Attachment 17. Check Pilot Transcript

DCA12MA020 Maintenance Factual Report

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Investigation of:	*	
	*	
SUNDANCE HELICOPTER ACCIDENT	*	Docket No.: DCA-12MA-020
NEAR LAS VEGAS, NEVADA	*	
	*	

Interview of: ANDRE VARGUS

Sundance Helicopters
5596 Haven Street
Las Vegas, Nevada

Saturday,
December 10, 2011

The above-captioned matter convened, pursuant to notice.

BEFORE: KRISTI DUNKS
Senior Air Safety Investigator

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I N T E R V I E W

MS. DUNKS: Okay.

MR. BRENNER: Um, yeah. We ran out of time yesterday.

Mr. VARGUS: Um-hum.

INTERVIEW OF ANDRE VARGUS

BY MR. BRENNER:

Q. Something about Landon.

A. Landon was the first person to give me a tour here at the company. When I was going through training -- it was a 3-week process. And he was -- you know, while I'm thinking of it, let me turn my phone to vibrate before it does go off. Okay. He was the first person to give me a tour, and about maybe 2 weeks into the training, I went out on a tour with Landon. And I could tell right away he was a pretty stand-up person, you know, a really good guy. He was talking to the passengers. He's very tour pilot type of -- you know, good attitude type thing going. And one thing in particular I remember was a joke he told. It wasn't necessarily a joke, but it was something he told the passengers. He says, "You know, all the pioneers and the prospectors and stuff when they were coming through here, they'd give a kiss to the sunset as they crossed from west to -- or east to west." So he says, "I'll have everybody go ahead and do that on three. One, two, three." And we all blew a kiss out to the sunset. And he looks over toward me -- and there's only him and I on the radio -- and he says, "You know, it's all a bunch of BS, but they don't

know the difference anyway. Ha-ha-ha," and starts laughing, all right. Then he had my, I'd say, trust and attention and, you know, I thought he was a great guy, a pretty standup person.

He was -- I don't know -- maybe if I could -- if I could say he was socially isolated. Not necessarily socially isolated. He was accepted in the group we have here, but I think maybe his strong religious beliefs and things like that, he just kind of didn't attend a lot of the outside functions at work and things like that. But he was a very good guy. Everybody was still very happy to work with Landon and things like that. But he seemed to be a very happy person. I know that, through the course of working here with him, he was married. He had bought a house, and we talked about kids and things like that. I've got two of my own. And so, we'd talk about things like that. And he seemed to be a very happy, cheerful person.

He -- Before showing up here, I've heard of a couple of things that were brought up as far as mistakes that he has made, but doesn't seem to be anything -- and I can't recall exactly what they were. Maybe like a way of landing on the ramp or maybe going off of routes, slightly off altitude, things like that, which seemed to be mistakes that every single pilot makes when they start here. I have made plenty of my own as a new person. And he seemed to -- I've heard of a couple of things, but around me, flying around him for almost 2 years, I've never seen anything questionable. I've never seen anything dangerous. I've never

seen anything outside of the normal, as far as operation goes, with Landon.

Q. How many years did you fly?

A. For 2 years, as the schedule goes, we aren't really set with other folks on the flights or on specific aircraft or anything like that. I've flown around him a considerable amount -- the same I would with anybody else here, I would say, because the schedule moves around so much.

Q. Sure. But then you flew with him that once as he blew a kiss to the sunset.

A. Yeah. Right.

Q. (Indiscernible).

A. And it was absolute fun, oh, yes, absolutely fun. And with myself going through training and seeing -- you know, a guy as a turbine pilot. He was very good. He seemed to know what he was doing. I would say up until this last Wednesday, he had probably close to 2,000 hours or so in turbines, and he seemed to know what he was doing. He was always -- another thing to point out, I think, he was always a very helpful person, very aware of somebody in a bad situation. He was always very helpful. And he would -- He was the guy who would orbit at the end of Quartermaster Canyon to relay messages from the bottom of the canyon to the base and things like that. So, he was always a very helpful person.

