



Record of Conversation

Dan Baker
Senior Air Safety Investigator
Central Region

Date: 04/06/2020
Subject: WPR18FA200, Witness Interview – Aaron Haase

Mr. Haase witnessed an airplane accident involving N747J, a De Havilland Venom, on July 20, 2018, at Sheboygan, WI.

Mr. Haase was on the airport ramp and said the Venom started its takeoff right after the Provost. He said he saw the Venom perform a takeoff the day before and the accident takeoff seemed much slower. He said the weather had been rainy earlier and it had started to break when the airplanes took off. He did not recall any weird power changes or noises from the airplane.



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Senior Air Safety Investigator
Central Region

Date: 04/01/2020
Subject: WPR18FA200, Witness Interview – Paul Walter

Mr. Walter witnessed an airplane accident involving N747J, a De Havilland Venom, on July 20, 2018, at Sheboygan, WI. Mr. Walter indicated a warbird seminar was taking place prior to going to Oshkosh (EAA Air Venture). He said the Venom lined up on the runway (rwy 18) in the #2 position behind a Provost jet. The Provost was on the left side of the runway and the Venom was on the right side. There was a light wind from the southeast quartering 15-20 degrees off the runway heading. It appeared the Venom got into the wake turbulence from the Provost. He saw black smoke from the Venom's engine. The Venom reached about 200 feet and then descended into a farm. He did not recall any unusual sounds from the engine, but he could not distinguish the noise of one airplane from another.



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Dan Baker
Senior Air Safety Investigator
Central Region

Date: 04/02/2020
Subject: WPR18FA200, Witness Interview – Zach McNeill

Mr. McNeill witnessed an airplane accident involving N747J, a De Havilland Venom, on July 20, 2018, at Sheboygan, WI, and had viewed witness video of the Venom takeoff and accident. He is an experience warbird pilot and designated pilot examiner. He had flown and was familiar with the accident airplane, and he had provided the accident pilot transition training in the Venom.

Mr. McNeil was on the airport ramp and observed the Venom perform an interval takeoff as #2 in formation behind a Provost jet on runway 13. He said “it was obvious it hit the wake [turbulence] from the Provost. It looked like the pilot lowered the AOA” and he saw the gear come up. He also noted the pilot started a left turn in what he thought was a maneuver to turn inside the Provost to facilitate a flight rejoin.

Mr. McNeill said the landing gear was powered by a hydraulic pump driven by the engine and the landing gear could not retract if the engine was not rotating. He thought the landing gear retracted at a normal rate.

He said the GHOST engine powering the Venom was “high airflow and thrust” and Venom and Vampire airplanes could experience flameouts or compressor stalls when operating at high angle of attack and high power settings. He described the Venom airplane as having excess power and the only way to get into a low energy state was if there was an engine flameout, engine failure, or the engine was shutdown. He said the airplane would normally accelerate very quickly if leveled off at 200 feet after takeoff, and the Venom normally accelerated faster than a Provost.

Mr. McNeill said the airplane was equipped with a split flap system and flaps were used more as drag than to provide lift. Normal takeoffs were normally made with flaps ½ or up. The flap selector had three positions; up, ½, and full. The airplane was equipped with an ejection seat, but the system was inoperative.

Mr. McNeill indicated the formation flight should have been conducted under the [Formation Pilot's Knowledge Guide] guidance provided by the Formation And Safety Team (FAST).



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Date: 04/06/2020
Subject: WPR18FA200, Witness Interview – Paul Hewitt

Mr. Hewitt witnessed an airplane accident involving N747J, a De Havilland Venom, on July 20, 2018, at Sheboygan, WI.

Mr. Hewitt witnessed the airplane startup attempts from the museum balcony and walked down to the tarmac to watch the airplanes takeoff. He saw the formation taxi out and there was a long delay before they took off. He thought the Provost and Venom were performing individual takeoffs and the Venom was closer than he expected. He saw the Venom as it came abeam him and was getting airborne, and saw the wings wobble during climb-out. He thought the Venom had gotten into the wake turbulence from the Provost. He said there was a lot of noise from the T-28s starting on the ramp and he could not hear the jets very well. He did not witness the accident.



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Central Region

Date: 04/06/2020
Subject: WPR18FA200, Witness Interview – Russel Armstrong

Mr. Armstrong was pilot in command of a Provost jet airplane and lead in formation with N747J, a De Havilland Venom, on July 20, 2018, that crashed at Sheboygan, WI. The second seat was occupied by Scott Glaser who was assisting with formation duties.

Mr. Armstrong said he had not flown formation in the jet before and the accident pilot of the Venom had a “wingman card” and needed wingman work before going to Oshkosh. Mr. Glaser conducted the formation brief and briefed an interval takeoff with 8-10 second spacing. The rejoin was planned so the Provost would turn left after takeoff and fly 200 knots. The Venom was supposed to rejoin to wingtip position on the right side. The flight was briefed to use visual signals while in formation.

After starting engines Mr. Armstrong realized he had not refueled the airplane from a previous flight, so both aircraft shutdown while the Provost was refueled. Everything was normal after the second engine start. Mr. Armstrong performed the takeoff from the lead position and climbed out as planned. During climb-out he did not see the Venom and realized the Venom had not rejoined as planned. He never heard any radio transmissions from the Venom pilot. He saw the smoke from the accident when they returned to the airport.



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Date: 04/06/2020
Subject: WPR18FA200, Witness Interview – Ryan Sundheimer

Mr. Sundheimer witnessed an airplane accident involving N747J, a De Havilland Venom, on July 20, 2018, at Sheboygan, WI. He was video recording the flights that day

Mr. Sundheimer was on the airport ramp in front of the aviation museum and said the Venom started its takeoff pretty quickly after the Provost and he thought it was pretty close. He said the airplane seemed a little slow when it rotated. He did not recall any weird power changes or noises from the airplane. He thought the airplane was a little sluggish as it climbed out, but it seemed ok so he turned the video off. Soon afterward someone said the airplane wasn't climbing so he started recording again as the airplane sank out of sight behind some trees.



Record of Conversation

Dan Baker
Senior Air Safety Investigator
Central Region

Date: 04/06/2020

Subject: WPR18FA200, Witness Interview – Scott Glaser

Mr. Glaser was on board a Provost jet airplane and lead in formation with N747J, a De Havilland Venom, on July 20, 2018, that crashed at Sheboygan, WI. The pilot in command of the Provost was Russel Armstrong.

Mr. Glaser said the purpose of the flight was for the pilot of the accident airplane to practice wing-work and station keeping as number 2 in formation prior to going to Oshkosh. Mr. Glaser performed an administrative role in the formation, briefing the formation and fling in the lead airplane. He stated he was not qualified in the provost and he was not pilot in command.

Mr. Glaser stated he briefed the flight in accordance with the standards of the Formation and Safety Team (Fast) and the briefing took 45 minutes to an hour. The takeoff was briefed as an interval takeoff with 10 second spacing. The Venom was placed in the #2 position because it was faster than the Provost which facilitated a quicker rejoin.

The flight was briefed to use visual signals and avoid radio calls unless necessary. Grounds ops and takeoff were normal. Mr. Glaser did not see the Venom airplane after the takeoff roll started and he did not hear any radio transmissions from the Venom pilot. The Provost made a left climbing turn after takeoff and there were clouds in the area. When the Venom did not rejoin as expected attempts were made to contact the Venom pilot on the radio. When the Venom pilot did not answer they returned to the airport and landed. He said there were clouds in the area and they could see the smoke from the accident when they descended below the clouds.