



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Kelly Lynn Brown
NTSB Accident Number: ERA20FA027

Narrative:

Ms. Kelly Lynn Brown was interviewed at a conference room at Witham Field, Stuart Florida on November 2, 2019 at 1118 EDT. Also present were Federal Aviation Administration inspector Alexander R. Munoz and Honeywell Aerospace employee Dana S. Metz, who was a party to the NTSB investigation. Ms. Brown provided a cell phone 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 indicated that she is a private pilot with airplane single engine land rating. She has just under 300 hours total flight time. She has known the accident pilot for about 14 years, adding that she first met him at North Palm Beach County General Aviation Airport (F45), West Palm Beach, Florida. Which is where she first saw the Mohawk. She had lived in Colorado up until a couple of months ago.

She owned Aircraft Financial Capitol that financed aircraft. Mr. Masessa had wanted to finance a Cessna Citation. As part of her finance procedures, she inspected the hangar and airplane. She had dinners together with him.

Mr. Masessa did not have any children and was never married. He lived in a condominium near City Place, West Palm Beach, Florida. He kept the Cessna Citation at the West Palm Beach

International Airport (PBI), West Palm Beach, Florida. He had been doing airshows for over 10 years. She was not sure how long he had his pilot's license or how many flight hours he had.¹ The name of his company for airshows was Mohawk Airshows. She estimated that he flies about 500 hours a year.

She indicated that Mr. Masessa was involved in a car accident near Boca Raton, Florida, on I-95 in July 2019. In that accident, he was in the slow lane at 60 miles-per-hour and a car that was speeding lost control, hit the guard rail, spun, and impacted his car. He was knocked unconscious, and he did not know how long he was unconscious for. He did not tell her the date of the car crash. She asked him if he went to the hospital as a result of the crash and he said he did not. The car he was in was full of medical equipment and did not want to leave it in the car. She also asked him if he went to a hospital later and he said he did not. She indicated that he did see a physical therapist for back pain. She was not sure what medication (if any) he was on.

She arrived in Florida from Colorado the middle of September 2019 and met Mr. Masessa for Brunch. During their meeting she noted his eyes were bloodshot, and his mobility was visibly impaired. She asked him about any procedures he had as a result of the accident. He indicated that he did not re-do his medical². At their meeting he indicated that he felt he was still "ok" for g forces. She noted that he moved like he had a board strapped to his back. When moving his head his shoulder dropped. He was stiff from the base of his neck down.

Since their Brunch they talked and had dinner. During their talks he did not mention to her about being unconscious but did say that he was stiff/sore and tired. She could see that he was in pain.

On October 13, 2019, maintenance was being performed to the accident airplane. She will forward pictures to FAA inspector Munoz. She also took pictures of either individual parts or in front of both engines. The right engine cowlings were open, while the left engine cowlings were closed. Mr. Masessa did not perform any aerobatics from October 13th to the accident flight, and she was not sure how many aerobatic flights he had made since the car accident.

She last saw him 2 to 3 weekends before the accident. She noted an improvement with him physically, but she could still see that he was in pain.

She was asked the following questions by FAA-

Did he have any concerns about the airplane?

No.

¹ According to Mohawk Airshows website, <https://mohawkairshows.com>, he was a "...5,000+ hour multi-engine ATP Multi-Engine Instrument Rated. He [held] ratings in the Citation 500, 550 and 560 series jets, along with the Grumman Mohawk OV-1 and BAC Strikemaster. Dr. Masessa [was] also aerobatic certified with a waiver that expires 3-31-21."

² According to Federal Aviation Administration records, he was issued a 2nd class medical on October 25, 2019.

She was asked the following questions by Honeywell-

What kind of doctor was he?

A dermatologist with practices in Florida, South Carolina, and New Jersey. He had a Cessna Citation that he flew between Florida, and New Jersey. She added that he did 20 airshows a year.

For the accident flight, did you feel there was a medical issue in flight?

No, I don't think so.

She was asked the following questions by NTSB-

What was his age?

He was under 60.

Was he taking any medication?

No medication. He was healthy and robust.

Were there any airshows that were scheduled but he did not fly because of health reasons?

She did not know.

What was the name of his company?

Mohawk Airshows. He has a website. She never saw him fly. The accident airshow would have been the first that she saw him fly. This was his first time flying at that airshow.

She was asked the following questions by FAA-

Did he wear glasses or contact lenses?

Not that she was aware of. There was no indication of vision impairment.

Were you at the airport on the day of the accident?

No, she was at work.

The interview end time was not documented.

The digest was reviewed with her during the interview and she agreed with the content.



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Lyndsay Nicole Davis
NTSB Accident Number: ERA20FA027

Narrative:

Mrs. Davis was interviewed at Witham Field (SUA), Stuart, Florida, on November 2, 2019, at 1218 EDT. She provided an e-mail address of [REDACTED] and a cell phone of [REDACTED]. Also present in the room were Federal Aviation Administration (FAA) inspector Alexander R. Munoz, and Dana S. Metz and Jennifer McDuffie of Honeywell Aerospace who was a party to the investigation.

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 provided a home address of [REDACTED] Stuart, Florida [REDACTED]. She has lived at that address since September 26, 2015. She is not a pilot but an aviation enthusiast. Her family served. She is not a mechanic. She is a seamstress. She does not have any hearing or sight disabilities. Was not wearing any headsets ear buds.

On the date and time of the accident she was in the backyard of her residence.

She was asked to explain what she saw and heard-

She explained that she was inside her home with the back door open while letting the dogs out for a bathroom break or water. She heard an airplane that she had not heard before. She went outside to see the airplane and recognized the airplane as the Mohawk and stopped watch remembering that it would be the first time performing and was a practice show. She saw the airplane climb, giving her a view of the belly. And then she saw the airplane bank, "he made a turn to the left but as he did he also turned back" giving her a view of the canopy of the airplane

before “he hit.” She described the airplane as not being vertical but was straight down nose first. Immediately there was an explosion on impact.

She was asked to explain the final sequence of the flight-
Turned to the left, left wing down, then rotated to the right before hitting the ground. Followed by an immediate explosion which she could see, hear, and feel.

NTSB Questions-

When you first saw the airplane what altitude was it at?

She would be unable to tell altitude but could go back to her yard and describe the airplane in reference to the tree line.

Explain or show how the airplane was climbing?

She could see the nose of the airplane before starting ascending. He was not over runway 30, he banked left, then rolled right, descended and hit nose and right wing low.

Did you see any parts separate from airplane in-flight?

No. Originally at the time of the explosion she had hoped he had dropped an explosive device, but she did not see the airplane “come up.”

Did you see any smoke trailing the airplane in-flight?

No. Although she has no aircraft mechanical experience, she knew it was a twin-engine airplane and she “heard no distress.”

How would you describe the engine sounds?

To me it sounded like an old warbird.

Did you hear anything unusual from the engines?

No. We live at the end of runway 30 and airplanes come in and takeoff constantly. There is a flight school on the airport and they hear sputtering.

She has volunteered at the airshow since 2014, and going to the airshow since 2007.

Had you met the pilot personally?

She had met him at previous airshows at SUA. Her husband knew him. She had been to his medical office in town to drop off airshow information packets. That was for the Mohawk for static display.

She was asked to verify sound?

She has a Nest camera that recorded the sound of flying and impact. It sounded like a gunshot on the camera. She has extracted and will provide. According to the video the impact occurred at 1309:38. It is not user set time.

NTSB Questions Continued –

Does video capture the flight?

No the angle is off. You can see the door and windows, but the camera does not capture outside view.

Any neighbor would have video?

Possibly her neighbor, Kasey Cass and Joan Cass.

FAA Questions-

When you were outside were the dogs barking?

No.

Any music inside the house?

The TV was on.

Was it really loud or would it interfere?

No. In the file she extracted it was a minute time. There was another pass and you could hear another pass.

How many passes?

It was one pass.

Could you feel the impact?

She felt the ground shake. There were several golfers in the area. Contact Martin County golf course to see if they were witnesses.

NTSB Questions Continued-

What cardinal direction were you facing?

North to northwest.

Honeywell Questions-

Asked to explain her location-

She looked on Google Earth. And showed her location.

When you first saw the airplane where was it?

She looked at Google Earth and showed her location.

Does your vision exclude?

She can't see the buildings at the airport.

FAA Questions Continued-

Explain the final flight?
She saw the top of the airplane from her vantage point.

Honeywell Questions-

Originally you saw the belly?
Originally the belly while it was climbing.

Do you think he was way off centerline?
Right. I think that because he was in the middle of his routine and she heard him pass once but maybe that was his takeoff. She did not see the start of the flight. She did not notice what direction he departed.

NTSB Questions Continued-

Could you see any of the flight controls moving when you saw it?
No.

Honeywell Questions-

How long was the airplane was in your field of view?
Three to four seconds.

NTSB Questions Continued-

What was the weather like at the time?
It was hot, sunny, partly cloudy, "some breeze."

The interview ended at 1243 EDT.

Jennifer McDuffie went to the witnesses house, recorded the latitude and longitude and also images attached below which she pointed out to the investigator.



Figure 1: Honeywell Theodolite Photograph. Witness location where she first saw the airplane. Center of white crosshair is where the airplane was when she saw the fuselage bottom.



Figure 2: Honeywell Theodolite Photograph. Center of white crosshair is where the airplane was at when she witnessed the canopy (left of the ground palm).



