



RECORD OF CONVERSATION

Joshua Lindberg
Air Safety Investigator
Central Region

Date: September 21, 2016, 1430-1500 CDT
Person Contacted: Joshua Jones - Pilot
NTSB Accident Number: CEN16FA372

Narrative: In a telephone conversation with Mr. Jones, he stated the following:

- He got a normal night sleep on the night of the 15th, morning of the 16th and had a 2 hour nap around 1400 on the 16th
- He received a call about 0030 CDT for a flight request somewhere west of Alexandria. He told them he would have to make an IFR flight into AXN. The requestor declined the flight.
- He was barely asleep when another phone call came in about 0100
- The phone call around 0100 was for a request into AXN
- He has previously flown to AXN in instrument conditions (a few times)
- The weather and fast forming clouds were typical
- He checked the weather again and the ceiling was 500 ft with 2 miles visibility at AXN. Based on that weather he did not need to file an alternate airport.
- He accepted that flight and filed a flight plan with Foreflight
- He knew the crew members and had flown with them before
- In the helicopter he completed engine run and the instrument checks
- He made a CTAF call at BRD and then air taxied to runway 34
- He received a clearance on the ground from MSP Center (ATC). Cleared direct to AXN at 4,000 ft
- He completed an instrument departure from runway 34 at BRD and made a turn to go direct to AXN
- During the climb to 4,000 ft he called MSP center 2 times. On the 2nd time Center responded.
- He gave an ETE to his dispatch center
- He could see Alexandria from far away, around Little Falls, MN (LXL)
- Based on the weather en route, it looked like they could make it to the hospital and wouldn't need an ambulance to meet them at AXN
- Center reported they lost him on radar and he acknowledged and stated he was level at 4,000 ft

- About 20 miles away from AXN he could see the clouds forming quickly underneath him
- He requested to fly to a fix that was lined up with the final approach course for runway 22
- Center cleared him to fly the RNAV GPS 22 approach to AXN
- He started the GPS 22 approach and got the AXN ATIS information
- About 10 miles from AXN he made an advisory call to the AXN CTAF
- During the approach clouds were forming beneath him
- When he reached AXN he decided to go missed approach and hit the "Go Around" button
- He expected the helicopter to climb straight out
- He noticed the torque gauge was within the climb range
- The helicopter made an unexpected hard left bank so he applied opposite cyclic to counteract the bank.
- The helicopter then made a right bank. He was manipulating the flight controls to counteract the left and right bank.
- During the unexpected left and right bank he told the crew "I'm working on it" but doesn't remember what the crew asked him to prompt that response.
- He never felt concerned at any point until the unexpected bank
- He practices go around procedures during check rides and during training flights
- He doesn't remember anything more about the flight

End of conversation.

September 26, 2016

Mr. Joshua Lindberg
National Safety and Transportation Board
Investigator in Charge
[REDACTED]

Re: Joshua Jones's Statement to Supplement NTSB Form 6120.1/2

I received a flight request around 1:00 am local time. I checked weather at the originating airport, BRD, and ceiling was at 500 feet. Ceilings at Alexandria were high enough that I recall not needing an alternate. I filed on foreflight.

I air taxied to runway 34 for departure. I then departed runway 34 with a direct flight to Alexandria (AXN) at 4000 feet.

With Alexandria in sight, I was contacted via radio that the better destination would be the hospital rather than AXN. It was determined that AXN would ultimately be our destination, so I continued IFR approach into AXN.

At this point, visibility got worse. I tuned into ATIS while continuing IFR approach.

Due to the low visibility, I initiated a missed approach. I pressed the "Go Around" switch and had approximately 100% power applied.

The aircraft made an unexpected and quick 45 degree left bank. I applied right cyclic. There was a sharp right bank.

I do not remember descending or any part of the crash. The last thing I remember was saying "I am working on it." I believe I was saying this to the aircrew over intercom.

Respectfully submitted,

/s/ Joshua Jones

October 4, 2016

Mr. Joshua Lindberg
National Safety and Transportation Board
Investigator in Charge
[REDACTED]

Re: Responses to Investigator Lindberg's Questions of Sept. 27, 2016

Q: What was the weather like during the approach and go around?

