Maintenance Group Chairman Factual Report

Attachment 12 - Air Methods Reeb Transcript

WPR10FA371

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

Interview of: VICTOR CHRISTIAN REEB

Marana, Arizona

Sunday, August 1, 2010

The above-captioned matter convened, pursuant to notice.

BEFORE: KRISTI DUNKS

APPEARANCES:

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1	INTERVIEW
2	MS. DUNKS: Okay. So, Victor, I talked to you earlier
3	today kind of about the interview and who was going to be here.
4	MR. REEB: Uh-huh.
5	MS. DUNKS: And we have representatives from the FAA,
6	Turbomeca and Air Methods, and NTSB, of course. And you're okay
7	with that?
8	MR. REEB: Yes.
9	MS. DUNKS: Okay. And you've chosen not to bring in a
10	representative of any kind. And you're okay continuing on?
11	MR. REEB: Yeah.
12	MS. DUNKS: Okay. And just so you know I just
13	mentioned it but we will be recording the interview. And all
14	the information that the NTSB obtains during the course of an
15	investigation can become public information, either through the
16	investigation or through FOIA. So you can just keep that in mind
17	as you answer your questions. You know, the purpose of any NTSB
18	investigation is not to look for blame, but to try to find out
19	what happened, and to prevent it from happening again.
20	So before we get started today, do you have any
21	questions for us or
22	MR. REEB: Not right now.
23	MS. DUNKS: Okay. All right. If you do have questions
24	that come up along the way, feel free to ask. And did you have
25	the opportunity to meet everybody here in the room?
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1 MR. REEB: Yes. 2 MS. DUNKS: Okay. All right. Great. INTERVIEW OF VICTOR CHRISTIAN REEB 3 BY MS. DUNKS: 4 So, to start off with, if you could just say and spell 5 Q. 6 your full name for us, please? 7 Α. Okay. Including middle name? 8 Q. Yes, please. Victor, V-i-c-t-o-r, Christian, C-h-r-i-s-t-i-a-n, Reeb, 9 Α. 10 R-e-e-b as in boy. 11 Okay. And what's the best contact phone number for you? Ο. 12 Α. _____ 13 Okay. And your email address? Q. 14 _____ Α. 15 Okay. Okay. And what FAA certificates do you hold? Q. 16 Commercial Pilot's license and Airframe and Powerplant Α. 17 license. 18 Q. Okay. And that's Commercial Pilot for fixed wing. 19 Α. 20 Okay. And do you hold an instrument rating or --Q. 21 Yes, I do. Α. 22 Okay. And is that single, multi-engine? Ο. 23 Single. Α. 24 Okay. And then you said Airframe and Powerplant? Q. 25 Α. Yes.

1 Q. And do you hold an IA?

2 A No, I don't.

Q. Okay. Okay. And do you happen to know your Mechanic4 Certificate Number offhand?

5 A. Yes. -----

25

Q. Okay. All right. And if you could just briefly
describe kind of your aviation background, how you got started in
aviation, and your maintenance work experience?

Okay. First of all, I started working toward a pilot's 9 Α. 10 license before I did any maintenance type training. I went to Hesston College in Hesston, Kansas, and obtained my private 11 12 license and then my instrument rating, and then my commercial license. And, at that point, I went to -- came back to Arizona 13 14 and went to Cochise College, and that's in Douglas, Arizona, and I 15 got my Airframe and Powerplant license. And that was in the fall 16 of '94.

17 I started working at Hamilton Aviation as part of 18 cooperative education while I was getting my A&P. And I worked 19 there several months, and then I worked there after I graduated 20 and got my license -- licenses, I worked there several months. I got laid off, I think, in January of '95, and I interviewed at 21 22 Heli-Support in Casa Grande in February of '95, and I worked for 23 them for several years. I got laid off in -- let's see -- '99, I 2.4 believe.

And then I went to get some -- well, I interviewed at

1 several places and got a job working on fixed wing aircraft at 2 Falcon Executive Aviation, and I worked there for two years. And 3 I decided I had enough of that and came back to helicopters. And 4 I worked for Heli-Support again until the end of the fire season 5 in 2004. And then I interviewed with Air Methods in February of 6 2005 and was hired.

