane was on the ramp on an unknown date.

Textron Aviation Questions Continued –

Did you see other Sierra's did they sound like a Cessna 172 or have a unique sound?
Just like a Cessna 172. He watched another Sierra today and noted normal performance. The accident airplane "sounded very very rough." He thought was either a magneto issue or a stuck exhaust valve.

Federal Aviation Administration Questions Continued –

Since the accident has he talked with anybody else who saw the accident?
Walter Thorne who works as a mechanic for CNS.

Testing was performed placing Mr. Provost in the spot where he observed the airplane and him in contact with a person in the airport maintenance vehicle to locate the following locations (Figures 1 and 2):

Rotation Point- 42.896282° north latitude and -72.270169° west longitude. That location when plotted on Google Earth was located 2,890 ft before the departure end of the runway.

Location when at 25 ft – 42.898330° north latitude and -72.270000° west longitude. That location when plotted on Google Earth was located 2,178 ft before the departure end of the runway.

Levelled off Point – 42.899141°north latitude and -72.269951° west longitude. That location when plotted on Google Earth was located 1,864 ft before the departure end of the runway.

Throttle Back Point – 42.899572º north latitude and -72.269911º west longitude. That location when plotted on Google Earth was located 1,693 ft before the departure end of the runway.

Throttle Forward Point – 42.899847º north latitude and -72.269877º west longitude. That location when plotted on Google Earth was located 1,607 ft before the departure end of the runway.

Lost Sight of the Airplane – 42.901916º north latitude and -72.269736º west longitude. That location when plotted on Google Earth was located 845 ft before the departure end of the runway.

Figure 1: Provost Determined Locations Plotted on Google Earth.

Figure 2: Provost Determined Close-Up Locations Plotted on Google Earth.

The interview end time was not recorded.

The digest was e-mailed to him for review on October 23, 2022. He replied on October 24, 2022, at 0747 EDT with, “Looks fine.” The FINAL digest was e-mailed to him and the team on November 1, 2022.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 23, 2022
Person Contacted: Oliver James Sterling
NTSB Accident Number: ERA23FA033

Narrative:

Mr. Oliver James Sterling was interviewed at KEEN on October 23, 2022, at 1650 EDT. He provided a cellular phone number of [redacted] and an e-mail address of [redacted] Also present was Federal Aviation Administration Inspector Curtis "Curt" Davis of the South Portland Maine Flight Standards District office and Textron Aviation investigator Kurt Gibson.

At the beginning of the interview, he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He was interviewed at his airplane (N[redacted], a Piper Arrow which was parked in the same location as the accident date in which he witnessed the takeoff. That location was 42.902039° north latitude and -72.266618° west longitude[1]. He holds an Airline Transport Pilot (ATP) certificate with airplane multi-engine land and commercial pilot certificate with airplane single engine land rating. He also holds a flight instructor certificate with airplane single engine rating. He has about 6,000 hours total flight time, and may have about 1 hour in the Beech A24R but that was 20 to 30 years ago. He is an executive with health care diagnostics. He did not know either occupant.

[1] Using Google Earth, that location was 1,122 ft and 134° from the departure end of runway 02.

NTSB questions –

Explain what you saw and heard?
He was at his airplane at night and was on the wing opening the cabin entry door. He heard an engine run-up but did not see the airplane before that adding that it was "dead quiet" at that time. He said during the engine run-up, the engine "sounded rough." It sounded to him like either a fouled spark plug or a bad magneto, maybe worse which got his attention. The run-up stopped, and he began the preflight inspection of his airplane for his intended flight. Then some time later the accident airplane began the takeoff roll. At that time, he was by his airplane and reported the, "engine sounded quite rough during the takeoff roll." If the airplane started the takeoff using full length of the runway than the point at which it became airborne was much later than what he normally expected. After becoming airborne it was in a shallow climb and had trouble climbing normally. At best the airplane climbed to 200 ft above ground level (agl) which was attained at the departure end of the runway. While watching the climb he said out loud "oh no." He perceived the airplane maybe banked very slightly to the right, "more of a fade off to the right"[2], then went behind trees. About 20 seconds later he heard the impact and saw a glow from the postcrash fire. He then called 911.

Was the rough running engine occur during the entire takeoff roll"
Yes, it was acting like a bad magneto or "coughing" but the sound was worse than if there was a bad magneto.

Were you by yourself?
Yes. He was flying to Teterboro to pick up his family.

Did the airplane use the full length of runway for the takeoff?
He heard the engine run-up, but he, "…did not look to see where the aircraft started its takeoff roll."

Where did the airplane rotate?
He did not see the point of rotation, but the airplane was 30 ft agl when the flight was 500 ft before the runway 32 intersection[3].

Did you see the landing gear position after becoming airborne?
No.

Did the poor engine sound continue until he stopped hearing the airplane?
Yes, it (poor sound) didn't vary. He could not hear the engine sound just before impact but added the engine did not suddenly quit, the sound just faded. He recalled hearing the engine as the airplane got farther away.

[2] He added that he, "didn't perceive much of a bank at all, and it may very well have just been the angle from my point of view that made it look like it was fading to the right."
[3] That location was about 1,564 ft before the departure end of runway 02.

NTSB questions Continued –

Did the climb stay shallow the entire time?
Yes it was.

Did you see anything trailing the airplane?
No.

What was the wind at the time?
Very calm.

Explain the right turn?
It was a shallow turn or a, "fade off to the right."

Federal Aviation Administration Questions -

Were you on the right wing?
Yes, I was standing on the wing during the engine run-up, "but not during the takeoff roll. I was on the tarmac during the takeoff."

Did the airplane roll right?
If it did turn the airplane faded to the right.

Did you hear any other noise before impact?
No, not at all.

If the wind was calm was there any visibility issues?
No.

Did you see any wildlife on the airport at the time?
No.

Were there any other people that you know of that may have witnessed the accident?
After the accident Kevin Provost came up to me by my Piper Arrow, "…because he had heard the takeoff roll. Kevin and I talked about the accident…" and walked over to an adjacent hangar that was occupied and told an individual there about the crash. That individual was unaware of the crash, but he called Elizabeth Bendel, owner of the airplane "right away."

Did you see where the airplane was located when the run-up occurred?
No.

How long was the run-up?
A normal length. It wasn't unusually extended like they were trying to take care of a fouled plug.

Federal Aviation Administration Questions Continued -

Was more than 1 run-up performed?
No, not that I recall.

Textron Aviation Questions –

Did you perceive a magneto check during the run-up?
He couldn't tell. He added that the engine "never sounded smooth."

Did you see the airplane taxi?
No, I never did.

Did you see if the flaps were extended?
He did not see them, but he was not looking for them.

NTSB Questions Continued –

Did you perceive the engine to be at full power during the takeoff?
Yes, but he was not sure what full power for the Beech A24R was. He heard the engine run-up very clearly. It did not feel like the engine was operating at less than full power. He definitely never heard the throttle or a decrease in power.

What external lights on the airplane did you observe?
He recalled lights but could not be specific.

Did you recall any wing rocking during takeoff?
No, the wings were level the whole time and no variation in pitch attitude.

Federal Aviation Administration Questions Continued -

You mentioned you had 6,000 hours. In what type of aircraft?
He has owned N[redacted] since 1989. He has 3,000 hours in it, about 1,200 hours in a Piper PA-23, 500 to 800 hours in a Cessna 152/172, a few hours in a Cessna 402, Piper Cheyenne, and a Great Lakes.

NTSB Questions Continued –

Did you say aloud to abort?
I said out loud "oh no."

Were there clear skies?
Yes, if I remember correctly.

What time did he call 911?
1845.

The interview ended at 1723 EDT.