Figure 3: Honeywell Theodolite Photograph. Center of white crosshair is where the aircraft was when she witnessed the impact (right of the ground palm).

The digest was reviewed with her during the interview and compared with the audio recording titled “Witham Field.”



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Captain Steve Parsons
NTSB Accident Number: ERA20FA027

Narrative:

Captain Steve Parsons was interviewed at Witham Field (SUA), Stuart, Florida, on November 2, 2019, at 1302 EDT. He provided an e-mail address of [REDACTED] and a cell phone of [REDACTED]. Also present in the room were Federal Aviation Administration (FAA) inspector Alexander R. Munoz, and Dana S. Metz, of Honeywell Aerospace who was a party to the NTSB investigation.

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.

His title as fire rescue is Fire Captain for Martin County Fire Rescue, at Station 23 located at Indian Street and Kanner Highway. For the airshow (Friday) his title was North Division Leader for the north side of the airshow. He is not a pilot, but was a mechanic at a Ford dealership "years ago." He did not have any hearing issues, his eyesight was 20/40, "cause one eye's up close one's far away."

On the date and time of the accident he was at the spectator line on a taxiway in front of the pilot's briefing tent, next to the AeroShell aircraft. When he was first notified that something was wrong, he was looking to the airfield, until somebody said something. A gentleman who was driving a water tanker truck (2,000-gallon water tanker) standing there and pointed something out and said that did not look right. He looked and saw the airplane "nosing right down into the ground. Um disappeared from behind the trees so I couldn't see him make impact but we did see obviously the ball of fire from where we were." With his bunker gear on he got into an all-terrain vehicle (ATV) and started heading to the accident site with equipment following him. When he

arrived at the site there was a Quick Response there already. Then he and the Division Leader Ben Bishop who was on a separate ATV arrived at the same time. He added that Captain Ben Bishop was the North Division leader being trained. Captain Bishop did not witness the accident.

He was asked to explain what he observed after arriving on-scene-

“The fire was actually very minimal at that point.” The parts that were on fire were the parts on the engineered material arresting system (EMAS) and part of the fuselage to the left of the EMAS, and still a lot of black smoke but not much fire. The Quick Response Team had put out 2 Halotron extinguishers and realized would not make a difference. The engine crew deployed 1.75 inches line with Class B foam (6%) line and had water on fire within 1 minute of getting there and had it all extinguished within 5 about minutes. While they were putting out the fire, as Division Leader he walked the perimeter and found the pilot’s torso near the landing gear close to one of the engines to the left side of the fuselage.

NTSB Questions-

Any other items you saw while walking around?

The pilot’s helmet broken in pieces between the fuselage and EMAS.

He was asked to visually tell what he saw-

He was looking towards the end of runway 12. He saw the airplane in a left bank of about 46° and about 42° nose low attitude. The airplane continued in that attitude until behind trees when lost sight.

What was the elapsed time he saw the airplane?

5 to 10 seconds

Did you see any parts separate from the airplane in-flight?

No

Did you see any smoke or anything trailing the airplane in-flight?

No sir.

How would you describe the sound?

“Funny you mentioned that. Never heard a word, never er heard a sound from at all from over there. I don’t know if that is because of the trees.” Never heard a thing.”

Could you see any flight control surfaces moving?

No sir.

Did you know the pilot?

No. Sir.

FAA Questions-

When you saw the airplane bank did you see the propellers?
I only saw the fuselage.

Did you see any other part of the flight?
He had gone somewhere over the airfield before and he did see it go over the airfield.

When you saw it fly previously did you hear it move?
From there yes. When he was back over the center. We talked about that at North Division saying we did not hear the crash. It was discussed that the tree line may have blocked the sound.

Honeywell Questions-

If a yellow light takes 2 to 3 seconds is your 5 to 10 seconds accurate then?
If a yellow light takes 2 to 3 seconds, then yes 5 to 10 seconds.

If we tell you the airplane was increasing altitude before it started decreasing, what phase of flight did you see it increasing or always coming down?
I saw it on a decrease down. It was always pitch down from what he saw.

It was not level or up?
Not from what I saw.

You mentioned you did not see the propeller blades. Does that mean you didn't see stationary blades either?
I can't recollect if there was any blade movement or not. He saw the airplane going down. He was not looking at that to be honest.

You saw the canopy/top of the airplane?
That's what I saw.

NTSB Questions Continued-

He was asked if he recalled seeing the landing gear?
No sir.

The interview ended about 1321 EDT.

The digest was reviewed with him during the interview and compared with the audio recording titled "Witham Field 2."



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Captain Lawrence "Evans" Crary
NTSB Accident Number: ERA20FA027

Narrative:

Captain Lawrence "Evans" Crary was interviewed at Witham Field (SUA), Stuart, Florida, on November 2, 2019, at 1325 EDT. He provided an e-mail address of [REDACTED] and a cell phone of [REDACTED]. Also present in the room were Federal Aviation Administration (FAA) inspector Alexander R. Munoz, and Dana S. Metz, of Honeywell Aerospace who was a party to the NTSB investigation.

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 Captain for Martin County Fire Rescue; he is a floater for the county but was assigned as the leader of the Quick Response Team (QRT) for the airshow. He is not a pilot, nor a mechanic. He did not have any hearing or eyesight issues.

He was asked to explain where he was when he saw and heard the airplane-
He was directly next to show center next to the announcers trailer (8 ft by 12 ft) with railing on the top where the airboss and their fire rescue operations stand during the airshow. He was in a pickup truck with bunker gear on. The windows were down, doors closed, air conditioning on, no frequency modulation (FM) radio or stereo playing.

He was asked to explain what he saw and heard-
He was sitting in the driver seat of the truck saw the aircraft start up on taxi line, taxi to runway 30, depart, and beginning his practice routine. He was not sure how many practice runs he had made but as he headed back towards the southeast, saw him coming in to runway 30, and as he

made a left bank turn the nose of the airplane continued straight down and “watched it impact the ground.” He saw a fireball and the smoke reported having a direct line of sight with no obstruction. As they saw him descend, was unusual being his 4th or 5th airshow and fire rescue in the US Marine Corps. As soon as impacted he proceeded from show center to taxiway Delta and pulled onto the grass where the wreckage was.

He was asked how much time elapsed from impact and his arrival on-site-
He estimated it was 30-45 seconds. He added that firefighter (FF) Schotanus was in the truck with him. FF Schotanus was on-shift on 11/2/2019.

What direction was your truck facing?
Southwest. FF Schotanus would have had to look through him to see the airplane.

When you first got there what did you see?
There were 2 large debris fields. One was on the engineered material arresting system (EMAS), and one off the left side in the grass. He saw thick black smoke, the flames had subsided to 3 to 4 ft tall. He and FF Schotanus exited the vehicle grabbed 2 fire extinguishers from the rear of the vehicle and went to the wreckage to locate the cockpit. “We discharged our extinguishers briefly onto the fire and as we were doing that surveyed the level of damage” and realized the crash was not survivable and there was no identifiable wreckage to their perspective. They then retreated back to the pickup truck, donned their airpicks, and assisted the incoming engine. He “directed” the incoming fire engine to lay down a 1.75 inch hand line from the back of the truck with heavy foam (6% Class B). It was the maximum capability of the foam for the truck.

How long did it take to “knock down” the fire?
It was knocked down within a couple minutes. They were working on the grass fire. Sikorsky who had crash trucks saw the column of smoke and came over with their crash truck who layed down a blanket of foam the EMAS.

He was asked to explain the last portion of the flight-
He noted a 50° bank and at that point the right wing came over the top and descended at 73° nose low attitude.

Did it continue to the ground in that attitude?
Continued in that attitude but at impact the right wing was just above the left when it hit.

Could you see any flight control surfaces moving?
“I did not see any moving ... as far as flaps, ailerons, rudders anything like that it was a little too far and at the angle he was coming in I couldn’t really see much um I did not hear any sputtering, explosions, anything like that prior to the impact.”

He was asked to explain if he saw the landing gear-
From the angle of the airplane it would have been on the back side of the airplane and out of his vantage point.

NTSB Questions-

He was asked to explain the flight-

He saw a high pass over, came back around, and watched for 2 to 2.5 minutes. He took off, made an aerial move, came back around. On the third pass he came in and went down. He watched the first pass he saw came up, came down back in, describing the turn as, "loopy nice lazy kind of swoop."

Honeywell Question-

Did he do the same thing at the other end too?

Yes sir.

Explain the first and second passes-

Were increasing altitude with 180° change in direction. Real smooth nothing drastic. Nothing steep, abnormal or excessive.

On the 3rd pass were you watching it?

Yes his job is to keep an eye on everything happening while in the air.

He was asked to explain the altitude on the 1st pass-

Climbed to 1,000 ft due to clouds which was discussed during the pilot briefing that morning. As he came back he was at 750 ft, when he was at the approach end of runway 30 he was probable down at 500 to 600 ft. Lower than he was at his 1st pass to the south.

Explain the final portion of the flight-

500 to 600 ft off the runway heading southeast, as he turned, dipped the left wing, then the airplane rotated over and went in.

Did it rotate to the left?

Yes sir, banked to the left and nosed down.

Describe the nose down angle?

Not that I can think of. "It was a really steep angle that he came in at almost completely vertical downward motion."

FAA Questions-

Did you see the propellers rotating was the airplane operating normally?

Both propellers were spinning as he turned up you could still see rotation of both propellers. No unusual noises, no sounds of stalls, he recognized the turbopropeller sound.