Q. Um-hum.

A. Yeah.
Q. When did you last see him before the accident?
A. I saw him the day before the accident. He was -- I believe he was either finishing up a check-ride or he had just finished a check-ride and was going out on tours or something like that. But he was walking around the office here and I just said "hi" to him.
Q. What kind of a check-ride?
A. The annual check-ride. The annual check-rides that --
Q. Oh, he just received one?
A. Correct.
Q. Oh, okay. And how did he seem?
A. Fine. Absolutely fine.
Q. I told these folks -- this is our maintenance group. I told them about your morning check.
A. Um-hum.
Q. Do you mind walking through it again for them?
A Sure. Absolutely. I was scheduled to do a Maintenance Ops Flight on 3-7S that morning, the morning of the accident. And I went and went through the normal routine of looking through the logbook and finding out what was done on the aircraft. It was a normal 100-hour, but it also showed on there that it had an engine replacement and I believe it was the forward and right-hand servo replaced on the hydraulic servos. And so, in that case I had noticed it, but obviously there is -- maybe a little bit more

in-depth, a little something else I'd have to do with it.

So, I talked to Mike Flaherty, the Safety Director here, and asked him if there's anything else I might have to do with an engine replacement or a new engine or anything like that. He says yeah, he goes absolutely, he goes it's very -- it's dependent on whether there was a certain -- a module replaced, a brand new portion of the engine, or if the engine is brand new or was it just swapped out from another helicopter into this one. He says, "So, there's some more looking into it." He says, "Andre, you've got to find out what that was." He seemed pretty busy with morning ops and things like that that morning, so I went to maintenance. They said it was a rental or a lease engine and it was just swapped out from another bird. There was nothing new on the engine, so therefore, it was a regular maintenance ops check just like we would normally do on a normal running aircraft here.

So, I went ahead and proceeded with the preflight. The preflight revealed that the belt for the hydraulic pump needed to be tightened. I noticed it was loose by spinning the pulley of the pump by itself. And it would not turn the blades at all; it would just spin. So, that was tightened up by one of the mechanics. And -- I had mentioned this to Malcolm last night, and it was, I think -- it kind of proved the depth of the preflight was I found the batteries in the flashlight needed to be replaced and the window cleaner wasn't there. Those were the only two other things. Everything else checked out electronically and

mechanically. It seemed okay. So, after the belt was tightened, I went ahead and opened up the cowling, took a second look back in there to make sure there were no rags, no tools, or anything like that left in. Everything was buttoned up okay. And took the aircraft out on the flight. It was -- it passed its checks. Taking a few of the parameters of the engine and graphing it showed that it was on the correct side; passed the power check.

And I had a tour after that, after that Maintenance Ops Flight. So, I went ahead and finished the paperwork on the logbook, took one last look at the aircraft, a look-around, walked around it, make sure there's no oil underneath it, no oil on the engine deck or gearbox compartment, and did the next tour on the helicopter at 9:45 to a picnic, which includes a landing at the bottom of the canyon and a shutdown. And it seemed to be fine. Nothing outside of normal was noted. So, on my way back in, I called in to base and found out that there was another flight on it, and that was Landon's 1:30 picnic, which was also another landing in the Grand Canyon. But there was a significant gap in between my tour and the tour that Landon had to where we wouldn't see each other. The normal procedure is to leave the maintenance logbook on the pilot's seat and let the pilot find that when they get in the aircraft and go ahead and kind of turn over the aircraft to them. So, I didn't get to see Landon prior to his next tour, but left the aircraft there.

I went home. I was with the family for a little bit,

ate, and then came back for a later tour, which was my sunset tour, where I witnessed the smoke from the accident.

Q. I'm sorry. Did you describe the in-flight test?

A. Could I describe the in-flight test?

Q. Yes. Yes.

A. Yup. The -- What we use is a spreadsheet to list down the temperatures, pressures of the aircraft, the NG, T4, limitations. You guys are from Eurocopter, so you know. All right. Okay.

So, we do this in a hover. I went ahead and started the aircraft. There's a couple of checks that go with the checklist that we normally do everyday. And with the Maintenance Ops Check, they also require that we not only do these checks at ground idle, but also at flight idle as well for the hydraulics. So, I did those and picked up into a hover, noted my T4, my NG, and my torque limits, where the temperatures and pressures were on the engine and set back down, write those numbers down into the spreadsheet, picked back up, notified base that we were leaving for our 15-minute flight to the west, proceed off the ramp and contact tower.

And we do some more checks on the way out there. It was myself in the aircraft. I say "we," but it's myself. On the way out towards the west -- westbound departure we -- I write down the numbers at 3,000 feet and again those same numbers as far as the limits and -- temperatures and pressures and the T4, NG, and the

torque. At 3,000, we start a max performance climb up to 6,000, note any drooping of the rotor RPM or anything like that. And at 6,000, we take the numbers again for the power check and, again, temperatures and pressures. After that we call tower, let them know we're on to proceed inbound, slow down to 65 knots, enter an autorotation, notice if there's any climb or drop in the RPM at all, the engine stays alive, things like that. And then once we finish that check, while in the descent, go into a Vne type of situation, notice if there's any excessive vibration or anything like that. We note when the bleed valve flag opens and closes on the engine.