The digest was e-mailed to him for review on October 23, 2022. He replied on October 27, 2022, at 1809 EDT with comments that were incorporated into the narrative. The corrected digest was e-mailed to him for FINAL review on November 1, 2022. He replied on November 1, 2022 at 1238 EDT with, “That captures it all. All set. Thanks.” The FINAL digest was e-mailed to him and the team on November 1, 2022.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 25, 2022
Person Contacted: Daniel C. Wagner
NTSB Accident Number: ERA23FA033

Narrative:

Mr. Daniel C. Wagner was interviewed at KEEN on October 24, 2022, at 0803 EDT. He provided a cell phone of [redacted] and an e-mail address of [redacted] Also present was Federal Aviation Administration Inspector Curtis "Curt" Davis of the South Portland Maine Flight Standards District office and Textron Aviation investigator Kurt Gibson.

At the beginning of the interview he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He provided a home address of [redacted] Croydon, New Hampshire [redacted] He holds a commercial pilot certificate with airplane single and multi-engine land ratings, a flight instructor certificate with airplane single engine rating, and advanced ground instructor. He has about 800 hours total flight time, and has never flown a A24R, but he has flown various models of Piper, Cessna and Beech airplanes.

He was asked the following questions by NTSB –

Did you know both occupants?
He knew both of them. Marvin David Dezendorf was like a mentor and Lawrence Marchiony had about 800 hours, almost all of which was with Mr. Dezendorf, who was the lead flight instructor at Monadnock Aviation.

NTSB Questions Continued –

Explain his role at Monadnock Aviation?
He works for Ms. Bendel as a flight instructor. He teaches private pilot to 5 or 6 students. Prior to that he worked at Plymouth. He has been as Monadnock Aviation since February 2022. His 1st student at Monadnock Aviation was in April 2022. He obtained his flight instructor certificate in December 2020.

Have you flown with either occupant?
Lawrence, no. He had flown with Mr. Dezendorf on 1 initial flight. And he also flew in the back of an airplane during two instructional flights with Mr. Dezendorf up front as a flight instructor. Mr. Dezendorf started flight instructing in 1992, and "always wanted to do things the proper way."

Explain the accident flight, including any conversation before what he had saw and heard[1]?
He was in the terminal and introduced his student to Mr. Dezendorf. They (Mr. Marchiony and Mr. Dezendorf) were going to go flying in another aircraft, but they noticed the Beech Sierra was back on-line. During their walk-around he noted Mr. Dezendorf push N44836 back "(he changed aircraft to the sierra from 836)" into the hangar. They checked the weather, and flight aware shows them departing at 1754. They flew north about 6 miles to the Connecticut River and returned for landing at 1824. The wind at the time of their takeoff was from 220º at 6 knots, but it was calm when they returned. When returning he made radio calls when the flight was 5 miles and 3 miles away. Mr. Dezendorf radioed them and said there were4 or 5 large flocks of geese 200 ft over center of the field, "…use caution." We said thanks and he double clicked the microphone. He (Mr. Wagner) landed and taxied off the runway at taxiway Charlie. He retracted the flaps, and saw birds land on the pond. He called crossing runway 14/32 on Alpha, and saw Mr. Dezendorf perform a 360º turn. As he (Mr. Wagner) passed N8020R he waved to the pilots. They (Mr. Wagner and his student) performed the shutdown checklist and at that time the accident airplane was still on the ground. He opened the hangar doors (Figure 1), and pushed the airplane in the hangar. He was teaching his student to close the hangar doors and heard a sound of a rev-up, rev down, which happened twice. He described it as cycling, and said the engine was not operating at full power. His student pilot left 5 minutes later and 2 people came up to him and asked about the crash. He thought the airplane had achieved 4 to 5 wingspan height above the runway. When he looked the accident airplane was before the intersection of runway 02/20 and 14/32 over the runway 02 centerline. He was not sure why they did not abort the takeoff. The airplane stayed straight and level, and he thought maybe the sound reduction and advancement cycling was training that was being performed. He reported that the airplane went by at 1847 and he called Ms. Bendel about the crash at 1852. He closed the hangar doors and Ms. Bendel went to the scene.

He indicated that the interactions were crystal clear. They were excited to fly the Sierra, since it was back flying.

[1] He advised the team that after the accident someone told him to write down key points which he provided to the team. His comments include the word "sputtering" when describing the sound from the engine. This is attached at the end of the Narrative Summary.

NTSB Questions Continued –

Clarify what you and the accident airplane did on the ground?
He was on Alpha taxiway and was crossing runway 14/32. The Sierra was on the ramp and did a 360º turn to move out of the taxi lane to allow him to pass. Then he (Mr. Wagner) taxied to the hangar, while Mr. Dezendorf taxied on Alpha to runway 02. He added it was a quiet night.

Did you hear a run-up?
No, he thinks he did it while he (Mr. Wagner) was in the air. The airport lights were on. That was because it was likely Mr. Dezendorf did that as part of a radio check.

When you passed them could you see who was where?
He did not see images. The sun went down at 1835, the sun was below the horizon.

Explain where the airplane was at when it became airborne?
When he saw the airplane it was already at 100 ft to 200 ft holding level. He did not see the lift off, or rotation point. His first sight of their flight was prior to 14/32 intersection. The accident airplane was departing from runway 02. The wind was calm at the time.

Explain what altitude the airplane was at when the cycling he heard was occurring?
Between 100 and 200 ft. It was an estimated 4 to 5 wing spans high.

Explain the cycling sound he heard?
It sounded like it went from idle up to 40% power. It sounded like the propeller was cycling at low power. To him, it sounded like it was either related to fuel, air, and the propeller. The cycling was evenly spaced. He heard 2 cycles. The flight was not descending at the time. When he heard the cycling it didn't appear to be an emergency. The pilot who ran to him asked him why the airplane did not abort, the airplane just crashed. When the two pilots came to me, that changed his assessment of the cycling.

Could he tell the landing gear position in-flight?
No.

Was the engine revving smooth or rough?
Smooth, it was consistent, cyclical, happening two maybe 3 times that were spaced evently. There were no backfires. He listened to the church surveillance video and that engine sound was constant. The sound that he heard when the airplane was over the runway was not consistent.

When did you lose sight of the airplane and where was it at?
It was past runway 14/32 and 02/20, and was not descending at that point. The flight continued and when it was near the departure end of runway 02, it was between 100 and 200 ft above ground level. He then diverted his attention and said out loud that the sound he heard was not right.

NTSB Questions Continued –

Explain the airplane pitch attitude when he last saw the airplane?
It was straight and level, wings level.

FAA Questions –

Did you hear cycling after hearing the engine stabilize at a certain rpm?
He changed his focus once the airplane went past the hangar doorway out of his line of sight. He was not concerned enough to go to the ramp and watch further.

Prior to cycling did you hear constant engine rpm?
That made him turn around as it was not consistent with what he would expect.

FAA Questions Continued –

When did he talk with the mechanic?
Saturday morning.

Was there any deep discussion about the airplane status on the Saturday discussion?
Warren said the only thing he did was the exhaust. The only deep conversation was wondering if they were alive at impact. On the church video it seemed like they could hear a voice from the aircraft.

Textron Aviation Questions –

Did you notice any flaps?
He could not tell.

Did you see the Sierra on the ramp?
No other than when they were passing it. He saw the taxi, navigation, and thinks the strobe lights on but was not 100% sure about the strobe lights.

Did you get fuel in N43337?
No the airplane had 20 gallons a side.

NTSB Questions Continued –

Explain the cycling?
It didn't sound like it went to full rpm.

Have you seen it fly?

No. When he arrived in April, the airplane was going in for the annual inspection. It took a long time to complete.

NTSB Questions Continued –

Did you see the airplane on the ramp for engine maintenance runs?
No. They finished the annual inspection recently. He is not at the airport as a full-time flight instructor.

Did you speak with mechanics about any issues of the airplane they found during the annual inspection?
No, other than Saturday. Warren did the exhaust and Tim did the other part of the annual inspection.