Q. Okay. And when you worked at Heli-Support, what kind of8 aircraft were you maintaining?

9 A. SA-315Bs and 316Bs, Lamas and Alouette-3s.

10 (Ringing phone.)

11 Q. BY MS. DUNKS: I'm sorry, the second and third? What 12 were the last two you said?

13 A. I'm sorry. SA-315B.

14 Q. Okay.

15 A. Which is a Lama.

16 Q. Okay.

17 A. And SA-316B, which an Alouette-3.

18 Q. Got it. Thank you. Okay. And so currently what is 19 your job title?

20 A. Currently I'm the rover between Florence and Marana.

21 Q. Okay. Where is Florence, is that in Arizona or --

A. Yes, it is.

Q. Okay. All right. And you're a rover mechanic or --A. Yes.

25 Q. Okay. All right. And how long -- so you've been in

1 this position since 2004 were you --

	-	-
2	Α.	Actually I was first I was the base mechanic at
3	LifeNet 4	at Tucson International Airport. And then when they
4	moved	they moved the base to Tubac, Arizona, and then they
5	closed it	, and that's when I became a rover.
6	Q.	Okay. And when was that?
7	Α.	Let's see, I think that was 2008, I believe.
8	Q.	Okay. Okay. And can you kind of just describe your job
9	duties in	this position?
10	Α.	Yes. I've maintained AS 350B3s, occasionally an
11	AS 350B2,	if we have one for a spare. Normally it's just a I'm
12	not sure	just the basic maintenance of the aircraft.
13	Q.	Okay. And can you describe your normal work schedule?
14	Do you wo	rk Monday through Friday or
15	Α.	I'm on call 24 hours, Monday through Friday, and then I
16	have Satu	rday and Sunday off.
17	Q.	And do you get called all hours of the day or
18	Α.	That's a possibility, always a possibility.
19	Q.	Okay.
20	Α.	And it doesn't happen too often, at times.
21	Q.	Okay. So usually you're called during the day, would
22	you say o	r
23	Α.	Well, actually I've been called early morning, late at
24	night.	
25	Q.	Uh-huh.

1 A. I would say mostly during the day though.

2 Q. Okay. Okay. And your copter experience, that began 3 when you began with Air Methods or --

4 A. No, that began with Heli-Support.

5 Q. Okay. Okay. I'm sorry. All right. And have you 6 received any Eurocopter or Turbomeca specific training?

A. I've taken the SA-315B, 316B field maintenance course
and also the AS 350B2 field maintenance course.

9 Q. Okay. And when was the AS 350B2 maintenance course?
10 A. That would have been in 2005.

Q. Okay. Okay. Any other sort of training that you've -A. As part of my initial A&P training, I took a Garrett
TPE331 course.

14 Q. Okay.

A. Just a -- that was just an introduction to it -- to theengine, I guess.

17 Q. Okay. All right. Anything else?

18 A. No. I think that's it.

19 Q. Okay. All right. So the weekend of the work that was 20 accomplished on the accident helicopter and the other helicopter, 21 that was in for maintenance.

22 A. Uh-huh.

Q. Can you just kind of describe your work schedule on the days leading up to that? So the call, I guess -- or the call came in on a Thursday and I think the work started maybe Friday night

1 or Saturday morning, so the week prior kind of what was your 2 schedule like?

3 Α. It wasn't too hectic. It was fairly normal, I think, a 4 40-hour work week. I don't think I got called in at all. 5 Okay. Okay. And then at some point you were notified Q. about an issue with -- was it 551 that came in first or --6 7 Α. 509 was the first one that came in. 8 Q. Okay. And --9 Α. And that was -- let's see it would have been Friday that Wayne and I disassembled -- removed the engine and disassembled it 10 or the -- to the point where the helicopter services 11 12 representative could come in and do the 2/3 module, replace the 13 fuel manifold. 14 Okay. And you and Wayne worked on that together? Ο. Okay. 15 Α. Yes. 16 Disassembling and -- okay and -- so how far did you --Ο. 17 to get the engine down, did you separate the modules or what? 18 Α. No. 19 Ο. Okay. 20 We just got it -- we got the 2/3 module ready for the Α. 21 helicopter services guy to split the 2/3 module, but we had 22 everything removed and disassembled so that he could immediately 23 start work on it. 2.4 Ο. Okay. And you did all that on Friday? 25 Α. Yes.