A: To my memory when I checked ASOS at some point during the approach it said something like SCT 004 with good visibility. At the MAP it was below the landing minima and I did not break out.

Q: At what point did you decide to go around?

A: At the MAP at the MDA

Q: What made you go around?

A: Unable to land an approach under the FAR requirements for visibility. I did not have the landing environment in sight.

Q: At what altitude did you go around?

A: The LNAV MDA (1840' MSL) As I recall I used 420' on the EFIS RADALT bug for my height warning, but flew the approach to 1840' on the barometric altimeter.

Q: On the RNAV GPS RWY 22 approach, which category Decision Altitude (DA) were you using? (plate attached)

A: LNAV MDA (1840' MSL)

Q: How long after you hit the go around button did you notice the left bank?

A: I cannot say with any certainty, but my impression was that it was quite quickly.

Q: Did you feel anything wrong with the helicopter during the first left bank?

A: No.

Q: When you manipulated the flight controls to counteract the left and right bank, how hard was it to manipulate the controls?

A: I do not recall any difference from normal. There was no indication of abnormality to my recollection.

Lindberg Joshua

From: Joshua Jones [REDACTED]
Sent: Monday, April 24, 2017 11:12 AM
To: Lindberg Joshua
Subject: RE: CEN16FA372 additional questions for pilot

Good morning Josh,

I missed this email, then inadvertently sent it to drafts. I apologize, but anyway here are my best answers. I would also be happy to discuss via the phone if you need any clarification.

Answers are imbedded in red.

Very respectfully,

Joshua

Joshua H. Jones
Director of Operations
North Air Care
[REDACTED]

From: Lindberg Joshua [[mailto:\[REDACTED\]](#)]
Sent: Thursday, April 20, 2017 3:52 PM
To: Joshua Jones
Subject: RE: CEN16FA372 additional questions for pilot
Importance: High

Joshua,

I didn't see a reply for these questions. Could you provide?

We are doing a flight control / auto-pilot examination on Monday so I would like to have your responses before then.

Thank you,

Josh Lindberg
Air Safety Investigator
National Transportation Safety Board
[REDACTED]

From: Lindberg Joshua
Sent: Wednesday, March 29, 2017 1:11 PM
To: Joshua Jones <[REDACTED]>
Subject: RE: CEN16FA372 additional questions for pilot

Joshua,

Some follow-up to our conversation. I understand with the FD in Go Around Mode the pilot pushes the GA button on the collective, which puts the helicopter in a 70kt attitude with wings level.

With the roll steering selected, what is the procedure for the pilot to follow for Go-Around? **Varies slightly with pilot technique, but here is what is typical and I do. The go around mode works the same regardless of the roll-steering selection. It sets a wings level, 70kt attitude with 750 fpm climb rate if the command bar for the collective is satisfied. Some pilots use VSI hold instead of AS hold on climb out after they get established on the go around. As we are on the approach, we have the heading bug slewed to the current heading. Then it is set to the runway heading with wind drift correction applied.**

1. Does the pilot select a new heading (or waypoint) on the GNS500W and then engage HDG? **The heading bug is typically set when on the approach (FAF inbound). The GPS is suspended at the MAP until the pilot sequences it.**
2. Or does the pilot have pre-selected a go-around heading (or waypoint) on the GNS500W prior to takeoff and then when HDG was pressed it would send the Helipilot commands to go to the new heading?
3. Or, should the pilot de-select the GPS and then select a new heading (or waypoint) on the GNS500W and then engage HDG?
4. Other??

Here is the normal technique and what I use:

On approach, heading bug set to current heading to give a straight departure with wind drift correction applied.

At MAP, press the "go around" button on the collective and pull in power to at least satisfy the command bar on the EFIS (I typically use 85-90 %Q to give a better climb rate). The aircraft will then maintain wings level and set a 70 kt attitude; it will climb out at greater than 750 fpm.

As the airspeed reduces to approximately 80 kts, I select Airspeed hold and HDG hold with the Roll Steering adapter set in the "HDG" mode.