He added at this point that the pressure was 30.40 inHg that night, in reference to air density, adding that it was not part of his conversations with the mechanics.

When was the 1st point he saw the airplane?

He was in the center of the hangar door and looking at the airplane when it was left of runway 14/32 on runway 02.

Would David normally do a full-length or intersection departure?
The flight school's rule was not to do an intersection departure and touch-and-go landings are prohibited. They require full-length. Mr. Dorzendorf had the idea to create the rule always to use full length. They also don't fly into airports with runway lengths less than 3,000 ft.

The interview ended at 0859 EDT.

The digest was e-mailed to him for review on October 25, 2022. He replied on October 27, 2022 at 1250 EDT with comments that were incorporated into the narrative. The corrected digest was e-mailed to him for FINAL review on November 1, , 2022. He replied on November 2, 2022 at 1147 EDT with a comment that was incorporated into the diget. The corrected digest was e-mailed to him for review on November 2, 2022. He replied the same day at 1530 EDT with, "Hi Tim. It looks complete and accurate. Please let me know if there's anything else I can do to help. Dan Wagner." The FINAL digest was e-mailed to him and the team on November 2, 2022.

Figure 1: Digital Photograph taken by Student of Daniel C. Wagner. View Showing Lighting and environmental conditions while he opened the Hangar.

Called a 3 mile. Final 20 in N43337 PA28-151

Received call back from David announcing 4-5 Flocks of geese 200' above Field. Watch on approach

Acknowledged with callback

landed RW 20 - winds 00/000

after landing - ~~was~~ exited C taxi A to Ramp Cross 14/32

on Alpha - saw Flock of geese land in pond and create wave in pond

Called crossing 14/32 on Alpha, paused 3 seconds then Cross

When calling crossing, A/C on Ramp did a 360, then

Crossed 32/14 behind us

Taxied to hangar, plane off, opened hanger

Pushed plane into hanger

with 1 of 3 doors closed, heard sputtering engine

turned around to see a plane ≈100' above runway straight/level just prior to 14/32.

watched for 4-5 seconds. plane lost no altitude nor gaind any

turned around to close other doors

two other people on ramp came and asked if I knew the pilots that just crashed.

Wasn't aware of a crash until they approached

Pilots at door stated they saw a plume of smoke

At that point, I called beth to inform her it May Have Been Larry/David as they were the only other voices on UNICOM

Per Flight aware, landed @ 6:24 pm local

Time of call was 6:52

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 25, 2022
Person Contacted: Timothy Scott Price
NTSB Accident Number: ERA23FA033

Narrative:

Mr. Timothy S. Price was interviewed at KEEN on October 24, at 1015 EDT. He provided a cell phone of [redacted] and an e-mail address of [redacted] Also present were Federal Aviation Administration (FAA) Inspector Curtis "Curt" Davis of the South Portland Maine Flight Standards District office and Textron Aviation investigator Kurt Gibson.

At the beginning of the interview he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview with representation by Elizabeth Bendel, owner of Monadnock Aviation.

He provided an address of [redacted] Marlborough, New Hampshire [redacted] He is not a pilot, but holds an airframe and powerplant (A&P) mechanic certificate with inspection authorization (IA), certificate number [redacted]

At this stage of the conversation FAA inspector Curtis Davis verbally advised him of the Pilot's Bill of Rights (PBR). He agreed to continue the interview.

He was asked by NTSB the following questions –

Explain where and when you got your A&P certificate?
He went to East Coast Aero Tech and obtained his A&P in 2001, and obtained his IA in 2008.

Explain who he is employed by and his position?
He is a mechanic employed by Monadnock Aviation for all but 4.5 years since 2008, with a break in employment to do helicopter maintenance for about 4 years. After working on the

helicopters he came back to Monadnock Aviation in 2014. He works part-time, and got his IA from the Portland, Maine FAA Flight Standards District Office (FSDO). He has had no enforcement actions from the Portland Maine FAA FSDO.

Explain how the airplane sat during the time when it was not in service?
It sat because they were working on other flight school and customer's aircraft. It was down for maintenance due to a rough running engine due to a clogged fuel injector. That was cleaned. Then they were waiting to perform the annual inspection. Until the annual began that was "pretty much it."

What were the exact dates the airplane was inoperative?
He doesn't have the dates. He does not typically track aircraft that are not in for maintenance.

Was there any engine preservation or routine, logged engine runs when the airplane was not operated?
There was no engine preservation but there were occasional engine runs but they were not logged.

Explain the annual inspection and work that was done?
Warren did the engine run-up before the inspection started and then, "pretty much all work was done by me."

Explain what he used as reference for the annual inspection?
He used the checklist from the manufacturer's maintenance manual, and he also has a parts catalog. There was nothing major wrong with the airplane. The exhaust was replaced, the exhaust gas temperature (EGT) probe was replaced, and he cleaned corrosion on the fuel strainer, replaced the gaskets at the fuel strainer, replaced the magneto gaskets, retimed the magnetos, and replaced 5 spark plugs. He adjusted the mixture control so that when movement of the mixture control in the contact it contacts the stop at the servo fuel injector before being at the maximum travel limit in the cockpit. He also performed dye-penetrant inspection of the forward right wing forward attach bolt per the Airworthiness Directive. There was no major work done to the airplane. He checked the control throw, control cable tensions, and retraction tests of the landing gear. He did not recall any other work.

How long did the inspection take?
Two weeks maybe three.

When Warren did the engine run before the annual inspection did he say there was any issue?
He did not indicate there were any issues during the run-up other than 1 EGT did not work.

Was the engine run readings logged?
He would have to talk with Warren. He was not sure if there were any hand written notes.

Do you have a work order you can provide NTSB?
Yes, AMI.

NTSB Questions Continued –

Was the engine run at the completion of the annual inspection and who did it?
Yes, he did it.

Do you recall the engine readings and pressures during the engine run?
He did not recall. During the engine run he operated the engine to 1,800 or 2,000 rpm and performed a check of the magnetos, remembering that both drops were "just under 100 rpm", and all pressures and readings were in the green. There was no place on the checklist that he used to write the observed values for pressures and temperatures.

Did you write down the values on paper for your engine run?
No. The checklist is just a go, no-go.

Was a full-power static check done?
Yes, but he did not calculate what the exact numbers should have been for that run.

Who did that run?
He did.

Do you recall what the maximum static rpm attained was?
I believe it was between 2,300 and 2,375.

Where was the engine run done?
In front of the maintenance hangar.

When was the run-up done?
Friday, the date of the crash.

Did you speak with either pilot before the flight?
No.

What check of the fuel supply and fuel vent systems were performed during the annual inspection?
During the engine run-up the fuel selector was changed to supply fuel from both fuel tanks. As to the fuel vent he used a hose and blew mouth pressure into the hose.

Was there any problem with the fuel supply or fuel vent systems during the inspection?
No.

Did you check the fuel tanks for contaminants?
Yes he did and none were found.

Did you find contamination in the fuel strainer?
He found rust particles in the bowl. He removed the fuel strainer, cleaned it up, and installed a new drain valve. Before the run-up he sumped the fuel strainer again.

NTSB Questions Continued –

Did you check the inlet screen of the servo fuel injector?
Yes, and there was nothing in there.

Did the full power static run-up include using fuel from both fuel tanks?
No.

Do you recall where the fuel selector was for the static full power run-up?
He thinks it was on the right fuel tank but he was not 100% sure.

Did you video the engine run?
No.

Did this airplane have any engine monitor?
It had the standard EGT gauge.

Did the airplane have any engine monitor that records parameters?
No I don't think so.

When you did the static full power engine run did you perceive any engine issues?
No, everything seemed to run fine.

Was anybody inside with him during his static full power engine run?
No.

Were you at the airport when the flight departed?
No, I was not.

Do you have any pictures of the airplane interior or exterior?
I don't believe so.