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10

1 Okay. Okay. And then when did he arrive? Ο. 2 Α. Well, I was off Saturday and Sunday. I believe he -- I actually didn't meet him until Monday so --3 4 Okay. Ο. 5 I believe he arrived Saturday, but I didn't meet him Α. so --6 7 Okay. Okay. So you disassembled the 509 and then 551, Ο. 8 I guess, came in when you were off, is that correct? 9 Α. Yes, that's correct. 10 So you wouldn't have had any knowledge of that Ο. Okay. 11 until Monday? 12 Α. Not until Monday, no. 13 Okay. Okay. So disassembled the engine Friday, go home Ο. 14 for the weekend? 15 Α. Uh-huh. 16 And then you came back in Monday morning? Ο. 17 Α. Yes. I came in early Monday morning. And that's the 18 point that I first met Wayne from Helicopter Services. And I was informed that they had, you know, installed the engine and had 19 20 done some ground runs, and they just needed to be finished up and 21 have a check flight. And, so Joe Merten and I were both there, 22 and then it was a little bit later that Wayne showed up, Wayne the 23 Helicopter Services technician. 2.4 MR. LOSCALZO: Which aircraft was that? 25 MR. REEB: That was 551.

1 MR. LOSCALZO: Okay. When you came in early the engine was installed and needed to be finished up, was that 551 or 509? 2 3 MR. REEB: That was 551. MR. LOSCALZO: 551? 4 5 MR. REEB: Yeah. BY MS. DUNKS: 6 7 And it was installed already? Ο. 8 Α. Yes, it was. 9 Ο. Okay. 10 Α. Okay. 11 MS. DUNKS: Okay --MR. LOSCALZO: Was that the one you did a leak check on? 12 I believe the leak check had already been 13 MR. REEB: 14 done on that one. We -- we did do some ground runs but continued 15 to, you know, look over the engine but --16 BY MS. DUNKS: 17 Ο. Okay. So you came in, the engine had been installed, you did some ground testing? 18 19 Α. Uh-huh. 20 And then was it signed off for flight or --Q. 21 After we completed our checks for the ground runs, then Α. 22 it was signed off. The engine installation was signed off, and 23 then we did a -- they did the check flight, and then it was 24 released. 25 Q. Okay. And that was Monday morning or --

1 That would have been Monday morning. Α. 2 Ο. Okay. And that was for 551? 3 Α. Uh-huh. 4 Okay. Okay. And do you recall about how long that Ο. 5 check flight was or -б I would say probably about 10 minutes. I'm not sure Α. 7 exactly. 8 Q. Okay. That's fine. 9 MR. LOSCALZO: Did you fly? 10 MR. REEB: No, I didn't. 11 MR. LOSCALZO: What mechanic did? 12 MR. REEB: I believe it was Joe Merten. BY MS. DUNKS: 13 14 Did anybody else go with him or --Ο. 15 No, just the pilot and Joe Merten. Α. 16 Okay. Okay. And then how about -- you had the other Ο. 17 helicopter, I quess, and what was going on with that one? 18 Α. Well, it was -- it was assembled -- the engine was assembled, but it had not yet been installed. And so I helped 19 20 Wayne Dickerson and Joe Merten, and Wayne from Helicopter Services, and we got it set into place on the airframe and the --21 22 to the point where the hoist could be removed. 23 And, at that point then Wayne said -- or Joe Merten said 24 that I could go take care of 104 -- November, which is the Marana 25 Aircraft, so I did. And then, when I was finished with that, I

1 came back, and at that point they were ready to do ground runs. 2 So we began doing ground runs and leak checks. And we didn't --3 we didn't have any leaks at that point initially when we did 4 the -- I think it was the Channel B check. And that's when we 5 noticed that we had fuel coming out of the drain. It was -- I 6 would call it -- it was dripping fairly rapidly, almost a 7 steady -- not a steady stream, but just a steady dripping.

