



MEMORANDUM FOR RECORD

Fabian Salazar

Air Safety Investigator

National Transportation Safety Board

Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR19FA091

Aircraft Registration & Make/Model: Bell UH-1B

Accident Location: Forks, WA.

Accident Date: March 8, 2019

Interview #1 Summary

Michael David McCartney

A & P Mechanic, for Eagle Iron Helicopters

Interview date and time: March 9, 2019

Mike said he and the pilot did the pre-flight inspection together. They had removed the blade covers and a tarp over the engine area due to the need to fly without the engine cowlings. They placed a space heater inside the helicopter and then conducted a walk-around inspection. He said the pilot took off and he went inside the trailer, but turned around to watch the long-line and make sure it is not tangled. He watched and noticed the departure from the area was normal. He said that “everything was absolutely normal” He said he set the clock on the microwave and noted that the pilot took off at 0659. The mechanic then went out to his truck to get his coffee cup and when he walked back inside the trailer he heard “Going down, going down, going d...!” He said that was all that happened in the 45 minutes that he had been at the site. He had arrived at 0615 and did some preparation work. He said it was the normal routine and what they did every morning from the start of the contract in September 27, 2019.

The mechanic said the long-line that was being used was 180'. The frequency they were using was 151.5050. When asked about maintenance he said they have a checklist that spells out the requirements such as 25-hour, 50-hour and 75-hour inspections. He said they go by that, but between his brother and him, they have over 100 years of experience working on Huey's and they pretty well know what to look at.

When asked about the helicopter, he said it was kind of a weird one because it has the high tank. When the IIC mentioned he used to fly UH-1M's the mechanic said it was a Mike model airframe. He said the helicopter had two batteries in the nose of the helicopter. He said the nose door was broken and they had ordered another one. They were using the old door and had to safety wire it down. The maintenance manuals used on the helicopter were military Technical Manuals (TM's). He said the helicopter did not have a hydraulic accumulator. It had an H-model rotor system, and a 2-foot tail boom extension.

When asked about the grapple, he said He said the hydraulic pump was quilled off of the rotor brake quill on the transmission. The hydraulics only pressurize when the aircraft is running. Note: The hydraulic lines remained pressurized due to check valves installed at the end of the hydraulic lines.

In a follow up interview conducted on January 21, 2020, Mr. McCartney stated that it was the pilot's responsibility to record the engine cycles accrued from a flight. He stated that the pilot would use the cycle-counter and place the information on the daily logs. Mr. McCartney said that the pilot had that responsibility and not the mechanic. He said that the engine was running great and they had not had any problems with the engine.

Mr. McCartney stated that the logs were cut logs at an estimate weight and the goal was to carry about 3000 pounds per lift. When asked about the pilot's ability to move 30 logs per hour, Mr. McCartney stated that he was able to move 30 logs per hour. He said sometimes he would move more than one per turn. He stated that they would only use a guy on the ground when it was needed, and they had no plan to use a ground guy on the day of the accident. He said they would only bring in someone if the area had a lot of cover and the logs were difficult to see.

When asked about the cargo hook release and checking its operation daily, he stated that he did not check the cargo hook on the day of the accident but did check it the day before.

Fabian Salazar
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR19FA091
Aircraft Registration & Make/Model: Bell UH-1B
Accident Location: Forks, WA.
Accident Date: March 8, 2019

Interview #2 Summary

Brent Lithgow

Part-Time Pilot, for Eagle Iron Helicopters

Interview date and time: March 9, 2019

This interview was conducted over the phone. Mr. Lithgow was in Australia at the time. He has about 100 hours of “Grapple Logging” (GL) experience. He was being trained by the accident pilot. GL only requires one person to be on the ground to support the helicopter. Choker logging requires about four. First trees are cut to size for the helicopter. The ground guy walks the forest and prioritizes the trees for pickup. He will also tell you which ones not to pick up due to other logs laying on top of them. The ground guy can see things the pilot cannot see. He can guide the grapple down but does not manipulate the grapple in any way. GL is not that easy, and it is not for everybody. He said, “It’s actually bloody difficult”. He said the jaws of the grapple are manipulated by the coolie hat switch on the cyclic control stick. There is a scale on the door that gives you the weight of the log. The helicopter can lift up 4000 pounds, but fuel has to be taken into consideration as this relates to max gross weight of the helicopter. This long line was 180’. He said the helicopter is usually about 40 to 50 feet above the trees.

With regards to limits of the helicopter he said that the weight of the logs is important so they try to get nothing more than 2500-pound logs and as fuel burns off, they can lift heavier ones. The max weight that can be lifted include the fuel on board. At the end of the cycle, you can lift close to 3500-pounds.