FAA QUESTIONS –

What is Warren's last name?
From Elizabeth Bendel it is Eyring.

Is there a Juan?
No.

How long has Warren been with Monadnock Aviation?
Three months. From Elizabeth Bendel he came on-board in May 2022.

How long has Warren been a mechanic?
He and Warren were in 1 class away from each other at the same school.

FAA QUESTIONS CONTINUED –

Did you work with Warren at any other locations?
No.

Do you list Airworthiness Directive (AD) compliance on work order or logbook entry?
He has a Master list but it is not current. They use an on-line database.

During the annual inspection was there any electrical issue?
The only electrical issue was due to the EGT probe.

Did you test any batteries?
He pulled the battery out but it was good.

When you did the fuel vent test what was the pressure used?
Lung pressure by his mouth applied to a hose. He knows the fuel vent is clear when you get fuel fumes blowing back in your face.

During the engine run-ups was there any indications that alarmed him?
No, not in any way.

Was the clogged injector written up in the maintenance records?
Yes, there should be yeah.

TEXTRON AVIATION QUESTIONS –

Did you notice any bug nests built up in the airplane since it sat for a long period of time?
No, "it sat most if not all of the time in a hangar."

Did you notice any fuel, oil, or hydraulic leaks?
Nope.

The 5 spark plugs that were replaced were they worn out?
They checked the plug resistance and it was high. That was the reason why they were replaced.

Did you borescope the cylinders during the inspection?
Not typically unless he had a reason to.

Did you do this on the engine?
No.

How did the fuel selector detents feel?
Good.

How much fuel was in the airplane when it sat for 1 year?
He does not recall how much was in there.

NTSB Questions Continued –

What is the name of the on-line database that you used?
Aviation Data Source.

Explain your check of the fuel vent?
The fuel cap was on. If the vent was clear when he blew into the hose he got fumes in his face.

Did you do that on both sides?
Yes.

Did you notice any fouled plugs?
Maybe a couple of the lower plugs were a little dark.

Was there any evidence of lead in the plugs he checked?
No.

Were the spark plugs oil or sooty dark?
Sooty dark.

FAA QUESTIONS CONTINUED –

Did you check the fuel, did you sump the wing fuel tanks?
Yes.

Did you ever drain the fuel tank?
No.

When the airplane was brought in for the annual inspection how much fuel was in the airplane?
He does not recall exactly.

Has he ever had fuel contamination there?
No.

Is there anything we should know but have not asked?
I really can't think of anything. "I looked at these things every day and nothing stood out really."

NTSB Questions Continued –

Do you have any questions for NTSB?
No.

FAA QUESTIONS CONTINUED –

Do you have any questions for FAA?
No.

TEXTRON AVIATION QUESTIONS CONTINUED –

Do you have any questions for Textron Aviation?
No.

The interview ended at 1102 EDT.

The digest was e-mailed to him for review on October 25, 2022. Areas of the digest requiring an answer were highlighted. He replied on October 28, 2022, at 1224 EDT with comments that were incorporated into the narrative. An e-mail was sent to him on October 28, 2022 at 1234 EDT, asking him to clarify one last question in the notes. He replied on November 1, 2022, at 1232 EDT with comments that were incorporated into the digest. The corrected digest was e-mailed to him for FINAL review on November 1, 2022. He replied on November 2, 2022, at 0811 EDT with, "Everything seems correct as I remember it." The FINAL digest was e-mailed to him and the team on November 2, 2022.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 25, 2022
Person Contacted: Jacquelyn Trombly
NTSB Accident Number: ERA23FA033

Narrative:

Ms. Jacquelyn Trombly was interviewed at KEEN on October 24, 2022, at 1218 EDT. She provided a cell phone of [redacted] and an e-mail address of [redacted]

She is a student pilot, is not a mechanic nor mechanically inclined but as a student pilot and her training she knows about an engine, the airframe and systems. She has about 50 hours total flight time, flying a Piper PA-28, N[redacted]

On the date and time of the accident she had no interaction with either occupant, did not witness the preflight or accident. She knew the flight instructor, as he was her ground instructor.

The interview ended at 1221 EDT.

The digest was e-mailed to her for review on October 25, 2022. She replied the same day at 1415 EDT with, “Looks good to me!” The FINAL digest was e-mailed to her and the team on November 1, 2022.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 24, 2022
Person Contacted: Walter W. Thorn
NTSB Accident Number: ERA23FA033

Narrative:

Mr. Walter W. Thorn was interviewed at KEEN on October 24, 2022. He provided a cell phone number of [redacted] and an e-mail address of [redacted] Also present was Textron Aviation investigator Kurt Gibson.

At the beginning of the interview he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He indicated that he holds an airframe and powerplant mechanic certificate, certificate number [redacted] He also holds a private pilot certificate with airplane single engine land rating, certificate number [redacted] He has about 250 hours total time, and owns a Cessna 175 located on the airport. He knew the flight instructor casually having talked with him 4 times. He works for a corporate flight department and his title is Sr. Maintenance technician.

He was asked the following questions by NTSB –

Explain what you saw/heard?
He and Brian were working on one of their corporate aircraft and the main entrance door was open[1]. He was kneeling behind the center pedestal and Brian was behind him. They heard the airplane fly over and said to each other that sounded like s***. He thought the sound was similar to what a Champ would produce, which is low powered. The accident airplane engine wasn't

[1] He was located at 42.905944º north latitude and -72.272056º west longitude, or about 899 ft and 313º from the departure end of runway 02.

running smooth. The engine did not sound like an O-360 engine even though the accident engine was fuel injected. He heard the engine over the propeller. He heard the engine only which was not running correctly. They continued to work on the airplane then 10-15 minutes later they heard a lot of ambulances. When walking out of the airplane they looked in the direction of the crash and saw fire/smoke. Their dispatcher (Lori) told Brian about the crash.

On Sunday he talked with Kevin Provost. That same day he did a runway inspection. In talking with Kevin he said he watched the accident flight depart. Kevin said he heard the engine power reduce then increase. A company pilot (Tony) was actually going to buy the accident airplane a couple years ago but he decided not to because it was lacking performance during takeoff.

Explain the engine sound?
If there was a bad magneto at full power the engine rpm would decrease, or if it was combined with 1 bad spark plug. The engine, "totally sounded rough. It sounded like a Champ that was missing." Walter had said that the airplane sat for a long period of time. After the accident he saw the video with sound taken near the accident site and during his review of that video with sound he heard the engine running normal, which was different than what he heard during the earlier portion of the flight.

How long did he hear the airplane flying?
3 to 4 seconds, or closer to 3.

Was the engine sound the same the whole time?
Exactly the same.

Did you perceive the engine was making full power or close to full power?
He thought it sounded like a Champ but the accident airplane engine was not performing correctly.

Was there a rough sound, spitting or sputtering?
More of a sputter if anything.

Did you see the airplane in flight?
No.

Textron Questions –

Had you seen that airplane fly before?
No. On 10/23/2022 he saw a Beech Sierra takeoff from runway 34.

NTSB Questions Continued –

How did the takeoff of the Sierra yesterday compare with the sound of the accident airplane?
The Sierra that departed on Sunday sounded normal.

The interview ended at 1447 EDT.

The digest was e-mailed to him for review on October 24, 2022. He replied on October 25 2022, at 1440 EDT with comments that were incorporated into the narrative. The corrected digest was e-mailed to him for FINAL review on November 1, 2022. He replied on November 1, 2022 at 2044 EDT with, “Tim, Looks good. Walt” The FINAL digest was e-mailed to him and the team on November 1, 2022.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 24, 2022
Person Contacted: Brian W. Johnson
NTSB Accident Number: ERA23FA033

Narrative:

Mr. Brian W. Johnson was interviewed at KEEN on October 24, 2022, at 1455 EDT. He provided a cell phone number of [redacted] and an e-mail address of [redacted] Present was Textron Aviation investigator Kurt Gibson.