8 And so at that point we -- that was after the aircraft 9 was shut down that we noticed initially -- we noticed the fuel on 10 the ground. And then we -- the aircraft was shut down. We turned the power on and the boost pump on, and that's when we saw that it 11 12 was dripping almost steadily. So I knew we had to replace the Varilip seal on the HMU. And we didn't have all the seals that we 13 14 needed, so we had to order some, and they didn't arrive until the 15 next day.

And then I helped Joe Merten with the Varilip seal replacement, and I did the AD for the visual inspection of the HMU coupling and drive splines. And then we ground ran it again and there was no -- no leaks whatsoever.

20 Q. Okay. And just going back a little bit. So you 21 determined that the seal had to be replaced on the HMU?

22 A. Uh-huh.

23 Q. And so who ended up removing that component?

A. I removed the HMU.

25 Q. Okay. And how do you -- how do you remove that

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2 engine to get access to that or --You have to remove Cannon plugs and lines, and then the 3 Α. clamp and half-shells, and then you just pull the HMU off. 4 5 Okay. Okay. And then you said that you two basically Q. 6 replaced the seal and the O-rings on the HMU together? 7 Α. Yes. 8 Q. Okay. And what sort of guidance did you use to do that? 9 Α. We used the engine maintenance manual. 10 Okay. Okay. And then you did a ground run similar to 0. what you'd done the day before? 11 12 Α. Yes. 13 And it checked okay? Ο. 14 Uh-huh. Α. 15 Q. Okay. And then this was on Monday afternoon all this 16 was happening? 17 Α. No, that would have been on Tuesday. 18 Right, because you had to wait for the seal, right? Q. 19 Right. Α. 20 Okay. So after you did this ground run, then what Q. 21 happened? 22 After we did the ground runs we did the check of Channel Α. 23 B and the EB cowl (ph.) check, and all the results were correct. 24 So then they -- the pilot and Joe Merten went off -- after 25 everything was signed off they went and did a test -- a check Free State Reporting, Inc. (410) 974-0947

component -- what -- is there anything you have to take off the

1

15

1 flight, and came back. And at that point I did an engine 20-hour 2 inspection, which is a check of the mag plugs, and power check, 3 which actually the pilot did on the check flight. And then the 4 airframe battery was also replaced at that time.

5 Q. Okay. And then what happened?

6 A. Well --

Q. It was returned to service or -- were any other
8 maintenance items performed on it, that you can recall?

9 A. Not that I recall. I think it was returned to service 10 at that time.

11 Q. Okay.

A. And then they were just going to -- the base was going
to come get it the next time they had a flight to Tucson so -Q. Okay. And you weren't really sure of when that was?
A. Right.

16 Q. Just whenever they were in the area? Okay.

17 A. Right.

Q. Okay. Okay. And as far as your interaction with Wayne from Helicopter Services, did you have much interaction with him or work with --

A. No, not a whole lot. I met him and I helped him stab the engine under the airframe. I didn't really, no. That was about it, I mean. He was there when we did the ground runs and I didn't really interact with him much.

25 Q. Okay. Do you recall him asking you to look over the

1 work that he did?

2 A. I don't think he specifically asked me to, no.

3 Q. Okay.

A. I mean we just -- yeah, I don't think he specifically
5 said.

Q. Okay. As a mechanic is that something that you would normally do or in this case was that something that was done -- of course not the internal work that he did, because I know that would be a little impossible, but as far as with this second engine all -- you know, the lines were secured, accessories, things like that?

12 A. Uh-huh. I think everyone involved looked over the 13 engine.

14 Q. Okay.

15 A. That's normal practice.

Q. Okay. And what would that consist of, a visual check, or would you actually be handling the parts of the engine or --

18 A. Yeah. You'd be checking -- field checking to make sure
19 everything was tight.

Q. Okay. Okay. And since you've been working here, I guess you have kind of these contract technicians that come in like Wayne, and then you also have technicians that come directly from Turbomeca?