On the 3rd pass did you notice anything odd in the sense of rain, wind?

No rain on his windshield, the wind was from the north and had not increased or decreased in intensity from what he had observed earlier in the day.

FAA Questions Continued -

Describe the impact?

Like a dull thud. Saw the dirt, flame. Heading that way with full frontal view while heading down taxiway Delta.

NTSB Questions-

Did you at any of the three passes see any smoke trailing the airplane in-flight?

No sir.

Did you see any parts separate from the airplane in-flight?

No I did not.

During the takeoff or two passes did you recall the any gear?

The gear was retracted after takeoff and came by on first 2 passes.

Honeywell Questions-

When he was flying down the runway what side of the runway do you think he was on?

From his vantage point and from what he looked like he was on the west side of that runway between the runway and taxiway Alpha. Just beyond the runway he had took off.

Where was he on the previous passes?

Previous passes were further in. The first pass after takeoff he came back across the 1,500 ft line, and as he came back he was pretty much over the 1,500 ft line or in between the 1,500 ft line and runway 30. As he came back around he was on the west side of the runway he took off from.

Did you ever see the bottom of the airplane on the last pass?

On the last pass yeah he came down and through right across where we were at "in kinda of a level flight until he got to the end and made that left hand banked turn."

As soon as he made the turn did you see the bottom of the airplane?

No sir, as soon as he made that turn I did not have a visualization of the underside of the airplane.

Just the top?

Yes sir.

When you got to the crash site you mentioned there was 2 areas of fire. One was on the EMAS.

Was it a significant fire?

Initially it was a good fireball and based on the amount of smoke as it was burning off the fuel, there was a lot of smoke not too much fire involved when they arrived the fire had subsided was only 3 ft tall and an area maybe 25 yards long and maybe 10 yards deep.

Honeywell Questions Continued-

Was there any in the crater area?

Extending from the crater to the 2nd pile of debris in the grass. Between the EMAS pad and the significant debris in the grass were the 2 main areas with fire connecting the two.

As we look at the wreckage today vs. what he saw when he saw it, was the airplane consumed by fire?

I don't think much was consumed by fire, I think the impact broke the airplane apart in a lot of small pieces.

Did you see the airplane bounce out after impact?

"No, no we saw as it hit, "we saw a combination of dirt, smoke and flames." It pretty much consumed any visualization we had of what was transpiring in that exact moment. I did not see any pieces break off or shoot off in any direction. As they arrived there were 2 distinct areas that had a larger amount of wreckage; they were still all connected. There was a clear impact on the EMAS that broke a crater into the concrete, the wing fuel pod was in the area, and a larger section of the airplane in the grass with some miscellaneous parts in the surrounding area.

There is an aid in front of you that was provided this morning to the investigative team. It helps identify aids for rescue to identify hazards. Were the wing tanks full?

He did not communicate that. After the pilot's briefing he saw that the pilot was by his airplane and he and FF Schotanus did an aircraft familiarization because he had not been at an airshow flown by a Mohawk. He wanted to climb around the aircraft, see the fuel switches, engine shutdown, emergency egress procedures.

Do you know if the tanks were full?

"I did not get from him how much fuel he had onboard or if those tanks had any fuel, uh the only the only thing he told me was that the ejection seat had been disabled, so we didn't have to worry about the ejection seat in the aircraft."

NTSB Questions Continued-

Great information, so you interacted with the pilot directly?

Yes, and an older gentleman who was with him was Vietnam veteran who had flown 173 missions in the Osprey in Vietnam, but he did not recall the gentleman's name¹.

The pilot who was there identified himself as?

Mr. Masessa. He showed them how to drop the ladder down, get access to the canopy, the emergency canopy release, fire bottles, battery, fuel switches, master switches

Had you met him before that?

No sir first time that he had met him.

¹ The gentleman was his crew-chief named William McNease. According to his written statement he flew 172 combat missions in Vietnam with a total of 880 hours as PIC in the Grumman OV-1 Mohawk.

NTSB Questions Continued-

Did the pilot mention anything to you about concern about the airplane, flying or his physical condition?

“I heard him mention to the older gentleman that he was going to have the mechanic come over and look at something, I didn’t hear specifically what issue they were trying to have him look at, or if it was an issue at all he just said the mechanic was coming to look at something on the aircraft.”²

He mentioned this to you while you were there?

He mentioned this to the older gentleman just giving him a “FYI” hey the mechanic is going to come over to check this out.

Do you know when the airplane flew in?

I do not know when it flew in no sir.

When you interacted with the pilot who was 59, did you notice any issue with his speech pattern, normal gate, sense anything physically wrong?

“Not that I saw he seemed preoccupied with checking out the aircraft.” They had a brief introduction and was turned over to the other gentleman who had an intimate knowledge of the aircraft while the pilot went about his routine of “going around the aircraft.”

What time was your interaction with the pilot?

1030 to 1045.

Were you into the cockpit?

No. I climbed up on the outside and poked my head in the pilot’s side. He did not physically get into the airplane.

Did you take any pictures?

No sir I did not.

From his perspective was your attention diverted at any point from takeoff to the accident, were you focused on the airplane?

“Solely focused on him going back and forth overhead.”

How many passes did he make?

He made three passes. He took off, once this way, once back this way, here, and down.

² According to a statement from Joshua P. Collins, he was requested to look at oil lines to make sure they were tight. Mr. Masessa informed him that he wanted a mechanic to check some oil lines due to extensive work done previously to the engine. The pilot opened the right engine cowling and he was asked to check the oil lines on the bottom right hand side of the “#2 (R/H)” engine. He confirmed using a wrench they were tight and the pilot said he had to go and closed the cowling and took the airplane.

NTSB Questions Continued-

We were told about 3 minutes takeoff to accident does that seem reasonable?

After takeoff in his practice run 90 to 120 seconds into his routine. If you factor in the takeoff about 1 minute that would be about 3 minutes from the time he left the ground.

Are you on the same frequency as the pilot, can you hear him talk with somebody?

They do not have any aviation radios. They could not listen to the pilot. They have a base radio in the truck and a handheld portable radio on 800 MHz through their fire department. They operate on their own specific TAC channel with personnel at the airshow so as to not interfere from their regular units that are responding throughout the day.

So your constant strain of sound goes from all day long to minimal?

Exactly. So when someone is talking on the radio you need to pay attention.

Honeywell Questions Continued-

Who makes the decision for your truck to move?

I do. It is between himself and the operations officer/incident commander who is up with the air boss. If there is an in-flight emergency, they will advise me to proceed to a certain area to wait for the aircraft to arrive. In this type of critical incident with no notice or warning they are free to respond to the accident site.

How long did you interface with the pilot?

With the pilot only 30 seconds initially and about 15 seconds at the end. They interacted with the older gentleman for about 7 or 8 minutes.

And so at that time the pilot was moving around?

Yes he met us, we introduced ourselves, he showed us a little bit about the step, and then he turned it over to the older gentleman and went around to the other side of the aircraft and "was going through his checks/routines whatever it was he was doing" and then he came around the nose and mentioned to the older gentleman that the mechanic was coming by. He then went to the starboard side of the aircraft and then as they were leaving the older gentleman went over there. They said thank you very much, and we appreciate taking the time to allow them to look at the aircraft.

You mentioned he was preoccupied?

My interactions with the other performers they are engaged. Most are very interactive. He was more focused on the aircraft at that time.

Anything strike you about his physical appearance?

"No sir"

Walk, talk, motion?

"Gate, speech, everything just seemed normal individual."

FAA Questions Continued –

When you saw him was he in his flight suit or regular clothes?

Regular clothes when he saw him that morning.

Was he trying to put on flight suit?

Not at that time.

Did you see him move his neck or his body movements like maybe something was off?

“Nothing that stood out to me that that would indicate that he was having any sort of problem.”

There were 2 vehicles next to the airplane as well. One was a white van that said Mohawk

Airshows and the other was a sedan.

The interview ended about 1403 EDT.

The digest was reviewed with him during the interview and compared with the audio recording titled “Witham Field 3.”



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Robert Holland
NTSB Accident Number: ERA20FA027

Narrative:

Mr. Holland was interviewed at Witham Field (SUA), Stuart, Florida, on November 2, 2019, at 1439 EDT. Also present were FAA inspector Alexander Munoz, and Dana Mets and Jennifer McDuffie of Honeywell Aerospace, who was a party to the NTSB investigation. Mr. Holland provided a cell phone 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 also agreed to allow the interview to be recorded. It was saved as Witham Field 4.

NTSB Questions-

He was asked if he was a pilot or airshow performer?
Airshow performer.

For how long?
18 years, and have been flying for 28 years.

When performing does he fly for somebody or do it on your own?
On my own.

What is the name of your company.
Rob Holland Ultimate Airshows

NTSB Questions Continued-

What aircraft do you fly?

MXS

Is that the only thing you fly?

I fly whatever I can get my hands on but that is the only thing I fly at airshows

What is the registration?

N530RH.

How many flight hours do you have approximately?

14,000.

Have you ever flown that make and model airplane or the accident airplane specifically?

No.

Did you know the pilot?

I had met him a few times. I knew him in passing and we knew each other's name. I wasn't close to him or anything.

Casually maybe would that be a good way to describe it?

Yeah, if we saw each other at an airshow we would know who each other was, but we didn't really hang out or know each other.

Did you interact or do anything with him that day?

No. I saw him drive by in a car and saw him on the other side of the briefing tent for the briefing but that was about it. There wasn't any actual interaction.