At the beginning of the interview he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He provided a home address of [redacted] Swanzey, New Hampshire [redacted] He is a director of aviation for a corporate flight department, He holds an airframe and powerplant certificate, certificate number [redacted] which he obtained in 1994. He did solo, flying last 20 to 25 years ago.

He was asked the following by NTSB:

Explain where you were located and what you heard?
He was on the ramp in one of their airplanes with the door facing south, working with another mechanic inside the airplane[1]. He never saw the airplane but heard the takeoff. The engine sounded like it was not developing full power, was running rough, and he heard the engine cut out a couple times, like all cylinders were not firing. The engine cut out completely 2 maybe 3

[1] He was located at 42.905944º north latitude and -72.272056º west longitude, or about 899 ft and 313º from the departure end of runway 02.

times. He asked the mechanic that was with him (Walter) if he heard that. The flight continued and about 5 minutes later he heard a lot of sirens.

Where was the airplane when he 1st heard it?
It was south of them. He thinks there was another airplane in the traffic pattern at the time.

Explain the cutting out sound?
In was on/off quickly. It repeated 2 or 3 times. It sounded rough running between cutting out and coming back on.

By sound how high was the airplane?
He could not discern height by sound.

Have you seen the accident airplane fly before?
I have not.

Did you know either occupant?
No.

Textron Questions –

Have you worked on reciprocating powered aircraft?
Yes. His dad owned the fixed base operator (FBO) at the airport years ago, and also worked on reciprocating aircraft while growing up and after getting his airframe and powerplant mechanic certificate.

The interview ended at 1504 EDT.

The digest was e-mailed to him for review on October 24, 2022. He replied on October 25, 2022, at 0616 EDT with, “looks good.” The FINAL digest was e-mailed to him on November 1, 2022.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: October 25, 2022
Person Contacted: Brian MacLellan
NTSB Accident Number: ERA23FA033

Narrative:

Mr. MacLellan was interviewed at [redacted] Keene, New Hampshire on October 24, 2022 at 1620 EDT. He provided a cell phone number of [redacted] and an e-mail address of [redacted]

At the beginning of the interview he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He is not a pilot nor aviation mechanic but is mechanically inclined. He worked for 35 years in a communications company and current working for a power company. He has lived at the house for 29 years, thus he has heard hundreds if not thousands of aircraft flying, relaying that in the past he has seen airplanes clip nearby trees. The airport went ahead and after having meetings with local residents cleared trees in the area. He indicated some residents complained about the tree removal.

He was asked by NTSB to explain what he saw and heard?
For a timeline he took his dog outside at 1840, and dialed 911 at 1847. He was in his front yard[1] taking his dog outside and noted the airplane to the right of the taller pine tree. The airplane was louder than most airplanes and it just cleared the trees. The airplane began descending and he heard pop sound like backfiring. The airplane cleared a 50 ft tall black walnut and he had a view of the right side of the airplane. The airplane then flew over the neighbors house, cleared another

[1] At the time of the accident he was standing at 42.912028° north latitude and -72.267106° west longitude, which was 2,941 ft and 14° from the departure end of runway 02 and 436 ft and 161° from the resting position of the engine.

tree line and while descending the sound from the engine got louder. He heard the impact and ran to the accident site. When he got there the flames were 30 to 40 ft high. His wife also ran over to the accident site. He added that when the airplane went over the tree line it went "down fast."

Did you see the landing gear?
I didn't. He was looking for the registration marking. He never before had seen an airplane departing that low.

When did the pop sounds or backfiring begin?
Closer as the airplane approached his location. The noise was continuous to the tree line then increased as the airplane was descending.

Textron Aviation Questions –

Since it was dark did you see any flashes from the tailpipe?
No, it was dusk out.

Did the backfiring stop after the airplane cleared the trees[2]?
"I did not notice the popping after it cleared the tree line at the edge of the parking lot as the rpm's increased on its final descent."

How long did the backfiring last?
It wasn't consistent. The popping sound was pop, pop pop in quick succession, then it stopped then continued 3 seconds later.

Did you hear a change in engine rpm?
No I didn't until the airplane began descending. The first thing that struck him was how loud the airplane was because it was so low.

The interview ended at 1640 EDT.

The digest was e-mailed to him for review on October 25, 2022. He replied the same day at 1840 EDT with, "It all looks accurate to me Sir. Thank you." The FINAL digest was e-mailed to him and the team on November 1, 2022.

[2] By text message on October 25, 2022 at 1139 he replied.

RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 2, 2022
Person Contacted: Daniel L. Schrager
NTSB Accident Number: ERA23FA033

Narrative:

The phone number [redacted] contained in the Federal Aviation Administration (FAA) Registration File for the owner of N[redacted] a Cessna 172S was contacted on November 2, 2022 at 0919 EDT. That phone number belonged to an aviation insurance company. The person answering my phone call relayed my name and phone number to the President of the company.

On November 2, 2022, at 1120 EDT, the President of the aviation insurance company, David Hampson, contacted NTSB and he was advised that NTSB would like to speak with the owner of N[redacted] a Cessna 172S that fueled at Dillant/Hopkins Airport (KEEN), Keene, New Hampshire on October 21, 2022 (Figure 1)[1]. The President of that company advised that the airplane was owned by Dan Schrager and he would relay to him my contact.

On November 2, 2022, at 1142 EDT, Mr. Daniel L. Schrager contacted NTSB by phone from [redacted] He provided an e-mail address of [redacted]

At the beginning of the interview he was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation but indicated that if he became uncomfortable, he would let me know.

He indicated that he is the sole member of the limited liability company (LLC) that owns N[redacted] His address is [redacted] Concord, Massachusetts[redacted] He holds a private

[1] According to a time stamp on the video the airplane pulled up to the self-service fuel pump at 1529 EDT.

pilot certificate, certificate number [redacted] with airplane single engine land and instrument airplane ratings. He has about 1,550 hours total flight time.

He was asked the following –

Explain how much fuel was uploaded at KEEN on October 21, 2022, and whether you had any fuel related issues during your preflight (if any) and any fuel related issues if you flew the airplane?
He flew to KEEN and added 31.2 gallons[2] of 100 low-lead fuel at the self-service fuel pump. He then flew the same day (October 21, 2022) to Laurence G Hanscom Field Airport (KBED), Bedford, Massachusetts, where he landed uneventfully about 30 minutes later. On October 22, 2022, in advance of a round-trip (RT) flight from BED to Plymouth Municipal Airport (KPYM), Plymouth, Massachusetts, he performed a preflight inspection of the airplane and noted no water contamination in the airplane's fuel system. The total time at the conclusion of the RT flight was about 1.2 hours by hour meter and 1.0 hour by tachometer. At the conclusion of the RT flight he put his airplane in the hangar and has not flown it yet. He added that the total fuel capacity of his airplane is 50.0 gallons, and during the flights since fueling he estimated that he burned about 15.0 gallons.

Did you have any fuel related issues on any flight since fueling at KEEN?
"No, not at all."

Did you purchase any fuel at KPYM?
No

Is your airplane hangered at KBED?
Yes.

Did you purchase fuel at KEEN often?
No, actually it was the 1st time in about 2 years. He typically does not do self-service fuel pumps but he thought that is what KEEN only had.

Do you have an invoice?
He may have tossed the printed receipt away.

The interview end time was 1204 EDT.

The digest was e-mailed to him for review on November 2, 2022. He replied on November 4, 2022, at 0851 EDT with, "Tim The report appears correct…." The FINAL digest was e-mailed to him on November 4, 2022.

[2] According to the fuel receipt provided by the airport on November 4, 2022, 31.140 gallons of fuel were purchased.

Figure 1: Airport Video ScreenShot Depicting N[redacted]t the Self-Service Fuel Pump.

