



RECORD OF CONVERSATION

All persons listed were interviewed by Zoë Keliher or as stated

The following is a summary of conversation:

THOMAS (TJ) BENCIN

Mr. Bencin is employed with an EMS operator in Cleveland, Ohio and has amassed about 4000 hours total time and helicopters. He stated that he was hoping to obtain his CFII and meet the SFAR 73 requirements (obtained 10 hours in Robinson helicopters) on a short trip to Las Vegas. He booked his flight to Las Vegas on October 21 and scheduled 2 flights in a R44 at Airwork for October 22. His flight instructor was Johnathan Clauson and on that day he obtained 2.2 hours of flight time in N225JM, the accident helicopter. He recalled that although he does not normally fly piston powered aircraft, the engine and helicopter appear to be operating normally. He stated that the magneto drop for each mag was about 25 to 30 RPM, well below the maximum of 70 RPM.

Mr. Bencin had booked the helicopter for October 23 with the morning flight scheduled from 0800-1200 and an afternoon flight around 1400. After arriving at 0800 he and Mr. Clauson went to the ramp and Mr. Clauson call for fuel. A fuel truck arrived and Mr. Bencin began performing the preflight with Mr. Clauson watching behind him. He retrieved the GATS jar fuel tester from under the right rear-seat and proceeded to sump the auxiliary fuel tank. The sample looked clean and he sumped the main tank. The fuel appeared dirty with black and gray specs floating (similar in appearance to sand). He showed it to Mr. Clauson who ported out in the concrete and said they should take another sample. After taking 2 more samples with the same results Mr. Clauson volunteered to clean the jar thinking that perhaps it was dirty. He additionally found a 5 gallon bucket and dumped the fuel samples into it, which totaled about 6 to 7 samples. Mr. Clauson then found the Airwork mechanic who explained that he was working on several airplanes and would not be able to look at the fuel system until that afternoon.

Mr. Bencin stated that he was not comfortable flying especially in light of the fact that they had just refueled and all of that fuel had not settled yet. Around 1000 he went to 702 Helicopters and scheduled a flight there for 1400. Around 1400, while he was in the other helicopter and on the ramp, he observed Mr. Clauson with the GATS jar taking samples of fuel at N225JM. Shortly thereafter, Mr. Clauson sent a text message stating that the mechanic did not have time to drain the tanks and asked if Mr. Bencin had already flown home. Mr. Bencin responded that he had not and Mr. Clauson asked if he wanted to fly that afternoon or cancel the flight. Mr. Bencin stated that he wanted to cancel the flight based on the helicopter not being available earlier.

Mr. Bencin subsequently observed Mr. Clauson helping a man push N225JM away from the maintenance bay to the ramp. The man pulled up in a golf cart and sat and watched Mr. Bencin take off. Following departure, Mr. Bencin completed about 4 approaches when he heard a helicopter pilot over the radio ask the traffic if anybody had heard a mayday call. His flight was 2.3 hours.

Zoë Keliher
Air Safety Investigator
Western Pacific Region

MATT BINNER

Mr. Binner, the president and owner of Airwork, stated that the company owned 2 R44, 1 R22 helicopters, and leased a Schweitzer 300; they additionally owned 5 airplanes (3 Cessna 172s, 1 Piper Cherokee, 1 Piper Arrow). Airwork offered flight training, aircraft rentals, and provided tours under FAR Part 91.147. There were a total of 18 employees of which 4 were full-time (an office manager, an assistant manager, a mechanic, and himself).

Mr. Binner stated that he knew the pilot who was regularly renting from Airwork. The last time the pilot rented was in February. The pilot walked in around 1415 and departed around 1430-1440. The flight was scheduled to be about an hour because there were tour schedule at 1900. The accident helicopter was the only one in operation because the other helicopter was undergoing a major overhaul.

The accident helicopter was originally scheduled to undergo its 100-hr inspection on October 23, the day of the accident. The mechanic had asked if he could begin to take care of other items before that maintenance (e.g., the clock, etc.) in an effort to minimize the time the helicopter would be off-line.

Mr. Binner stated that normally renters would fly to the Southwest practice area where they would start under 3,800 ft msl to stay under the Class B airspace and head out on a heading of around 240° until heading south maintaining about 4000 to 4500 feet mean sea level toward Red Rock Conservation Area. At the visitor center helicopters would normally be at 4500 feet and above as the terrain increased. The lowest the helicopter would be on the flight he estimated would be about 3800 feet.