Where were you when the accident happened?

He pointed to an airport map, just off the 1,000 foot marker of runway 34, off the right side of the runway by his airplane getting done putting smoke oil in it. He was "just the other side" of a C-46¹.

He was asked to clarify what line and he did.

Honeywell Questions-

What runway was the 1,000 ft marker?

He and NTSB responded runway 34

¹ Using Google Earth he was located about 2,150 feet and 326° from the main impact location. That location was later determined to be at 27.1811° north latitude and -80.2174° west longitude

NTSB Questions Continued-

Do you have any sight or hearing issues?

No.

Were you wearing any headsets, ear buds listening to music?

No.

Were you by yourself?

Uh, no Bill Stein was near him about 20 ft away facing the other direction.

Is he a pilot also?

Yes we fly a formation act together sometimes.

For your company?

He flies for himself. Mainly fly solo stuff.

He was asked to explain what he saw and heard?

From start to finish I saw him takeoff from runway 30. He climbed out did like a left turn right turn "dog bone" turn around and dive back into the box. It appeared he was flying it is hard to tell depth but more over the runway than he was at the 1,000 ft line which he was certified to so he was flying in this area. He "dove in pulled up there's no aerobatics, climbed out, um, as he was passing over about the 30 numbers, I turned away to do something, don't know what, and then I looked back up, um and caught him probably just less than 270° into uh a right turn. And I remember thinking, he was overbanked he was past 90° and I remember thinking to myself why is he gonna roll there because he's facing the crowd. Which obviously you are not supposed to direct your aerobatics at the crowd. And then from that position, I saw the nose come down as if he was pulling, kind of a typical pilot's nervous first thing they do is pull. And it continued all the way to the ground. I mean it was obvious enough that probably through about 800 ft I actually said outloud he's dead. The uh, I did not see the impact cause the C-46 was there." It disappeared behind that airplane but he saw it until about 50 ft off the ground. He saw the smoke come up.

He was asked to explain the flight using a model airplane?

He described a left turn, right turn, dive into the back side of the box. The airplane climbed out but he described missing part of the flight because he diverted his attention. He then looked over and thought to himself that he was doing a roll because he did not know why he was banked that much, and then it continued down until it impacted just past the end of the runway.

Were you close enough to see flight control surfaces moving?

"nah, No. the I mean *² he was accelerating all the way to the crash. The plane wasn't stalled it wasn't spinning. Um, having observed everything before that it appeared he was in control of the airplane and the plane was behaving the way you expect it to behave the way he was flying it."

² * Indicates unintelligible

NTSB Questions Continued-

How would you describe engine sounds through the whole flight?

Full power. He could see it accelerating to impact. He heard the impact.

Using the airplane model he verbalized for the group what he had observed when flying southeast was he level then began climbing?

He adding that the airplane dove, did not level off, then went straight into a climb. When the airplane was by the 30 numbers he looked away. He looked back and assumed he had done a "right 270" because he was in a right bank, "overbanked" not quite to the 270 point almost lined up with runway 34 maybe a little past. He thought why was the pilot rolling it, and thought he would continue but the bank did not increase or decrease. "You could see a pull initiated and it just continued to impact."

So it stayed at the 90° bank?

It looked like it was past 90°, "it didn't appear like there was any roll input throughout but there was pull."

He was asked to explain the nose-down attitude?

"If you pull from an inverted attitude you pull the nose down. And that continued and there just was not enough altitude to *, unfortunately it's kind of a classic thing you see at some airshows with crashes people get upside down and they panic and pull usually it is in a roll."

How many passes did you see?

He only saw one pass. He saw the takeoff which could be considered one pass, and saw him coming this way.

Did you see him taxi out?

Briefly but he did not pay attention to it as he was too busy with my airplane.

When you saw it during the 1st pass what position was the landing gear in?

It was up.

At any point of the flight did you see any parts separate or any smoke trailing the airplane?

No.

In terms of pitch attitude and bank angle he was asked to explain-

When he looked up he was not quite to the 270 point, was aimed down runway 34, but the nose was pointed to him in the crowd, which was not the right place for a roll. The roll did not increase or decrease. He saw the nose come down, and it was, "fairly aggressive it wasn't just falling under its own weight there was input there. So that arc from what I saw..."

NTSB Questions Continued-

At this point of the conversation he was asked to portray what he had seen from takeoff to accident with the airplane model to be video recorded, which he gave permission.

He depicted the airplane departing runway 30, followed by a left then right turns, called “dog bone turn” at airshows, then depicted the airplane “dive in” to 500 ft or so, then climb out. While by the 30 numbers he diverted his attention, then looked back up and saw the airplane “overbanked” 10 or more degrees past 90 degrees to the right, 100° (Figure 1) and lined up with runway 34. No more roll left or right, the nose came down and a pull commenced (Figure 2) which continued to impact.

He was asked if he saw the impact?
No. The C-46 blocked his view.

Did it sound like full power to you?
Yes.

Follow-Up Questions FAA-

When you saw the airplane facing you, did you see the propellers turning?
He don’t really see them moving but he did not see them not moving.

Did you see any black smoke in the air?
No.

Did it seem odd to you the bank angle?
It appeared to him that it was a “fully flyable airplane that was...”

Honeywell Questions Continued-

When you turned away what did you do?
I was messing with my airplane. I had just put smoke oil in it and I was putting the cap back on. It wasn’t a long period of time.

A couple seconds?
10 to 20 seconds maybe. And it was up in the cockpit so he had to get up and then get back down, then turn around.

Enough time to make another pass and come back?
No. I saw 2 passes.

The 1st pass being takeoff?
Exactly.

When he was “overbanked” facing you, was the nose below the horizon?
No, it was pretty much level with the horizon.

Honeywell Questions Continued-

So you think if he pulled aft you would tighten it up and start going down right?

When you are overbanked, when you pull, you are going down. "And that that radius is what continued always to impact." So, technically the nature of the arc the bank relative to the horizon, is decreasing but not because of aileron input it is because of the geometry of the arc.

He was asked to help understand the debris field relative to his description-

He was informed that the airplane impacted on EMAS and the energy path was heading 150° heading. He discussed parallax from his position, and the airplane went from facing him to perpendicular.

Did the airplane hit right wing low?

Yes

Was the cockpit away from you and you had a view of the belly?

Yes.

Was it very easily distinguishable from the top side of the airplane?

Oh yes.

When he made pass #2, where was he relative to the centerline of the runway. Was he towards you or the other side?

It appeared (distance and parallax are weird). To take a few steps further back he is an aerobatics competency evaluator for International Council of Airshows (ICAS). The accident pilot had his card removed in the past, but he was since reinstated by another organization. He wanted to watch him and paying attention to it in case the committee needed to do anything. Watching fairly astutely.

Were you involved in any of those actions?

No, that was before I was on the committee.

NTSB Questions Continued-

He was asked to explain the pilot's limitation for rolls only no lower than 250 ft, was that because of his actions and card removal?

If he remembered his initial recommendation for a SAC card was from an ICAS competency evaluator. At some point his SAC card was removed due to something he did at Cherry Point airshow, or somewhere up there. He got his card back. EAA Warbirds is also able to evaluate for a SAC card but they are limited what they can recommend (rolls and loops only no lower than 250 ft). And he did that through that organization. For whatever reason he was limited to rolls only.

He was asked to provide a contact for ICAS?

Dan Hollowell Cell [REDACTED]

NTSB Questions Continued-

When you first saw the airplane we talked about altitudes, please explain?

He did not get much lower than 500 ft, and then got into a climb. It wasn't a "real high pitch climb." I did not see him get above 1,200 ft, the clouds that day were between 1,200 and 1,400 ft that day based on pilot reports from other pilots. The clouds were too low for his routine. When he saw him "overbank" he looked like he was just below the clouds between 900 and 1,200 ft.

Honeywell Questions Continued-

What altitude was he at?

900 to 1,200 ft, somewhere in that range. He wasn't super high or low, it looked like he was just below the cloud deck.

NTSB Questions Continued-

Based on your experience, in the attitude that you saw the airplane what were his options?
Just roll back the other way.

Honeywell Questions Continued-

And he would have been flying towards the crowd?

Yes, you don't want to go towards the crowd, but it's better than ... "sometimes you gotta do the wrong thing to do the right thing."

NTSB Questions Continued-

In the moment, the pilot had to make a split-second decision and if he does roll he will head towards the crowd which he shouldn't be.

You don't want to get into a pilot's head, but you can see a point of confusion. Whether it is looking at a triangular airport and not knowing which runway he should be at that point in time, seeing a runway thinking you are aimed at it. And it is hard to see the crowd line without a crowd. It looks like he was confused and then the panic set in and he pulled. I used to teach aerobatics all the time, "and every student I ever had when they got into a confused situation they pulled, it didn't matter what attitude they were in they pulled. Cause I mean in your mind, pull is up right. But when you are upside down pull is down." And you resort to instincts and of course instincts are not always right.

What were his options continue the roll what would you recommend?

You could continue the roll but that wouldn't be the best option. "just roll back", and accept the direction, even it means flying over a crowd. We brief pilot's all the time if they are in a bad situation pointed to the crowd don't do a 9 g pull to avoid them. Get level, fly over the crowd. Talk to the FAA afterwards and take your lumps but that is safer option than doing something drastic and ending up into the crowd.

Was that discussed at the pilot briefing?

Some.

NTSB Questions Continued-

Was there a pilot briefing before the practice?