NTSB | National Transportation Safety Board

Timothy W. Monville
Sr. Air Safety Investigator
OAS-Eastern Region Aviation

Date: November 4, 2022

Subject: ERA23FA033, Record of Conversation/Interview

Contact: Craig John Allen, Pilot Who Flew N8020R

A Zoom call was set up to interview Mr. Craig J. Allen on November 3, 2022 at 1500 EDT. He provided an e-mail address of [redacted] Present were National Transportation Safety Board investigator Timothy Monville, Federal Aviation Administration Inspector Curtis "Curt" Davis, Textron Aviation Investigator Kurt Gibson, and Lycoming Engines Investigator Ryan Enders.

At the beginning of the interview Mr. Allen was advised that the NTSB is a federal agency mandated by Congress to investigate aircraft accidents, and NTSB has no authority to take any action against any individual. He was also informed that the purpose of an NTSB investigation is for safety only, and any person NTSB talks with has the right to representation; he agreed to the interview without representation.

He indicated that he is an engineer. He provided an address of [redacted] Westminster, Vermont [redacted] He holds a private pilot certificate, certificate number [redacted] with airplane single engine land rating that was originally issued in 1973. He indicated that he flew a lot when he was younger, but then didn't fly for about 20 years. He subsequently began flying a few years ago and has an estimated total flight time between 500 and 600 hours. When he began flying recently he flew with the flight instructor who was fatally injured (Mr. David Dezendorf).

He was asked the following questions by NTSB –

How much flight time do you have in a Beech A24R?
He flew mostly Cessna airplanes. The accident airplane (N8020R) had been at the Dillant/Hopkins Airport (KEEN), Keene, New Hampshire previously. He had interest in buying a similar make and model airplane so he decided it would be a good idea to fly N8020R to see if he liked the characteristics of the airplane. His pilot logbook showed he flew N8020R twice. The first flight with Mr. Dezendorf was on August 28th and the flight duration was 1.3 hours. He performed touch-

and-go landings at KEEN. Mr. Dezendorf signed his pilot logbook for that flight and that was the first time he had flown an airplane with a retractable landing gear and constant speed propeller. The second flight was on September 4th. In preparation for that flight a preflight inspection was performed and thinks he had it planned for the afternoon. He also believed Mr. Lawrence Marchiony was present. He (Mr. Allen) is in truck sales and Mr. Marchiony was a truck driver. Mr. Dezendorf said for him to fly to Springfield, Vermont, to do touch-and-go landings, and asked if Mr. Marchiony could join them; he agreed. They departed KEEN and flew to Springfield, Vermont where while on final approach the flight encountered a crosswind which he recovered from and landed satisfactory. They departed from runway 05, and Mr. Dezendorf suggested they fly to Claremont, New Hampshire. They proceeded there and while en route crossed over a ridge. He proceeded to Claremont, New Hampshire where he landed on the 3,000 ft long runway[1]. After landing he taxied to the approach end of the runway and when about 1/2 way there the engine sounded like it was "skipping" similar to a fouled spark plug or a bad magneto. They never shut the engine down and before takeoff an engine run-up was performed. He initiated the takeoff and noted during the takeoff roll the airplane was not accelerating. When the airplane was about 1/3 down the runway he became uncomfortable and Mr. Dezendorf took the controls. Mr. Dezendorf aborted the takeoff, taxied off the runway, and did an engine run-up where he leaned the fuel to air ratio, did a check of the magnetos, and, "no matter what we did it was not getting better", with Mr. Allen believing 1 cylinder was not firing. Mr. Allen was uncomfortable with continuing in the airplane but thought at the time that Mr. Dezendorf was more experienced. They departed and Mr. Allen reported that the airplane did not get airborne until between 2,200 and 2,500 ft down the runway, adding that it had a, "hard time getting airborne." Located off airport is a hill that required a left bank to clear trees. The airplane was close to hitting a branch and Mr. Marchiony in the back stated he thought they hit a bird. The airplane was climbing about 100 ft per minute. He did not think they would be able to fly to KEEN because the airplane was not high enough. Mr. Dezendorf flew the airplane making "zig zag" turns in the valley. When the flight was near Bellows Falls, which was about 14 miles away from KEEN, he knew they needed to be at 2,700 ft mean sea level (msl) to clear the ridge, but they were at 2,500 ft msl. Mr. Dezendorf tried to adjust the constant speed propeller but the engine was "skipping" at that time. Mr. Dezendorf flew to KEEN and landed uneventfully. Mr. Allen indicated the flight from KCNH to KEEN was the, "worst flight in all my life." After landing Mr. Dezendorf took his logbook and logged Mr. Allen as flying from KEEN to KVSF, but would not charge him for the flight from KCNH to KEEN. Mr. Marchiony said to Mr. Allen that he hoped he was not buying that airplane because it was a, "death trap."

That was actually the last flight he had in a Beech A24R. He added that he had made many flights before and after his flight on September 4th, but he, "recalled that flight vividly." If he had been by himself, he would have not flown the airplane from KCNH to KEEN. He goes by the saying if it is not good while taxiing it will not get better in the air and safer not to fly. He also indicated that

[1] According to AirNav, runway 11/29 at Claremont Municipal Airport (KCNH) Clarement, New Hampshire is an asphalt runway that is 3,098 ft long and 100 ft wide. The airport elevation is reported to be 543.5 ft. The runway elevation at the approach end of runway 11 was reported to be 532.7 ft and the runway elevation at the approach end of runway 29 was reported to be 542.3 ft.

if the airplane had been a Cessna, he would have told Mr. Dezendorf to abort the takeoff and not to fly. He had so much confidence in Mr. Dezendorf who was safety conscious, but him actually flying the airplane that day shocked him.

NTSB Questions Continued –

Clarify the year the 1st flight in the airplane was conducted?
2021. In his logbook the flight duration was listed as 1.3 hours.

Clarify the year the 2nd flight in the airplane was conducted?
2021. In his logbook this flight was listed as 1.2 hours.

Explain the airports for the 1st leg of the flights on September 4, 2021?
KEEN to KVSF

Explain the terrain and route of the 2nd leg of the flights on September 4, 2021?
The Connecticut River is west of KCNH and after takeoff Mr. Dezendorf banked left and proceeded south flying over the Connecticut River valley. Mountain ridges in the area are between 2,200 ft and 2,500 ft, thus requiring you to fly at 3,000 ft.

Explain Bellow Falls?
It is near to where he lives. Once in that area you can fly at 2,000 ft following the valley east-southeast to KEEN.

What is the airport identifier for Springfield?
KVSF

What is the airport identifier for Claremont?
KCNH

Explain the flight legs for the flights on September 4, 2021?
KEEN to KVSF and KCNH where they landed and departed from runway 29. The flight then departed KCNH for KEEN where they landed.

After landing at KEEN Mr. Dezendorf told him he would not be the pilot on the leg from KCNH to KEEN as Mr. Dezendorf was flying. On that date Mr. Dezendorf was in the right front seat. During the flight from KCNH to KEEN Mr. Allen helped Mr. Dezendorf with the territory or topography while Mr. Dezendorf flew the airplane.

Was weight and balance calculations done for his 1st flight on August 28, 2021?
It was a familiarization flight for him because it was a retractable gear and constant speed propeller. No, not that he recalled. Mr. Dezendorf went over the airplane with him explaining it to him.

NTSB Questions Continued –

Were weight and balance calculations done for his 2nd flight on September 4, 2021?
Mr. Dezendorf asked if Mr. Marchiony could join them on the flight. He (Mr. Allen) did not do any weight and balance calculations and none were done that he could recall. If Mr. Dezendorf had any issues about the flight he would have said something.

Explain the weights of each of you at that time and the fuel load?
Mr. Allen – weighed 215 pounds
Mr. Marchiony – Who was in the right rear seat weighed an estimated 240 to 250 pounds.
Mr. Dezendorf – Who was in the right front seat weighed an estimated 180 pounds.