That's roughly about it. But it's quite a bit as far as a single pilot operation. You know, you are in there writing quite a bit. You're taking all these numbers down and things like that, really focusing on what the bird's doing. Then that's about it. We come in and park, let the crew know that -- and morning ops know that the aircraft is ready for flight and prep it for the next flight.

UNIDENITIFIED SPEAKER: Kristi, do you have any questions?

MS. DUNKS: Sure. I just have some --

UNIDENITIFIED SPEAKER: Um-hum.

MS DUNKS: Clarification.

BY MS. DUNKS:

Q. So, after the flight is completed, then do you sign a log somewhere?

A. Yes. Yes. The log is in there, yes. I use an example every time off of the board in the pilot room. I usually pull that off and let that -- I sit that right next to me, what references and things like that are made, and the entry is made. After that, put the book back in the aircraft, yeah.

Q. Okay. In the metal can?

A. Um-hum.

Q. And what happens to the numbers that you record?

A. On the spreadsheet -- we actually tuck that in behind the carbon copy of that logbook.

Q. Okay. Of the log page in the can?

A. Correct.

Q. So, it's in the can as well?

A. Um-hum.

Q. Okay. And just going back a little bit to when you were conducting your preflight. You also have a maintenance background, correct?

A. Correct.

Q. Okay. Can you just talk a little bit about that, what your maintenance experience is?

A. Yes. When I started flying helicopters in 2003, I applied for a company -- or to start training at a company that also needed a mechanic. And it was a real convenient thing for me to be able to do, be hired there as a mechanic and go through to do the flight training at the same time. And for myself, it was

all add-on ratings for helicopter, having gone through airplane prior to that. And I was sent off to the Robinson factory course in Torrance, California. And then, I was actually stationed here for -- in Las Vegas for, I'd say, about 2 months to undergo training with some of the maintenance crew here before I was released for maintenance back in Phoenix where I had started my training.

And from that point on, it was very in-depth with the Robinson product as far as in track and balances, even up to rebuilds, engine swapping, all sorts of different maintenance procedures. I was a lead mechanic there in Phoenix, and I would oversee -- I got to oversee maintenance at three locations in Arizona. And it was pretty in-depth. I would say it was very hands-on. I was always working on the aircraft I was flying from there after throughout my training. I've also worked for Premier Helicopters, Flight Trails Helicopters in Phoenix, and Phoenix Helicopters, and all working on mostly the Robinson product. I've also worked on several MD products, pre-buy inspections, and some hundred hours to (indiscernible) 600s -- MD-600's.

Q. Okay. Who is this company that you started with, the 2003 company?

A. Sorry. Silver State Helicopters.

Q. Okay. And -- Okay. So, your job was -- so they needed a pilot/mechanic, sounds like.

A. Correct.

Q. So, you had your fixed-wing ratings and you had your A&P already?

A. Um-hum.

Q. When did you get your A&P initially?

A. My A&P was initially -- it was in 2000, I want to say, it was issued.

Q. Okay. And had you used your A&P up until that time?

A. Very lightly. Very lightly on fixed-wing, but more in-depth on the rotor wing-side.

Q. And with aircraft, what are your aircraft ratings?

A. I was -- let the instructor expire, which was double-I in airplane and double-I in helicopter, airframe and power plant. And on the commercial pilot side, instrument, airplane, helicopter, and multi-engine airplane.

Q. Okay. You're good. And so, you were working with Silver State and they operated R22's and R44's; is that correct?

A. Um-hum.

Q. Okay. So, you were working on both those models?

A. Correct. Yes. And we eventually introduced a Schweizer -- one of the Schweizer models.

Q. Okay. And then when did you come to work here?

A. February 5th of 2010.

Q. Okay. And you were hired on as a pilot, what you're doing now?

A. Correct. Yeah.

Q. Okay.
A. I haven't worked as an active mechanic since.
Q. Okay. Okay.
A. Correct. Which has been kind of nice.
Q. Yeah, we prefer to fly them. Okay. And so do you have any experience working on Eurocopter products?
A. Not very, no, I don't. Not working on Eurocopter products, but I did explain yesterday that I've spent quite a bit of time in the maintenance hangar talking to a lot of mechanics. I like to figure out how things work and understand them. I felt very comfortable going through training and going through the preflight where we'd have to kind of do the "I'm a drop of oil" type of -- "and where do I go" type of scenario. I felt very comfortable with the systems on the aircraft, and I feel competent to be able to tell whether or not something is right or wrong, having looked at things mechanically since I was a kid.
Q. Okay.
A. So, yeah.
Q. Okay. And as far as your preflight the morning, can you talk about any hydraulic checks you did and then any checks on the tail rotor, and things like that?
A. Um-hum. Okay. As far as hydraulic checks between -- on the ground idle, between 68 to 70 percent NG. We normally check the hydraulics by testing the accumulators of the aircraft and performing a fore and aft motion four times. We should have four

