



NTSB RECORD OF CONVERSATION

Lynn Spencer
Aviation Investigator
Eastern Region, Office of Aviation Safety (ERA)
National Transportation Safety Board

Date: 2/14/2020, 9:35 a.m.

Person Interviewed: Ms. Ashley Bolton, air traffic controller

NTSB Accident Number: ERA20FA101

The following is a summary of a conversation that occurred with the above-named individual:

- Ms. Bolton was working ground control at BOW at the time of the accident.
- She had heard the formation flight report downwind for runway 23.
- She looked up from her station and toward the left base for runway 23 and saw airplanes 2, 3 and 4 very close together, and airplane 1 on short final.
- She stated that airplanes 2, 3 and 4 appeared from her perspective as a triangle of three, but one was pointing toward the ground.
- She stated that the accident airplane “went straight down, no spinning.”
- She stated that airplanes Nos. 2 and 3 landed, and the pilot of the lead airplane called the tower controller to ask about the location of airplane No. 4, inquiring, “We’re looking for our No. 4,” to which the tower controller responded, “Yeah, we are looking for him too.”
- She stated that the airplanes taxied to the ramp where they sat for some time.



NTSB RECORD OF CONVERSATION

Lynn Spencer
Aviation Investigator
Eastern Region, Office of Aviation Safety (ERA)
National Transportation Safety Board

Date: 2/19/2020, 2:04 p.m.
Person Interviewed: Mr. Douglas Brucker
NTSB Accident Number: ERA20FA101

The following is a summary of a conversation that occurred with the above-named individual:

- Mr. Brucker, a nonpilot, was flying with Dr. Dekkinga.
- He stated that they had just landed at BOW, and were waiting in line to get fuel, facing the approach end of runway 23 while waiting.
- Dr. Dekkinga was explaining to him how the three airplanes they were observing were coming in, in the sense that one was coming in long, one was coming in short.
- He observed a fourth airplane coming from an angle behind the third airplane, and Dr. Dekkinga said, "Oh, there's a 4th plane." Mr. Brucker said that the fourth airplane was approaching at an angle and appeared to be going faster than the others.
- No sooner had Dr Dekkinga commented that there was a fourth airplane, that airplane made a quick right turn banking about 45 degrees then immediately a steep left banking turn.
- The airplane then nosedived straight down, and he did not see or hear anything after that but knew in his mind that no one could have survived.

The record of conversation was e-mailed to Mr. Brucker for review on February 19, 2020. He replied on February 19, 2020, with two edits that were incorporated into the above record.



NTSB RECORD OF CONVERSATION

Lynn Spencer
Aviation Investigator
Eastern Region, Office of Aviation Safety (ERA)
National Transportation Safety Board

Date: 2/14/2020, 2:17 pm
Person Interviewed: Dr. Jack Dekkinga
NTSB Accident Number: ERA20FA101

The following is a summary of a conversation that occurred with the above-named individual:

- Dr. Dekkinga landed at BOW at 1110 and was at the fuel pump when he observed what he thought was a “flight of 3.”
- When he first observed the airplanes, they were lined up on final approach in trail of each other: airplane No. 1 was ready to touch down, airplane No. 2 was “a few hundred yards” in trail, and airplane No. 3 was over the airport property boundary.
- He stated that he watched the first airplane land long, then the airplane behind it land short, and commented to the person he was flying with, “I’m not sure about the third plane.”
- He then observed the accident airplane approaching airplane No. 3 from its right at a 30-45° angle before “the right wing dipped severely attempting to avoid the other aircraft – right wing steeply down – then then left wing steeply down, and then vertical.”
- It appeared to him that the accident airplane was “closing in on airplane No. 3 and made a sharp turn to the right to avoid a midair.”
- He reported that the other airplanes associated with the formation flight came over to him on the ramp and one of the pilots asked him if he had seen what happened, to which he responded, “It made a steep turn to the right, the right wing stalled, they were vertical when they went into the trees.”
- When asked to once again describe the sequence of events, he explained that when he first observed the airplanes, airplane No. 1 was ready to touch down, airplane No. 2 was a few hundred yards behind, and airplanes Nos. 3 and 4 were just about at the edge of the airport property. (Nos. 1-3 were in a linear sequence on final approach)
- Airplane No. 4 was closing in on airplane No. 3 and made a steep turn to the right to avoid a midair.