A. That's correct.

25 Q. Okay. Do you notice any difference between the two and

1 the way they perform their work?

2 Α. Well, of course each mechanic has his own style, but 3 overall I would say it's pretty much the same. 4 Ο. So you'd say their work is consistent even though Okav. 5 they might accomplish it slightly differently, depending on --6 Right, yeah. Α. 7 Okay. When you were reinstalling this engine on 509 and Ο. 8 doing all that work, did you all encounter any problems other than this fuel leak, as far as installation and things like that? 9 10 No, not that I recall. Α. 11 Ο. Okay. 12 I wasn't really there for the entire installation, but Α. during the time I was there we didn't. 13 14 Okay. And then who was responsible for signing off the Ο. 15 work that you all did? 16 I believe Joe Merten signed off the engine. Α. 17 Ο. Okay. And did anyone else, other than the folks we 18 discussed, assist you during any of this? So we have Joe Merten, 19 Wayne Dickerson, is that his last name? 20 Yes. Α. 21 And Wayne from Helicopter Services? 0. 22 Uh-huh. I think -- I think Steve Osborne was there part Α. 23 of the time and Joe Foster was there part of the time. I think 24 Steve -- he did something with avionics. And then, I think, Joe 25 Foster was in and out of the hangar, and so he was there too. Ι

1 think that's all. I think that's everybody that was there.

2 Q. Okay.

3 MR. LOSCALZO: What was Steve's last name?
4 MR. REEB: Osborne.

5 MR. LOSCALZO: So you primarily had --

6 MR. REEB: No. Actually he's the Sierra Vista mechanic, 7 but he was just -- I think we did remove the flex valve from 509 8 and he was just completing the installation of the flex valve.

9 BY MS. DUNKS:

Q. And so -- and you may not know this. If you don't know, that's fine. So for the kind of the general work, for the folks that were involved over the weekend, Wayne arrived from Nevada on Friday evening, and you all -- you and Wayne Dickerson had already disassembled the engine on Friday?

15 A. Uh-huh.

16 Q. Okay. Wayne from Nevada shows up Friday evening.

17 Saturday Wayne returns to work on the engine, and he's assisted by 18 Wayne Dickerson?

19 A. I wasn't there.

20 Q. Okay.

A. I think that Wayne was probably there because he would
have been on over the weekend but --

23 Q. Okay.

A. But I wasn't there so --

25 Q. But you don't know.

1 A. -- I can't really say.

2 Ο. Okay. Okay. But you weren't there and we know Joe wasn't there, because you were both off for the weekend? 3 4 Α. Right. 5 Okay. Okay. And do you know of anybody else that may Q. have been working over the weekend? 6 7 Α. No, I don't. 8 Q. Okay. 9 Α. I mean there -- I don't know of anyone. 10 Okay. Okay. That's fine. All right. And when you Ο. were doing this maintenance, and did you feel any pressure from 11 12 anybody to get this work out? I know as a mechanic you're probably always under some level of pressure. 13 14 Always under some pressure, yes. But I wouldn't say --Α. 15 I wouldn't say anymore than typical. 16 Okay. So it's kind of a normal level for what -- what Ο. 17 you do and --18 Α. Yeah. 19 Ο. Okay. 20 If any of you have any questions. I'm just MS. DUNKS: 21 going to look over my notes here and catch up a little bit. BY MR. WHITTEN: 22 23 In your schools have you been to the Thank you. Q. 24 Turbomeca Engine School? 25 Α. No, I haven't.

1	Q.	What was your duty that day, do you remember your hours,
2	is that tl	he morning you came in early?
3	Α.	Yes. I was there at 6:30.
4	Q.	Do you all have to punch a clock?
5	A	No.
6	Q.	Lucky you.
7	Α.	I think I was there until about 6 p.m. and that includes
8	an hour lu	unch.
9	Q.	Who was the fellow who did the test flight on the 509?
10	Α.	509, it was Bob Wasik.
11	Q.	Do you know how to spell Wasik?
12	Α.	It's W-a-s-i-k.
13	Q.	Thank you.
14	Α.	Uh-huh.
15	Q.	After the engine installation and the did you find
16	anything?	That's what the whole purpose of
17	Α.	Uh-huh.
18	Q.	do you recall any discrepancies?
19	Α.	No. I don't believe so.
20		MR. WHITTEN: That's all.
21		MS. DUNKS: All right. Don.
22		BY MR. LAMBERT:
23	Q.	Victor, when you got called in somebody called you
24	Sunday to	tell you to come in early on Monday?
25	Α.	Yes.