Yes.

Was that brought up at the pilot briefing?

No. I do about 24 airshows a year and that is brought up at 5 briefings. Is not a required item to brief but is a smart thing to brief.

Do you think that as a safety issue the pilot's should be briefed that if something happens during practice or airshow and you can't avoid the crowd, get level and fly over the crowd?

Yes

Follow-Up Questions FAA-

Had he ever had to do that?

Me personally no. I think in the industry there are airshow pilots who should not be airshow pilots. And the accident pilot's is likely one of those based on his past history.

Honeywell Questions Continued-

You say you do 24 airshows a year have you seen this airplane and pilot at any of those?

I haven't but there are 250 airshows a year in the US.

If the airplane was at 1,000 ft above ground level, and he pulls back based on what you saw, how many seconds from that point to impact the ground?

Not many he is accelerating the whole way. It is hard to estimate.

You made the statement you thought he was dead?

Yes. I said it outload. When I saw him pull through and he saw the nose down there was a point of no return.

NTSB Questions Continued-

Have you heard any pilot's make a comment about what he said he was going to do that may have differed from the rolls he was allowed to do?

No, I haven't heard that. For distinction I fly airshow aerobatics and competition aerobatics. In competition you have to do what is next for judging but for airshow aerobatics, you don't have to do what's next, you have to do what's right to keep you alive.

The pilot doing rolls does it specify, did you expect him?

I thought he was going to do a roll on his first pass. It does not make sense to climb and accelerate for nothing. I found that kind of odd. It appeared he had the speed.

NTSB Questions Continued-

He was asked how he would have gotten to where he was at when he 1st saw him because his attention was diverted?

He assumed he made a right turn. Only because of the bank angle and the direction he was going. The fuselage was level from his point of view but he was overbanked.

Honeywell Questions Continued-

So you would have expected him, there was an input he didn't make to get him in that situation right? To come around 270 you would have expected him to do something when he is lined up with the runway, either roll back out right?

That's what I expected.

But for him to stay into that turn and come around cause that just overbank got him into that?

There are a lot of things I don't know. If he was trying to get back into the box to fly the other direction why he wouldn't do a left, right, which would keep it closer, especially with the off-crowd breeze that day. If he went right he would have to not quite 270 to turn get down to the showline. I don't know why he chose to go that way or why he was overbanked I don't know.

So his only option was to come out of it, roll back to the right and then back down parallel?

His only option to stay in the airshow environment was to make a left turn to come back into the box.

You described the first turn as a dog bone?

A left 90 and a right 270.

NTSB Questions Continued-

Show us what you would have expected to get out of the maneuver at the first point you saw it?

The pilot could have rolled out of the overbank with left aileron input. And even if there is some dive he could have pulled out of it. When he 1st saw it appeared the fuselage was relatively level with the horizon, so he wasn't in a nose low attitude at that point. It wasn't until the nose started coming down and he started pulling that the nose got down.

When you first saw him was he nose low?

No. He was just overbanked. I remember looking at the nose of the airplane. And he was looking down 16.

Honeywell Questions Continued-

If he did nothing at that point where would the airplane have impacted?

Depending on the trim it would have continued in the same arc not as tight but would have impacted the golf course.

Was he actively pulling the controls or was he not?

In my best estimate he was pulling. "It didn't just slowly start to come down it pitched down."

Was the pitch down consistent with up elevator control input?

Yes.



Figure 1: View depicting witness describing the bank angle and position near the runway 30 numbers.



Figure 2: View depicting witness describing the nose-down attitude and position near the runway 30 numbers.

He added that another witness Graham Worrall would be willing to speak to NTSB. His phone is [REDACTED]

The interview ended at 1516 EDT.

The digest was reviewed with him during the interview and compared with the audio recording titled "Witham Field 4."



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Graham R. Worrall
NTSB Accident Number: ERA20FA027

Narrative:

Mr. Worrall was interviewed at Witham Field (SUA), Stuart, Florida, on November 2, 2019, at 1731 EDT. Also present were Federal Aviation Administration inspector Alexander Munoz, and Dana Metz and Jennifer Mc Duffie from Honeywell Aerospace, who were party to the NTSB investigation. Mr. Worrall 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.

With his permission the interview was recorded. It was Witham Field 5.

NTSB Questions –

He was asked if he was a pilot?

No. I am the Director of Maintenance for Army Aviation Heritage Foundation. They operate UH1, AH1, OV1 (a few over the years).

You maintain them?

Yes.

Did you know the pilot?

I have known the pilot “very well” for 5-6 years. They had a Mohawk that the pilot wanted to purchase.

NTSB Questions Continued–

Were you a witness?

Yes.

He was asked to clarify where he was located when he witnessed the accident?

At the time of the accident he was northwest of the Emergency Access point/Helicopter ride area.

Were you outside or inside a vehicle?

He was outside.

Do you have any vision or hearing issues.

No.

Were you wearing any ear buds for music?

No sir.

Were you with anybody?

Yes sir. I was with our whole group of people, one of whom was Jim Brennan (show boss).

He was asked to describe what he had seen or heard?

They had always watched him perform. The pilot departed to the northwest, and he noted the turn in. He heard the radio of the boss giving him the box to start his “demo.” He came in, did his pass and come up to do his teardrop, and he got right about here, it just kinda went behind the trees. When it went behind the trees the tail of the airplane and the nose was facing that way. He was “making power” sounded like he had the throttles open until he hit the ground. “He looked a little slow to me.”

What runway did he take off from?

He replied 3, but actually it was Runway 30. Came out, turned to show center (500 ft line), he was doing his pass, and kinda like a teardrop, what we call with helicopters is a return to target. He described that as climbing, then applying anti-torque pedal, and come back down. He was doing the same maneuver, but he, “tear dropped out when he got about here, it kinda like an accelerated stall, almost or a snap roll. And he came around and when he went behind the trees, he said that is not right, it didn’t look right. Usually he will come back down, and then he will do another pass, and then come back down. He would not say it did a snap roll, but it just kinda like a spin. You could hear the props. The pilot was working them. He could see the top of the airplane. Then he saw the big ball of smoke.

NTSB Questions Continued–

He was asked if he would use the model airplane to depict the entire flight with an airport map below for reference. He agreed to have it video recorded.

He indicated that after takeoff from runway 30 the pilot turned to the left, cleaned his gear up, made a right turn in, descended, then when at the approach end of runway 30, began a climbing right turn he described as “teardrop.” When the airplane was near the top it was close to 90° bank angle (Figure 1), the airplane turn to the right tightened and the airplane began descending steeply (Figure 2). When it went behind trees, the airplane was in a nose low and left-wing low attitude over the Engineered Material Arresting System (EMAS) Figure 3. Hearsay from one of their Chief Safety Officer and their Blackhawk pilot’s said it did seem to have an issue starting the right engine before he went out. The Blackhawk was facing the accident airplane. He knows T53’s and once they start up they are reliable.

When you saw the pass what altitude was he at?

Low approach maybe 200 ft. He did not know the altitude on the climb out.

He was asked to use the model to determine bank angle?

Maybe 85°. He did not think he was over 90°. The one video it seemed like it hit and rolled over.

Initially the right turn?

It would been like a normal turn, come up, turn and come back in. At the top of the turn, “it just snapped around on him a little bit.” I don’t know if you call it an accelerated stall or what.

Working with Mohawk pilot’s who flew the airplane in Vietnam after afterwards in the National Guard, the early version is that if you lost an engine on takeoff it would roll over. That happened at Robbins. One pilot punched out and the other pilot rode it in. Working on the Mohawk, not the accident pilot’s, they had problem with the propeller governor.

What was the pitch attitude at the top?

Level. It looked good. It was a good climbout. As it was coming up, just about the point where the airplane would begin to descend, something happened and it came around. I don’t know if he got slow. It was just what I saw.

He was asked to clarify the attitude of the airplane during the climb?

As it was coming up, almost to the point where it would begin descending, then it came down but instead of pulling out, it steepened, and was slow at top and accelerated while descending.

He was asked to explain the attitude of the airplane before losing sight?

Honeywell Questions –

Was that left or right wing low?

Left wing low. He could see the 3 rudders and the top of the elevator, and the top of the fuselage. The bank angle was about 25° and nose down attitude of about 44°.

NTSB Questions Continued–

Did he see anything trailing the airplane or any smoke trailing the airplane?

“I didn’t see anything come off it.”

Any smoke trailing the airplane?

I didn’t see any smoke. I mean it all depends I mean Hughey’s the oil vapor tank will mist out a little bit. I didn’t see anything out of the ordinary. He did not see anything that caught his attention or was reason for concern.

The engines sounded fine?

Yes. “You could hear the power, like you could hear he was in the power, you could hear they were making and they were turning and I don’t know if he pulled them right at the end before he hit the ground or it might have just been the delay of it from when it stopped to where I finally heard the crack of the of when it hit the ground.”

FAA Questions -

You mentioned when he turned right during the climb and turned back again you heard it slow down and then heard it?

He was in the power, he was making power. It wasn’t like he was having an issue with it.

In your line of sight, when he banked and you saw the tail section did you see any flight controls move?

I couldn’t tell if he had any input in it or not.

You didn’t see anything on the flaps,wings? And you did see the canopy?

Yes, before it went behind the trees.

You saw the top of the wing and fuselage?

Yes, that was the thing with the pilot. We have been on him to make the ejection seats hot again, because his seats were not hot. The pilot replied that it was too expensive. I don’t know if it would have helped but it would have nice if he could have pulled the “black and yellow.”