NTSB RECORD OF CONVERSATION

- He witnesses the right wing dip severely attempting to avoid the other airplane, “right wing steeply down, then left wing steeply down, then vertical.”
- He asked, “1, 2 and 3 were lined up on final. How did No. 4 get so close to No. 3?”
- He explained that No. 4 was not lined with No. 3 but was coming in at a 30-45 degree angle.
- The other airplanes in the formation parked by him and their flight lead asked him, “Did you see what happened?”
- He said that he responded, “He made a steep turn to the right, the right wing stalled, they were vertical when they went into the trees.” He added that he did not mention the part about airplane No. 4 closing on airplane No. 3 and turning to avoid a midair.

This record was e-mailed to Dr. Dekkinga for review on February 19, 2020. Edits were suggested by Dr. Dekkinga on February 19, 2020, and were incorporated into this record.



NTSB RECORD OF CONVERSATION

Lynn Spencer
Aviation Investigator
Eastern Region, Office of Aviation Safety (ERA)
National Transportation Safety Board

Date: 2/15/2020, 11:25 am

Persons Interviewed: Jeff Edwards, Ken (William K.) Allen, Mike Kubes, Dave Henning
NTSB Accident Number: ERA20FA101

The following is a summary of a conversation that occurred with the above-named individuals who were part of the formation flight during which the accident occurred:

- Mr. Edwards informed me that Spruce Creek is not a “flying club” as I had stated in my press briefing, but rather a fly-in community.
- I apologized for the inaccurate preliminary information that I had received.
- Mr. Edwards stated that Mr. Powell joined the flight at the last minute. Mr. Powell was not on the email list for this flight because he typically flew his RV-12 which was not speed compatible, but he heard about the flight and showed up. Mr. Edwards said, “Fine, you are No. 4!”
- He stated that it was very gusty the day of the accident, so they spread out with at least 100’ between airplanes, in a “finger-4” formation, where the airplanes line up left to right as follows: the lead airplane out front, airplane No. 2 trailing to the left of the lead airplane at 45°, airplane No. 3 trailing to the right of the lead airplane at 45°, and the accident airplane (No. 4) trailing to the right of airplane No. 3 at 45°.
- Before they flew, he briefed, “If they are not busy, we’ll go in on an echelon. And if we don’t do an overhead break, we’ll come in and do an extended trail.”
- On the day of the accident, Mr. Edwards stated that he told the ATC tower controller, “We can do an overhead break or your choice.” The tower controller then instructed Mr. Edwards to enter a right downwind for runway 23.
- The airplanes were about 3 miles NW of BOW when he called to the other airplanes, “Go extended trail” on the tower radio frequency, then entered the downwind leg.
- He explained that, after that call for “extended trail,” he would expect airplane No. 2 to decelerate and “fall back” to trail behind him, then airplane No. 3 to fall back in trail behind airplane No. 2, and then No. 4 falling back to trail behind airplane No. 3.



NTSB RECORD OF CONVERSATION

- The flight of four airplanes was cleared to land shortly after Mr. Edwards entered the downwind leg of the traffic pattern, and he responded, "7JC flight of four cleared to land." The other airplanes entered the traffic pattern in trail.
- Mr. Edwards made a short base turn and it was expected that each airplane would make a later turn to the base leg than the previous airplane, thereby further increasing the spacing between the airplanes.
- Upon landing, the pilots typically wait until all have landed before taxiing to the ramp together.
- The day of the accident, Mr. Edwards stated that he turned off the runway on taxiway A2 and waited for the other airplanes to land. He looked out and saw Mr. Allen midfield rolling out, and Mr. Henning touching down. He did not see Mr. Powell and queried the ATC tower controller, who also indicated that they did not see him.
- They parked at the ramp and Mr. Edwards spoke to a Cirrus pilot who had witnessed the accident and then the detective.
- During the follow-on questions, I asked the pilots if they would have expected Mr. Powell to have his landing gear extended at the time of the upset. They stated that they would have indeed expected him to fly the pattern as he would fly any traffic pattern, selecting flaps and gear at the typical times: gear down on the downwind and flaps as the airplane progressed to the final leg.
- Mr. Edwards explained that Mr. Powell's airplane had a gear horn that would sound if he pulled the power back below a certain setting without lowering the gear with flaps extended. He also explained that they were flying a right traffic pattern, which was nonstandard.
- Mr. Henning explained that he maintained about 70 KIAS on final approach.
- When asked if any of them had flight data recording devices, Mr. Edwards explained that his airplane (7JC) had ADS-B and all other airplanes had their transponders off.
- Mr. Kubes noted that Mr. Powell was delayed coming around the corner from the ramp to join them in the runway runup area, that it took longer than normal for him to complete his checks and he didn't know why.
- Mr. Kubes stated that Mr. Powell and his wife were distracted and looking down in the cockpit at something when they arrived in the runup area at the end of runway 24, where the other airplanes were holding short, parked on a 45 degree angle so they could see each other.
- The pilots agreed that the delay seemed to have occurred after the runup: "Something after the run-up took long. They were looking down at something."