1 Q. And who was that?

2 A. Jeff Kerry.

3 Kerry. How did that conversation go? Did he say, we've Q. 4 got aircraft down or what did he say to you? 5 Just he needed me to come in early at 6:30 to help Joe Α. 6 Merten finish up 551. 7 Did he put any kind of pressure on you, we've got a 0. 8 deadline, we've got to have it done by whatever, any kind of 9 pressure for you to get it up by a certain time? 10 No, I don't -- I don't think so. Α. 11 Now, how many times have you been involved in an engine Ο. 12 change on an AS? I'd say probably half a dozen times. 13 Α. 14 MR. LAMBERT: That's all I have. 15 BY MR. WHITTEN: 16 Was that a six engine, looks like? Ο. 17 Α. I would say at least six. 18 Oh, I thought you said -- okay. What models? Q. Oh, that would be Aerial 2B and 2B1. 19 Α. 20 MR. LAMBERT: Do you remember the HMU, how many times 21 have you done that test? 22 MR. REEB: I'd say probably three or four. 23 BY MR. LOSCALZO: 24 Q. A portion of all the work that you did, or assisted or 25 helped do, what parts if any did you sign off individually, you

1 signed off individually yourself? 2 Α. The HMU AD. 3 Q. The spot check? 4 Right. Α. 5 That was it? Q. 6 And the engine 20R. Α. 7 BY MS. DUNKS: 8 Q. Victor, you said when -- on that Friday you were 9 prepping the engine for Wayne from Helicopter Services to come in 10 and do his work? 11 Uh-huh. Α. So part of that was removing all the lines and 12 Ο. 13 accessories --14 Uh-huh. Α. 15 -- and then breaking it down as far as you could for Q. 16 him? 17 Α. Right. 18 When you're removing the lines and things, do you do Q. 19 that a lot? I mean, do you normally remove them at the B-nuts or 20 at the junctions on the engine, or how do you normally do that? 21 Α. Well, usually you just -- it depends on the line. 22 Usually you completely remove them. 23 I guess, you know, and I don't -- it's my own Okay. Ο. 24 fault for not -- I've never worked on one of these engines so --I'm just -- there's the, you know, the piece that attaches to the 25

engine with the bolts and the nuts, and you have the B-nut, you 1 know, that attaches the line to that. Do you normally remove 2 3 those as two separate pieces or just as one whole? 4 Oh, if there was a separate -- I think I see what you're Α. You would usually take it loose at the B-nut. 5 saying. б Ο. Uh-huh. Okay. And then take the other piece off if 7 necessary? Okay. 8 Α. If you need to, yeah. 9 Ο. Okay. Gotcha. 10 MS. DUNKS: Any other questions? Arch? 11 BY MR. WHITTEN: 12 Ο. I'd like to talk about disassembling the engine, what you did. 13 14 Α. Okay. 15 Q. Now, both of you took the engine apart. Let me go 16 backwards, 509? 17 509. Α. 18 That was on? Q. 19 MS. DUNKS: Friday. 20 MR. WHITTEN: Friday night. 21 MS. DUNKS: Friday day. 22 MR. WHITTEN: Friday day. 23 Yeah, we both removed the aircraft -- the MR. REEB: 24 engine from the aircraft, and we both disassembled it. 25 BY MR. LOSCALZO:

1 Q. You disassembled it down to the 2/3 module?

2 A. To the 2/3 module.

3 Q. Which would be the module that affects the --

A. Uh-huh.

5 BY MR. WHITTEN:

Q. Okay. So, I'll go through and we'll get to the
disassembly that you do. I'm not familiar with the fuel work.
8 How you do it?