motions, fore and aft, before the hydraulics start to lock up or become tight and four movements to either side, left and right, and that checked out just fine. Also the others, the hydraulic -- the isolation switch to cut off the servos, become a mechanical type of control. That also checked out. And then to do it again once in the flight gate -- so both of those checks were done.

As far as the tail rotor goes, prior to start, we make sure that the -- I want to say it's the yaw compensator for the tail rotor. We make sure that that's been pressurized and that the blades are pretty much at a flat pitch. But as far as preflight goes around the tail rotor, checking the half-shells on the tail rotor block, making sure that those are not cracked or anything like that and when they're moved, they have a smooth motion to them, that there's not any type of separation in there. Right.

Q. Okay. And how many check-flights have you performed since you've been here?

A. Oh, jeez. I would say, easily, 10 to 12 flight checks.

Q. Okay. And you said -- you talked a little bit about a check-ride in the flight manual that talks about the tests you need to perform and what's required. How is that matrix as far as making sense to you? I mean when you look at it as a pilot and you're talking to the mechanics about what maintenance was done, is it easy to interpret -- Not easy; I don't think that's the right word. But is the chart clear on what's required?

A. Yes. I would say it is for the most part. The hardest part, I would say, is maybe the French to English type of translation where in some cases, the wording might not make that much sense to somebody who's -- in English it just doesn't make as much sense. But that's probably the only hardest part. Other than that, yeah, pretty clear.

Q. Okay. And your flight itself, about how long was that in duration?

A. It was a .2 in duration.

Q. And would that be a typical length of time?

A. Yes, for a normal ops check.

Q. Okay. Based on the matrix?

A. Um-hum.

Q. What would you say the longest flight based on the matrix --

A. Oh, I've had up to about .9, almost an hour or a little over an hour, doing track and balance or something like that.

Q. Okay. And you talked a little bit about this when you said you were speaking with the Director of Safety about clarifying what was required.

A. Um-hum.

Q. So, the long -- so, when a module is replaced on that engine, then it requires a longer --

A. Correct.

Q. It requires additional checks, I should say.

A. Right. Correct.

Q. Okay. And so, in this case, because the engine was on a helicopter in service and just swapped to this helicopter, then it -- there weren't as many checks required?

A. Correct. And as far as those other checks are concerned, those type -- that detail I didn't reference at all because it wasn't required for (indiscernible).

Q. Okay. Just looking here to see if I had any additional questions. I guess the only other question I had, is this helicopter -- I see you'd flown it prior.

A. Um-hum.

Q. It's been around for awhile. How would you say it compares to the other helicopters as far as maintenance and problems and things like that?

A. I was given that question last night where there was a scale. Was it on a higher level as far as performing, very smooth, very well? On the lower end: was it shaky, was it, you know, questionable? Things like that. I'd say it's right smack dab in the middle along with a high percentage of the other helicopters.

Q. Okay.

A. Um-hum.

Q. And that's performance-wise, is what you're talking about?

A. Perfomance-wise, yeah, the feel, everything. Um-hum.

Q. Okay. And then how about maintenance on it? I mean is it a helicopter that's down a lot?

A. No, not necessarily. But I would say it's a helicopter that has -- I know one issue it has had before that was very alarming. It was near separation of the tail rotor -- I'm sorry -- of the vertical stabilizer, at which was caught prior to flight before. And I had seen it torn down in the hangar and things like that. Noticed it, but it was on that helicopter.

Q. What was the background behind that? What was the issue?

A. It was -- I'm not sure of the background, but I know what -- it was the -- where the attachment point was for the vertical stabilizer along the tail cone, that portion between -- there's two bolts there that the line started to pretty much separate right between those two bolts. It was -- I've heard that it was possibly another 20 minutes of flight or so and it would've separated from the aircraft. But that's the only other thing I've ever heard that agreed to having troubles.