NTSB RECORD OF CONVERSATION

- Mr. Henning stated that he wasn't paying attention to Mr. Powell's runup, but he kept looking for a "thumbs-up" signal for Mr. Powell
- He got tired of having to look back so he "cocked" his airplane so that he could see Mr. Powell's cockpit without turning his head so much, and which time Mr. Allen called, "Check your brakes!" because this caused the wingtip of Mr. Henning's airplane to approach his own wing. Mr. Henning responded, "No worry I'm watching, we're clear" and then continued to watch for the thumbs up signal from Mr. Powell.
- Mr. Edwards called, "Is anyone not ready to go?" to which there was no response, so he started to taxi out and all the airplanes followed. Mr. Henning took his eyes off Mr. Powell at that time, did final checks and prepared to enter the runway in sequence.
- They stated that Sal Devincenzo (IA) might have the airplane's maintenance logs or might know where they were kept. They also noted that Mr. Powell did his own maintenance on his RV-12 airplane, as well as items like oil changes on his Mooney.

This record was e-mailed to Mr. Edwards, Mr. Allen, Mr. Kubes, and Mr. Henning for review on February 17, 2020. Several edits were suggested and incorporated into this record, which Mr. Edwards reviewed. Mr. Edwards replied on February 18, 2020, with, "Dear Ms. Spencer, Looks good to me. Nicely done with the changes."



NTSB RECORD OF CONVERSATION

Lynn Spencer
Aviation Investigator
Eastern Region, Office of Aviation Safety (ERA)
National Transportation Safety Board

Date: 2/15/2020, 9:07 pm
Person Interviewed: Ms. Rebecca Staffin, niece of pilot
NTSB Accident Number: ERA20FA101

The following is a summary of a conversation that occurred with the above-named individual:

- Ms. Staffin lived in Seattle and had flown with her aunt and uncle on many occasions, and the weekend before the accident flight, she had flown her first formation flight with them to Titusville for breakfast.
- She stated that in addition to his Mooney, her uncle owned an RV-12, which he built very quickly. She stated that the man who came to certify the completed airplane had been very impressed by his work and added that her uncle was an aerospace engineer who had worked for NASA. He and her aunt had also spent two decades living on a sailboat and sailing around the world.
- She stated that he soloed in 1960.
- She stated that her aunt kept logs for every flight, and made notes of all radio calls, adjustments, sounds, questions they had, etc. Review of one such logbook found at the pilot's residence revealed minute by minute information pertaining to flights and included takeoff time, altitudes, all radio calls with frequencies, every turn within the traffic pattern, unexpected noises, landing times, fuel purchases and more.
- She stated that her aunt and uncle greatly enjoyed participating in these "gaggle flight," where they would travel for breakfast with groups paired by speeds and familiarity.
- She stated that they would brief beforehand (weather, formation, lead airplane, sequence) and that in the air, the lead pilot would call out changes to keep everyone on the same page.
- The previous weekend when she flew with her aunt and uncle to Titusville for breakfast, they flew in a 3-airplane formation with her uncle as lead pilot.
- She stated that she was aware of no health conditions for her uncle and stated that after his last medical he announced that he was "as healthy as a horse!"