Did you see him, talk with him before?

He did not. He had just pulled up. They were beginning to set up. He got there at 1245. They were getting ready.

Honeywell Questions Continued–

You said you knew him for 5 or 6 years?

Just from the airshow circuit.

So you travelled the circuit to?

Yes. I do.

Honeywell Questions Continued–

So you have seen his routine before?

Yes.

About how many passes is his routine?

It all depends. If have seen maybe 4 or 5 passes. “I don’t know this he has been pushing real hard I know he’s been trying to do Stuart for a long time. And they finally let him do it this year. And he has been promoting himself a little more at International Council of Air Shows (ICAS)...” He indicated that the pilot had come to him a few years ago as he was building it up.

We understand there was another gentleman with him yesterday working on the airplane?
I didn’t see any of that.

Do you know of anybody else who is with him?

With him, no he is usually on his own. Well it might have been one of Paul Peffley’s guys. He had long

Have you seen him at any shows since July?

I haven’t seen him do a routine in about 2 years. The last time was Sun-N-fun a few years ago.

The issue with the right engine being hard to start someone told you it was hard to start?
Talking with the Chief Safety Officer the National Guard pilots said it seemed to be hard to start. But it did and he went out.

Tell me about hard to crank?

To be honest I did not get into it. It is just hearsay.

FAA Questions Continued-

When you say they meaning the National Guard?

The crew told their guy who was one of our pilot’s that when he was leaving it seemed like he had an issue getting the engine to start, but it did start.

Honeywell Questions Continued–

Do you know if it was a long light off, low battery?

I don’t know. He had one running already so I don’t think it would be a battery issue.

So you talked with his this week?

No.

When was the last time you talked with him?

At Stuart last year.

Honeywell Questions Continued–

Okay so its been a while?

Yes.

With you saying there was a hard time starting the engine, the propeller governor being difficult to rig?

Just my opinion.

And then you saw the flight is there any reason to suspect the right engine?

The only thing is the way it came around, turning into his dead engine. But he could have been slow. And it would do the same thing.

So you are aware the sound of the aircraft will change based on the orientation of the propeller?

Correct, right.

Is it fair to say from listening to you that there was nothing from the sound that the aircraft that the engines were not?

No they sounded fine to me. The engines were making power. Sometimes when one prop is different there will be a little whine to it “but they both sounded pretty synched in their pitch.”

Um he sounded in and out, and during the climb was nice and smooth. Because even when descending you could hear the same frequency. “It wasn’t like one was going crazy on him. Or having a prop runaway. Or one trying to go into Beta on him. Or something like that.” He just knows from “wrenching on them that they can be a pain to work on.

Based on the way he was flying it and the sound you heard you would not suspect an engine issue?

No answer.

And you are confident that he made 1 takeoff and one pass before the accident and not 2 or 3?

He did watch him climb out and roll over. He might have done 1. Maybe was the 2nd pass.

The takeoff was 1 pass?

Yes. We saw him takeoff. We could hear it. He looked back as he was diving in, he watched him, went up, went around, and then crashed.

Did it leave your vision when it dove in?

No.

So he was higher than the trees?

Oh yes. When he came up he was “way up over the trees.” It had to be really low to the ground when he lost sight due to the trees.

As he started the teardrop did he bank left?

Started to center, goes out, then came back to same point.

Honeywell Questions Continued–

Do you know the other gentleman who was with him yesterday?

I don't know. I didn't see anybody, I just got there.

So he flies his airplane in, parks it on the hot ramp did he bring extra gear?

I don't know.

Anything on the ramp that belongs to him?

I don't know. He did not know when he flew in. The airshow people would know it.



Figure 1: Image from Video Recording depicting the bank angle And pitch during the turn Immediately before the Crash.



Figure 2: Image from Video Recording depicting the steep descent angle.



Figure 3: Image from Video Recording depicting the steep descent angle.

The interview ended at 1804 EDT.

The digest was reviewed with him during the interview and compared with audio recording "Witham Field 5."



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Vincent Citro
NTSB Accident Number: ERA20FA027

Narrative:

Mr. Citro was interviewed at Witham Field (SUA), Stuart, Florida, on November 2, 2019 at 1815 EDT and 1821 EDT. Also present were Federal Aviation Administration inspector Alexander Munoz, and Dana Metz of Honeywell Aerospace who was a party to the investigation. Mr. Citro provided a cell phone number of [REDACTED] and an e-mail address of [REDACTED]

He advised that he works for PHI Air Medical, which contracts with Life Star for Martin County Fire Rescue. On the date and time of the accident, he was at the hangar near the air traffic control tower.

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 advised that he wanted to clear the interview with his boss, and he was given approval by the Chief Pilot (Wade Cook) of PHI Air Medical. He agreed to the interview without representation but on the stipulation that NTSB provide them a copy of the written notes and recorded interview. They were advised those items would be provided.

NTSB Questions-

He was asked to clarify where he was located when he witnessed the accident?
I was in front of the Life Star hangar which is located about 300 yards west of the tower. He indicated he would later provide the coordinates where he was standing.¹

¹ By phone on 11/14/2019, he provided updated coordinates of 27.185200° north latitude and -00.223210° west

NTSB Questions Continued-

He was asked about the glasses he was wearing and indicated-
He has 20/20 vision

Is your hearing ok?
Hearing is fine.

Were you wearing any hearing protection, earbuds?
No hearing protection.

Were you by yourself?
My wife was with me. She came to watch the practice. She was standing right next to me.

Explain what pilot certificates and ratings you hold-
He holds an Airline Transport Pilot certification with rotorcraft helicopter rating, and a Commercial Pilot certificate with airplane single engine land and instrument airplane ratings.

Have you ever flown this airplane?
OV-1, no. But I am fairly familiar with it because it is an old Army aircraft and I am an old Army aviator. And I believe they had them in the Georgia Guard until...I was still in the Guard, I remember seeing them fly. I am fairly familiar with it.

Did you know the pilot personally?
No, but I believe I have a video of him I think he was sitting right in front of me at the "briefing yesterday morning." He asked the team to review the video to confirm that was the accident pilot adding that he was wearing a blue shirt. I normally don't do that but I figured this might be the last year I go, so I videotaped the brief. He panned around and got all the pilots in the brief. He explained that he explained to another individual that he had seen the accident and that person indicated that the investigative team would want to talk with him.

How many hours rotorcraft and fixed wing do you have?
Somewhere north of 5,000 close to 6,000 rotorcraft and about 1,000 hours fixed wing.

Describe what he saw and heard-
I saw him do his takeoff roll, everything looked normal,

What runway did he depart from?
Runway 30, made a turn out did a couple maneuvers, we kinda looked away for a little bit and he came back down the runway and he pulled vertical he got inverted, it looked like he would roll out but he pulled through. He perceived contrails (white wisps) coming off the tip tanks, and told his wife at that time he was "pulling really hard cause cause that was happening and then he kinda just kinda mushed through and there was just no room at that point. At the very bottom,

longitude. Using Google Earth and his updated coordinates, he was located about 4,493 ft and 317° from the main impact point.

again, it looked like this wing started to roll, and he says there's video I haven't seen video I'd like to know how good my memory is compared to what the video says. To me it looked like he was kinda going through an accelerated stall at the bottom. Like he just kinda this started to roll through and and he hit like that really moving."

Using a model airplane he was asked to describe the attitude at impact-
He was rolling "right in" he was 70° to 80° nose low, "right wing rolling."

He was asked to display the bank angle he saw-
Using the model and an APP the bank angle was determined to be about 62°. Just kinda rolled in. Initially we saw debris go up and then a "huge" fireball at least as high as the trees, indicative of a plane full of JetA. He was impressed with how fast the fire was put out by fire rescue. And then it was just smoke after that.

In-flight did you see anything trailing the airplane any smoke?
No.

Other than what you described at the end?
Yeah, yeah. All I saw was. That was not engine smoke or anything like that. It was like compression condensation type coming off those tanks.

Did you see any parts separate from the airplane in-flight?
No. I was hoping. I know it was equipped with a Martin Baker ejection seats. I guess they were deactivated? NTSB responded that is what we understand. He added, I was hoping that he would get out.

How would you describe the engine sounds?
The music was slow loud and because of nearby generators he "heard almost no engine noise."
Adding, I am sure the engines were running. Even the impact was almost inaudible. It was just a very dull "umpf." I am sure it was much louder than that, his we even commented how she could not hear the impact, to which he told her there was a little noise but that was because there was a lot of noise near them. "But nothing out of the ordinary. Nothing like. I didn't hear any drastic power reduction or anything like that going over."

FAA Questions –

Where was the airplane flying?
I couldn't tell you precisely how far lateral he was. You know he came over the top and made it back all the way to the end of the runway. He had to be at least midway down when he first came over, but he would have been over this taxiway here I think. "When he when he was completing that that I guess you call it an Immelman but never rolled out followed by a 'split s' maybe."

Did you see the face of the canopy when he banked right and then he came like this?
What I saw was he came like this, rolled onto the back, and then for just a second it looked like he would roll out but he pulled though. I pretty much had a view of the back of the airplane at that point. And then as he got to here, "that's when you could tell he was pulling really hard in my opinion I don't know for sure because you know you had the little streamers coming off of it

and and what looked to me like just kinda mushing through and this little bit of a roll to the right that is started to do before it hit the ground.”

Right before impact you saw that roll right?