When asked about picking up logs with other logs laying on top of it, he said if you pick up one log and another one is on top of it, then you just put it down and go for the one that was holding it down. When asked if you can pull a log out from under another, he said you could do that if the log was towards the end of the other log, but you wouldn’t do it if the top log was located near the middle of the other log. When ask if the grapple could get stuck, he said that they are pretty careful with it and it has never happened to him. They also have to look after the

lines (hydraulic and blue line). He said they need to be careful to not rip out the hydraulic lines. He said the helicopter had a bubble window and they are always keeping sight of the grapple. Getting back to the guy on the ground, he said it is common for the helicopter to pull a few easy logs before the guy on the ground gets up on the hill. Also, at the end of the day he may go down and the helicopter can pick up some easy ones. He said there are plenty of easy ones that don't need the guy on the ground. The guy on the ground has a hand-held radio to communicate with the pilot.

Emergency Procedures.

When asked about emergencies, he said that when you have a problem, you just punch the load. He said that there are few situations when you would not punch off the load. He said in a situation like an engine failure, the first thing he would do would be lower the collective and the next thing he would be thinking of was getting rid of the load. He confirmed there were two methods to jettison the load, the button on the cyclic and the manual foot release. He said the button is the quickest. He said that during landings they normally do not release the line, they weave it to the side and do not land on the lines. They leave the system connected after the end of the day. They do not normally release the load using the button of pedal. They just land, push the button and then pull the hydraulic lines. He said that all you do is give the hydraulic lines a firm tug and they come off.

When asked if you can drag a log, he said you could drag it a little as it comes up and you can drag it to another small log and put them together.

When asked if you could get yourself into trouble if you got too far left or right from the log, as if you could roll over the helicopter, he said that it wasn't really a possibility due to the length of line. He said you would have to go way out and way out to be comfortable. He didn't think it would be possible for that length of line. He thought it would be more likely to happen if you were using a short line.

When asked about the pilot, he stated that he was the best at GL. He thought the pilot could outperform most other guys in logging. He thought he was an all-around good guy. He said at the end of the day the pilot made sure maintenance was taken care of and that everything was ready for the next day. He lived on site at this job. He said the pilot knew the helicopter better than anyone. He thought the last time he flew with the accident pilot was in January.

In an email dated March 9, 2020, Mr. Lithgow stated that he assumed the mechanics tracked the information from the cycle counter, and that he had never tracked that information for any operator he had worked with and it was the same for the accident operator.

In an email dated January 27, 2020, he stated that he was unfamiliar with the red reset button found on the AKV cycle counter.

In an email dated April 30, 2019, he stated that 29 lifts per hour would be correct.

Fabian Salazar
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR19FA091

Aircraft Registration & Make/Model: Bell UH-1B

Accident Location: Forks, WA.

Accident Date: March 8, 2019

Interview #3 Summary

Dennis M. Wheeler

Truck Loader/Operator

and

Lance Conner

Project Manager

Mr. Wheeler stated he was in a loader and filling out a load ticket. He heard the “I’m going down, I’m going down I’m going d...” call over the shop communications radio. He said Mike asked him “what in the hell did I just hear?” Dennis and Mike called Lance and told him they had lost contact with Josh. The three decided to go check the emergency landing zones. Dennis went to one, Derrick Willet went to another, and Mike and Terry Pennix went to a third. After learning that the helicopter was not at any of the landing sites, Terry hiked up to the place the helicopter was supposed to be working and discovered the wreckage. Terry radioed to tell Lance what he discovered, and Lance called 911 to report the accident. Lance then started to hike up to the site, only to get half-way up and had to turn back to talk to the Sheriff Deputy.

Fabian Salazar

Air Safety Investigator

National Transportation Safety Board

Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR19FA091

Aircraft Registration & Make/Model: Bell UH-1B

Accident Location: Forks, WA.

Accident Date: March 8, 2019

Interview #4 Summary

Derrick Willett

Processor Operator

Derrick stated that he was running the processor and did not hear the helicopter take off, but he did hear the “I’m going down, I’m going down, I’m going down!” radio call. He went to check out a landing site that was above the maintenance site. He got near that site and was called back to the service site. He hiked up to the sight a second time and took Dennis with him. He made it to the site and then heard that Terry had discovered the wreckage at a different location. He said that he did not go to the accident site.

Fabian Salazar
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR19FA091
Aircraft Registration & Make/Model: Bell UH-1B
Accident Location: Forks, WA.
Accident Date: March 8, 2019

Interview #5

Jeff Winner

North West Helicopters Director of Maintenance

From a telephone conversation transmitted to Party members in an email.

Gentlemen,

I spoke with Mr. Jeff Winner, North West Helicopter, Director of Maintenance. He explained to me that you may see as many as 6.5 partial cycles per hour.

His explanation addressed the following:

1. The “greater than 10% N1” rule of the Service Bulletin and how those events are quantified.
2. Logging operations can easily see 2 each greater than 10% events in a logging run. He stated pilots will increase power to take off, lower power to get the log, then increase power to pick up a log; then basically enter an autorotative profile to descend quickly, and finally increase the power to arrest the descent prior to dropping off the log.
3. The 30 logs moved per hour is not uncommon

When asked about old wire and electrical noise causing errors in the cycle counter, he stated that they have installed many of the cycle counters and, to date, he can only recall one instance of a unit providing erroneous data.