Q. Okay. And that was detected by a preflight or by maintenance or --

A. Yes. I believe it was our chief that found the problem.

Q. Okay. And what's your overall thoughts on -- I mean you have background as a mechanic, as a lead mechanic. How is the relationship between the pilots -- or, you know, flight ops and maintenance, that interaction? As being on both sides, you know

--

A. I am always that liaison. I am usually always that person who understands that middle ground. And I think I could say it honestly, it is a relationship that you'd typically find anywhere else between pilots and mechanics. The pilots want the small things that don't really seem to be a big deal for the mechanic to be in place, and the mechanics think that the pilots probably complain too much about the small things that are really not necessary. I would say it's the typical relationship that you'd find anywhere else where the -- it's not necessarily a good mesh or a perfect mesh, but I think we have an outstanding maintenance crew and I think we have an outstanding crew of pilots.

Q. Okay. And how do you feel about the maintenance that's being performed?

A. Very comfortable.

Q. Okay.

A. Very.

MS. DUNKS: All right. I don't have any additional questions.

UNIDENTIFIED SPEAKER: Do you?

BY UNIDENTIFIED SPEAKER:

Q. Yeah, I do. So, when you did your flight check and you're doing the numbers on the engine, the pressures, were any of them on the high side, the low side, or were they A-okay or

perfect --

A. It was actually more -- on the more favorable side on the power check. It was really, really good numbers.

Q. And nothing else with the other systems that weren't part of the check because of the engine where an issue -- like you checked everything on the sheet because it had a maintenance check? Was there anything else outside of that, that wasn't on that list that you made verbal mention to or anything?

A. No. Aside from the batteries in the flashlight and the window cleaner, but that was it. That was honestly it. I've seen, before, maybe -- for instance, on a hundred hours where the cowling for the engine was put back on, but on a piano hinge the wire wasn't pushed all the way through and maybe stuck on the outside or something like that. There's a few Dzus fasteners that were still open. Things like that, that there were actually no issues with. It looked like the aircraft was very well taken care of, looked over very well.

UNIDENTIFIED SPEAKER: I think that's it.

BY UNIDENTIFIED SPEAKER:

Q. When we briefed last night somewhat on the questions, you mentioned that there was a flashlight and the batteries were working. Where is the flashlight kept?

A. In some of the A-Star models where the pilot seat has a compartment underneath the pilot, it's kept in there along with sectional charts, terminal area charts, the Grand Canyon chart.

There's also the manual for the aircraft there, too, the flight manual. On other A-Stars where there's not a compartment underneath the seat, it's usually kept underneath the back seats, usually Velcroed to either the floor or to a side of the aircraft.

Q. But for this aircraft?

A. Compartment.

Q. And that window cleaner you mentioned?

A. In the back, aft cargo compartment. Usually, when opening the door, kept right by the left side there. We have a tendency to keep those things in the same place (Indiscernible).

UNIDENTIFIED SPEAKER: Very good.

BY UNIDENTIFIED SPEAKER:

Q. Anything else we haven't talked about?

A. No. I did give you misinformation last night. I told you I had 900 hours airplane, and that my total time -- that was the total time on helicopter. It hit me when I was going home. I remembered it and I thought, "Oh, jeez." That was the only thing. I know it's not that important but -- I'd say about 2500 hours, total, in helicopter and 900 in airplanes.

BY UNIDENTIFIED SPEAKER:

Q. Any chance on the statement? I'd love to get a statement.

A. Yes. Absolutely. In fact, I have plenty of time today. There's no more flights left or anything like that. I should be able to get that written up for you.

Q. It would sure help us out because you're really a central person and you have a remarkable background for it. It's real helpful.

BY UNIDENTIFIED SPEAKER:

Q. There was one question in follow-up. When you did the preflight and you found the belt to be loose, what color was the belt?

A. White.

Q. What color is the spare?

A. What color is the spare? Black.

Q. Thanks.

BY UNIDENTIFIED SPEAKER:

Q. When you came back, you were happy with the --

A. Um-hum. In fact, I think the spare is actually -- might be for an air-conditioner. I'm not too sure

Q. Yeah, it is. What about seat belt problems?

A. I haven't seen them.

UNIDENTIFIED SPEAKER: Thank you.

(Whereupon, the interview was concluded.)

CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF:	SUNDANCE HELICOPTER ACCIDENT NEAR LAS VEGAS, NEVADA Interview of Andre Vargus
DOCKET NUMBER:	DCA-12MA-020
PLACE:	Las Vegas, NV
DATE:	December 10, 2011

was held according to the record, and that this is the original, complete, true and accurate transcript which has been compared to the recording.

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Linda L. Brown
Transcriber