

Aguilera Jason

From: Douglas Hensley [REDACTED]
Sent: Monday, June 23, 2014 9:20 PM
To: Lance Hofmann; Craig Richardson; Andy Faletto
Cc: Marcus Edwards
Subject: Narrative for N407EM accident 6-23-2014

We were flying from McCurtain County Hospital in Idabel Oklahoma enroute to Christus St. Michael's Hospital in Texarkana Texas after picking up a patient. The weather at KTXK was reporting 9 miles visibility and few clouds at 3500 feet winds generally out of the west-southwest. We were flying at an approximate 1000 AGL and on a 125 degree magnetic heading in VMC. No flight plan was filed in the national airspace system but was given to the EagleMed communication center prior to take-off from McCurtain County Hospital

The aircraft was at approximately 4638 lbs aircraft gross weight with approximately 55 percent fuel remaining at the beginning of the engine malfunction. During straight and level cruise flight, rotor RPM rapidly increased up to approximately 415 RPM with N2 needles joined and aural high rotor (pulsing) tone alerting. Simultaneously, T4 was in yellow arc at approximately 875 degrees Celsius.

To confirm diagnosis of malfunction, I tried lowering collective which resulted in an increase and slight split of rotor and N2 needles with what I think was the N2 higher than Rotor RPM. I returned collective to previous position which brought rotor RPM down slightly. Rotor RPM still remained higher than normal operating ranges. I then attempted to control rotor rpm with throttle which was not as effective as I felt comfortable manipulating for safe flight. I assessed that an autorotation to the farm field was the safest course of action. I informed the crew that "We have an engine over-speed and I have to autorotate"

I then activated the ELT from the console mounted switch and activated the emergency button on the Sat-Comm. I then brought the throttle back to off and entered autorotation at approximately 80 knots

Airspeed bled as I entered autorotation until I was able to maintain approximately 63 knots during autorotation with Rotor RPM dropping to approximately 350 to 355 rpm with the alert of the low rotor aural warning and executed a right turn with full down collective to recover RPM and set up for flare. The flare was executed at approximately 50 feet AGL and added collective to cushion with increased rotor pitch which bled rotor RPM below 360 causing the alert of low rotor aural warning.

As skids touched the ground the aircraft started a short ground run. The aircraft rocked forward on the forward portion aircraft's skids (skid toes) as tail rotor authority simultaneously decreased. I felt feedback in the controls as the main rotor struck the tail boom and the aircraft listed to the left (port) and came to rest.

I then pulled the full cut-off lever and stopped the rotor utilizing the rotor-brake and completed the emergency shutdown sequence.

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Our altitude was approximately 1500 feet. I heard the horn go off two or three times at the same time I could feel extreme vibrations. Everything stopped for a few seconds. The pilot said we are in an emergency and will auto rotate down. Pilot said to hit the emergency button. I leaned over and hit the emergency button. The horn started going off again with extreme vibrations. Then silence and the helicopter seem to just float to the ground. When the helicopter hit the ground it felt like it sled a little. I felt the helicopter turn slightly to the left then straightened up. The nose went down and we came to an abrupt stop. The blades were stopped we could see one of them at the nose of the helicopter. The pilot got out and we followed him to the front of the helicopter. The pilot visually assessed the helicopter said it was safe, so the Medic and I returned to assess the patient.

[REDACTED]

ON 06/23/2014 AT 1319 HOURS, I MIKE LANGFORD LIFTED OFF FROM THE MCCURTAIN MEMORIAL HOSPITAL HELIPAD WITH ONE PATIENT AND OUR REMAINING CREW CONSISTING OF PILOT DOUG HENSLEY AND NURSE BETTY BAILEY. THE DEPARTURE AND INITIAL IN FLIGHT TRANSPORT SEEMED TO BE PROGRESSING WITHOUT INCIDENT. AT APPROXIMATELY 10 MINUTES OUT A PATIENT REPORT WAS CALLED TO THE RECEIVING FACILITY BY BETTY BAILEY. OUR LOCATION AT THE TIME OF THE REPORT WAS SOMEWHERE JUST NW OF TEXARKANA AT AN APPROXIMATE ALTITUDE OF 1000 TO 1200 FT. AT APPROXIMATELY 1345 HOURS AND 5 MINUTES OUT FROM LANDING AT ST MICHAELS HOSPITAL, THE AIRCRAFT BEGAN TO SHAKE VERY NOTICEABLY. I ALSO HEARD THE AIRCRAFT MAKE WHAT APPEARED TO BE A HIGH PITCH SOUND FROM ABOVE US. I NOTICED THE PILOT REACH FOR THE COLLECTIVE. I NOTED THE SHAKING OF THE AIRCRAFT TO RESOLVE FOR JUST A FEW SECONDS WHEN IT BEGAN TO VIBRATE VERY NOTICEABLY AGAIN. I AGAIN HEARD THE AIRCRAFT MAKE AN ABNORMAL HIGHER PITCH SOUND. AT THAT TIME, THE PILOT ASKED THE CREW TO CONFIRM THAT ALL OF OUR RESTRAINTS WERE SECURE AND TO PUSH THE EMERGENCY BUTTON. HE STATED THAT WE WERE GOING TO HAVE TO DO AN AUTO ROTATION. I ALSO NOTED A HORN OR BUZZING TYPE WARNING COMING FROM WITHIN THE AIRCRAFT JUST BEFORE AUTO ROTATION. I, MYSELF, ALONG WITH BETTY BAILEY PREPARED FOR AN EMERGENCY LANDING. I ALSO CHECKED AND CONFIRMED THAT THE PATIENT WAS SECURED. VERY SHORTLY THEREAFTER, I NOTED THAT THE AIRCRAFT BECAME QUIET WITH RESOLVEMENT OF ALL VIBRATIONS AND NOISES. THE TRANSITION TO THE AUTO ROTATION WAS SMOOTH AS WAS THE DESCENT. I NOTED THE PROBABLE LOCATION OF TOUCH DOWN WAS GOING TO BE IN AN OPEN FARM FIELD JUST IN FRONT OF US. AS WE NEARED CONTACT WITH THE GROUND, IT APPEARED THAT THE PILOT LIFTED THE NOSE OF THE AIRCRAFT IN PREPARATION FOR LANDING. THE SKIDS OF THE AIRCRAFT HIT THE GROUND AND APPEARED TO SKIP FORWARD AND WITH THE TAIL MOVING SLIGHTLY LEFT. IT APPEARED THAT WE MADE A SECOND CONTACT, FIRMLY WITH THE GROUND. THE AIRCRAFT SEEMED TO NOSE DOWN SHARPLY INTO THE SOIL AND THEN ROTATED BACK ONTO THE SKIDS IN AN UPRIGHT POSITION. I NOTED THAT THE OVERHEAD ROTORS HAD STOPPED ALONG WITH ALL AIRCRAFT MOVEMENT. THE PILOT EXITED THE AIRCRAFT AND WALKED TO THE FRONT. HE STATED THAT IT WAS SAFE TO EXIT. BETTY AND I EXITED THE AIRCRAFT WITHOUT INCIDENT AND CONTINUED ASSESSMENT AND CARE OF THE PATIENT. END OF REPORT!