Upon reaching the altitude for a turn on the missed approach, I sequence the GPS, and select "heading hold" with the roll steering adapter in the "GPS Steer" mode.

At the missed approach level off altitude, I select "Altitude hold" and continue to the holding point.

Thanks,

Josh Lindberg
Air Safety Investigator
National Transportation Safety Board

From: Joshua Jones [mailto: [REDACTED]]
Sent: Monday, March 27, 2017 10:33 AM
To: Lindberg Joshua < [REDACTED]>

Cc: Michael Slapnicher [REDACTED]
Subject: RE: CEN16FA372 additional questions for J.Jones

Good morning Mr. Lindberg,

I am including answers to the questions below embedded into the text. I've put my answers in red. Please let me know if I can be of any assistance. One caveat, My memory is fuzzy due to the trauma, but more so from the ketamine that I was given moments after the accident.

Thank you.

Very respectfully,

Joshua

Joshua H. Jones
Director of Operations
North Air Care
[REDACTED]

From: Lindberg Joshua [mailto:[REDACTED]]
Sent: Wednesday, March 22, 2017 4:22 PM
To: Joshua Jones
Cc: Michael Slapnicher
Subject: CEN16FA372 additional questions for J.Jones
Importance: High

Joshua and Michael,

Our systems engineers are looking further into the flight controls and autopilot. Could you provide answers to their questions? Thank you for the help!

1. Questions for Joshua:
 - a. In what configuration or mode was the helicopter established during the approach? I.E.: Was he set up in "coupled mode" with the GNS providing guidance to the Flight Director? **During the approach, I was coupled to the flight director in the "heading" mode of the flight director and had the "GPS Steer" selected on the roll steering adapter.** Thus, the pilot was hands off during the approach up until the Go-Around mode? **I was "hands off" during the approach.** Or, was he in a SAS mode whereby he was hand flying the approach following guidance from the GNS through the FD for commands? It would be good to know what the pilot remembers about his setup for approach as well as what the pilot operating handbook and operating procedures recommend (and down to what altitude).
 - b. Was the pilot hands off during the Go-Around mode except for his control over the collective? I.E.: The helicopter was in Attitude Hold mode and he was hands off during the go around until the helo made an unexpected banking maneuver? **The Flight Director was in the "Go Around" Mode selected via the button on the collective. That would put the aircraft in a 70kt attitude with wings level.**
 - c. After he "hit" the Go-Around button, did the pilot press the "HDG" button at any time to re-engage the heading mode? **I do not think that I selected the "HDG" mode of the flight director. I think it was still in the "Go Around" Mode. I have no distinct memory one way or the other. I think I was waiting for 80 kts then I was going to select "Airspeed" mode and "Heading" mode of the flight director and leave the direction to the heading bug.**
 - d. The pilot stated: *"The aircraft made an unexpected and quick 45 degree left bank"* Could we ask the pilot to describe the unexpected bank in greater detail? i.e. does quick mean less than a second, one to two

seconds, greater than two? How was the 45 degree determined? I don't remember the rate. As I recall, I felt the roll and then looked up to verify the bank on both the EFIS and the backup attitude indicator.

- e. During the phone interview, the pilot indicated: *"The helicopter made an uncommanded hard left bank so he applied opposite cyclic to counteract the bank. The helicopter then made a right bank. He was manipulating the flight control to counteract the left and right bank."* Could we ask the pilot to describe this in greater detail? I don't remember much more than that. I think I remember using the cyclic to override the flight director and the overbanked to the right as I attempted to get out of the unusual attitude at the MDA.

2. Additional Questions for Joshua and Michael:

- a. In the NM Air Care Pilot Training Manual there are several places where the pilot is trained for IMC approaches. Are there any written guidelines for how the pilot are supposed to fly an approach (step by step)? More specifically... Can we find what the actual procedure any NM pilot should perform for the go around when using GPS instead of heading from the HSI? We are still researching, but have found nothing of note.

Best,

Josh Lindberg

Air Safety Investigator

National Transportation Safety Board



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