He did not recall the fuel load, but he (Mr. Allen) did the preflight inspection of the airplane before the flight of September 4, 2021.

On the flight of September 4, 2021 from KCNH to KEEN, do you recall the engine readings?
Not that he recalled. Everything was, "slow if that makes sense." The airplane was slow to accelerate during the takeoff roll. During the engine run-up it was like the engine was not gaining enough rpm and the engine was not responding like it should have. If it was a Cessna, he would have told Mr. Dezendorf not to fly. The magneto reacted normally during the run-up, and Mr. Dezendorf revved up the engine and leaned the fuel to air ratio almost to the point of causing the engine to quit in an effort to clear the spark plugs if any were fouled. Mr. Allen indicated, "no matter what he did it didn't change the engine sound." What startled him was they never shut down the engine. The engine problem developed when they were on the taxiway about 1/2 down, and the engine started to get worse. When the engine run-up was performed, the, "engine didn't get worse but it didn't get better."

On September 4, 2021 at KCNH do you recall the engine rpm during takeoff?
No, but he should be looking at the airspeed but he did not recall looking at the engine rpm. He recalled doing the magneto check at 1,800 rpm. When Mr. Dezendorf took over the controls from him during the takeoff he was watching and was a little startled when Mr. Dezendorf said they were committed. With that comment Mr. Marchiony in the back said, "are you sure" to which Mr. Dezendorf said "yes."

What time of day, what was the temperature and what was the wind direction and velocity during the flight on September 4, 2021 from KCNH to KEEN?
It was late afternoon. Mr. Allen had to wait for Mr. Dezendorf to be available as he was busy from 1100 to 1200. The total flight duration of the flights that day were 1.2 hours[2]. He estimated we should be looking at weather for 1400 EDT on September 4, 2021 at KCNH. He does not recall being windy that day. There was no threat of rain and there were high overcast clouds. He did not

[2] This did not include .8 hour the flight instructor flew the airplane from KCNH to KEEN.

think the environmental conditions played any factor that day on that flight during the takeoff from KCNH.

NTSB Questions Continued –

Did he have any estimate as to the starting fuel load on September 4, 2021 at KEEN?
If the tanks had been full, he would have asked Mr. Dezendorf about the weight and balance and the result of having Mr. Marchiony accompany them on the flight. He thinks each fuel tank was more than 1/2 capacity but not full.

Do you know if the airplane (N8020R) was written up for maintenance at KEEN following the flights on September 4, 2021?
Honestly I would assume so. He never told Ms. Elizabeth Bendel what had happed immediately afterwards. Mr. Dezendorf was trying to downplay the event. Once they landed at KEEN the airplane was parked and then he noted it sat for 1 or 2 months. Then the airplane was taken someplace unknown to him. He assumed Mr. Dezendorf had told a mechanic of Monadnock Aviation about the issue. Until his conversation with Ms. Elizabeth Bendel a few days before the NTSB Zoom interview he indicated that she was not aware of the extent of what had happened on the flight from KCNH to KEEN on September 4, 2021.

FAA Questions –

Was Mr. Marchiony in the right back seat on the flights on September 4, 2021?
Correct, he sat behind Mr. Dezendorf.

Do you recall on either the flight or August 28, 2021 or September 4, 2021 anyone sumping the wing fuel tanks?
Yes, that was done before both flights. Mr. Dezendorf was very safety conscious. On the 1st flight of August 28, 2021, Mr. Dezendorf did the preflight inspection of the airplane and explained what he was doing while Mr. Allen followed along. During the flight or September 4, 2021, Mr. Allen did the preflight inspection.

Were there any fuel related issues?
No.

On the takeoff from KCNH on September 4, 2021 did you watch the airspeed indicator increase from 40, 50, 60?
It was moving “real slow. It was taking too long to get to the next mark.”

On the August 28, 2021 flight was there any indication of engine trouble similar to that what you described happening on the takeoff from KCNH to KEEN on September 4, 2021?
No. On the August 28th flight it seemed like there was more power during the touch-and-go landings than to the Cessna he is accustomed to flying. On the 2nd flight of September 4, 2021,

during takeoff from KEEN it "still impressed him" the amount of power the engine had. He never questioned the engine during takeoff from KEEN on September 4, 2021 or when the flight was at KVSF earlier that day, but noted that the runway at KVSF is 5,000 ft long[3]. Up to the takeoff from KCNH the airplane was performing "well."

FAA Questions Continued –

On the flight of August 28th and first 2 takeoff's on September 4th, do you recall the rpm readings?
He does not recall the rpm readings during the takeoff's of those flights that he would have seen. He was trained to monitor airspeed, and then the tachometer. The whole time he was flying to KVSF the propeller pitch was changed while en route. He asked Mr. Dezendorf about the propeller pitch but did not recall the engine rpm indications. It was at this point he indicated if he knew the proper rpm reading he might be able to recall[4].

On the last flight leg of September 4th, during the takeoff did you look at the tachometer?
If he did he did not recall the reading. He did look at the airspeed indicator and said to himself if they can't get at least 100 ft per minute (FPM) climb rate, they at least would not be descending. There were flying on the edge but there was no stall warning. While trying to climb Mr. Dezendorf kept playing with the trim.

On the last flight leg of September 4th, during the takeoff roll who aborted the 1st takeoff attempt?
Mr. Dezendorf took over the flight controls when the flight was about 1/3 down the runway. Mr. Dezendorf at that time said I got this and he reduced power and aborted the takeoff turning off the runway onto a taxiway. Mr. Allen indicated that when Mr. Dezendorf said he had this, he (Mr. Allen) felt relieved because he (Mr. Allen) was thinking about aborting and he told Mr. Dezendorf thank you.

TEXTRON AVIATION Questions –

Do you know or recall what Mr. Dezendorf's procedures were related to takeoff with no flaps or partial flaps?
I don't think I took off with flaps, but added Mr. Dezendorf trained to use 10º of flaps.

How quick was Mr. Dezendorf to verify that the landing gear was retracted during takeoff?
Mr. Allen was flying out of KEEN and he retracted the landing gear when the flight was at the end of the runway. At KVSF he retracted the landing gear during takeoff when the flight could no

[3] According to AirNav, runway 5/23 at KVSF is 5,501 ft long and 100 ft wide. The airport elevation was reported to be 577.5 ft, and the elevation at the approach end of runway 5 was reported to be 570.9 ft while the elevation at the approach end of runway 23 was reported to be 554.2 ft.

[4] At no point of the conversation was Mr. Allen provided the maximum red-line rpm value from the Airplane Type Certificate Data Sheet. It was agreed during the conversation to provide to him some photograph or drawing of the tachometer with the markings for him to visualize.

longer land on the remaining portion of the runway. When Mr. Dezendorf departed from KCNH he was "pretty sure" he retracted the landing gear fairly fast as he was trying to avoid hitting a tree past the departure end of the runway. He did not recall Mr. Dezendorf actually retracting the landing gear.

When an engine run-up was performed at KCNH after the aborted takeoff to correct the engine issue, do you recall if the mixture control made it better, worse, or no difference?
Yes, he did reduce the mixture control so far aft that the engine almost quit. He (Mr. Allen) was thinking the issue was a fouled spark plug. During that run-up he (Mr. Allen) helped with the magneto check as he was in the left seat. During that check which was done one time there was no difference. About that time Mr. Marchiony said aloud it wasn't the magnetos. Mr. Dezendorf moved the mixture and throttle controls but mostly the mixture control but he also moved the propeller control and to him sounded like they had engine rpm but it took, "a while to get there."

Were the magneto rpm drops for both magnetos within limits?
I believe so. He did the check at 1,800 rpm and noted the rpm decreased 500 rpm then came back and both (Mr. Dezendorf and Mr. Marchiony) were comfortable, and he (Mr. Allen) not concerned.

