

To whom it may concern:

July 19, 2022

Subject: Witness statement to hard landing/incident of N160TH, BO-105CBS-4
Helicopter on June 30, 2022, 06:42 hours

As shown in the attached video, I was standing in front of the helicopter (N160TH) as it was preparing for Takeoff on a ferry flight to Tarkio, Missouri. The Aircraft was fully loaded with fuel to include 150 gallons of Jet fuel in the main tank plus additional 52 Gallons in the Auxiliary fuel tank totaling 202 gallons along with the Pilot, Mechanic and the pilot's wife who was on the beach seat directly behind the co-pilot's seat and an additional 250+ pounds of baggage. Post incident weight was determined to be 5361 pounds approximately. A/C allowable gross weight is 5500 lbs.

As a direct witness standing directly in front of the aircraft, 15 feet in front of it, I saw that immediately during initial lift off from the helipad, the helicopter, began a rapid swing to the right (clockwise, from pilot's view) without hesitation. The helicopter after spinning 180 degrees swung around and the tail boom came in contact and hit a golf cart, which completely stopped the rotation of the helicopter on impact. Pilot then dropped the collective only to find out that the left skid was still over or on top of the helipad (18 inches above the ground) and the right skid had hit the ground and the belly came in contact with the helipad (see photo – 5). So, pilot lifted the helicopter back up again, high enough to clear the helipad and it swung counterclockwise (opposite direction) for approx. 270 degrees and then the pilot lowered the collective so rapidly that it hit the ground hard, while still spinning counterclockwise motion (see photo – 1 & 2), ending up a 360-degree slide/spin the opposite direction on which it initially started. See attached photo's & video for clarification.

Post hard landing inspection revealed, that the Aft Right Cross Tube had been impacted and jammed into the belly section approx.. 6 inches and bent lower vertically (see photo – 3) and had come into direct contact with Tail Rotor push pull control tube and crushed the tail rotor pitch control tube (see photo – 4), which jammed the pedals locked after the second and final hard landing.

The entire incident took a total of 7 seconds from the initial lift off, until the final hard landing had taken place.



N160THVideo.MOV



Note the “Skid Marks” on the ground indicating counterclockwise spin from having too much left pedal control input when ground contact was made.

PHOTO - 1



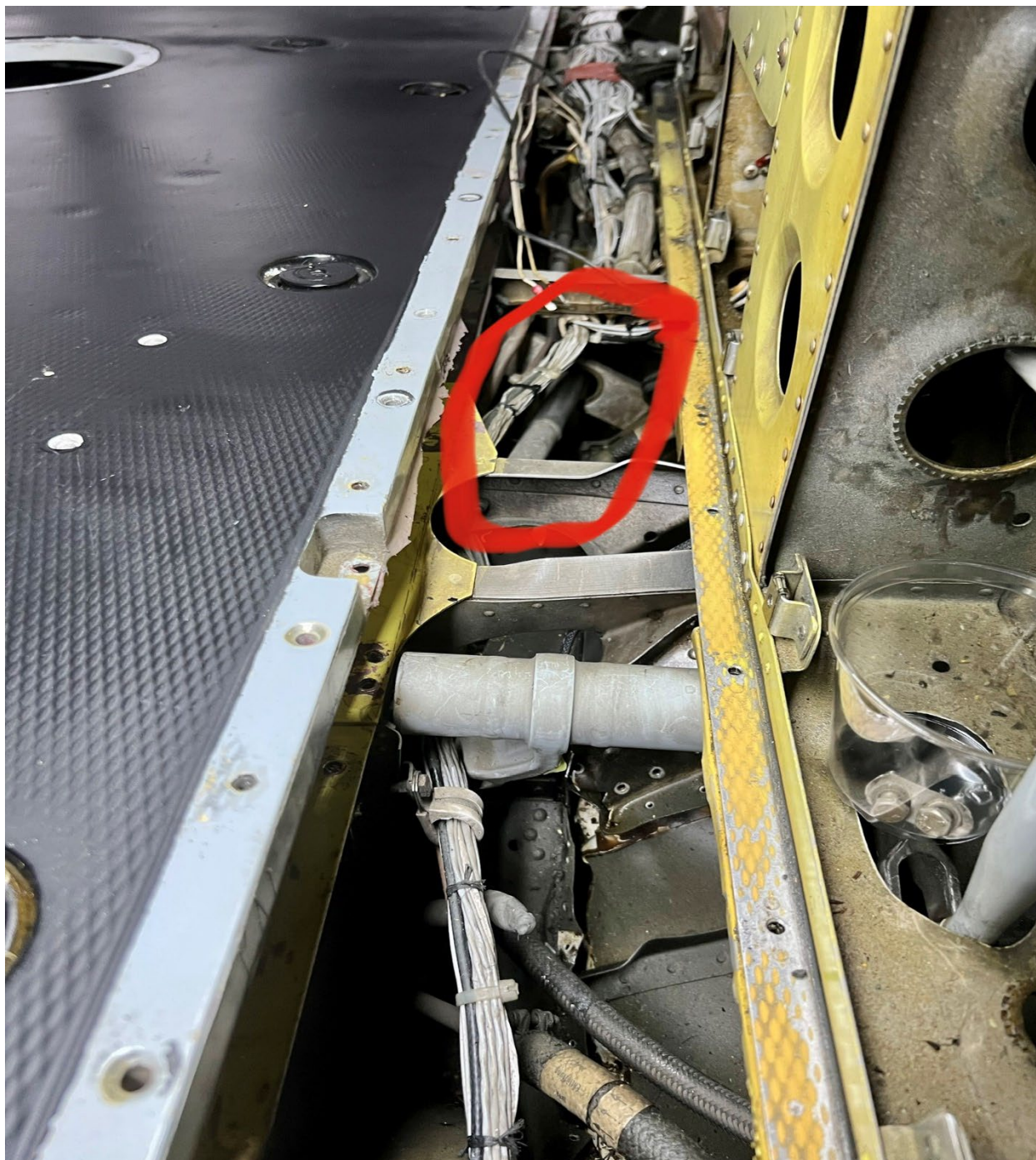
Skid Marks showing direction of spin

PHOTO - 2



Right Rear Aft Cross Tube damage

PHOTO – 3



In the Red Circle showing the Tail Rotor push pull control tube bent and jammed by the aft cross tube.

PHOTO – 4



PHOTO - 5





Note the ground scratching from skids, which is indication of a left pedal control input in a counterclockwise rotation/spin.

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