SHANNON MAYSONET

Ms. Maysonet, the office manager at Airwork, stated that on the day of the accident she arrived about 0800. She had expected Mr. Clauson and his student to be back later then when they came back in. Mr. Clauson told her that the flight was canceled because the helicopter had to be taken to maintenance to have the fuel drained. He was also scheduled to fly with the same student at 1500-1530. The accident pilot called around 1400 and asked if the R44 was available. He arrived at their facilities about 30 to 40 minutes thereafter seeing if the helicopter became available. She confirmed that the other student had canceled and told the accident pilot that it was coming out of maintenance where they had to remove the fuel and it would be another 10-15 minutes. She had not seen him since February so they had idle conversation while he waited for the helicopter to be done with maintenance. He went out to the helicopter and momentarily came back because he had forgotten the key.

STACEY TAYLOR

Ms. Taylor, the assistant office manager at Airwork, stated that she arrived on the day of the accident about 1000. The accident passenger called her and asked if the R44 would be available to rent later on in the day. She asked what time they would like to fly and he stated that he would ask his brother and call back. About 20 minutes later the accident pilot called and she told him that the helicopter was in maintenance and they were not sure when it would be available to fly.

He stated that he would stop by because he wanted to put money down on his account anyway; he did not think that he would be able to fly at that time. He and the passenger arrived about 10 minutes later. The pilot asked why the helicopter was in maintenance and they told him that an earlier flight was canceled because that pilot had found sediment in the fuel tanks. The accident pilot explained that was not a big deal and was likely a result of the fuel truck being low on fuel when it

refilled the helicopter. He commented that was precisely why she should never run her car low on fuel. He stated that he was happy to wait. After about 20 minutes Shannon received a call from Mr. Clauson stating that the maintenance was done and the helicopter was ready to go. They had planned to take an hour flight since they were tour scheduled at 1900.

After the accident, Mike, the owner, relayed to her that the fuel tanks were pumped out and cleaned out and they were “good to go” before the accident.

JOHNATHAN CLAUSON, CFI

Mr. Clauson stated...

Wednesday 23 OCT 2019, approximately 08:30 PDT, I watched as my student sumped fuel from N225JM. The Auxiliary tank and gascolator showed no signs of contamination, but the main tank had what appeared to be very fine black, brown, and red grains in the bottom of the sample jar. The grains were light enough to be suspended when the jar was swirled, but sank quickly to the bottom. We pulled 3-5 more contaminated samples before deciding to cancel the flight and have it inspected by a mechanic. At least one of these samples also had what looked like a black bit of rubber floating in it, approximately 2mm long. I returned to the aircraft several hours later (approximately 15:00) to check on the progress, to find that it was on the list of projects for the day, but hadn't been inspected. I offered to continue sumping fuel until I got good samples. I drained approximately 1 quart of fuel (about an inch worth in the bottom of a 5 gallon bucket), each sample containing the grains described above, becoming fewer and fewer each sample. I pulled three clean samples, showing one to the mechanic, before the flight.

JONATHAN MACIAS

Mr. Macias, a fueler at Desert Aviation Center, stated that he had been with the company since May. There are 3 people that work there including his manager, Tom Salmon, and his cousin. They fuel 3 different FBOs, which is permitted because of their leases with them. Other operators fuel through the County Airport. The weekday shift is from 0700 to 1900, where the morning person starts at 0700 and ends at 1400. On the morning of the accident, he arrived around 0700 and drained ½ gallon from the sump drain on the fuel truck and ½ gallon from the filter on the truck, both of which were clean. He received a call at 0819 from Mr. Clauson, an Airwork CFI, requesting fuel. He fueled the aircraft and left.

ALBERT AZOUZ

I am a CFI with Orbic helicopters and I did a flight with Scott on 3/3/2019 where we flew a .9 to “check out” his maneuvers in case he wanted to rent from us. Some of the things we went over I wrote in my notes for that day: Scott check out. EPS/ WB/ Approaches/ autos/ settle with power/ gov off/ low rpm recovery.

From my experience with him - he was a very methodical, careful and safe pilot. He executed all of the maneuvers quite well and I was more than happy to clear him as safe to rent.