LYCOMING ENGINES Questions –

When flying would you operate the engine rich of peak (ROP), lean of peak (LOP), etc?
Mr. Dezendorf was really concerned about checking the engine rpm, leaning the fuel to air ratio, and watching the readings, telling him, "don't let this thing get rich lean it out", and was always preaching about that.

When you were taxiing for the 1st takeoff attempt from KCNH on September 4, 2021 where was the mixture control set to?
I don't know. We had just landed and thought it would have been in the full rich position. He doesn't recall while taxiing if it was full rich or lean. The engine began "skipping" from the end of the taxiway to the runway.

Was the skipping rhythmic or random?
Rhythmic. The airplane was not shaking.

It was not occasional?
No. Nothing improved. It got bad but it never got better.

During the takeoff roll of the 2nd takeoff attempt from KCNH what was the mixture control position?
He was 90% sure is was slightly leaned. During takeoff from KEEN and KVSF it was rich for takeoff then leaned after getting airborne. He was shocked that Mr. Dezendorf initiated the 2nd takeoff from KCNH on September 4, 2021 because he was conservative but also because he continued the 2nd takeoff.

NTSB Questions Continued –

If we provide an image of a tachometer do you think you could recall what you saw during the 2nd takeoff attempt from KCNH on September 4, 2021?
If we could provide that to him he thinks he could think back and recall what the reading was.

Is there a benefit of sending you a picture or image of a tachometer?
It might. His heart was racing. He checked all engine gauges and all were ok. During the takeoff climb he checked the rate of climb indicator and as he did so Mr. Dezendorf was attempting to correct the situation. He asked Mr. Dezendorf about the airplane configuration and the landing gear and flaps were retracted. Mr. Dezendorf checked the propeller control. Mr. Allen knew that if everything stayed the same at that moment, they would live because the airplane was not descending.

During takeoff from KCNH on September 4th, what was the maximum rate of climb you recalled seeing?
Maybe 200 FPM. The flight did encounter some quick thermals, but it never was close to 500 FPM.

During takeoff from KCNH on September 4th, where did the airplane rotate at?
The runway is 3,098 ft long. He was looking at a diagram and estimated it was between 2,500 and 2,600 ft along the runway. They were past the old crossing runway[5]. Normally, they would be off the ground in 1,500 ft, but they had to go about 1,000 ft more. In that moment he said to himself that if Mr. Dezendorf pulled the yoke and the airplane did not climb, they would not make it.

Did any of the occupants talk after landing at KEEN following the flight from KCNH on September 4, 2021?
Mr. Marchiony was making jokes about how they almost hit a bird in a tree, while Mr. Dezendorf downplayed it. If he (Mr. Allen) was by himself he would have been really scared. Afterwards he (Mr. Allen) indicated they never should have departed. He has flown since then in his Cessna but nothing like what happened during takeoff on September 4, 2021 from KCNH has occurred while he has been flying.

How close to the trees were you?
"Feet." If Mr. Dezendorf did not tip the right wing they would have clipped the tree. He said to Mr. Dezendorf at that time that they just missed the tree and he replied "I know." Afterwards Mr. Marchiony told Mr. Allen that the takeoff on September 4, 2021 from KCNH was the closest by far to a tree in my life to which Mr. Allen replied, "that was scary."

[5] According to Google Earth, the center of that crossing runway was located about 1,525 ft from the approach end of runway 29.

NTSB Questions Continued –

Did you talk on October 21, 2022 with either Mr. Dezendorf or Mr. Marchiony?
No I did not. After the flights of September 4, 2021, he saw Mr. Marchiony at KEEN and although they did not talk much, Mr. Marchiony did make jokes about it. He knew Mr. Dezendorf was surprised about what occurred during the takeoff from KCNH on September 4, 2021. Ms. Bendel said the airplane was in for maintenance but she had plans to sell it. She informed Mr. Allen that if he wanted to fly with Mr. Dezendorf he would be available.

He would have seen Mr. Dezendorf on September 4, 2022. They talked at that time about Cessna.

When Mr. Dezendorf flew he was "by the book." In hindsight Mr. Dezendorf never let Ms. Bendel know of the issue.

Between September 4, 2021 and November 3, 2022, had you seen the airplane?
No. he thought the flight on October 21, 2022, would have been like a maintenance test flight as the airplane was in the repair shop.

FAA Questions Continued –

After the last landing on September 4, 2021 , did you see anyone report the issue to maintenance?
At the time of day that he recalled landing, there was no one around. He was guessing they landed about 1700. He saw the airplane on the ramp afterwards for several months and while on the ramp it did not move,

Where did you park the airplane at?
They landed runway 02 and taxied to the terminal building. They parked on the end and walked into the office. Mr. Dezendorf took the paperwork for the airplane with him, there was nobody in the terminal.

Who is "they" you are referring to?
Monadnock Aviation, the main fixed base operator. There is a "book" with each airplane. Mr. Dezendorf took it after their flight. Mr. Dezendorf signed his (Mr. Allen) pilot logbook. The fueler is normally at KEEN until 1600.

Had you soloed at Monadnock Aviation?
Yes.

Have you been briefed how to write squawks regarding an airplane after landing?
If they find something wrong, such as an object being loose, they would verbally report it, but it would not be written down.

FAA Questions Continued –

Do you know if discrepancies that are found are put in the maintenance records?
There is a hook with times, fuel, and sometimes a note. He never saw the maintenance discrepancy sheets. As long as he told somebody about a discrepancy he was ok.

After the flight on September 4th, did you hear anybody say what they found or fixed which solved the problem?
He asked several times. He asked what caused the "skip" because he thought it was something other than a fouled spark plug. He thinks he asked Mr. Dezendorf about it once. The airplane took about 1 year to get into the shop for maintenance. Once or twice before the accident he asked Ms. Bendel about what was found and the response was it was a fouled spark plug but they were not sure their was more than one that was fouled.

He found video from the nearby impacted church and watched and listed to it. The engine sound in that video was better than when the flight from KCNH on September 4, 2021. The sound from the church video he could not detect the "skipping" like it had when he was flying it. He knows engine sounds and didn't need to be a mechanic to know there was a "skip" sound from the engine.

TEXTRON AVIATION Questions –

No other questions for Mr. Allen.

LYCOMING ENGINES Questions –

No other questions for Mr. Allen.

NTSB Questions Continued –

Do you have any questions for NTSB?
No. He liked Mr. Dezendorf and wants to know what happened. Did I learn something? Yes, never takeoff with an airplane that does not sound right. Trust yourself. Mr. Dezendorf was a good instructor.

FAA Questions Continued –

Do you have any questions for FAA?
No. he was concentrating during his flight from KCNH on his choices after becoming airborne. He will be curious to look at a photograph of a tachometer.

TEXTRON AVIATION Questions –

Do you have any questions for Textron Aviation?
No.

LYCOMING ENGINES Questions –

Do you have any questions for Lycoming Engines?
No.

ADDITIONAL INFORMATION/ACTION ITEM

He is into electronics and actually pulled up an instrument panel or "dash" from a Beech A24R in and attempted to see the tachometer. Someone later came up to him trying to sell a Beech A24R that was 2 years older. Ms. Bendel also said they were trying to sell N8020R.

Provide Mr. Allen a picture or drawing of a tachometer appropriate for that airplane in an effort to determine the reading he noted during takeoff from KCNH on September 4, 2021.

The interview end time was 1637 EDT.

The digest was e-mailed to him for review on November 4, 2022. It was also e-mailed to him along with a picture of an exemplar tachometer for reply on December 8, 2022. He replied on December 12, 2022, at 1535 EST that he could not accurately recall the tachometer reading at takeoff from KCNH. He also replied with comments that were incorporated into the narrative and highlighted. The corrected digest was e-mailed to him for FINAL review on December 12, 2022. He replied on December 13, 2022, at 1350 EST with, "Tim, looks okay with me, thanks." The FINAL digest was e-mailed to him on December 13, 2022.