Yes. I saw it roll to the right, not much, like it was getting away from him, full aerodynamic stall right on the ragged edge. Just kinda falling through. That’s kinda what it looked like to me. He discussed pilot incapacitation or flight control problem as possible reasons. But to me it looked like he was kinda mushing through at the bottom like he was pulling hard.

NTSB Questions Continued-

How high did the airplane get during the turn?

If I had the guess, the clouds were at 1,700, and at the apex, he got within 400 to 500 ft from the clouds. The highest he could have been was 1,000 ft. Somewhere between 1,000 and the clouds. Somewhere between 1,000 and 1,700 or 1,500 ft.

He was asked to explain using the model what he had seen on that pass.

He came by and he pulled vertical through, made a banking turn to the top and rolled 3/4 almost 7/8’s inverted, a little bit of shake right there for a second, rolled back through, and pulled straight through, and here mushed through, did a little fade and impact. What did the video show. If you have video of the airplane on top, that would tell the story. If he tried to roll out, or if he lost power he would think the pilot would roll out of it.

He was asked to show again what he saw and for it to be recorded-

He made his pass, he pulled up through into the vertical, got just about inverted, did a little waiver right here, and he pulled straight through (Figure), and as he pulled through like this, this wing kinda rolled just a little bit kinda dipped and he hit on the overrun area of the runway (Figure 1). A fireball occurred and that was pretty much it.

Honeywell Questions –

With the takeoff being pass 1, how many passes did he make in front of show center?

You know that’s a good question. “We watched him come by us this time, and we just kinda stopped cause he went kinda vertical there” and wow look at that.

Did you see his initial maneuver after takeoff?

The initial maneuver? His climbout? Honeywell responded yes. I know I watched it but I couldn’t tell you verbatim what he did.

The maneuver that he did when he crashed did he roll laterally either way or did he just loop and come in line with the runway?

“From what I remember it looked to me like he just he he came through he didn’t pull straight up into the vertical, it looked like he kinda did a steep turn, not a chandelle obviously, much steeper than that, it looked like he just kinda went into a steep turn, and it developed into being vertical. You know it kinda, like that.” That’s when he got on top like that, it was like, okay what’s he planning to do here because he wasn’t that high, he was somewhere between 1,000 and 1,500 ft, at the most and that was pretty close to pull through. “And when he did commit to going down, I

thought you know, for a second, I thought man this guy is good.” And then when he was half way down he was still “damn near 90° to the ground” he was thinking there was no way he could have recovered.

Honeywell Questions Continued—

Do you think he hit right or left wing low?

To me it looked like he was right wing low when he hit the ground.

The recording ended at 1841 EDT.



Figure: Image extracted from recorded video depicting the pitch attitude of the airplane while descending.



Figure 1: Image extracted from recorded video depicting the pitch attitude of the airplane at impact.

The digest was reviewed with him during the interview and compared with the compared with the audio recording titled “Witham Field 6 and 7.” The FINAL digest and audio files were e-mailed to him on December 4, 2021.



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Daniel S. Huffstetler
NTSB Accident Number: ERA20FA027

Narrative:

Mr. Huffstetler was interviewed at Witham Field (SUA), Stuart, Florida, on November 2, 2019, at 1853 EDT. Also present were the FAA inspector-in-charge Alexander Munoz and personnel from Honeywell, who was a party to the investigation. Mr. Huffstetler provided a cell phone 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 was asked the following questions by NTSB-

Did you know the pilot?

No, uh I had met him but I didn't know him.

You had met him previously?

Yes.

Prior to Friday or just?

I had met him at Sun 'N-Fun. He had come there for static display. But beyond saying hello I had not had any contact with him.

Are you a pilot?

I am.

NTSB Questions Continued-

What type of pilot certificate do you hold?

He holds an Airline Transport Pilot (ATP) certificate and a flight instructor certificate with instrument instructor.

At the ATP level what are the category and class ratings that you hold?

Airplane single and multi-engine land ratings.

A single engine land category and class at the ATP or commercial?

Commercial.

What ratings on your instructor certificate?

Airplane single engine, airplane multi-engine, and instrument airplane.

How many flight hours does he have?

17,000 hours total time.

Any time in this airplane?

No.

Have you ever flown in this make and model or the crashed airplane before?

No.

What was your role and where were you at when you witnessed the accident?

He was at the airshow getting training to be the Air Boss. He was "shadowing" (Jim "TUCC" Tucciarone and Kellie Lynn Hudson) on the airboss stand. He was monitoring the Air Boss frequency.

What frequency was this?

The airboss frequency. I can't tell you offhand what it is.

Are pilot's communicating on that frequency?

They are.

You were actually where?

I was standing on the airboss stand which was at airshow center.¹

He was shown a diagram of the airport and asked to display his position?

He believed the airboss stand was close to, and pointed to a location.

So is that the intersection of runway 16/34 and?

Sorry I don't know if it is on that side of the intersection or over here.

¹ He was located at 27.1841° north latitude and -80.2209° west longitude.

NTSB Questions Continued-

So we could go to this place and uh and you call this airboss stand?
It is the announcer stand and airboss stand.

This is off the ground, elevated?
It is.

How high?
Probably 15 ft.

15 ft above ground level?
At best.

He was asked to explain what he had seen and heard-

He saw the entire accident sequence as it turns out the last pass. Previous to the last pass the pilot, "had flown a conservative 'low show' and he announced he was going to fly a 'low show' on the radio." He did not appear rushed and he, "sounded calm on the radio during all of his transmission. The ceiling was ragged, broken, actually was moving to, quickly moving to scattered conditions at 1,600 ft. All of his maneuvers prior to the mishap sequence were consistent with a good well flown 'low show'. And he announced as he moving headed toward about 120 along the showline parallel to the runway that he was setting up for his last pass. He flew roughly a heading of 120 parallel to the showline at about two to three hundred ft above ground level, at a moderate cruise speed, and then initiated a climb at the west end of the field. It's hard for me to determine what angle of climb he was actually achieving, but he, that level that climb he did was consistent with all the other climbs that he had done at the end of his passes for the 'low show'. At that point once he was established in this say 15° climb, roughly, he held that uh for a few seconds and then, he increased that climb to a pitch attitude I would say at least 35° and it is important this this is a very interesting distinction that as he did that climb, I saw blue sky behind him. As if there was clearly there was an opening, a break in the weather at the point he established that 2nd climb. So initial climb carried it for a few seconds, and then steepened it up. What I assumed was to take advantage of the clear sky above him. And I, remained the blue sky remained throughout the entire time through that 2nd climb segment. After a few seconds not too many uh he then initiated a 'crisp right roll' to about 135° and stabilized in that position. I can't tell you what altitude he was. My guess would be somewhere between a 1,000 and 1,300 ft. Just based on the geometry and the time he had established in the climb. Once he established that 135° slice, uh from your vantage point, he continued a fairly brisk 'pull here' and during that pull there was no rotation of the wings, there was no yawing motion. It was a consistent pull through through the horizon and he just continued that pull as the aircraft now approached 180° of turn. The nose was getting buried by this point his speed was increasing and the turn radius decreased as he continued the turn to a total of 270° roughly from his initial heading as he approached the ground at high speed. As he went down I mean clearly at 500 ft uh we knew I knew how this was going to end. And I continued to watch him and there was, I didn't not see any wing rock or any indication of a high or accelerated stall. Uh or any longitudinal

instability due to an engine failure. The engine sounds were consistent with both engines running uh and he impacted the ground just out of sight behind trees. The last 100 ft or so uh of his trajectory. I didn't see any attempt to unload the wings to roll wings level to recover it was just a consistent pull all the way down. If anything the last 200 ft the rotation rate the turn rate might have increased slightly but that's really hard for me to visualize at this point to uh tell you for certain."

He was asked to use the airplane model to show every pass he did takeoff to accident- I can't do it I can't do it. Because I didn't watch every single reposition he did. "I can tell you of the passes I saw he was level at approximately 200 to 300 ft above ground level, was my assessment. And when he repositioned, he would reposition "up to at times 90° of bank", and then once the heading had been established he would roll out "briskly" from that with good speed on the airplane and pull up approximately 10 to 15 degrees and maybe that would be a little exaggerated given the ceiling we had "but he made a nice brisk move away from the ground." And so his repositions were away from the crowd so that he was turning back towards the crowd for his next pass made a descending turn. "All in my mind well flown well controlled outside or at what I was assuming to be either the 1,000 or 1,500 ft line he did not push the boundaries for uh the 500 ft line which he could have flown a straight and level pass. Uh so its rather odd but coincidental that the one pass that I was watching very closely was the mishap pass."

On the radio announcement did he announce takeoff? What other announcement did you hear him make?

Oh huh, he acknowledged the clearance to takeoff and that the box was his. Uh the show was going very slowly at that point because of the weather. And so uh he was advised when he was in the aircraft by Kelly the airboss via text message that there was no rush but he could start the engines. And move out to the runway. He saw her text message after it was sent and that was almost verbatim, "no rush just start your engines let me know when you are ready. Uh so he acknowledged this the engines were running and Kelly asked him if he was ready to go, he said yep he was ready to go and so she cleared him to taxi to hold short runway 30, which he acknowledged and then she cleared him for takeoff and the box is was yours, is the terminology ah which he acknowledged. There were no other transmissions from him during, or to him during his show ah except at the end he called 'this next one will be my last pass' or something very close to that. All of his radio communications were calm, well controlled, coherent. Nothing out of the ordinary."