I always train autos in the same way. I or the student will count down the auto: 3-2-1 Autorotation, at which point the student will lower to collective all the way, and after the collective has been lowered I roll the throttle down to idle and monitor rpms and attitudes. I control the throttle at all times both when rolling off and when making a power recovery. Scott executed a solid entry, glide and flare from memory.

KEN MARTIN (ROBINSON)

We have an older style magnet housing here at RHC, the same type that was affected by the Service Bulletin. We applied the B270-1 (Loctite) adhesive per the Service Bulletin instructions, but deliberately did a sloppy job of cleaning up the excess, in an attempt to mimic what we see on the accident part (assuming the brown residue on the accident part is excess adhesive from the process of performing the Service Bulletin). The

excess adhesive might take a while to cure, or it may actually 'dry out', as opposed to curing, which might be what we see on the accident part.

Is there enough of the brown residue in the bore of the magnet housing on the accident part to analyze? If so, we can slice open the housing that we have here, to expose the thin film of adhesive that is in between the housing and the magnet, that was cured properly, since it is in a gap where there is an absence of air. We could then send the parts to you for analysis of the thin film. Alternatively, we can supply the magnet housing to you, and you can slice it open there to expose the adhesive. If you don't think there is enough adhesive in the bore of the housing on the accident part, we will have to wait to see how our sample behaves over time, since the excess adhesive on the outer surface of the housing will be 'curing' from the inside out. This is most likely what occurred when the Service Bulletin was performed on the accident aircraft. The specification sheet for the adhesive says it cures anaerobically, when there is an absence of air between close fitting metal surfaces. It would appear that it will still cure in some fashion if just applied to a metal surface, based on what we see on the accident parts. It may cure from the inside out in that situation. The brown residue on the accident magnet housing, on the inside of the "bore" of the housing, was most likely cured in the anaerobic process

WITNESSES

DAVID GILLHAM

Statement of Grant David Gillham regarding the helicopter crash of 23 October 2019, at approximately 4:00 pm, on Nevada State Route 159.

I am 62 years old, in excellent physical and mental health. I am a veteran, I served from 1981 to 1990 as an officer in the United States Air Force. I left the service at the rank of captain. I hold an FAA Airline Transport Pilot certificate in both single and multi-engine operations. I have a B-707 B-720 type rating. I have 3000 hours of pilot in command airtime as a pilot, flight instructor, and flight examiner.

1. At approximately 4:00 pm on 23 October 2019 I was riding a motorcycle in the southbound lane of Nevada State Route 159, in the area commonly referred to as Red Rock Canyon.
2. At the time of the incident, my heading was in a southwesterly direction along the highway. My speed was 50 mph, the posted speed limit. The winds were out of the northwest almost perpendicular to my line of travel. The wind speed was light.
3. One to two seconds before the aircraft impacted the ground I saw it enter into the upper right hand corner of my field of vision.
4. The aircraft was approximately 100-200 feet above the ground, in a nose-up angle of attack, and a very steep, but not quite vertical angle of descent.
5. The aircraft's heading was approximately 180 degrees opposite my direction of travel.
6. The aircraft's airspeed appeared to be moving at a higher rate of speed than I would have expected for that phase of flight. I say so because our closure rate seemed to be similar to that of vehicles I had been passing in the opposite direction along the highway.
7. The aircraft appeared to be operating at reduced power. This is based on the fact that the aircraft rotors were clearly visible and discernible to the eye, unlike the rotor-blur of a rotary wing aircraft operating in its normal power range. The rotors were moving, but did not appear to be moving fast enough to generate much, if any, lift. At this point I felt certain the aircraft was in distress and not able to maintain controlled flight.
8. The aircraft impacted the ground approximately 200 feet ahead and 100 feet to the right of my position on the highway. The impact occurred in the ravine adjacent to the shoulder of the highway.
9. Upon impact the aircraft immediately began to violently break apart and scatter debris.
10. As my position rapidly closed with the aircraft, the aircraft scattered broken parts and rocks into the air, and onto and across the highway. I rode through a cloud of flying rocks, aircraft parts and dust.
11. I immediately saw a part of the aircraft's tail boom flying through the air and heading straight for me. I was able to lower my head to keep from being struck. This is the major aircraft section that was found on the opposite side of the highway by responding officers.
12. I was struck in the right arm, on the bicep more precisely, by a blunt object that created a slight impact wound and a tennis ball sized bruise on my arm.
13. The aircraft continued to skid past me on my right and I immediately slowed to a stop and dismounted my motorcycle.
14. I ran to the crash site and was the first person to enter the ravine and arrive at the wreckage.