9 A. Okay. Let's see. We just do it in accordance with the 10 maintenance manual. We disassemble the drive shaft at the aft of 11 the engine and just right at the Thomas coupling at the back 12 flange of the engine.

13 Q. Is that where it attaches the short shaft?

A. Yeah. And we removed the -- yeah, you have to pretty much remove the short shaft to make it easier to get the engine out without damaging anything. And then I just take the clamps off the M01 and the mounting bolts from the forward flange, after the hoist is hooked up, just for safety. Then we lift it off with the hoist.

20 Q. Do you lift it straight up or do you slide it off the 21 front flange?

22 A. You pull it back until it disconnects from it.

23 Q. You don't disconnect the front end.

24 A. No.

25 Q. You remove the total drive shaft, the rear mount, then

1 you put the hoist on --

2 A. Right.

3 Q. -- and you slide it back?

A. Yeah. Now usually we put the hoist on it first before 5 we get too far into taking it apart.

6 Q. Right.

7 A. Because -- just for good maintenance practice and so8 forth.

9 Q. So you don't remove the transmission shaft, the shaft 10 between the engine and the transmission?

11 A. No.

12 Q. You just leave it hooked up to the transmission side.

13 A. Yes.

14 Q. It's --

15 A. Uh-huh.

16 Q. And when do you put it in the vertical stand? Is that 17 when you put it in the vertical stand?

A. Yes. After we get the engine off, while it's still on the hoist, we hook up the stand and then set it down on the ground, disconnect the hoist, and then manually lift it into the vertical. And at that point then we take off the M05 and the M04 with the exhaust attached, and then disassemble the lines, as required, and Cannon plugs, and then remove the 2/3 as a unit from the M01.

25 Q. And leave the M01 stand?

1 A. Yes.

2 Ο. Basically like we see it out there today --You mean the -- I didn't see it but the --3 Α. 4 MR. WHITTEN: Very good. 5 MS. DUNKS: Frank, did you have any additional 6 questions? 7 MR. LOSCALZO: No. 8 MS. DUNKS: Okay. Don, how are you? 9 MR. LAMBERT: I'm good. 10 MS. DUNKS: Archie, you're -- any additional questions? 11 MR. WHITTEN: No, I don't think so. 12 MS. DUNKS: Okay. Let me just look real quick through here and just make sure I didn't miss anything. 13 14 MR. LOSCALZO: Really appreciate you coming in. 15 MS. DUNKS: Yeah, I know it's --16 MR. LOSCALZO: Could have used the engine to get in and out of here. 17 18 MR. REEB: Uh-huh. 19 MS. DUNKS: I do just have one more question. 20 BY MS. DUNKS: 21 Ο. As far as your work as a roving mechanic, what would you 22 say the majority of the work you do is -- it's a pretty varied? 23 The majority of the work I would say probably scheduled, Α. 24 just routine scheduled maintenance. 25 Q. Okay. All right.

MS. DUNKS: All right. Victor, well, thank you so much 1 2 for coming in, especially on a Sunday. 3 MR. REEB: Sure. Uh-huh. 4 MS. DUNKS: We really appreciate it. And you have my card there. You know, if something comes up and you want to talk 5 to me about it or you need to contact me about anything, just let б 7 me know. 8 MR. REEB: Okay. 9 MS. DUNKS: And, again, just thank you so much for 10 coming in. 11 MR. REEB: You're welcome. 12 MR. LOSCALZO: Thanks, Victor. MR. REEB: Sure. 13 14 (Whereupon, the interview in the above-entitled matter 15 was concluded.) 16 17 18 19 20 21 22 23 24 25

CERTIFICATE

This is to certify that the attached proceeding before the NATIONAL TRANSPORTATION SAFETY BOARD IN THE MATTER OF: MEDICAL HELICOPTER ACCIDENT TUCSON, ARIZONA Interview of Victor Christian Reeb DOCKET NUMBER: WPR-10-FA-371 PLACE: Marana, Arizona

DATE: August 1, 2010

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

> Cheryl Farner Donovan Transcriber