Did you actually witness the takeoff from runway 30?

I saw portions of his entire demo. And yes I saw him takeoff. There was nothing extraordinary or unusual about the takeoff. "There was nothing in the entire sequence until that very last pass, there was nothing out of the ordinary that would show me that he was being overly aggressive or not fully in control of his craft. I thought that the repositions I thought that the repositions uh from the passes had a 90° bank angle and he climbed up and then he might hit 90° of bank, uh I remember looking at that and wondering uh uh if indeed he had a ACE card because I had not verified everything I'm still in training but uh I know that after the fact he did. He was he was allowable or allowed to go to that angle of bank. But the point was that regardless of my

thoughts about the situation it was a well controlled bank and a roll out before any adverse aircraft attitude could take place.

You mentioned engine sounds. Were engine sounds ok?

“Engine sounds were consistent with both engines running uh normally and during the ensuing accident sequence the diving spiral uh they sounded as if they were at high power. There were no sounds of asymmetric thrust or you know the engine issues.”

FAA Questions-

Did you hear any sputtering and see the landing gear during takeoff?

He did not see the landing gear retraction sequence.

When you saw the blue sky and he banked right, what position was the airplane in at impact left or right wing towards his line of sight?

Recall that he did not see the last 100 ft of the descent. If he was guessing he would say it hit right wing first given his angle of bank.

Honeywell Questions-

How many passes before his last pass?

Four is my guess.

Takeoff being one?

Well counting takeoff being 5. He was not counting the passes. He was intermittently watching in addition to other duties on the airboss stand. He could not tell exactly how many passes he did.

He was asked to explain the maneuver again using the airplane model and was asked if it was ok to record video?

He said yes but asked what perspective. He was advised by NTSB the perspective that he observed. To depict what he saw.

He came by for his last pass between 200 and 300 ft above ground level, reasonable high cruise speed, stable level flight, and at the west end of the show box runway environment began a definite climb at what he assessed to be 10° to 15°, given the cloud deck was a reasonable climb to get away from the ground. Then after a few seconds of that climb, he saw the airplane pitch up with a significant pitch increase up to 35° nose high maybe 40°, and as it did so he expected the airplane to enter the clouds but he didn't because the weather had broken in that area. There was blue sky in his vicinity. The airplane continued the upward trajectory, he continued to see blue sky behind him, and very distinctly remember him rolling at that point to 135° (Figure 1) roughly and beginning a slice back or repositioning maneuver at this point. “His turn was consistent, uh continuous I should say and as the nose went through the horizon, I can't give you an idea what heading he was doing, but as the nose worked its way through the horizon, uh the I don't I can't tell you if the angle of bank changed significantly but he did enter into a descending right spiral.” As he reached 180° from his initial run-in heading “his nose was buried significantly.”

At this point his turn radius decreased (Figure 2) as he continued to turn off of runway heading and approach the impact point. And approached the impact point. My guess is he hit 270° of turn

from the initial run-in heading. He could not see at that point if he loaded the aircraft up at the very last second. But that is what I saw.

Honeywell Questions-

Did you perceive that as a high g maneuver?

Yes. I said earlier I thought the bank angle increased a little bit or the turn radius “tightened up at the very end last 200 to 300 ft yeah I think he saw the ground coming and pulled back but I don’t know.”

When he made the pass before the maneuver where was he at? Your side of the runway?

I believe he was on our side of the runway.

Did he go over to the back side of the runway?

Uh, it makes sense that he would be closer to the runway. I hadn’t thought about this because if he wound up there, he probably couldn’t have been too far offset towards the north. He had no way of gauging exactly how far away he was. Knowing the pull, slice would not have moved him too far to the south, he may have been closer to the runway during his last pass before he initiated the climb.

Did you see him at the pilot briefing?

Only in passing

Was he here by himself?

I think he had his maintenance guy with him. But he only learned this after the fact. The briefing was pretty crowded and all the pilot’s were concentrated in the center.

The interview ended at 1916.



Figure 1: View depicting witness describing the bank angle being 135°.



Figure 2: View depicting witness describing the turn radius decrease.

The digest was reviewed with him during the interview and compared with the audio recording titled "Witham Field 8."



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Amanda Holleman
NTSB Accident Number: ERA20FA027

Narrative:

FAA inspector Amanda Holleman was interviewed at Witham Field (SUA), Stuart, Florida, on November 3, 2019, at 1457 EST. Also present were FAA inspector Alexander Munoz and investigators from Honeywell who were Party to the NTSB investigation. She provided a work phone of [REDACTED] and an e-mail address of [REDACTED]

She advised she is an operations inspector with the FAA for about 1 year 8 months. She has about 2,350 hours total time, and has never flown that make and model airplane. On the accident date she was officially training for airshows by FAA inspector Lizette Padilla, and was next to the airboss northwest of show center. She was not wearing any headsets, and she does not have any vision or hearing issues. She reported that she could only hear music playing, and no engine noise.

At the time of the accident, she was talking with inspector Padilla; both of them were in a golf cart. She saw the airplane was flying inverted in a nose level attitude heading in a southeasterly direction. She looked to inspector Padilla, and she next saw the airplane in a 45° nose-down attitude "spiralling" to the right. She indicated that she did not think the airplane was stalled or in a spin, rather it was in controlled flight. She could see the upper part of the airplane. At 800 to 1,000 feet above ground level, she knew the crash was inevitable but reported she did not see the impact. She could not tell which wing hit first. She did not see any smoke trailing the airplane, and did not see anything separate. She thought the airplane was accelerating (consistent with power) or at least maintaining a constant rate during the descent, indicating that it was not decelerating. She could not see the flight control surfaces, and did not see the landing gear.

Follow-Up Questions Honeywell –

Describe the descent – Before seeing the video she thought the airplane was descending vertically.

How many turns were completed?
She thinks 1.5 turns.

How many passes were made?
She was not sure.

Follow-Up Questions FAA –

What was the clouds or ceiling?
It was partly cloudy and the ceiling was between 1,500 and 1,800 feet above ground level.

The digest was reviewed with her during the interview and she agreed to the content.



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 6, 2019
Person Contacted: Douglas Ryerson Davis
NTSB Accident Number: ERA20FA027

Narrative:

Mr. Douglas Davis was interviewed at Witham Field (SUA), Stuart, Florida, on November 3, 2019, at 1538 EST. He provided a cell phone number of [REDACTED] and an e-mail address of [REDACTED]

He advised that shortly after the accident, a female individual professing to be the pilot's girlfriend came to the airport and asked "if Joe did it" meaning did he take his own life.

Mr. Davis advised that he is a Board Member (Secretary) of the airshow and is in charge of the sight layout. He has been volunteering at the airshow for 15 years, 9 years as a sight planner, and 6 years as a Board Member.

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 but has flown in 50 different types of aircraft. He has known the pilot for 6 years. The pilot had been on static display with that airplane and will check his records to see how far back that was. He also had flown in that airplane once on a flight from Lakeland Linder Regional Airport (LAL), Lakeland, Florida, to North Palm Beach County General Aviation Airport (F45), West Palm Beach, Florida. He provided NTSB a copy of the video that was taken during the flight and also pictures taken during that flight.

The pilot was scheduled to fly his BAE Strikemaster, but did not. Mr. Davis reported that the pilot was a dermatologist and owned "Dermatology Centers of Florida." He also had practices in several other states.

Mr. Davis was asked if he was aware of the car accident and he advised he was not.

The pilot had applied to fly at the airshow since getting aerobatic qualified, which was about 2-3 years ago, North Palm Beach County General Aviation Airport but performing at the 2019 Audi Stuart Airshow was his first time. He provided background indicating that the pilot wanted to perform there.

Mr. Davis did not know when the pilot flew into SUA, but added that his mother was planning to attend the airshow.

On the accident day, he interacted with the pilot between 1000 and 1015 in the pilot's hospitality tent. He detected normal speech and no physical issues. He was in a "super demeanor." He said he was happy to be here and they talked about the Strikemaster.

The pilot's car was at SUA. Inside of it was Mohawk Airshows garb, medical supplies, and medical tubing. Also inside the car was a spare tire for the airplane. His brother took possession of the car.

Mr. Davis was asked where the maintenance records were located. He advised that his brother would know.

The digest was reviewed with him during the interview and he agreed with the content.



RECORD OF CONVERSATION

Timothy W. Monville
Sr. Air Safety Investigator
Eastern Region

Date: November 4, 2019
Person Contacted: Ray Oostdyk
NTSB Accident Number: ERA20FA027

Narrative:

Mr. Ray Oostdyk of Missionary Flights and Services, Inc., was interviewed at their facility at Treasure Coast International Airport, Fort Pierce, Florida, on November 4, 2019, at 1721 EST. His work phone and e-mail address were not recorded.

He was advised that N500MF, owned and operated by them, was fueled from the same fuel truck and I wanted to confirm if there were any fuel related issues. He confirmed that 100 gallons of fuel were added; 50 gallons were added into each front auxiliary fuel tank, which automatically feeds to the main tanks.

The airplane was fueled on November 1st, and when they arrived to the airplane on November 3rd, they sumped the fuel tanks including the front auxiliary tank and no water was found. That same day he flew from Witham Field (SUA) to Treasure Coast International Airport (FPR), Fort Pierce, Florida. The flight duration was about 12 minutes, and there were no issues with the airplane related to fuel. The flight burned 268 pounds of fuel.

The digest was reviewed with him during the interview and he agreed with the content.