15. The aircraft came to rest with a heading that was approximately 180 degrees opposite its direction of travel.
16. What I saw when I approached the aircraft was a tangled mass of debris.
17. The pilot was seated in the cockpit, his body was tightly compressed into a fetal position by the flight control panel in front of him, and the aircraft engine and accessories behind his seat. He was bleeding from the head and appeared to be unconscious.
18. The passenger was lying face down on the ground in a prone position. There was nothing left of his part of the cockpit. He too appeared to be unconscious. His left leg was broken and he was bleeding from the nose and possibly the mouth.
19. The second person on the scene, a man who had been driving an SUV behind me, exited his vehicle and immediately dialed 911.
20. I approached the passenger and gently rubbed his left shoulder and spoke to him in the hopes of reviving him. Moments later, I did the same with the pilot.
21. The second person on the scene, finished calling 911 and joined me in trying to revive and comfort the two victims.
22. Another bystander came with bottled water and I tried to pour a little into the palm of my hand hoping I could get either of the victims to react and possibly drink some of it as I suspected they were both in a severe state of shock.
23. The two of us alternated between the victims providing what comfort we could.
24. The passenger did regain consciousness and was able to speak a couple of words. He said *"this all seems like a dream."*
25. The pilot began to move slightly, he had labored breathing and began making an audible sound which I at first interpreted as an attempt to speak. After a few moments, I realized the sound was a repetitive wheezing sound he was making each time he exhaled.
26. About this time a police officer arrived and assessed the situation. The responding officer instructed us to keep doing what we were doing to help the victims and he began dealing with the traffic and the growing crowd of people offering help.
27. A third man joined us a few minutes later. He had obvious training in dealing with crash victims so I proceeded to walk around the rest of the aircraft looking for the fuel tank and the battery.
28. I found the fuel, it was leaking profusely on the left side of the aircraft. The tank was partially inverted.
29. The severity of the wreckage prevented me from locating the battery but I could hear the sound of an electrical component beeping inside the aircraft wreckage so I knew the potential for fire existed.
30. I stayed by the fuel leak, using my hands to continually fill the growing pools of fuel with sand to try and keep fumes from drifting into the aircraft's engine and accessory areas and possibly igniting. At this time, with the pilot still trapped in the cockpit, there would have been no way for us to get him out if a fire ignited.
31. Minutes later the firefighters arrived and took control of the situation.
32. I stayed on the scene at the request of the responding officers and submitted a written statement.
33. At approximately 5:20 pm I departed the scene and returned home at approximately 5:45 pm.

This concludes my statement.

TODD JOHNSTONE

Fabian Salazar

Air Safety Investigator

National Transportation Safety Board

Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR 20FA013

Aircraft Registration & Make/Model: N225JM / Robinson R-44

Accident Location: Las Vegas, NV.

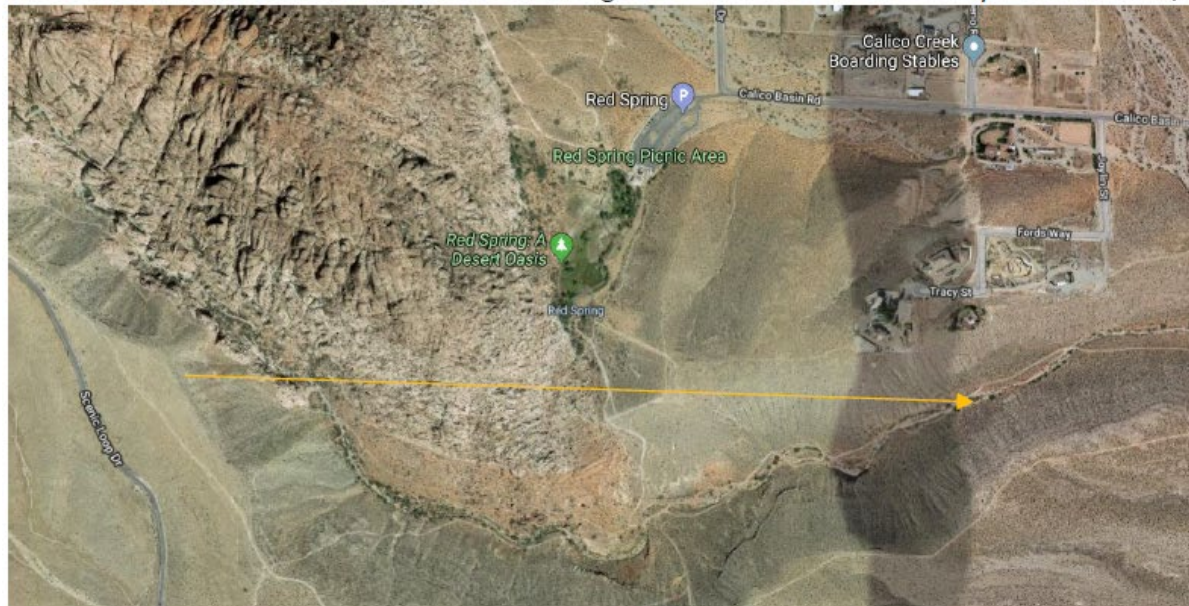
Accident Date: October 23, 2019

Mr. Johnstone came to the WPR Office in Federal Way, Washington on October 31, 2019, about 1250 PDT. He told me that he was at the Red Spring Picnic Area with his wife. He said at about 1545 to 1600 he observed a helicopter fly out of the Red Canyon area. Being a pilot, he commented to his wife that the helicopter was way to low. He said this because he thought the helicopter to be about 350 ft above the

ground. He based that altitude on his experience with flying drones and his desire to keep them below 500 ft agl. He added that he thought the helicopter was no higher than the top of the Ferris wheel in Las Vegas. He said the helicopter was to the west of him and it transitioned from north to south. He said he lost sight of it rather quickly and it appeared to be descending. He said the engine sounded normal, but also a little labored as if in a turn. About 30 to 40 minutes after seeing the helicopter and while driving away from the picnic area, he and his wife were stopped on the highway due to the highway being closed because of a helicopter accident. He summarized that it must have been the helicopter he saw descending towards that same highway. He provided a map and drew the helicopter's course, his location and the location of the roadblock. When asked to describe the helicopter, he said that it was not large enough to carry tourists and that the tail rotor was not one of the enclosed kind, like you see flying tourists in Las Vegas. He thought it was red or red and white, but he also stated that he could have let the photographs from the internet taint his recollection.

He made a comment that there is a remote-controlled airplane park near the accident site and wanted to now if we were exploring the possibility of the helicopter hitting a drone.

I am a licensed private pilot, since 1972 and now fly drones so my feeling for height AGL is reasonably good. I say about 350 feet because the recent drone experiences give me a good feel for 400 feet AGL the max for flying drones in my area. (near Class B airspace for Sea-Tac, and at our RC field in Sumner).



View from parking and boardwalk our view. Yellow line shows observed path, Looked to be about 350 feet up, however, that was relative to our ground level, we did not know that there was a canyon over the ridge.



Unknown how far west of the ridge he was. It seemed to be in a slow turn to the south. Engine sounded normal.



We were in the parking lot of the Red Spring picnic area or on the boardwalk at the Red Spring oasis. (in Calico basin south of Red Rock Canyon) Before 4pm on October 23, 2019. Viewed a helicopter coming from Red Rock Canyon “popped” out from behind the hill to the West/Northwest of the parking lot, coming from Red Rock Canyon. It was going south and disappeared from view quickly. Appeared to be descending. Engine sounded ok, was under power. I mentioned to my companion that it was too low (below 500 feet AGL from my viewpoint). It looked like it was about 350 feet, however, I was not aware of the canyon over the ridge so it may have been 500 feet above the canyon floor. It was between 3:30 and 4pm sometime as we looked to see when the boardwalk would close before we walked.

We went for a walk on the boardwalk. After that we exited Calico basin and was stopped at a roadblock just after we got on the highway back to Las Vegas. They said a helicopter had crashed and the road would not open for another 10 hours or more. We inquired how to get back to Las Vegas and received directions from the officer.

I later tried to estimate his observed elevation while walking in the city and it appeared to be about the height of the High Roller observation wheel in back of the Flamingo. I was not aware that there was a canyon in back of that ridge so can't estimate AGL accurately. I am a licensed private pilot (since 1972) and fly drones so have a feel for height and it seemed below 400 feet which is the upper limit for drones.